

## **Hydraulics Catalog**

2016 Hydraulic Hose, Fittings  
& Equipment

# What's New?



## Hot Oiler

The Prospector™ Hot Oiler hose was specifically designed to initiate the flow of hot oil (275°F/135°C continuous; 300°F/149°C intermittent) and bring it to the surface. The hose is reinforced with dual-braided, high-tensile steel wire and features an oil- and abrasion-resistant synthetic rubber cover to help get the job done.



## Prospector™ BOP 5000

This fire-tested, very high pressure BOP hose acts as a hydraulic control connection that can be critically important to the well control system. The hose is reinforced with up to six layers of spiraled, high-tensile steel wire to handle pressures that can reach 5,000 psi (34.5 MPa).



## XCP3

With a special flame- and abrasion-resistant construction, the XCP3 & XCP4 take on high-pressure hydraulic applications and are designed to replace SAE100R1 and SAE100R19 when a tougher, more flexible hose is required. With 5X the abrasion resistance over our standard cover, it's easy to see why these hoses are the go-to choice.



## Extended Life XR16SC

When the job requires tight bends, flexibility and abrasion resistance, this high pressure service hose steps up to the task. Using a nitrile inner tube and dual-braided, high-tensile steel wire reinforcement, it can handle 5,800 psi (31 MPa) flows of petroleum- and water-based hydraulic fluids.



## DR2SN

The DR2SN high-pressure hose comes into play during construction, machine, tool and agricultural applications where high temperature petroleum- or water-based hydraulic fluids are a factor. The hose features a blue CPE cover, is flame resistant and meets higher EN/DIN pressures.

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## Putting Words to What We Do

Choose us as your sole supplier for hydraulic assembly components, including hoses, fittings, adapters and the assembly equipment. Because, whatever your application – construction, agriculture, oil and gas, manufacturing, transportation – our broad selection will connect you with a high-quality, reliable hydraulic hose assembly system. And you can trust that our products meet these global performance standards: SAE, DIN, JIS, USCG, ABS and US MSHA.

Not only are our hydraulic hose products designed to make a very literal connection – to each other and to your equipment – our network of distributors is ready to connect with you and your business needs. And we strive to do it all in the most friendly and efficient manner possible.

Being easy to work with can really be a differentiator in the hydraulic hose market. We know this and will always do our best to make sure your business is treated with the attention and care it deserves. That is our commitment to you.



**Crimpers**

**Adapters & Fittings**



**Hoses**





## Staying Connected With You



Experienced hydraulic sales specialists



Friendly customer service representatives



Application engineers for technical assistance



Interactive website with important, up-to-date information



OneSource Distribution Network



Local support on a global basis

## Who We Are

Continental ContiTech is the authority in elastomer compounding and reinforcement technology. Our history in the business gives us the expertise to not only make reliable products, but also to know the industry and its needs. And we are constantly innovating new ways to better serve our customers.

Under the Continental ContiTech brand, we manufacture a wide assortment of consumer and commercial products. In fact, we are one of the few manufacturers in the world that can offer a full breadth of industrial rubber products including

- › Industrial Hose › Conveyor Belts
- › Power Transmission Belts
- › Hydraulic Hose and Fittings › Air Springs
- › Rubber Track



# Unleash Hydraulics

Whether the application is construction, oil and gas, agriculture, mining, manufacturing or transportation, designers and engineers are finding new ways to apply hydraulic power. We have your equipment needs covered with Continental ContiTech hydraulic hoses to meet the demands of the application and the environment. Plus, our hoses meet all major global standards.

## Hydraulic Hose Standards & Specs

Continental ContiTech Hydraulic Hoses

- › Are produced to ISO 9001 certification
- › Undergo state-of-the-art manufacturing processes
- › Meet the applied international standards of SAE J517, EN 853, EN 854, EN 855, EN 856, EN 857, DIN 20023

## Featuring



### Arctic® Low Temperature Hose

- › -67°F (-55°C) low-temperature service
- › LR2SN (SAE 100R2AT/2SN) high-pressure hydraulic applications



### Armorcoat™ Hose Cover

- › Super tough cover for high-abrasion applications
- › Can replace protective sleeves
- › Mine Safety and Health Administration (MSHA) rated
- › ARC12 (SAE 100R12/EN 856 R12), ARC13 (SAE 100R13/EN 856 R13), ARC15 (SAE 100R15), ARC16SC (SAE 100R16/EN 857 2SC) and ACP3 (SAE 100R17) hydraulic applications



### Braided Hose

- › Higher EN/DIN pressures
- › Arctic®, Desert® and Armorcoat™ constructions
- › SR1SN (SAE 100R1AT/1SN), Desert® DR1SN (SAE 100R1AT/1SN), SR2SN (SAE 100R2AT/2SN), Arctic® LR2SN (SAE 100R2AT/2SN), Desert® DR2SN (SAE 100R2AT/2SN), SR16SC (SAE 100R16/857 2SC), Armorcoat™ ARC16SC (SAE 100R16/857 2SC), Desert® DR16SC (SAE 100R16/857 2SC), Extended Life XR16SC (SAE 100R16/857 2SC), SCP3 (SAE 100R17), Armorcoat™ ACP3 (SAE 100R17), Extended Life XCP3 (SAE 100R17), Extended Life XCP4 (SAE 100R19)
- › SFS (Fire Suppression SAE 100R1AT)





### High Temperature (H) and Desert® (D) Hoses

- › 275°F (135°C) and 302°F (150°C) high-temperature service
- › DR1SN (SAE 100R1AT/1SN), DR2SN (SAE 100R2AT/2SN), HR6 (SAE 100R6/EN 854 R6) and HR4 (SAE 100R4) and DR16SC (SAE 100R16/2SC)
- › DR2SN to 302°F (150°C) service, DR5 (SAE 100R5/J1942), DUT (J1402)



### Fleet Applications

- › SR5 (SAE 100R5)
- › DR5 (high-temperature service)
- › DUT (SAE J1402 Type A1)
- › Air conditioning hose
- › Military vehicles



### High Pressure Hose

- › 4- and 6-spiral hose
- › Armorcoat™ abrasion cover available
- › Very-high-pressure and high-pulsating applications up to 6000 psi
- › MSHA covers
- › SR12 (SAE 100R12/EN 856 R12), SR13 (SAE 100R13/EN 856 R13), SR15 (SAE 100R15), S4SH (EN 856 4SH/DIN 20023 4SH) and S4SP (EN 856 4SP/DIN 20023 4SP) hydraulic applications



### Low Pressure Hose

- › 300-1250 psi
- › Textile reinforcement
- › SR3 (SAE 100R3), SR6 (SAE 100R6)
- › HR6 (SAE 100R6), HR4 (SAE 100R4)
- › Push-On Hose, Insta-Grip™ 300, Insta-Grip™ HT 300, Insta-Grip™ TC and FLEXA-Grip™



### Non-Conductive Hose

- › NSFEX (SAFLEX®) medium-pressure hydraulic applications
- › Thermoplastic Hose including NR7 (SAE 100R7), NR8 (SAE 100R8) and BR7 (SAE 100R7)
- › Twin-lines available



### Teflon Hose

- › 500°F (266°C) high-temperature intermittent service
- › Chemical resistance
- › Stainless steel braided cover
- › SR14A (SAE 100R14)

# Hydraulic Hose Line

Varied pressures, abrasion levels and temperatures are no match for Continental ContiTech Hydraulic Hoses.



3/16" - 2"

## SR1SN

SAE 100R1AT/1SN

Hydraulic applications requiring 1-braid hose at higher EN/DIN pressures.



1/4" - 2"

## Desert® DR1SN

SAE 100R1AT/1SN

High-temperature 1-braid hose at EN/DIN pressures.



3/16" - 2"

## SR2SN

SAE 100R2AT/2SN

Hydraulic applications requiring 2-braid hose at higher EN/DIN pressures.



1/4" - 2"

## Desert® DR2SN

SAE 100R2AT/2SN

High-temperature 2-braid hose at EN/DIN pressures.



1/4" - 2"

## Arctic® LR2SN

SAE 100R2AT/2SN

High-pressure, low-temperature hydraulic oil lines.



1/4" - 1"

## SR3

SAE 100R3/EN 854 R3

Low-pressure, 2 textile braid reinforced hose.



1/4" - 4"

## HR4 High Temperature

SAE 100R4

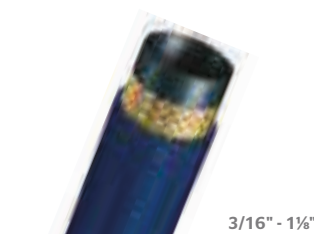
Low-pressure, high-temperature return line or suction line.



3/16" - 1 1/8"

## SR5

General purpose, medium-pressure applications.

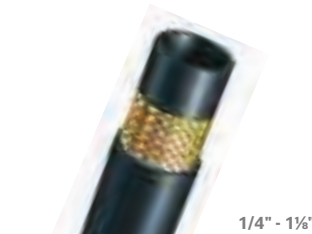


3/16" - 1 1/8"

## Desert® DR5

SAE 100R5/SAE J1942

Medium-pressure, high-temperature blue textile cover reinforced with 1-braid steel wire.



1/4" - 1 1/8"

## SCX5

SAE 100R5-type

Rubber covered, USCG approved.



3/16" - 1 1/8"

## Desert® DUT

SAE J1402 Type A1

High-temperature, medium-pressure fleet applications.



3/16" - 3/4"

## SR6

SAE 100R6/854 R6

Low-pressure, textile-reinforced applications.





1/4" - 3/4"

**HR6 High Temperature****SAE 100R6/854 R6**

Low-pressure, high-temperature textile-reinforced applications.



1/8" - 1"

**SR7****SAE 100R7/855 R7**

Medium-pressure thermoplastic hose with a perforated cover.



3/16" - 1/2"

**TR7****SAE 100R7 (Twin-Line)**

Medium-pressure, twin-line thermoplastic hose with a perforated cover.



1/8" - 1"

**NR7****SAE 100R7 (Non-Conductive)**

Medium-pressure thermoplastic hose with a non-perforated cover.



1/4" - 1/2"

**BR7****SAE 100R7****(Twin-Line, Non-Conductive)**

Medium-pressure, twin-line thermoplastic hose with a non-perforated cover.



3/16" - 1/2"

**SR8****SAE 100R8/855 R8**

High-pressure thermoplastic hose with a perforated cover.



3/8" - 1/2"

**TR8****SAE 100R8 (Twin-Line)**

High-pressure, twin-line, thermoplastic hose with a perforated cover.



1/4" - 1/2"

**NR8****SAE 100R8 (Non-Conductive)**

High-pressure thermoplastic hose with a non-perforated cover.



1/4" - 1"

**S4SP****EN 856 4SP/DIN 20023 4SP**

A 4-spiral hydraulic hose for very-high-pressure applications.



3/4" - 2"

**S4SH****EN 856 4SH/DIN 20023 4SH**

A 4-spiral hydraulic hose for very-high-pressure, pulsating applications.



3/8" - 2"

**SR12****SAE 100R12/856 R12**

A 4-spiral hydraulic hose for very-high-pressure applications subject to surges or flexing.



3/8" - 2"

**Armorcoat™ ARC12****SAE 100R12/856 R12**

For very-high-pressure applications subject to surges or flexing and requiring an abrasion-resistant cover.



3/4" - 2"

**SR13****SAE 100R13/856 R13**

A 4- and 6-spiral hose for very-high-pressure applications subject to surges or flexing.



3/4" - 2"

**Armorcoat™ ARC13****SAE 100R13/856 R13**

A 4- and 6-spiral hose for very-high-pressure applications subject to surges or flexing and requiring maximum abrasion resistance.



3/16" - 1"

**SR14A****SAE 100R14A**

PTFE line hose for air compressor discharge, hot oils and fluids, used under demanding physical conditions.



1/2" - 2"

**SR15****SAE 100R15**

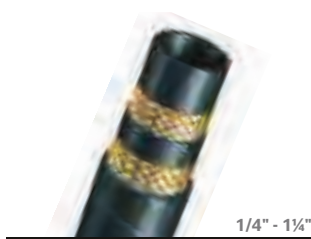
A 4- and 6-spiral hose for severe high-pressure applications.



1/2" - 1"

**Armorcoat™ ARC15****SAE 100R15**

A 4-spiral hose for severe high-pressure and abrasive applications.



1/4" - 1/4"

**SR16SC****SAE 100R16/857 2SC**

For high-pressure service with tight bends exceeding SAE 100R2 and SAE 100R16 standards.



1/4" - 1"

**Desert® DR16SC****SAE 100R16**

High-pressure 2-braid hose with excellent impulse performance and high flexibility.



1/4" - 1"

**Armorcoat™ ARC16SC****SAE 100R16/857 2SC**

For high-pressure service with tight bends requiring ultimate abrasion resistance.



1/4" - 1"

**XCP4****SAE 100R19/ISO 11237**

High-pressure hydraulic applications requiring extra abrasion resistance. Excellent impulse performance and flexibility meeting SAE 100R19 and ISO -11237 standards.



1/4" - 1"

**XR16SC****SAE 100R16/857 2SC**

For high-pressure service with tight bends requiring maximum abrasion resistance.



1/4" - 1"

**SCP3****SAE J1942**

For high-pressure hydraulic applications designed to replace where higher pressures and a more flexible hose are required.



1/4" - 1/2"

**Armorcoat™ ACP3****SAE 100R17**

For high-pressure hydraulic applications requiring greater flexibility and ultimate abrasion resistance.



1/4" - 1"

**XCP3****SAE 100R17**

For high-pressure hydraulic applications replacing SAE 100R17 with greater flexibility and superior abrasion resistance.



1/4" - 1/2"

**SR18****SAE 100R18**

Thermoplastic hose, highly flexible even in cold temperatures.



1/4" - 1/2"

**NSFX****SAFLEX®**

Medium-pressure, non-conductive applications where shock hazards exist.



1/4" - 1"

**SFS****Fire Suppression Hose**

Medium-pressure fire suppressant applications for mining, forestry and firefighting equipment.



3/16" only

**SGUN****Grease Gun Hose**

Used as a grease whip hose or general purpose lubrication line.



1/4" - 3/8"

**SHJ****Jack Hose**

For extreme high-pressure hydraulic lines for jacking systems.



1/4" - 1"

**Insta-Grip™ 300****Push-On**

For use with push-on fittings, 300 psi and applications requiring non-conductivity.

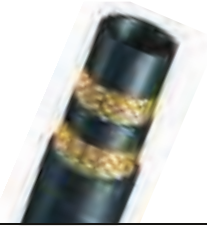
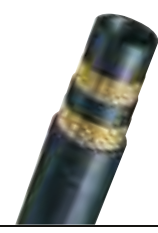


1/4" - 3/4"

**Insta-Grip™ HT 300****Push-On**

For use with push-on fittings at working pressures up to 300 psi.



|                                                                                                                                                                               |                                                                                                                                                                               |                                                                                                                                                                                   |                                                                                                                                    |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------|
|  <p>3/16" - 1"</p>                                                                           |  <p>1/4" - 3/4"</p>                                                                          |  <p>5/16" - 3/4"</p>                                                                            |  <p>1" - 2"</p>                                 |
| <p><b>FLEXA-Grip™ 300</b><br/>Push-On<br/>For use with push-on fittings, 300 psi and applications requiring abrasion-resistant cover.</p>                                     | <p><b>Insta-Grip™ TC</b><br/>Push-On<br/>For low-pressure hydraulic and pneumatic systems.</p>                                                                                | <p><b>Galaxy® 4890, 4826, 4867</b><br/>Air Conditioning Hose<br/>For AC applications requiring Cool Clip® or Cool Crimp™ fittings.</p>                                            | <p><b>Prospector™ Slim Hole Rotary</b><br/>SHR<br/>For high-pressure slim hole, seismograph, work-over or portable drill rigs.</p> |
|  <p>3/8" - 1"</p>                                                                            |  <p>3/8" - 2"</p>                                                                            |  <p>1½"</p>                                                                                     |  <p>3/8" - 1/2"</p>                             |
| <p><b>Prospector™ BOP 3000</b><br/>Blow Out Prevention<br/>For hydraulic connection between the well control equipment and the control system in oil and gas exploration.</p> | <p><b>Prospector™ BOP 5000</b><br/>Blow Out Prevention<br/>For hydraulic connection between the well control equipment and the control system in oil and gas exploration.</p> | <p><b>Prospector™ Hot Oiler</b><br/>Static Pressure<br/>For initiating the flow of hot oil (275°F/135°C continuous; 300°F/149°C intermittent) and bringing it to the surface.</p> | <p><b>MIL-DTL-3992 Type I, Class 1</b><br/>Military<br/>For low-pressure flexible connections in air brake systems.</p>            |
|  <p>7/32" - 7/8"</p>                                                                       |  <p>3/16" - 3/4"</p>                                                                       |  <p>3/16" - 1½"</p>                                                                           |  <p>3/16" - 1"</p>                            |
| <p><b>MIL-DTL-8788</b><br/>Military<br/>High-pressure hydraulic systems requiring interoperability and compatibility with associated components and equipment.</p>            | <p><b>MIL-DTL-13444H Type I</b><br/>Military<br/>Fuel and oil lines in military vehicles.</p>                                                                                 | <p><b>MIL-DTL-13444H Type III</b><br/>Military<br/>For medium-pressure hydraulic oil and fuel lines.</p>                                                                          | <p><b>MIL-DTL-13531 Type II, Class A</b><br/>Military<br/>Medium- and high-pressure hydraulic systems.</p>                         |

# Hydraulic Fittings, Adapters Standards & Specs

Low-, medium- and high-pressure fittings are available for braided, spiral and thermoplastic hose.

| Fittings                         | Thread-Ends        | End Styles  |
|----------------------------------|--------------------|-------------|
| › Ultra-Crimp™ (1-Piece)         | › SAE              | › Straights |
| › Uni-Crimp® (2-Piece)           | › NPTF             | › Swivels   |
| › Dual-Grip® (2-Piece)           | › JIC              | › Elbows    |
| › Field-Grip®<br>(Re-attachable) | › British Standard | › Flanges   |
| › Push-On                        | › DIN              |             |
| › Air Conditioning               | › JIS              |             |
|                                  | › API              |             |

## Featuring



### Bite-to-Wire

These one-piece crimp fittings provide maximum coupling retention on 1- and 2-braid hoses as well as 4- and 6-spiral hoses. Serrations penetrate the cover with a powerful bite into the wire reinforcement, resulting in even hose compression.



### No Skive

Assemblies made faster, with fewer steps and less mess.

### Full-Length Crimp

Maximum coupling retention for a safe and longer lasting assembly; easier to crimp with a lower profile.



### Zinc Plating

- › Offers corrosion resistance for extended hose assembly and fitting life, easily surpassing the corrosion resistance of SAE J516, ASTM B117.
- › Silver chromium 6 Free plating on Ultra-Crimp™, Uni-Crimp® and Dual-Grip® fittings.



### Full Line of High Pressure Spiral Hose Couplings

- › Code 61, Code 62, Cat® Flange and Komatsu® Flange fittings for SAE 100R12 and 100R13
- › Solid one-piece flanged fitting; no braze or weld joints



### Field-Grip® Fittings

Non-skive, re-attachable for easy installation



### Push-on Fittings

Fittings compatible with push-on hose, including Insta-Grip™ 300, Insta-Grip™ TC, Insta-Grip™ HT 300 and FLEXA-Grip™ 300



### A/C Fittings

Cool Clip® and Cool Crimp™ fittings



### Adapters

Change existing end styles



# Hydraulic Equipment & Accessories

To complete the total assembly solution, look no further than the Continental ContiTech Perma-Crimp® line. In addition to crimpers, we also offer crimper dies, cabinets, pumps, cut-off saws, skivers, hose/fitting pushers and hose assembly test benches.



## Perma-Crimp® PC125MRCD

- › Lightweight for portable field use.
- › Three power options. Attach hand, air or electrical pump.
- › Capable of crimping up to 1 1/4" 2-braid and 1 1/4" 4-spiral hose.



## Perma-Crimp® PC125RCD

- › Suitable for shop service and bench mounting.
- › Includes 1-HP electric pump on a common base.
- › Capable of crimping up to 1 1/4" 2-braid and 1 1/4" 4-spiral hose.



## Perma-Crimp® PSW100 & 101

- › Positive stop crimper conversion kits.
- › Die sets allow you to use existing equipment with Continental ContiTech brand hose.



## Perma-Crimp® PC150

- › Stationary crimper with more power to manufacture hose assemblies.
- › Includes 2-HP electric pump on a common base for bench mounting.
- › Capable of crimping up to 1 1/2" 2-braid and 4-spiral hose.



## Perma-Crimp® PC150H

- › High-volume, stationary crimper.
- › 1-HP power source.
- › Capable of crimping up to 1 1/2" 2-braid and 4-spiral hose.



## Perma-Crimp® PC200-P

- › High-capacity, stationary, "production" crimper.
- › 7.5-HP power source.
- › Microprocessor control for fast and accurate adjustments.
- › Capable of crimping up to 2" 6-spiral hose.



## Perma-Crimp® PC440-P

- › High-capacity, stationary "production" crimper.
- › 7.5-HP power source.
- › Capable of crimping up to 2" 6-spiral hydraulic and 4" industrial hose.



## Perma-Crimp® PC600L-P

- › High-volume, high-capacity "production" crimper.
- › 7.5-HP power source, 350 ton cylinder.
- › Fully automated ACT programmable controller.
- › Capable of crimping up to 2 1/2" braided spiral hydraulic and up to 6" industrial hose.



## Perma-Crimp® PC1000-P

- › High-volume, high-capacity stationary crimper.
- › Fully automatic ACT3™ microprocessor controller.
- › 1,415 crimps per hour with 450 tons of crimping force.





# Hydraulic Hose & Fitting Products

## Proper Assembly of ContiTech Perma-Crimp® Hose and Fittings.

ContiTech Perma-Crimp® hose, fittings and crimping equipment work together to provide an efficient and reliable hose connection. Hose and fittings are part of an engineered system, and are to be assembled in accordance with ContiTech specifications. Using non-ContiTech components may produce an assembly that does not meet rated performance. **ContiTech does not warrant, expressly or by implication, hose assemblies that do not incorporate ContiTech Perma-Crimp® hose and fittings, or are not crimped in accordance with ContiTech process specifications.**

specifications, as necessary to meet the requirements of the buyer or customer's application. In such cases, the buyer has sole responsibility to qualify the hose for these applications as necessary to ensure performance capability.

For guidance in the assembly of ContiTech Perma-Crimp® hose and couplings, please refer to the ContiTech Crimp Specifications Manual. Information in this catalog is believed to be accurate, but is not warranted, and is subject to change without prior notice. For the most current available product and crimp specifications information, please check our website: **[www.contitech.us](http://www.contitech.us)**.

Buyers may elect to attach additional or non-standard parts or equipment, or to use different manufacturing





**Hoses**

# Hydraulic Hose Nomenclature

Example: **D** **R2SN** - **12**

## Hose Attribute

### First character of Part Number

H = High Temp (Desert®), 275°F  
 L = Low Temp (Arctic®)  
 A = Abrasion Cover (Armorcoat™)  
 N = Non-Conductive  
 T = Twin-Line  
 B = Both Non-Conductive and Twin-Line  
 S = Standard Specification Hose  
 D = High Temp (Desert®), 302°F  
 X = Extended Life Abrasion Resistance Cover

Note: Push-On Hose (IG, IGHT, IGTC);  
 Military Hose (MIL, M); and SHR  
 Hose do not have a one-digit Hose  
 Attribute character.

## Hose Standard

### Next 2-5 characters of Part Number before hyphen

R1SN = SAE 100R1AT/1SN  
 FS = Fire Suppression (SAE 100R1AT/1SN)  
 R2SN = SAE 100R2AT/2SN  
 R3 = SAE 100R3/EN 854 R3  
 R4 = SAE 100R4  
 R5 = SAE 100R5  
 CX5 = SAE100R5 (Rubber Covered)  
 UT = Universal Truck Hose (SAE J1402 A1)  
 R6 = SAE 100R6/854 R6  
 R7 = SAE 100R7/855 R7  
 SFX = SAFLEX®  
 R8 = SAE 100R8/855 R8  
 4SH = EN 856 4SH/DIN 20023 4SH  
 4SP = EN 856 4SP/DIN 20023 4SP  
 R12 = SAE 100R12/856 R12  
 R13 = SAE 100R13/856 R13  
 R14A = SAE 100R14A  
 R15 = SAE 100R15  
 R16SC = SAE 100R16/857 2SC  
 CP3 = SAE 100R17  
 CP4 = SAE 100R19/ISO11237  
 R18 = SAE 100R18  
 SHR = Prospector™ Slim Hole Rotary  
 BOP = Prospector™ BOP 3000, 5000  
 GUN = Grease Gun Hose  
 HJ = Jack Hose  
 4826 = Galaxy® 4826 (Air Conditioning)  
 4867 = Galaxy® 4867 (Air Conditioning)  
 4890 = Galaxy® 4890 SLE (Air Conditioning)  
 IG = Insta-Grip™ 300 (Push-On)  
 IGTC = Insta-Grip™ TC (Push-On)  
 IGHT = Insta-Grip™ HT 300 (Push-On)  
 FXG = FLEXA-Grip™ (Push-On)  
 M or MIL = Military Hose

## Hose Dash Size

### (Hose Inside Diameter) Last 2 characters of Part Number after hyphen

#### All hoses except R5, UT and Galaxy®

02 = 1/8" (3.3 mm)  
 03 = 3/16" (4.8 mm)  
 04 = 1/4" (6.4 mm)  
 05 = 5/16" (7.9 mm)  
 06 = 3/8" (9.5 mm)  
 08 = 1/2" (12.7 mm)  
 10 = 5/8" (15.9 mm)  
 12 = 3/4" (19 mm)  
 16 = 1" (25.4 mm)  
 20 = 1 1/4" (31.8 mm)  
 24 = 1 1/2" (38.1 mm)  
 32 = 2" (50.8 mm)  
 40 = 2 1/2" (63.5 mm)  
 48 = 3" (76.2 mm)  
 56 = 3 1/2" (89 mm)  
 64 = 4" (101.6 mm)

#### SAE 100R5, UT and Galaxy® Hose

04 = 3/16" (4.8 mm)  
 05 = 1/4" (6.4 mm)  
 06 = 5/16" (7.9 mm)  
 08 = 13/32" (10.3 mm)  
 10 = 1/2" (12.7 mm)  
 12 = 5/8" (15.9 mm)  
 14 = 3/4" (19.1 mm)  
 16 = 7/8" (22.2 mm)  
 20 = 1 1/8" (28.6 mm)  
 24 = 1 3/8" (35 mm)  
 32 = 1 13/16" (46 mm)

Note: Military Hose utilize unique military dash sizes.

## Warning - Selection of Hose

Selection of the proper hose for the application is essential to the proper operation and safe use of the hose and related equipment. Inadequate attention to selection of the hose for your application can result in hose leakage, bursting, or other failure, which can cause serious bodily injury or property damage from spraying fluids or flying projectiles. Some of the factors involved in the selection of the proper hose include:

- › Hose Size
- › Hose Length
- › Hose Ends
- › Fluid Conveyed
- › Bends
- › Temperature
- › Hose Pressure
- › Static Head Pressure
- › Installation Design

The above factors and information provided in this catalog should be considered in selecting the proper hose for your application.

# Hydraulic Hose Nomenclature

## Hydraulic Hose Part Number Designations

| Part Number          | Description                                 | Page Number |
|----------------------|---------------------------------------------|-------------|
| SR6                  | SAE 100R6/EN 854 R6                         | 6           |
| HR6                  | SAE 100R6/EN 854 R6 (High Temp)             | 6           |
| HR4                  | SAE 100R4 (High Temp)                       | 7           |
| SR3                  | SAE 100R3/EN 854 R3                         | 7           |
| IG                   | Insta-Grip™ 300 Push-On (Rubber Cover)      | 8           |
| IGHT                 | Insta-Grip™ HT 300 Push-On (High Temp)      | 8           |
| IGTC                 | Insta-Grip™ TC Push-On (Textile Cover)      | 9           |
| FXG                  | FLEXA-Grip™ Push-On (Carbryn® Rubber Cover) | 9           |
| SR1SN                | SAE 100R1AT/1SN                             | 10          |
| SFS                  | SAE 100R1AT/1SN (Fire Suppression)          | 10          |
| Desert® DR1SN        | SAE 100R1AT/1SN (High Temp)                 | 11          |
| SR2SN                | SAE 100R2AT/2SN                             | 11          |
| Desert® DR2SN        | SAE 100R2AT/2SN (High Temp)                 | 12          |
| Arctic® LR2SN        | SAE 100R2AT/2SN (Low Temp)                  | 12          |
| SR16SC               | SAE 100R16/EN 857 2SC                       | 13          |
| Desert® DR16SC       | SAE 100R16SC                                | 13          |
| Extended Life XR16SC | SAE 100R16SC/EN 857 2SC                     | 14          |
| ARMORCOAT™ ARC16SC   | SAE 100R16/EN 857 2SC (Abrasion Cover)      | 14          |
| SCP3                 | SAE 100R17 (Constant Pressure)              | 15          |
| Extended Life XCP3   | SAE 100R17 (Constant Pressure 3000 psi)     | 15          |
| ARMORCOAT™ ACP3      | SAE 100R17 (Abrasion Cover)                 | 16          |
| CP4                  | SAE 100R19                                  | 16          |
| Extended Life XCP4   | SAE 100R12/EN 856 R12                       | 17          |
| ARMORCOAT™ ARC12     | SAE 100R12/EN 856 R12 (Abrasion Cover)      | 17          |
| SR13                 | SAE 100R13/EN 856 R13                       | 18          |
| ARMORCOAT™ ARC13     | SAE 100R13/EN 856 R13 (Abrasion Cover)      | 18          |
| SR15                 | SAE 100R15                                  | 19          |
| ARMORCOAT™ ARC15     | SAE 100R15 (Abrasion Cover)                 | 19          |
| S4SP                 | EN 856 4SP/DIN 20023 4SP                    | 20          |
| S4SH                 | EN 856 4SH/DIN 20023 4SH                    | 20          |
| SR7                  | SAE 100R7/EN 855 R7                         | 21          |
| TR7                  | SAE 100R7 (Twin-Line)                       | 21          |
| NR7                  | SAE 100R7 (Non-Conductive)                  | 22          |
| BR7                  | SAE 100R7 (Twin-Line, Non-Conductive)       | 22          |
| SR8                  | SAE 100R8/EN 855 R8                         | 23          |

Hydraulic Hose Part Number Designations (Continued on next page)

# Hydraulic Hose Nomenclature

Continued

## Hydraulic Hose Part Number Designations

| Part Number           | Description                                            | Page Number |
|-----------------------|--------------------------------------------------------|-------------|
| TR8                   | SAE 100R8 (Twin-Line)                                  | 23          |
| NR8                   | SAE 100R8 (Non-Conductive)                             | 24          |
| SR18                  | SAE 100R18                                             | 24          |
| NSFX                  | SAFLEX® (Non-Conductive)                               | 25          |
| Prospector™ SHR       | Slim Hole Rotary Hose                                  | 25          |
| Prospector™ BOP 3000  | Special Application (Blow Out Preventer)               | 26          |
| Prospector™ BOP 5000  | Very High Pressure (Blow Out Preventer)                | 26          |
| Prospector™ Hot Oiler | Special Application                                    | 27          |
| SGUN                  | Grease Gun Hose (Special Application)                  | 27          |
| SHJ                   | Jack Hose (Special Application)                        | 28          |
| SR14A                 | SAE 100R14A (Stainless Steel Cover, Teflon® Tube)      | 28          |
| SR5                   | SAE 100R5 (Fleet Application)                          | 29          |
| Desert® DR5           | SAE 100R5 (High Temp, Fleet Application)               | 30          |
| SCX5                  | SAE 100R5 (Rubber Covered, Fleet Application)          | 31          |
| Desert® DUT           | SAE J1402 A1 (Universal Truck Hose, Fleet Application) | 32          |
| Galaxy® G4826         | SAE J2064 (Air Conditioning)                           | 33          |
| Galaxy® G4867         | SAE J2064 (Air Conditioning)                           | 33          |
| Galaxy® G4890         | SAE J2064 (Air Conditioning)                           | 34          |
| MIL-DTL-13444H        | Type I (Military Application)                          | 34          |
| MIL-DTL-13444H        | Type III (Military Application)                        | 35          |
| MIL-DTL-13531         | Type II, Class A (Military Application)                | 35          |
| MIL-DTL-3992          | Type I, Class 1 (Military Application)                 | 36          |
| MIL-DTL-8788          | Hydraulic Hose (Military Application)                  | 36          |

Fittings

Equipment &amp; Accessories

Assemblies

Installation &amp; Maintenance

Appendix



## SR6

## SAE 100R6/EN 854 R6 | Low Pressure



Meets or exceeds the performance requirements of: SAE 100R6/EN 854 R6.

**Application**

Low-pressure, textile reinforced applications including petroleum and water-based fluids for use as power steering return, lube lines and air lines. Not for brake applications.

**Inner Tube**

Nitrile

**Reinforcement**

One textile braid

**Cover**

Black polychloroprene

**Temperature Range**

-40°F to 212°F (-40°C to 100°C)

**Fitting Reference**

All fittings compatible with the SR6 hose family are listed in Section 5 (starting on page 187) of the catalog.

**Branding**

Example: Continental ContiTech SR6-03 SAE 100R6 R6 3/16" (DN05) W.P. 500 psi (3.4 MPa)

| Descriptive #/<br>Product # | SAP #    | Hose Size ID |               | Hose OD |      | Max. Working Pressure |     | Min. Bend Radius |     | Min. Burst Pressure |      | Weight |
|-----------------------------|----------|--------------|---------------|---------|------|-----------------------|-----|------------------|-----|---------------------|------|--------|
|                             |          | in.          | DIN Dash Size | in.     | mm   | psi                   | MPa | in.              | mm  | psi                 | MPa  |        |
| SR6-03                      | 20240277 | 3/16         | 05            | 0.44    | 11.1 | 500                   | 3.4 | 2.0              | 51  | 2000                | 13.8 | 0.07   |
| SR6-04                      | 20240278 | 1/4          | 06            | 0.50    | 12.7 | 400                   | 2.8 | 2.5              | 64  | 1600                | 11.0 | 0.09   |
| SR6-05                      | 20240279 | 5/16         | 08            | 0.56    | 9.1  | 400                   | 2.8 | 3.0              | 76  | 1600                | 11.0 | 0.09   |
| SR6-06                      | 20240280 | 3/8          | 10            | 0.63    | 15.9 | 400                   | 2.8 | 3.0              | 76  | 1600                | 11.0 | 0.11   |
| SR6-08                      | 20240281 | 1/2          | 12            | 0.78    | 19.8 | 400                   | 2.8 | 4.0              | 102 | 1600                | 11.0 | 0.16   |
| SR6-10                      | 20240282 | 5/8          | 16            | 0.91    | 23.0 | 350                   | 2.4 | 5.0              | 127 | 1400                | 9.7  | 0.18   |
| SR6-12                      | 20254775 | 3/4          | 19            | 1.05    | 26.6 | 300                   | 2.1 | 6.0              | 152 | 1200                | 8.3  | 0.25   |

## HR6

## SAE 100R6/EN 854 R6 | Low Pressure



Meets or exceeds the performance requirements of: SAE 100R6/EN 854 R6.

High Temperature

**Application**

Low-pressure, textile reinforced applications including petroleum and water-based fluids for use in power steering return, lube lines and air lines. Not for brake applications.

**Inner Tube**

Nitrile

**Reinforcement**

One textile braid

**Cover**

Black CSM (Chlorosulphonated Polyethylene)\*

**Temperature Range**

-40°F to 275°F (-40°C to 135°C)

**Fitting Reference**

All fittings compatible with the HR6 hose family are listed in Section 5 (starting on page 187) of the catalog.

**Branding**

Example: Continental ContiTech HR6-04 SAE 100R6/EN 854 R6 (High Temp) 1/4" (DN06) W.P. 400 psi (2.8 MPa)

| Descriptive #/<br>Product # | SAP #    | Hose Size ID |               | Hose OD |      | Max. Working Pressure |     | Min. Bend Radius |     | Min. Burst Pressure |      | Weight |
|-----------------------------|----------|--------------|---------------|---------|------|-----------------------|-----|------------------|-----|---------------------|------|--------|
|                             |          | in.          | DIN Dash Size | in.     | mm   | psi                   | MPa | in.              | mm  | psi                 | MPa  |        |
| HR6-04                      | 20687451 | 1/4          | 06            | 0.51    | 12.9 | 400                   | 2.8 | 2.5              | 64  | 1600                | 11.0 | 0.09   |
| HR6-05                      | 20239412 | 5/16         | 08            | 0.57    | 14.5 | 400                   | 2.8 | 3.0              | 76  | 1600                | 11.0 | 0.09   |
| HR6-06                      | 20687409 | 3/8          | 10            | 0.64    | 16.2 | 400                   | 2.8 | 3.0              | 76  | 1600                | 11.0 | 0.11   |
| HR6-08                      | 20743641 | 1/2          | 12            | 0.77    | 19.6 | 400                   | 2.8 | 4.0              | 102 | 1600                | 11.0 | 0.16   |
| HR6-10                      | 20616767 | 5/8          | 16            | 0.91    | 23.2 | 350                   | 2.4 | 5.0              | 127 | 1400                | 9.7  | 0.18   |
| HR6-12                      | 20645813 | 3/4          | 19            | 1.06    | 26.9 | 300                   | 2.1 | 6.0              | 152 | 1200                | 8.3  | 0.25   |

## HR4

## SAE 100R4 | Low Pressure



1/2 Bend

- › Meets or exceeds the performance requirements of: SAE 100R4
- › High Temperature
- › Meets Flame Resistance USMSHA Designation
- › SAE J1942/ U.S. Coast Guard

## Application

Low-pressure, high temperature return line or suction line for petroleum- and water-based hydraulic fluids. Vacuum rating 25 in Hg. HR4 has half the bend radius of typical SAE 100R4.

## Inner Tube

Nitrile

## Reinforcement

Spiral-ply synthetic fabric with wire helix

## Cover

Black polychloroprene

## Temperature Range

-40°F to 275°F (-40°C to 135°C)

## Fitting Reference

All fittings compatible with the HR4 hose family are listed in Section 5 (starting on page 187) of the catalog. Note: No Continental ContiTech fitting recommendation on HR4-48 and HR4-64 hose sizes.

## Branding

Example: Continental ContiTech HR4-12 SAE 100R4 3/4" (19mm) W.P. 300 psi (2.1 MPa) MSHA IC-152/8

| Descriptive #/<br>Product # | SAP #    | Hose Size ID |       | Hose OD |       | Max. Working Pressure |     | Min. Bend Radius |     | Min. Burst Pressure |     | Weight<br>lbs./ft. | USCG<br>Approved |
|-----------------------------|----------|--------------|-------|---------|-------|-----------------------|-----|------------------|-----|---------------------|-----|--------------------|------------------|
|                             |          | in.          | mm    | in.     | mm    | psi                   | MPa | in.              | mm  | psi                 | MPa |                    |                  |
| HR4-12                      | 20325410 | 3/4          | 19.0  | 1.16    | 29.5  | 300                   | 2.1 | 2.5              | 64  | 1200                | 8.3 | 0.53               | H                |
| HR4-16                      | 20325411 | 1            | 25.4  | 1.45    | 36.8  | 250                   | 1.7 | 3.0              | 76  | 1000                | 6.9 | 0.65               | H                |
| HR4-20                      | 20325412 | 1¼           | 31.8  | 1.70    | 43.2  | 200                   | 1.4 | 4.0              | 102 | 800                 | 5.5 | 0.80               | H                |
| HR4-24                      | 20325413 | 1½           | 38.1  | 1.95    | 49.5  | 150                   | 1.0 | 5.0              | 127 | 600                 | 4.1 | 0.91               | H                |
| HR4-32                      | 20325414 | 2            | 50.8  | 2.46    | 62.5  | 100                   | 0.7 | 6.0              | 152 | 400                 | 2.8 | 1.18               | H                |
| HR4-40                      | 20325415 | 2½           | 63.5  | 2.97    | 75.4  | 62                    | 0.4 | 7.0              | 188 | 250                 | 1.7 | 1.72               | H                |
| HR4-48                      | 20325416 | 3            | 76.2  | 3.53    | 89.7  | 58                    | 0.4 | 9.0              | 229 | 232                 | 1.6 | 2.03               |                  |
| HR4-64                      | 20325418 | 4            | 101.6 | 4.54    | 115.3 | 35                    | 0.2 | 12               | 305 | 140                 | 1.0 | 2.75               |                  |

## SR3

## SAE 100R3/EN 854 R3 | Low Pressure



- › Meets or exceeds the performance requirements of: SAE 100R3/EN 854 R3
- › Meets Flame Resistance USMSHA Designation

## Application

Low-pressure, textile reinforced hose for petroleum- or water-based hydraulic fluids or pneumatic applications. Not to be used for air brake.

## Inner Tube

CR (Polychloroprene)

## Reinforcement

Two textile braids

## Cover

Black polychloroprene

## Temperature Range

-40°F to 212°F (-40°C to 100°C)

## Fitting Reference

All fittings compatible with the SR3 hose family are listed in Section 5 (starting on page 187) of the catalog.

## Branding

Example: Continental ContiTech SR3-04 SAE 100R3 R3 1/4" (DN06) W.P. 1250 psi (8.6 MPa) MSHA 2G-IC-14C/30

| Descriptive #/<br>Product # | SAP #    | Hose Size ID |               | Hose OD |      | Max. Working Pressure |     | Min. Bend Radius |     | Min. Burst Pressure |      | Weight<br>lbs./ft. |
|-----------------------------|----------|--------------|---------------|---------|------|-----------------------|-----|------------------|-----|---------------------|------|--------------------|
|                             |          | in.          | DIN Dash Size | in.     | mm   | psi                   | MPa | in.              | mm  | psi                 | MPa  |                    |
| SR3-04                      | 20240260 | 1/4          | 06            | 0.56    | 14.3 | 1250                  | 8.6 | 3.0              | 76  | 5000                | 34.5 | 0.12               |
| SR3-05                      | 20239389 | 5/16         | 08            | 0.68    | 17.5 | 1200                  | 8.3 | 4.0              | 102 | 4800                | 33.1 | 0.16               |
| SR3-06                      | 20240261 | 3/8          | 10            | 0.75    | 19.0 | 1125                  | 7.8 | 4.0              | 102 | 4500                | 31.0 | 0.17               |
| SR3-08                      | 20240262 | 1/2          | 12            | 0.94    | 23.8 | 1000                  | 6.9 | 5.0              | 127 | 4000                | 27.6 | 0.25               |
| SR3-10                      | 20553192 | 5/8          | 10            | 1.06    | 27.1 | 884                   | 6.1 | 5.5              | 140 | 3538                | 24.4 | 0.31               |
| SR3-12                      | 20240275 | 3/4          | 19            | 1.25    | 31.8 | 750                   | 5.2 | 6.0              | 152 | 3000                | 20.7 | 0.43               |
| SR3-16                      | 20240276 | 1            | 25            | 1.50    | 38.1 | 565                   | 3.9 | 8.0              | 203 | 2260                | 15.6 | 0.51               |

## IG

## INSTA-GRIP™ 300 | Low Pressure Push-On



- › Meets Flame Resistance USMSHA Designation
- › Non-Conductive

**Application**

For use with push-on fittings at maximum working pressures of 300 psi. For low-pressure hydraulic and pneumatic systems such as shop air systems, general industrial, maintenance and automotive applications. Non-conductive, minimum electrical resistance, greater than (1) megohm per inch of hose length at 1000 Volts DC. Note: Insta-Grip™ 300 black cover hose meets USMSHA 2G-1C-14C/33. All other colors meet USMSHA 2G-1C-14C/32.

**Inner Tube**

Chemivac® (NBR/PVC) oil and heat resistant synthetic rubber (ARPM Class A high oil resistance)

**Reinforcement**

One textile braid

**Cover**

Black, Blue, Red, Green, Grey (others, contact marketing): weather, abrasion and oil resistant Nitrile synthetic rubber. (RMA Class B medium/high oil resistance)

**Temperature Range**

-40°F to 190°F (-40°C to 88°C)

**Fitting Reference**

All fittings compatible with the Insta-Grip™ 300 hose family are listed in Section 7 (starting on page 252) of the catalog.

**Branding**

Example: Continental ContiTech Insta-Grip™ 1/4" W.P. 300 psi Flame Resistant USMSHA 2G-1C-14C/33 Made in U.S.A.

| Descriptive #<br>(***) Insert Color | Product #<br>(***) Insert Color | SAP # (BLK)<br>exc.16 (RED) | Hose Size ID |      | Hose OD |      | Max. Working Pressure |     | Min. Bend Radius |     | Min. Burst Pressure |     | Weight   |      |
|-------------------------------------|---------------------------------|-----------------------------|--------------|------|---------|------|-----------------------|-----|------------------|-----|---------------------|-----|----------|------|
| (See Legend)                        | (See Legend)                    |                             | in.          | mm   | in.     | mm   | psi                   | MPa | in.              | mm  | psi                 | MPa | lbs./ft. | kg/m |
| IG 300 1/4***                       | IG***-04                        | 20022636                    | 1/4          | 6.4  | 0.54    | 13.7 | 300                   | 2.1 | 2.5              | 64  | 1200                | 8.3 | 0.09     | 0.13 |
| IG 300 5/16***                      | IG***-05                        | 20022641                    | 5/16         | 7.9  | 0.62    | 15.7 | 300                   | 2.1 | 3.0              | 76  | 1200                | 8.3 | 0.12     | 0.18 |
| IG 300 3/8***                       | IG***-06                        | 20022644                    | 3/8          | 9.5  | 0.69    | 17.5 | 300                   | 2.1 | 3.0              | 76  | 1200                | 8.3 | 0.14     | 0.21 |
| IG 300 1/2***                       | IG***-08                        | 20022648                    | 1/2          | 12.7 | 0.81    | 20.6 | 300                   | 2.1 | 5.0              | 127 | 1200                | 8.3 | 0.16     | 0.24 |
| IG 300 5/8***                       | IG***-10                        | 20022651                    | 5/8          | 15.9 | 0.93    | 23.6 | 300                   | 2.1 | 6.0              | 152 | 1200                | 8.3 | 0.20     | 0.30 |
| IG 300 3/4***                       | IG***-12                        | 20022653                    | 3/4          | 19.0 | 1.07    | 27.2 | 300                   | 2.1 | 7.0              | 178 | 1200                | 8.3 | 0.25     | 0.37 |
| IG 300 1***                         | IG***-16                        | 20136613                    | 1            | 25.4 | 1.34    | 34.0 | 300                   | 2.1 | 8.0              | 203 | 1200                | 8.3 | 0.34     | 0.51 |

Colors: Black = BLK, Blue = BLU, Red = RED, Green = GRN, Grey = GRY

## IGHT

## INSTA-GRIP™ HT 300 | Low Pressure Push-On



- › High Temperature

**Application**

For lubricating and fuel oils, air and water. Not recommended for applications involving impulse movements or air brake applications. For use with push-on fittings at working pressures up to 300 psi.

**Inner Tube**

Black CPE Rubber, Meets ARPM Class B Oil Resistance

**Reinforcement**

One synthetic textile braid

**Cover**

Black CPE rubber, Meets ARPM Class B oil resistance

**Temperature Range**

Petroleum-based hydraulic fluids -40°F to 300°F (-40°C to 150°C)  
Water and Air -40°F to 190°F (-40°C to 88°C)

**Fitting Reference**

All fittings compatible with the Insta-Grip™ HT 300 hose family are listed in Section 7 (starting on page 252) of the catalog.

**Branding**

Example: Continental ContiTech Insta-Grip™ HT 1/4" 300 psi W.P. Made in U.S.A.

| Descriptive #/<br>Product # | SAP #    | Hose Size ID |      | Hose OD |      | Max. Working Pressure |     | Min. Bend Radius |     | Min. Burst Pressure |     | Weight   |
|-----------------------------|----------|--------------|------|---------|------|-----------------------|-----|------------------|-----|---------------------|-----|----------|
|                             |          | in.          | mm   | in.     | mm   | psi                   | MPa | in.              | mm  | psi                 | MPa | lbs./ft. |
| IGHT-04                     | 20544196 | 1/4          | 6.4  | 0.51    | 12.8 | 300                   | 2.1 | 2.5              | 64  | 1200                | 8.3 | 0.09     |
| IGHT-06                     | 20544197 | 3/8          | 9.5  | 0.67    | 17.0 | 300                   | 2.1 | 3.0              | 76  | 1200                | 8.3 | 0.14     |
| IGHT-08                     | 20544198 | 1/2          | 12.7 | 0.76    | 19.3 | 300                   | 2.1 | 5.0              | 127 | 1200                | 8.3 | 0.16     |
| IGHT-10                     | 20544199 | 5/8          | 15.9 | 0.93    | 23.6 | 300                   | 2.1 | 6.0              | 152 | 1200                | 8.3 | 0.20     |
| IGHT-12                     | 20571923 | 3/4          | 19.0 | 1.04    | 26.5 | 300                   | 2.1 | 7.0              | 178 | 1200                | 8.3 | 0.25     |

## IGTC

## INSTA-GRIP™ TC | Low Pressure Push-On

**Application**

For low-pressure hydraulic and pneumatic systems such as shop air systems, general industrial, maintenance and automotive applications.

**Inner Tube**

Chemivic® (NBR/PVC) oil and heat resistant synthetic rubber (ARPM Class A High Oil Resistance)

**Reinforcement**

One textile braid

**Cover**

Black dyed textile braid, mildew and oil resistance

**Temperature Range**

-40°F to 200°F (-40°C to 93°C)

**Fitting Reference**

All fittings compatible with the Insta-Grip™ TC hose family are listed in Section 7 (starting on page 252) of the catalog.

**Branding**

Example: Continental ContiTech Insta-Grip™ TC 1/4" W.P. 300 psi Made in U.S.A.

| Descriptive #/<br>Product # | SAP #    | Hose Size ID |      | Hose OD |      | Max. Working Pressure |     | Min. Bend Radius |     | Min. Burst Pressure |     | Weight   |      |
|-----------------------------|----------|--------------|------|---------|------|-----------------------|-----|------------------|-----|---------------------|-----|----------|------|
|                             |          | in.          | mm   | in.     | mm   | psi                   | MPa | in.              | mm  | psi                 | MPa | lbs./ft. | kg/m |
| IGTC-04                     | 20022593 | 1/4          | 6.4  | 0.50    | 12.7 | 300                   | 2.1 | 2.5              | 64  | 1200                | 8.3 | 0.08     | 0.12 |
| IGTC-05                     | 20022595 | 5/16         | 7.9  | 0.56    | 14.2 | 300                   | 2.1 | 3.0              | 76  | 1200                | 8.3 | 0.09     | 0.13 |
| IGTC-06                     | 20022597 | 3/8          | 9.5  | 0.64    | 16.3 | 300                   | 2.1 | 3.0              | 76  | 1200                | 8.3 | 0.11     | 0.16 |
| IGTC-08                     | 20022600 | 1/2          | 12.7 | 0.75    | 19.1 | 300                   | 2.1 | 5.0              | 127 | 1200                | 8.3 | 0.13     | 0.19 |
| IGTC-10                     | 20022602 | 5/8          | 15.9 | 0.91    | 23.1 | 300                   | 2.1 | 6.0              | 152 | 1200                | 8.3 | 0.19     | 0.28 |
| IGTC-12                     | 20022604 | 3/4          | 19.0 | 1.03    | 26.2 | 300                   | 2.1 | 7.0              | 178 | 1200                | 8.3 | 0.21     | 0.31 |

## FXG

## FLEXA-Grip™ | Low Pressure Push-On

**Application**

For use with push-on fittings at maximum working pressures of 400 psi. For low-pressure hydraulic and pneumatic systems such as robotics, shop air systems, general industrial, maintenance and automotive applications. Non-conductive, minimum electrical resistance, greater than (1) megohm per inch of hose length at 1000 Volts DC.

**Inner Tube**

Chemivic®(NBR/PVC) oil and heat resistant synthetic rubber (ARPM Class A High Oil Resistance)

**Reinforcement**

One textile braid

**Cover**

Black, Blue, Red, Green, Grey, White, Brown and Yellow (others, contact marketing): weather-abrasion and oil resistant Carbryn™ rubber. (ARPM Class A high oil resistance)

**Temperature Range**

-40°F to 200°F (-40°C to 93°C)

**Fitting Reference**

All fittings compatible with the FLEXA-Grip™ hose family are listed in Section 7 (starting on page 252) of the catalog.

**Branding**

Example: Continental ContiTech FLEXA-Grip™ Non-Conductive 3/8" (9.5 mm) W.P. 400 psi (28 bar); Flame Resistant USMSHA 2G-IC-14C / 27 Made in U.S.A.

| Descriptive #<br>(***)Insert Color | Product #<br>(***)Insert Color | SAP #    | Hose Size ID |      | Hose OD |      | Max. Working Pressure |     | Min. Bend Radius |     | Min. Burst Pressure |      | Weight   |      |
|------------------------------------|--------------------------------|----------|--------------|------|---------|------|-----------------------|-----|------------------|-----|---------------------|------|----------|------|
| (See Legend)                       | (See Legend)                   | (BLK)    | in.          | mm   | in.     | mm   | psi                   | MPa | in.              | mm  | psi                 | MPa  | lbs./ft. | kg/m |
| FLEXA-Grip 3/16***                 | FXG***-03                      | 20022699 | 3/16         | 4.8  | 0.36    | 9.10 | 400                   | 2.8 | 2.5              | 64  | 1600                | 11.0 | 0.04     | 0.06 |
| FLEXA-Grip 1/4***                  | FXG***-04                      | 20022700 | 1/4          | 6.4  | 0.51    | 13.0 | 400                   | 2.8 | 2.5              | 64  | 1600                | 11.0 | 0.08     | 0.12 |
| FLEXA-Grip 3/8***                  | FXG***-06                      | 20022703 | 3/8          | 9.5  | 0.67    | 17.0 | 400                   | 2.8 | 3.0              | 76  | 1600                | 11.0 | 0.13     | 0.19 |
| FLEXA-Grip 1/2***                  | FXG***-08                      | 20022706 | 1/2          | 12.7 | 0.76    | 19.3 | 400                   | 2.8 | 5.0              | 127 | 1600                | 11.0 | 0.14     | 0.21 |
| FLEXA-Grip 5/8***                  | FXG***-10                      | 20022711 | 5/8          | 15.9 | 0.93    | 23.6 | 400                   | 2.8 | 6.0              | 152 | 1600                | 11.0 | 0.19     | 0.28 |
| FLEXA-Grip 3/4***                  | FXG***-12                      | 20022714 | 3/4          | 19.0 | 1.06    | 26.9 | 400                   | 2.8 | 7.0              | 178 | 1600                | 11.0 | 0.24     | 0.36 |
| FLEXA-Grip 1***                    | FXG***-16                      | 20141684 | 1            | 25.4 | 1.34    | 34.0 | 400                   | 2.8 | 8.0              | 203 | 1600                | 11.0 | 0.34     | 0.51 |

Colors: Black = BLK, Blue = BLU, Red = RED, Green = GRN, Grey = GRY, White = WHT, Brown = BRN, Yellow = YEL

## SR1SN

## SAE 100R1AT/1SN | Medium Pressure



- Meets or exceeds the performance requirements of: SAE 100R1AT; EN 853 1SN
- Meets Flame Resistance USMSHA Designation
- Meets Higher EN/DIN Pressures
- SAE J1942/U.S. Coast Guard

**Application**

Medium-pressure hydraulic applications including mobile, machine tool and agricultural applications, using petroleum or water-based hydraulic fluids.

**Inner Tube**

Nitrile

**Reinforcement**

One braid of high-tensile steel wire

**Cover**

Black polychloroprene

**Temperature Range**

-40°F to 212°F (-40°C to 100°C)

**Fitting Reference**

All fittings compatible with the SR1SN hose family are listed in Section 1 (starting on page 54) of the catalog.

**Branding**

Example: Continental ContiTech SR1SN-03 SAE 100R1AT/1SN 3/16" (DN05) W.P. 3630 psi (25 MPa) MSHA 2G-14C/12

| Descriptive #/<br>Product # | SAP #    | Hose Size ID |    | Hose OD |      | Max. Working Pressure |      | Min. Bend Radius |     | Min. Burst Pressure |       | Weight   | USCG Approved |
|-----------------------------|----------|--------------|----|---------|------|-----------------------|------|------------------|-----|---------------------|-------|----------|---------------|
|                             |          | in.          | mm | in.     | mm   | psi                   | MPa  | in.              | mm  | psi                 | MPa   | lbs./ft. |               |
| SR1SN-03                    | 20239993 | 3/16         | 05 | 0.47    | 11.9 | 3630                  | 25.0 | 3.5              | 89  | 14520               | 100.0 | 0.12     | HF-A          |
| SR1SN-04                    | 20240216 | 1/4          | 06 | 0.53    | 13.6 | 3270                  | 22.5 | 4.0              | 102 | 13080               | 90.2  | 0.15     | HF-A          |
| SR1SN-05                    | 20240217 | 5/16         | 08 | 0.60    | 15.1 | 3120                  | 21.5 | 4.5              | 114 | 12480               | 86.0  | 0.17     |               |
| SR1SN-06                    | 20240218 | 3/8          | 10 | 0.69    | 17.5 | 2615                  | 18.0 | 5.0              | 127 | 10460               | 72.1  | 0.22     | HF-A          |
| SR1SN-08                    | 20240219 | 1/2          | 12 | 0.81    | 20.7 | 2320                  | 16.0 | 7.0              | 178 | 9280                | 64.0  | 0.28     | H             |
| SR1SN-10                    | 20240250 | 5/8          | 16 | 0.94    | 23.8 | 1890                  | 13.0 | 8.0              | 203 | 7560                | 52.1  | 0.33     | HF-A          |
| SR1SN-12                    | 20240251 | 3/4          | 19 | 1.10    | 27.8 | 1530                  | 10.5 | 9.5              | 241 | 6120                | 42.2  | 0.41     | HF-A          |
| SR1SN-16                    | 20240252 | 1            | 25 | 1.41    | 35.8 | 1280                  | 8.8  | 12.0             | 305 | 5120                | 35.3  | 0.62     | HF-A          |
| SR1SN-20                    | 20239333 | 1e           | 31 | 1.70    | 43.1 | 920                   | 6.3  | 16.5             | 419 | 3680                | 25.4  | 0.84     | H             |
| SR1SN-24                    | 20238892 | 1f           | 38 | 1.98    | 50.3 | 730                   | 5.0  | 20.0             | 508 | 2920                | 20.1  | 1.05     | H             |
| SR1SN-32                    | 20239351 | 2            | 51 | 2.51    | 63.8 | 580                   | 4.0  | 25.0             | 635 | 2320                | 16.0  | 1.48     | H             |

## SFS

## SAE 100R1AT Fire Suppression | Medium Pressure



- Meets Flame Resistance USMSHA Designation

**Application**

Medium-pressure hydraulic applications including fire suppression actuation equipment where the red cover allows for easy identification.

**Inner Tube**

Nitrile

**Reinforcement**

One braid of high-tensile steel wire

**Cover**

Red nitrile

**Temperature Range**

-40°F to 212°F (-40°C to 100°C)

**Fitting Reference**

All fittings compatible with the SFS hose family are listed in Section 1 (starting on page 54) of the catalog.

**Branding**

Example: Continental ContiTech SFS -12 FIRE SUPPRESSION HOSE 3/4" (19mm) W.P. 1250 psi (8.6 MPa) MSHA 2G-1C-14C/31 MADE IN U.S.A.

| Descriptive #/<br>Product # | SAP #    | Hose Size ID |               | Hose OD |      | Max. Working Pressure |      | Min. Bend Radius |     | Min. Burst Pressure |      | Weight   |
|-----------------------------|----------|--------------|---------------|---------|------|-----------------------|------|------------------|-----|---------------------|------|----------|
|                             |          | in.          | DIN Dash Size | in.     | mm   | psi                   | MPa  | in.              | mm  | psi                 | MPa  | lbs./ft. |
| SFS -04                     | 20276330 | 1/4          | 6.4           | 0.53    | 13.6 | 2750                  | 19.0 | 4                | 102 | 11000               | 75.8 | 0.15     |
| SFS -06                     | 20276331 | 3/8          | 9.5           | 0.69    | 17.5 | 2250                  | 15.5 | 5                | 127 | 9000                | 62.1 | 0.22     |
| SFS -08                     | 20276332 | 1/2          | 12.7          | 0.81    | 20.7 | 2000                  | 13.8 | 7                | 178 | 8000                | 55.2 | 0.28     |
| SFS -12                     | 20276333 | 3/4          | 19.0          | 1.10    | 27.8 | 1250                  | 8.6  | 9.5              | 241 | 5000                | 34.5 | 0.41     |
| SFS -16                     | 20276334 | 1            | 25.4          | 1.41    | 35.8 | 1000                  | 6.9  | 12               | 305 | 4000                | 27.6 | 0.62     |

## Desert® DR1SN

## SAE 100R1AT/1SN | Medium Pressure



- › Meets or exceeds the performance requirements of: SAE 100R1AT; and the working pressure requirements of EN 853 1SN.
- › High Temperature
- › Meets Higher EN/DIN Pressures
- › Meets Flame Resistance USMSHA Designation
- › SAE J1942/U.S. Coast Guard

**Application**

Medium-pressure hydraulic oil lines used in mobile, machine tool and agricultural applications where higher temperature petroleum- or water-based hydraulic fluids are a factor.

**Inner Tube**

Black CPE

**Reinforcement**

One braid of high-tensile steel wire

**Cover**

Blue CPE

**Temperature Range**

-40°F to 302°F (-40°C to 150°C)

**Fitting Reference**

All fittings compatible with the DR1SN hose family are listed in Section 1 (starting on page 54) of the catalog.

**Branding**

Example: Continental ContiTech Desert® DR1SN-04 SAE 100R1AT/1SN (High temp) 1/4" (DN06) W.P. 3270 psi (22.5 MPa) MSHA 2G-IC-14C/42

| Descriptive #/<br>Product # | SAP #    | Hose Size ID |               | Hose OD |      | Max. Working Pressure |      | Min. Bend Radius |     | Min. Burst Pressure |      | Weight   | USCG Approved |
|-----------------------------|----------|--------------|---------------|---------|------|-----------------------|------|------------------|-----|---------------------|------|----------|---------------|
|                             |          | in.          | DIN Dash Size | in.     | mm   | psi                   | MPa  | in.              | mm  | psi                 | MPa  | lbs./ft. |               |
| DR1SN-04                    | 20239353 | 1/4          | 06            | 0.52    | 13.1 | 3270                  | 22.5 | 4.0              | 102 | 13080               | 90.2 | 0.15     | H             |
| DR1SN-06                    | 20239354 | 3/8          | 10            | 0.67    | 17.1 | 2615                  | 18.0 | 5.0              | 127 | 10460               | 72.1 | 0.22     | H             |
| DR1SN-08                    | 20239355 | 1/2          | 12            | 0.80    | 20.3 | 2320                  | 16.0 | 7.0              | 178 | 9280                | 64.0 | 0.28     | H             |
| DR1SN-10                    | 20239356 | 5/8          | 16            | 0.92    | 23.4 | 1890                  | 13.0 | 8.0              | 203 | 7560                | 52.1 | 0.33     | H             |
| DR1SN-12                    | 20239357 | 3/4          | 19            | 1.08    | 27.4 | 1530                  | 10.5 | 9.5              | 241 | 6120                | 42.2 | 0.41     | H             |
| DR1SN-16                    | 20239358 | 1            | 25            | 1.39    | 35.3 | 1280                  | 8.8  | 12.0             | 305 | 5120                | 35.3 | 0.62     | H             |
| DR1SN-20                    | 20239359 | 1 1/4        | 31            | 1.70    | 43.1 | 920                   | 6.3  | 16.5             | 419 | 3680                | 25.2 | 0.84     |               |
| DR1SN-24                    | 20239360 | 1 1/2        | 38            | 1.97    | 50.1 | 730                   | 5.0  | 20.0             | 508 | 2920                | 20.0 | 1.09     |               |
| DR1SN-32                    | 20239361 | 2            | 51            | 2.50    | 63.6 | 580                   | 4.0  | 25.0             | 635 | 2320                | 16.0 | 1.34     |               |

## SR2SN

## SAE 100R2AT/2SN | Medium Pressure



- › Meets or exceeds the performance requirements of: SAE 100R2AT; EN 853 2SN.
- › Meets Flame Resistance USMSHA Designation
- › Meets Higher EN/DIN Pressures
- › ABS Type Approved 1/4" through 1"
- › SAE J1942/U.S. Coast Guard

**Application**

High-pressure hydraulic oil lines used in construction, machine tool and agricultural applications using petroleum- or water-based hydraulic fluids. Hose sizes 3/16" - 5/8" have a vacuum rating of 28 in Hg. Hose sizes 3/4" - 1" have a vacuum rating of 24 in Hg.

**Inner Tube**

Nitrile

**Reinforcement**

Two braids of high-tensile steel wire

**Cover**

Black polychloroprene

**Temperature Range**

-40°F to 212°F (-40°C to 100°C)

**Fitting Reference**

All fittings compatible with the SR2SN hose family are listed in Section 1 (starting on page 54) of the catalog.

**Branding**

Example: Continental ContiTech SR2SN-03 SAE 100R2AT/2SN 3/16" (DN05) W.P. 6000 psi (41.4 MPa) MSHA 2G-14C/12

| Descriptive #/<br>Product # | SAP #    | Hose Size ID |               | Hose OD |      | Max. Working Pressure |      | Min. Bend Radius |     | Min. Burst Pressure |       | Weight   | USCG Approved |
|-----------------------------|----------|--------------|---------------|---------|------|-----------------------|------|------------------|-----|---------------------|-------|----------|---------------|
|                             |          | in.          | DIN Dash Size | in.     | mm   | psi                   | MPa  | in.              | mm  | psi                 | MPa   | lbs./ft. |               |
| SR2SN-03                    | 20240253 | 3/16         | 05            | 0.48    | 12.3 | 6000                  | 41.3 | 3.5              | 89  | 24000               | 165.2 | 0.20     |               |
| SR2SN-04                    | 20240254 | 1/4          | 06            | 0.59    | 15.1 | 5800                  | 40.0 | 4.0              | 102 | 23200               | 160.0 | 0.24     | HF-A          |
| SR2SN-06                    | 20276604 | 3/8          | 10            | 0.75    | 19.1 | 4800                  | 33.1 | 5.0              | 127 | 19200               | 132.4 | 0.34     | H             |
| SR2SN-08                    | 20270619 | 1/2          | 12            | 0.88    | 22.2 | 4000                  | 27.6 | 7.0              | 178 | 16000               | 110.3 | 0.43     | HF-A          |
| SR2SN-10                    | 20240257 | 5/8          | 16            | 1.00    | 25.4 | 3630                  | 25.0 | 8.0              | 203 | 14520               | 100.0 | 0.50     |               |
| SR2SN-12                    | 20240258 | 3/4          | 19            | 1.16    | 29.4 | 3120                  | 21.5 | 9.5              | 241 | 12480               | 86.0  | 0.61     | HF-A          |
| SR2SN-16                    | 20240259 | 1            | 25            | 1.50    | 38.1 | 2400                  | 16.5 | 12.0             | 305 | 9600                | 66.2  | 0.88     | HF-A          |
| SR2SN-20                    | 20239362 | 1 1/4        | 31            | 1.86    | 47.2 | 1820                  | 12.5 | 16.5             | 419 | 7280                | 50.2  | 1.53     | H             |
| SR2SN-24                    | 20239363 | 1 1/2        | 38            | 2.11    | 54.1 | 1310                  | 9.0  | 20.0             | 508 | 5240                | 36.1  | 1.64     | H             |
| SR2SN-32                    | 20239364 | 2            | 51            | 2.62    | 66.7 | 1160                  | 8.0  | 25.0             | 635 | 4640                | 32.0  | 2.02     | H             |



## Desert® DR2SN

SAE 100R2AT | High Pressure



- › Meets or exceeds the performance requirements of SAE 100R2AT; EN853 2SN-pressures.
- › High Temperature
- › Meets Higher EN/DIN Pressures
- › Meets Flame Resistance USMSHA Designation
- › SAE J1942/U.S. Coast Guard 

### Application

High-pressure hydraulic oil lines used in construction, machine tool and agricultural applications where higher temperature petroleum- or water-based hydraulic fluids are a factor.

### Inner Tube

Black CPE

### Reinforcement

Two braids of high-tensile steel wire

### Cover

Blue CPE

### Temperature Range

-40°F to 302°F (-40°C to 150°C)

### Fitting Reference

All fittings compatible with the DR2SN hose family are listed in Section 1 (starting on page 54) of the catalog.

### Branding

Example: Continental ContiTech Desert® DR2SN-08 SAE 100R2AT 1/2" (DN12) 4000 psi (27.6 MPa) MSHA 2G-IC-14C/42

| Descriptive #/<br>Product # | SAP #    | Hose Size ID |               | Hose OD |      | Max. Working Pressure |      | Min. Bend Radius |     | Min. Burst Pressure |       | Weight   | USCG Approved |
|-----------------------------|----------|--------------|---------------|---------|------|-----------------------|------|------------------|-----|---------------------|-------|----------|---------------|
|                             |          | in.          | DIN Dash Size | in.     | mm   | psi                   | MPa  | in.              | mm  | psi                 | MPa   | lbs./ft. |               |
| DR2SN-04                    | 20698338 | 1/4          | 08            | 0.59    | 15.1 | 5800                  | 40.0 | 4.0              | 102 | 23200               | 160.0 | 0.24     | H             |
| DR2SN-06                    | 20698339 | 3/8          | 10            | 0.75    | 19.1 | 4800                  | 33.1 | 5.0              | 127 | 19200               | 132.4 | 0.34     | H             |
| DR2SN-08                    | 20698620 | 1/2          | 12            | 0.88    | 22.2 | 4000                  | 27.6 | 7.0              | 178 | 16000               | 110.3 | 0.43     | H             |
| DR2SN-10                    | 20698621 | 5/8          | 16            | 1.00    | 25.4 | 3630                  | 25.0 | 8.0              | 203 | 14520               | 100.0 | 0.50     | H             |
| DR2SN-12                    | 20698622 | 3/4          | 19            | 1.16    | 29.4 | 3120                  | 21.5 | 9.5              | 241 | 12480               | 86.0  | 0.61     | H             |
| DR2SN-16                    | 20698623 | 1            | 25            | 1.50    | 38.1 | 2400                  | 16.5 | 12.0             | 305 | 9600                | 66.6  | 0.88     | H             |
| DR2SN-20                    | 20732342 | 1¼           | 31            | 1.88    | 47.7 | 1820                  | 12.5 | 16.5             | 419 | 7280                | 50.0  | 1.52     |               |
| DR2SN-24                    | 20732343 | 1½           | 38            | 2.13    | 54.1 | 1310                  | 9.0  | 20.0             | 508 | 5240                | 36.0  | 1.64     |               |
| DR2SN-32                    | 20732344 | 2            | 51            | 2.63    | 66.7 | 1160                  | 8.0  | 25.0             | 635 | 4640                | 32.0  | 2.02     |               |

## Arctic® LR2SN

SAE 100R2AT/2SN | High Pressure



- › Meets or exceeds the performance requirements of: SAE 100R2AT; EN 853 except -04.
- › Meets Flame Resistance USMSHA Designation
- › Meets Higher EN/DIN Pressures
- › Low Temperature

### Application

High-pressure hydraulic oil lines used in construction, machine tool and agricultural applications where lower temperature petroleum- or water-based hydraulic fluids are a factor.

### Inner Tube

Nitrile

### Reinforcement

Two braids of high-tensile steel wire

### Cover

Black polychloroprene

### Temperature Range

-58°F to 212°F (-50°C to 100°C)

### Fitting Reference

All fittings compatible with the LR2SN hose family are listed in Section 1 (starting on page 54) of the catalog.

### Branding

Example: Continental ContiTech Arctic® LR2SN-08 SAE 100R2AT.2SN (Low Temp) ½" (DN12) W.P. 4000 PSI (27.6 MPa) MSHA 2G-IC-14C/41

| Descriptive #/<br>Product # | SAP #    | Hose Size ID |               | Hose OD |      | Max. Working Pressure |      | Min. Bend Radius |     | Min. Burst Pressure |       | Weight   |
|-----------------------------|----------|--------------|---------------|---------|------|-----------------------|------|------------------|-----|---------------------|-------|----------|
|                             |          | in.          | DIN Dash Size | in.     | mm   | psi                   | MPa  | in.              | mm  | psi                 | MPa   | lbs./ft. |
| LR2AT-04*                   | 20239365 | 1/4          | 06            | 0.58    | 14.7 | 5000                  | 34.5 | 4.0              | 102 | 20000               | 138.0 | 0.24     |
| LR2SN-06                    | 20728489 | 3/8          | 10            | 0.74    | 18.7 | 4800                  | 33.1 | 5.0              | 127 | 19200               | 132.4 | 0.34     |
| LR2SN-08                    | 20728510 | 1/2          | 12            | 0.86    | 21.8 | 4000                  | 27.6 | 7.0              | 178 | 16000               | 110.3 | 0.43     |
| LR2SN-10                    | 20728511 | 5/8          | 16            | 0.99    | 25.0 | 3630                  | 25.0 | 8.0              | 203 | 14520               | 100.0 | 0.50     |
| LR2SN-12                    | 20728512 | 3/4          | 19            | 1.14    | 29.0 | 3120                  | 21.5 | 9.5              | 241 | 12480               | 86.0  | 0.61     |
| LR2SN-16                    | 20728513 | 1            | 25            | 1.48    | 37.6 | 2400                  | 16.5 | 12.0             | 305 | 9600                | 66.2  | 0.88     |
| LR2SN-20                    | 20757165 | 1¼           | 31            | 1.88    | 47.7 | 1820                  | 12.5 | 16.5             | 419 | 7280                | 50.0  | 1.52     |
| LR2SN-24                    | 20757167 | 1½           | 38            | 2.13    | 54.1 | 1310                  | 9.0  | 20.0             | 508 | 5240                | 36.0  | 1.64     |
| LR2SN-32                    | 20757168 | 2            | 51            | 2.63    | 66.7 | 1160                  | 8.0  | 25.0             | 635 | 4640                | 32.0  | 2.02     |

\*LR2AT-04 working pressure does not meet SAE 100R2AT.

## SR16SC

## SAE 100R16/EN 857 2SC | High Pressure



Tight Bends &amp; Flexible

- › Meets or exceeds the performance requirements of: SAE 100R16; EN 857 2SC
- › Meets Flame Resistance USMSHA Designation
- › Meets Higher EN/DIN Pressures
- › SAE J1942/U.S. Coast Guard 

**Application**

High-pressure service with tight bends for petroleum- and water-based hydraulic fluids. Excellent impulse performance and flexibility exceeding SAE 100R2 and SAE 100R16 standards.

**Inner Tube**

Nitrile

**Reinforcement**

Two braids of high-tensile steel wire

**Cover**

Black polychloroprene

**Temperature Range**

-40°F to 212°F (-40°C to 100°C)

**Fitting Reference**

All fittings compatible with the SR16SC hose family are listed in Section 1 (starting on page 54) of the catalog.

**Branding**

Example: Continental ContiTech SR16SC-04 SAE 100R16/EN 857 2SC 1/4" (DN06) W.P. 5800 psi (40 MPa) MSHA 2G-14C/12

| Descriptive #/<br>Product # | SAP #    | Hose Size ID |               | Hose OD |      | Max. Working Pressure |      | Min. Bend Radius |     | Min. Burst Pressure |       | Weight   | USCG Approved |
|-----------------------------|----------|--------------|---------------|---------|------|-----------------------|------|------------------|-----|---------------------|-------|----------|---------------|
|                             |          | in.          | DIN Dash Size | in.     | mm   | psi                   | MPa  | in.              | mm  | psi                 | MPa   | lbs./ft. |               |
| SR16SC-04                   | 20494340 | 1/4          | 06            | 0.54    | 13.7 | 5800                  | 40.0 | 2.0              | 51  | 23200               | 160.0 | 0.18     | H             |
| SR16SC-06                   | 20436685 | 3/8          | 10            | 0.70    | 17.7 | 5000                  | 34.5 | 2.5              | 64  | 20000               | 137.9 | 0.27     | H             |
| SR16SC-08                   | 20263798 | 1/2          | 12            | 0.81    | 20.6 | 5000                  | 34.5 | 3.5              | 89  | 20000               | 137.9 | 0.36     | H             |
| SR16SC-10                   | 20264959 | 5/8          | 16            | 0.95    | 24.2 | 4000                  | 27.6 | 4.0              | 102 | 16000               | 110.3 | 0.41     | H             |
| SR16SC-12                   | 20239475 | 3/4          | 19            | 1.10    | 28.0 | 3500                  | 24.1 | 5.0              | 127 | 14000               | 96.5  | 0.55     | H             |
| SR16SC-16                   | 20483278 | 1            | 25            | 1.40    | 35.5 | 2700                  | 18.6 | 6.0              | 152 | 10800               | 74.5  | 0.83     | H             |
| SR16SC-20                   | 20666436 | 1 1/4        | 31            | 1.74    | 44.3 | 1813                  | 12.5 | 8.3              | 210 | 7252                | 50.0  | 1.12     |               |

## Desert® DR16SC

## SAE 100R16 | Constant Pressure | High Pressure



- › Meets or exceeds the performance requirements of: SAE 100R16; except -04.
- › Meets Flame Resistance USMSHA Designation
- › SAE J1942/U.S. Coast Guard 
- › Meets EN 857 2SC working pressures; except -04

**Application**

High-pressure service with tight bends for petroleum- and water-based hydraulic fluids. For high temperature applications.

**Inner Tube**

CPE

**Reinforcement**

Two braids of high-tensile steel wire

**Cover**

Blue CPE

**Temperature Range**

-40°F to 302°F (-40°C to 150°C)

**Fitting Reference**

All fittings compatible with the DR16SC hose family are listed in Section 1 (starting on page 54) of the catalog.

**Branding**

Example: Continental ContiTech DR16SC-06 SAE 100R16 3/8" (DN10) WP 5000PSI 34.5MPa 345 Bar MSHA 2G-14C/42

| Descriptive #/<br>Product # | SAP #    | Hose Size ID |               | Hose OD |      | Max. Working Pressure |      | Min. Bend Radius |  | Min. Burst Pressure |       | Weight   | USCG Approved |
|-----------------------------|----------|--------------|---------------|---------|------|-----------------------|------|------------------|--|---------------------|-------|----------|---------------|
|                             |          | in.          | DIN Dash Size | in.     | mm   | psi                   | MPa  | in.              |  | psi                 | MPa   | lbs./ft. |               |
| DR16-04*                    | 20778355 | 1/4          | 6             | 0.54    | 18.8 | 5075                  | 35.0 | 2.0              |  | 20300               | 140.0 | 0.23     | H             |
| DR16SC-06                   | 20755831 | 3/8          | 10            | 0.70    | 17.8 | 5000                  | 34.5 | 2.5              |  | 20000               | 138.0 | 0.33     | H             |
| DR16SC-08                   | 20755835 | 1/2          | 12            | 0.82    | 20.9 | 5000                  | 34.5 | 3.5              |  | 20000               | 137.9 | 0.43     | H             |
| DR16SC-12                   | 20755850 | 3/4          | 19            | 1.10    | 28.0 | 3500                  | 24.1 | 5.0              |  | 14000               | 96.5  | 0.61     | H             |
| DR16SC-16                   | 20776987 | 1            | 25            | 1.42    | 35.9 | 2700                  | 18.6 | 6.0              |  | 10800               | 74.4  | 0.94     | H             |

\*DR16-04 working pressure does not meet SAE 100R16.

## Extended Life XR16SC

SAE 100R16/EN 857 2SC | High Pressure



Tight Bends & Flexible

- Meets or exceeds the performance requirements of: SAE 100R16; EN 857 2SC
- Meets Flame Resistance USMSHA Designation
- Meets Higher EN/DIN Pressures
- SAE J1942/U.S. Coast Guard 

### Application

High-pressure service needing abrasion resistance, tight bends and flexible. For petroleum- and water-based hydraulic fluids. Excellent impulse performance and flexibility exceeding SAE 100R2 and SAE 100R16 standards.

### Inner Tube

Nitrile

### Reinforcement

Two braids of high-tensile steel wire

### Cover

Extra abrasion, oil and weather resistant synthetic rubber

### Temperature Range

-40°F to 212°F (-40°C to 100°C)

### Fitting Reference

All fittings compatible with the XR16SC™ hose family are listed in Section 1 (starting on page 54) of the catalog.

### Branding

Example: Continental ContiTech Extended Life XR16SC-08 SAE 100R16/EN 857 2SC 1/2" (DN12) W.P. 5000 psi (34.5 MPa) MSHA 2G IC-14C/37

| Descriptive #/<br>Product # | SAP #    | Hose Size ID |               | Hose OD |       | Max. Working Pressure |      | Min. Bend Radius |     | Min. Burst Pressure |       | Weight   | USCG Approved |
|-----------------------------|----------|--------------|---------------|---------|-------|-----------------------|------|------------------|-----|---------------------|-------|----------|---------------|
|                             |          | in.          | DIN Dash Size | in.     | mm    | psi                   | MPa  | in.              | mm  | psi                 | MPa   | lbs./ft. |               |
| XR16SC-04                   | 20693982 | 1/4          | 06            | 0.54    | 13.70 | 5800                  | 40.0 | 2.0              | 51  | 23200               | 160.0 | 0.18     | H             |
| XR16SC-06                   | 20693983 | 3/8          | 10            | 0.70    | 17.70 | 5000                  | 34.5 | 2.5              | 64  | 20000               | 137.9 | 0.27     | H             |
| XR16SC-08                   | 20693984 | 1/2          | 12            | 0.81    | 20.60 | 5000                  | 34.5 | 3.5              | 89  | 20000               | 137.9 | 0.36     | H             |
| XR16SC-10                   | 20693985 | 5/8          | 16            | 0.95    | 24.20 | 4000                  | 27.6 | 4.0              | 102 | 16000               | 110.3 | 0.41     | H             |
| XR16SC-12                   | 20693987 | 3/4          | 19            | 1.10    | 28.00 | 3500                  | 24.1 | 5.0              | 127 | 14000               | 96.5  | 0.55     | H             |
| XR16SC-16                   | 20693988 | 1            | 25            | 1.40    | 35.50 | 2700                  | 18.6 | 6.0              | 152 | 10800               | 74.5  | 0.83     | H             |

## ARMORCOAT™ ARC16SC

SAE 100R16/EN 857 2SC | High Pressure



- Meets or exceeds the performance requirements of: SAE 100R16; EN 857 2SC
- Meets Flame Resistance USMSHA Designation
- Meets Higher EN/DIN Pressures
- Abrasion Cover

### Application

High-pressure service with tight bends for petroleum- and water-based hydraulic fluids where maximum abrasion resistance is required. Excellent impulse performance and flexibility exceeding SAE 100R2 and SAE 100R16 standards.

### Inner Tube

Nitrile

### Reinforcement

Two braids of high-tensile steel wire

### Cover

Black synthetic rubber with ARMORCOAT™

### Temperature Range

-40°F to 212°F (-40°C to 100°C)

### Fitting Reference

All fittings compatible with the ARC16SC hose family are listed in Section 1 (starting on page 54) of the catalog.

### Branding

Example: Continental ContiTech ARMORCOAT™ ARC16SC-04 SAE 100R16/EN 857 2SC (Abrasion cover) 1/4" (DN06) W.P. 5800 psi (40 MPa) MSHA 2G-IC-14C/43

| Descriptive #/<br>Product # | SAP #    | Hose Size ID |               | Hose OD |      | Max. Working Pressure |      | Min. Bend Radius |     | Min. Burst Pressure |       | Weight   |
|-----------------------------|----------|--------------|---------------|---------|------|-----------------------|------|------------------|-----|---------------------|-------|----------|
|                             |          | in.          | DIN Dash Size | in.     | mm   | psi                   | MPa  | in.              | mm  | psi                 | MPa   | lbs./ft. |
| ARC16SC-04                  | 20731686 | 1/4          | 06            | 0.52    | 13.2 | 5800                  | 40.0 | 2.0              | 51  | 23200               | 160.0 | 0.17     |
| ARC16SC-06                  | 20731831 | 3/8          | 10            | 0.67    | 17.0 | 5000                  | 34.5 | 2.5              | 64  | 20000               | 137.9 | 0.26     |
| ARC16SC-08                  | 20730593 | 1/2          | 12            | 0.81    | 20.6 | 5000                  | 34.5 | 3.5              | 89  | 20000               | 137.9 | 0.35     |
| ARC16SC-10                  | 20733777 | 5/8          | 16            | 0.92    | 23.4 | 4000                  | 27.6 | 4.0              | 102 | 16000               | 110.3 | 0.40     |
| ARC16SC-12                  | 20733779 | 3/4          | 19            | 1.08    | 27.4 | 3500                  | 24.1 | 5.0              | 127 | 14000               | 96.5  | 0.54     |
| ARC16SC-16                  | 20731853 | 1            | 25            | 1.40    | 35.5 | 2700                  | 18.6 | 6.0              | 152 | 10800               | 74.5  | 0.83     |

## SCP3

## SAE 100R17 | Constant Pressure | High Pressure



- › Meets or exceeds the performance requirements of: SAE 100R17
- › Meets Flame Resistance USMSHA Designation
- › SAE J1942/U.S. Coast Guard 

**Application**

High-pressure hydraulic applications designed to replace SAE 100R1 where higher pressures and a more flexible hose are required.

**Inner Tube**

Nitrile

**Reinforcement**

One braid of high-tensile steel wire. Sizes 5/8", 3/4" and 1" 2-wire braid

**Cover**

Oil and weather resistant synthetic rubber

**Temperature Range**

-40°F to 212°F (-40°C to 100°C)

**Fitting Reference**

All fittings compatible with the SCP3 hose family are listed in Section 1 (starting on page 54) of the catalog.

**Branding**

Branding Example: Continental ContiTech SCP3-04 SAE 100R17 ¼" (6.4 mm) W.P. 3000 PSI (20.7 MPa) MSHA 2G-14C/12"

| Descriptive #/<br>Product # | SAP #    | Hose Size ID |      | Hose OD |      | Max. Working Pressure |     | Min. Bend Radius |     | Min. Burst Pressure |     | Weight   | USCG Approved |
|-----------------------------|----------|--------------|------|---------|------|-----------------------|-----|------------------|-----|---------------------|-----|----------|---------------|
|                             |          | in.          | mm   | in.     | mm   | psi                   | MPa | in.              | mm  | psi                 | MPa | lbs./ft. |               |
| SCP3-04                     | 20318573 | 1/4          | 6.4  | 0.50    | 12.7 | 3045                  | 21  | 2.0              | 51  | 12180               | 84  | 0.11     | H             |
| SCP3-06                     | 20317756 | 3/8          | 9.5  | 0.65    | 16.5 | 3045                  | 21  | 2.5              | 64  | 12180               | 84  | 0.17     | H             |
| SCP3-08                     | 20618576 | 1/2          | 12.7 | 0.78    | 19.8 | 3045                  | 21  | 3.5              | 89  | 12180               | 84  | 0.28     | H             |
| SCP3-10                     | 20239486 | 5/8          | 15.9 | 0.95    | 24.1 | 3045                  | 21  | 4.0              | 102 | 12180               | 84  | 0.41     | H             |
| SCP3-12                     | 20470795 | 3/4          | 19.0 | 1.13    | 28.7 | 3045                  | 21  | 5.0              | 127 | 12180               | 84  | 0.55     | H             |
| SCP3-12                     | 20329003 | 1            | 25.4 | 1.44    | 36.6 | 3045                  | 21  | 6.0              | 152 | 12180               | 84  | 0.82     | H             |

## Extended Life XCP3

## SAE 100R17 | Constant Pressure | High Pressure



- › Meets or exceeds the performance requirements of: SAE 100R17
- › Meets Flame Resistance USMSHA Designation
- › SAE J1942/U.S. Coast Guard 
- › Extended Life Abrasion Resistant Cover

**Application**

High-pressure hydraulic applications needing abrasion resistance designed to replace SAE 100R1 where higher pressures and a more flexible hose are required.

**Inner Tube**

Nitrile

**Reinforcement**

One braid of high-tensile steel wire. Sizes 5/8", ¾" and 1" 2-wire braid

**Cover**

Extra abrasion, oil & weather resistant synthetic rubber (More than 5 times the abrasion resistance over SCP3)

**Temperature Range**

-40°F to 212°F (-40°C to 100°C)

**Fitting Reference**

All fittings compatible with the XCP3 hose family are listed in Section 1 (starting on page 54) of the catalog.

**Branding**

Example: Continental ContiTech Extended Life XCP3-08 SAE100R17 Abrasion Cover ½" (DN12) 3045 PSI (21 MPa, 210 BAR) MSHA 2G-IC-14C/37 Made in U.S.A.

| Descriptive #/<br>Product # | SAP #    | Hose Size ID |      | Hose OD |      | Max. Working Pressure |     | Min. Bend Radius |     | Min. Burst Pressure |     | Weight   | USCG Approved |
|-----------------------------|----------|--------------|------|---------|------|-----------------------|-----|------------------|-----|---------------------|-----|----------|---------------|
|                             |          | in.          | mm   | in.     | mm   | psi                   | MPa | in.              | mm  | psi                 | MPa | lbs./ft. |               |
| XCP3-04                     | 20738196 | 1/4          | 6.4  | 0.50    | 12.7 | 3045                  | 21  | 2.0              | 51  | 12180               | 84  | 0.11     | H             |
| XCP3-06                     | 20784065 | 3/8          | 9.5  | 0.65    | 16.5 | 3045                  | 21  | 2.5              | 64  | 12180               | 84  | 0.17     | H             |
| XCP3-08                     | 20774712 | 1/2          | 12.7 | 0.78    | 19.8 | 3045                  | 21  | 3.5              | 89  | 12180               | 84  | 0.28     | H             |
| XCP3-10                     | 20777228 | 5/8          | 15.9 | 0.95    | 24.1 | 3045                  | 21  | 4.0              | 102 | 12180               | 84  | 0.41     | H             |
| XCP3-12                     | 20777501 | 3/4          | 19.0 | 1.13    | 28.7 | 3045                  | 21  | 5.0              | 127 | 12180               | 84  | 0.55     | H             |
| XCP3-16                     | 20774714 | 1            | 25.4 | 1.44    | 36.6 | 3045                  | 21  | 6.0              | 152 | 12180               | 84  | 0.82     | H             |

## ARMORCOAT™ ACP3

SAE 100R17 | High Pressure



- › Meets or exceeds the performance requirements of: SAE 100R17
- › Meets Flame Resistance USMSHA Designation
- › Abrasion Cover

### Application

High-pressure hydraulic applications designed to replace SAE 100R1 where higher pressures, increased flexibility and maximum abrasion resistance are required.

### Inner Tube

Nitrile

### Reinforcement

One braid of high-tensile steel wire

### Cover

Black Synthetic Rubber with ARMORCOAT™

### Temperature Range

-40°F to 212°F (-40°C to 100°C)

### Fitting Reference

All fittings compatible with the ACP3 hose family are listed in Section 1 (starting on page 54) of the catalog.

### Branding

Example: Continental ContiTech ACP3-04 SAE 100R17 (Abrasion Cover) ¼" (6.4 mm) W.P. 3045 PSI (21.0 MPa) MSHA 2G-IC-14C/43

| Descriptive #/<br>Product # | SAP #    | Hose Size ID |      | Hose OD |      | Max. Working Pressure |      | Min. Bend Radius |    | Min. Burst Pressure |      | Weight |
|-----------------------------|----------|--------------|------|---------|------|-----------------------|------|------------------|----|---------------------|------|--------|
|                             |          | in.          | mm   | in.     | mm   | psi                   | MPa  | in.              | mm | psi                 | MPa  |        |
| ACP3-04                     | 20706539 | 1/4          | 6.6  | 0.50    | 12.8 | 3045                  | 21.0 | 2.0              | 51 | 12180               | 84.0 | 0.11   |
| ACP3-06                     | 20706643 | 3/8          | 9.7  | 0.65    | 16.5 | 3045                  | 21.0 | 2.5              | 64 | 12180               | 84.0 | 0.17   |
| ACP3-08                     | 20706648 | 1/2          | 12.9 | 0.79    | 19.9 | 3045                  | 21.0 | 3.5              | 89 | 12180               | 84.0 | 0.28   |

## Extended Life XCP4

SAE 100R19/ISO 11237 | Constant Pressure | Very High Pressure



- › Meets or exceeds the performance requirements of SAE 100R19 and ISO 11237
- › Meets Flame Resistance of USMSHA Designation
- › SAE J1942/U.S. Coast Guard Pending
- › ABS Pending
- › Extended Life Abrasion Resistant Cover

### Application

Very high pressure hydraulic applications requiring extra abrasion resistance. Excellent impulse performance and flexibility meeting SAE 100R19 and ISO 11237 standards.

### Inner Tube

Nitrile

### Reinforcement

Two braids of high-tensile steel wire

### Cover

Superior abrasion, oil & weather resistant synthetic rubber

### Temperature Range

-40°F to 212°F (-40°C to 100°C)

### Fitting Reference

All fittings compatible with the XCP4™ hose family are listed in Section 1 (starting on page 54) of the catalog.

### Branding

Example: Continental ContiTech Extended Life XCP4-08 SAE 100R19 1/2" ISO 11237/ R19/12.5 4060 PSI (28.0 MPa, 280 BAR) MSHA 2G-IC-14C/37 MADE IN USA

| Descriptive #/<br>Product # | SAP #    | Hose Size ID |      | Hose OD |      | Max. Working Pressure |     | Min. Bend Radius |      | Min. Burst Pressure |     | Weight |
|-----------------------------|----------|--------------|------|---------|------|-----------------------|-----|------------------|------|---------------------|-----|--------|
|                             |          | in.          | mm   | in.     | mm   | psi                   | MPa | in.              | mm   | psi                 | MPa |        |
| XCP4-04                     | 20827919 | 1/4          | 6.4  | 0.54    | 13.8 | 4060                  | 28  | 2.0              | 0.26 | 16240               | 112 | 0.26   |
| XCP4-06                     | 20826087 | 3/8          | 9.5  | 0.69    | 17.6 | 4060                  | 28  | 2.5              | 0.30 | 16240               | 112 | 0.30   |
| XCP4-08                     | 20828100 | 1/2          | 12.7 | 0.82    | 20.9 | 4060                  | 28  | 3.5              | 0.42 | 16240               | 112 | 0.42   |
| XCP4-10                     | 20828101 | 5/8          | 15.9 | 0.95    | 24.2 | 4060                  | 28  | 4.0              | 0.48 | 16240               | 112 | 0.48   |
| XCP4-12                     | 20826123 | 3/4          | 19.0 | 1.14    | 29.0 | 4060                  | 28  | 5.0              | 0.66 | 16240               | 112 | 0.66   |

## SR12

## SAE 100R12/EN 856 R12 | Very High Pressure



1/2 Bend 3/8" - 3/4"

- › Meets or exceeds the performance requirements of: SAE 100R12; EN 856 R12
- › Meets Flame Resistance USMSHA Designation
- › SAE J1942/U.S. Coast Guard 
- › ABS Type Pending

**Application**

Very high-pressure applications subject to surges or flexing such as oil and gas, construction equipment, mining and the high-performance industrial market.

**Inner Tube**

Polychloroprene

**Reinforcement**

Four alternating layers of spiralled high-tensile steel wire

**Cover**

Black Polychloroprene

**Temperature Range**

-40°F to 250°F (-40°C to 121°C)

**Fitting Reference**

All fittings compatible with the SR12 hose family are listed in Section 3 (starting on page 107) of the catalog.

**Branding**

Example: Continental ContiTech SR12-06 SAE 100R12/EN 856 R12 3/8 (DN10) W.P. 4100 PSI (28.0 MPa) MSHA 2G-IC-14C/44

| Descriptive #/<br>Product # | SAP #    | Hose Size ID |    | Hose OD |      | Max. Working Pressure |      | Min. Bend Radius |     | Min. Burst Pressure |     | Weight   | USCG Approved |
|-----------------------------|----------|--------------|----|---------|------|-----------------------|------|------------------|-----|---------------------|-----|----------|---------------|
|                             |          | in.          | mm | in.     | mm   | psi                   | MPa  | in.              | mm  | psi                 | MPa | lbs./ft. |               |
| SR12-06                     | 20703115 | 3/8          | 10 | 0.80    | 20.3 | 4100                  | 28.0 | 2.5              | 65  | 16400               | 112 | 0.40     | H             |
| SR12-08                     | 20703046 | 1/2          | 12 | 0.94    | 23.8 | 4100                  | 28.0 | 3.5              | 90  | 16400               | 112 | 0.52     | H             |
| SR12-10                     | 20703117 | 5/8          | 16 | 1.08    | 27.4 | 4100                  | 28.0 | 4.0              | 100 | 16400               | 112 | 0.70     | H             |
| SR12-12                     | 20703048 | 3/4          | 19 | 1.21    | 30.7 | 4100                  | 28.0 | 4.7              | 120 | 16400               | 112 | 0.81     | H             |
| SR12-16                     | 20693294 | 1            | 25 | 1.50    | 38.0 | 4100                  | 28.0 | 11.8             | 300 | 16400               | 112 | 1.20     | H             |
| SR12-20                     | 20703118 | 1¼           | 31 | 1.85    | 47.0 | 3050                  | 21.0 | 16.5             | 420 | 12200               | 84  | 1.70     | H             |
| SR12-24                     | 20703119 | 1½           | 38 | 2.10    | 53.5 | 2550                  | 17.5 | 19.7             | 500 | 10200               | 70  | 2.05     | H             |
| SR12-32                     | 20693298 | 2            | 51 | 2.60    | 66.7 | 2550                  | 17.5 | 25.0             | 635 | 10200               | 70  | 2.82     | H             |

## ARMORCOAT™ ARC12

## SAE 100R12/EN 856 R12 | Very High Pressure



1/2 Bend 3/8" - 3/4"

- › Meets or exceeds the performance requirements of: SAE 100R12; EN 856 R12
- › Meets Flame Resistance USMSHA Designation
- › Abrasion Cover

**Application**

Very high-pressure applications subject to surges or flexing such as construction equipment, mining and the high-performance industrial market where maximum abrasion resistance is required.

**Inner Tube**

Polychloroprene

**Reinforcement**

Four alternating layers of spiralled high-tensile steel wire

**Cover**

Black Synthetic Rubber with ARMORCOAT™

**Temperature Range**

-40°F to 250°F (-40°C to 121°C)

**Fitting Reference**

All fittings compatible with the ARC12 hose family are listed in Section 3 (starting on page 107) of the catalog.

**Branding**

Example: Continental ContiTech ARMORCOAT™ ARC12-06 SAE 100R12/EN 856 R12 (Abrasion Cover) 3/8" (DN10) W.P. 4100 PSI (28.0 MPa) MSHA 2G-IC-14C/43

| Descriptive #/<br>Product # | SAP #    | Hose Size ID |    | Hose OD |      | Max. Working Pressure |      | Min. Bend Radius |     | Min. Burst Pressure |     | Weight   |
|-----------------------------|----------|--------------|----|---------|------|-----------------------|------|------------------|-----|---------------------|-----|----------|
|                             |          | in.          | mm | in.     | mm   | psi                   | MPa  | in.              | mm  | psi                 | MPa | lbs./ft. |
| ARC12-06                    | 20729168 | 3/8          | 10 | 0.80    | 20.2 | 4100                  | 28.0 | 2.5              | 64  | 16400               | 112 | 0.44     |
| ARC12-08                    | 20715104 | 1/2          | 12 | 0.94    | 23.8 | 4100                  | 28.0 | 3.5              | 90  | 16400               | 112 | 0.55     |
| ARC12-10                    | 20729176 | 5/8          | 16 | 1.11    | 28.2 | 4100                  | 28.0 | 3.9              | 100 | 16400               | 112 | 0.72     |
| ARC12-12                    | 20715106 | 3/4          | 19 | 1.21    | 30.7 | 4100                  | 28.0 | 4.7              | 120 | 16400               | 112 | 0.82     |
| ARC12-16                    | 20715107 | 1            | 25 | 1.50    | 38.0 | 4100                  | 28.0 | 11.8             | 300 | 16400               | 112 | 1.21     |
| ARC12-20                    | 20729173 | 1¼           | 31 | 1.85    | 47.0 | 3050                  | 21.0 | 16.5             | 420 | 12200               | 84  | 1.65     |
| ARC12-24                    | 20729174 | 1½           | 38 | 2.10    | 53.4 | 2550                  | 17.6 | 19.7             | 500 | 10200               | 70  | 2.19     |
| ARC12-32                    | 20729175 | 2            | 51 | 2.63    | 66.7 | 2550                  | 17.6 | 25.0             | 635 | 10200               | 70  | 3.13     |



## SR13

## SAE 100R13/EN 856 R13 | Very High Pressure



› Meets or exceeds the performance requirements of: SAE 100R13; EN 856 R13

› Meets Flame Resistance USMSHA Designation

› SAE J1942/U.S. Coast Guard

› ABS Type Pending

**Application**

Very high-pressure applications subject to surges or flexing such as construction equipment, mining and the high-performance industrial market.

**Inner Tube**

Polychloroprene

**Reinforcement**

Four alternating layers of spiralled high-tensile steel wire (sizes 3/4" and 1") and six alternating layers of spiralled high-tensile steel wire (sizes 1 1/4", 1 1/2" and 2")

**Cover**

Black polychloroprene

**Temperature Range**

-40°F to 250°F (-40°C to 121°C)

**Fitting Reference**

All fittings compatible with the SR13 hose family are listed in Section 4 (starting on page 148) of the catalog.

**Branding**

Example: Continental ContiTech SR13-12 SAE 100R13/EN 856 R13 3/4" (DN19) W.P. 5100 PSI (35.0 MPa) MSHA 2G-IC-14C/44

| Descriptive #/<br>Product # | SAP #    | Hose Size ID |    | Hose OD |      | Max. Working Pressure |      | Min. Bend Radius |     | Min. Burst Pressure |       | Weight   | USCG Approved |
|-----------------------------|----------|--------------|----|---------|------|-----------------------|------|------------------|-----|---------------------|-------|----------|---------------|
|                             |          | in.          | mm | in.     | mm   | psi                   | MPa  | in.              | mm  | psi                 | MPa   | lbs./ft. |               |
| SR13-12                     | 20704441 | 3/4          | 19 | 1.26    | 32.1 | 5100                  | 35.0 | 9.4              | 240 | 20400               | 140.7 | 1.09     | H             |
| SR13-16                     | 20704442 | 1            | 25 | 1.52    | 38.7 | 5100                  | 35.0 | 11.8             | 300 | 20400               | 140.7 | 1.42     | H             |
| SR13-20                     | 20704443 | 1 1/4        | 31 | 1.96    | 49.8 | 5100                  | 35.0 | 16.5             | 420 | 20400               | 140.7 | 2.69     | H             |
| SR13-24                     | 20704449 | 1 1/2        | 38 | 2.25    | 57.3 | 5100                  | 35.0 | 19.7             | 500 | 20400               | 140.7 | 3.35     | H             |
| SR13-32                     | 20704450 | 2            | 51 | 2.80    | 71.1 | 5100                  | 35.0 | 25.2             | 640 | 20400               | 140.7 | 4.93     | H             |

## ARMORCOAT™ ARC13

## SAE 100R13/EN 856 R13 | Very High Pressure



› Meets or exceeds the performance requirements of: SAE 100R13; EN 856 R13 (all sizes)

› Meets Flame Resistance USMSHA Designation

› Abrasion Cover

**Application**

Very high-pressure applications subject to surges or flexing such as construction equipment, mining and the high-performance industrial market where maximum abrasion resistance is required.

**Inner Tube**

Polychloroprene

**Reinforcement**

Four alternating layers of spiralled high-tensile steel wire (3/4" and 1") and six alternating layers of spiralled high-tensile steel wire (size 1 1/4", 1 1/2" and 2")

**Cover**

Black Synthetic Rubber with ARMORCOAT™

**Temperature Range**

-40°F to 250°F (-40°C to 121°C)

**Fitting Reference**

All fittings compatible with the ARC13 hose family are listed in Section 4 (starting on page 148) of the catalog. Note: No Continental ContiTech fitting recommendation on ARC13-10 hose size.

**Branding**

Example: Continental ContiTech ARMORCOAT™ ARC13-12 SAE 100R13/EN 856 R13 (Abrasion Cover) 3/4" (DN19) W.P. 5100 PSI (35.0 MPa) MSHA 2G-IC-14C/43

| Descriptive #/<br>Product # | SAP #    | Hose Size ID |    | Hose OD |      | Max. Working Pressure |      | Min. Bend Radius |     | Min. Burst Pressure |     | Weight   |
|-----------------------------|----------|--------------|----|---------|------|-----------------------|------|------------------|-----|---------------------|-----|----------|
|                             |          | in.          | mm | in.     | mm   | psi                   | MPa  | in.              | mm  | psi                 | MPa | lbs./ft. |
| ARC13-12                    | 20715111 | 3/4          | 19 | 1.26    | 32.1 | 5100                  | 35.0 | 9.5              | 240 | 20400               | 140 | 0.97     |
| ARC13-16                    | 20715112 | 1            | 25 | 1.51    | 38.5 | 5100                  | 35.0 | 11.8             | 305 | 20400               | 140 | 1.30     |
| ARC13-20                    | 20715113 | 1 1/4        | 31 | 1.96    | 49.8 | 5100                  | 35.0 | 16.5             | 420 | 20400               | 140 | 1.73     |
| ARC13-24                    | 20715114 | 1 1/2        | 38 | 2.26    | 57.3 | 5100                  | 35.0 | 19.7             | 500 | 20400               | 140 | 3.27     |
| ARC13-32                    | 20715115 | 2            | 51 | 2.80    | 71.1 | 5100                  | 35.0 | 25.2             | 640 | 20400               | 140 | 4.43     |

## SR15

## SAE 100R15 | Very High Pressure

**Application**

Designed specifically to handle severe high-pressure applications where pressure spikes or constant hydrostatic loads are present.

**Inner Tube**

Polychloroprene

**Reinforcement**

Four alternating layers of spiralled high-tensile steel wire (sizes 1/2", 5/8", 3/4" and 1") and six alternating layers of spiralled high-tensile steel wire (sizes 1 1/4" and 1 1/2")

**Cover**

Black polychloroprene

**Temperature Range**

-40°F to 250°F (-40°C to 121°C)

**Fitting Reference**

All fittings compatible with the SR15 hose family are listed in Section 4 (starting on page 148) of the catalog. Note: No Continental ContiTech fitting recommendation on SR15-08 and SR15-10 hose sizes.

**Branding**

Example: Continental ContiTech SR15-08 SAE 100R15 1/2" (12.7mm) W.P. 6100 PSI (42.0 MPa) MSHA 2G-IC-14C/44

- › Meets or exceeds the performance requirements of: SAE 100R15
- › Meets Flame Resistance USMSHA Designation
- › SAE J1942/U.S. Coast Guard Pending
- › ABS Type Pending



| Descriptive #/<br>Product # | SAP #    | Hose Size ID |    | Hose OD |      | Max. Working Pressure |      | Min. Bend Radius |     | Min. Burst Pressure |       | Weight   | USCG Pending |
|-----------------------------|----------|--------------|----|---------|------|-----------------------|------|------------------|-----|---------------------|-------|----------|--------------|
|                             |          | in.          | mm | in.     | mm   | psi                   | MPa  | in.              | mm  | psi                 | MPa   | lbs./ft. |              |
| SR15-08                     | 20714800 | 1/2          | 12 | 0.95    | 24.2 | 6100                  | 42.0 | 7.9              | 200 | 24400               | 168.0 | 0.59     |              |
| SR15-12                     | 20714785 | 3/4          | 19 | 1.26    | 32.0 | 6100                  | 42.0 | 10.4             | 265 | 24400               | 168.0 | 1.09     |              |
| SR15-16                     | 20714793 | 1            | 25 | 1.53    | 38.8 | 6100                  | 42.0 | 13.0             | 330 | 24400               | 168.0 | 1.46     |              |
| SR15-20                     | 20714794 | 1 1/4        | 32 | 1.89    | 48.0 | 6100                  | 42.0 | 17.5             | 445 | 24400               | 168.0 | 2.41     |              |
| SR15-24                     | 20714795 | 1 1/2        | 38 | 2.23    | 56.8 | 6100                  | 42.0 | 20.9             | 530 | 24400               | 168.0 | 3.02     |              |

## ARMORCOAT™ ARC15

## SAE 100R15 | Very High Pressure

**Application**

Designed specifically to handle severe high-pressure applications where pressure spikes or constant hydrostatic loads are present and maximum abrasion resistance is required.

**Inner Tube**

Polychloroprene

**Reinforcement**

Four alternating layers of spiralled high-tensile steel wire

**Cover**

Black Synthetic Rubber with ARMORCOAT™

**Temperature Range**

-40°F to 250°F (-40°C to 121°C)

**Fitting Reference**

All fittings compatible with the ARC15 hose family are listed in Section 4 (starting on page 148) of the catalog. Note: No Continental ContiTech fitting recommendation on ARC15-08 hose size.

**Branding**

Example: Continental ContiTech ARMORCOAT™ ARC15-08 SAE 100R15 (Abrasion Cover) 1/2" (12.7mm) W.P. 6100 PSI (42.0 MPa) MSHA 2G-IC-14C/43

- › Meets or exceeds the performance requirements of: SAE 100R15
- › Meets Flame Resistance USMSHA Designation
- › Abrasion Cover

| Descriptive #/<br>Product # | SAP #    | Hose Size ID |      | Hose OD |      | Max. Working Pressure |      | Min. Bend Radius |     | Min. Burst Pressure |       | Weight   |  |
|-----------------------------|----------|--------------|------|---------|------|-----------------------|------|------------------|-----|---------------------|-------|----------|--|
|                             |          | in.          | mm   | in.     | mm   | psi                   | MPa  | in.              | mm  | psi                 | MPa   | lbs./ft. |  |
| ARC15-08                    | 20714906 | 1/2          | 12.7 | 1.06    | 26.8 | 6100                  | 42.0 | 8.0              | 200 | 24400               | 168.0 | 0.59     |  |
| ARC15-12                    | 20714907 | 3/4          | 19.0 | 1.27    | 32.2 | 6100                  | 42.0 | 10.5             | 265 | 24400               | 168.0 | 1.08     |  |
| ARC15-16                    | 20714908 | 1            | 25.4 | 1.53    | 38.8 | 6100                  | 42.0 | 13.0             | 330 | 24400               | 168.0 | 1.48     |  |

## S4SP

### EN 856 4SP/DIN 20023 4SP | Very High Pressure



#### Application

Very high-pressure applications used for petroleum-based hydraulic fluids.

#### Inner Tube

Polychloroprene

#### Reinforcement

Four alternating layers of spiralled high-tensile steel wire

#### Cover

Black polychloroprene

#### Temperature Range

-40°F to 212°F (-40°C to 100°C)

#### Fitting Reference

All fittings compatible with the S4SP hose family are listed in Section 4 (starting on page 148) of the catalog.

#### Branding

Example: Continental ContiTech S4SP-06 EN 856 4SP 3/8" (DN10) W.P. 6455 PSI (45.0 MPa) MSHA 2G-IC-14C/44

- › Meets or exceeds the performance requirements of: EN 856 4SP; DIN 20023 4SP
- › Meets Flame Resistance USMSHA Designation
- › ABS Type Pending

| Descriptive #/<br>Product # | SAP #    | Hose Size ID |    | Hose OD |      | Max. Working Pressure |      | Min. Bend Radius |     | Min. Burst Pressure |     | Weight   |
|-----------------------------|----------|--------------|----|---------|------|-----------------------|------|------------------|-----|---------------------|-----|----------|
|                             |          | in.          | mm | in.     | mm   | psi                   | MPa  | in.              | mm  | psi                 | MPa | lbs./ft. |
| S4SP-06                     | 20714777 | 3/8          | 10 | 0.84    | 21.4 | 6455                  | 45.0 | 7.1              | 180 | 25820               | 178 | 0.51     |
| S4SP-08                     | 20714778 | 1/2          | 12 | 0.97    | 24.6 | 6020                  | 41.5 | 9.0              | 230 | 24080               | 166 | 0.58     |
| S4SP-10                     | 20714779 | 5/8          | 16 | 1.11    | 28.2 | 5075                  | 35.0 | 9.8              | 250 | 20300               | 140 | 0.73     |
| S4SP-12                     | 20714771 | 3/4          | 19 | 1.27    | 32.2 | 5510                  | 38.0 | 11.8             | 300 | 22040               | 152 | 0.98     |
| S4SP-16                     | 20714773 | 1            | 25 | 1.56    | 39.7 | 4640                  | 32.0 | 13.4             | 340 | 18560               | 128 | 1.30     |

## S4SH

### EN 856 4SH/DIN 20023 4SH | Very High Pressure



#### Application

Very high-pressure, pulsating applications used for petroleum-based hydraulic fluids.

#### Inner Tube

Polychloroprene

#### Reinforcement

Four alternating layers of spiralled high-tensile steel wire

#### Cover

Black polychloroprene

#### Temperature Range

-40°F to 212°F (-40°C to 100°C)

#### Fitting Reference

All fittings compatible with the S4SH hose family are listed in Section 4 (starting on page 148) of the catalog.

#### Branding

Example: Continental ContiTech S4SH-12 EN 856 4SH 3/4" (DN19) W.P. 6090 PSI (42.0 MPa) MSHA 2G-IC-14C/44

- › Meets or exceeds the performance requirements of: EN 856 4SH; DIN 20023 4SH
- › Meets Flame Resistance USMSHA Designation
- › ABS Type Pending

| Descriptive #/<br>Product # | SAP #    | Hose Size ID |    | Hose OD |      | Max. Working Pressure |      | Min. Bend Radius |     | Min. Burst Pressure |       | Weight   |
|-----------------------------|----------|--------------|----|---------|------|-----------------------|------|------------------|-----|---------------------|-------|----------|
|                             |          | in.          | mm | in.     | mm   | psi                   | MPa  | in.              | mm  | psi                 | MPa   | lbs./ft. |
| S4SH-12                     | 20706576 | 3/4          | 19 | 1.27    | 32.2 | 6090                  | 42.0 | 11.0             | 280 | 24360               | 168.0 | 1.09     |
| S4SH-16                     | 20706577 | 1            | 25 | 1.52    | 38.7 | 5510                  | 38.0 | 13.4             | 340 | 22040               | 152.0 | 1.42     |
| S4SH-20                     | 20706723 | 1 1/4        | 31 | 1.79    | 45.5 | 5080                  | 35.0 | 17.9             | 455 | 20320               | 140.0 | 1.71     |
| S4SH-24                     | 20706724 | 1 1/2        | 38 | 2.11    | 53.5 | 4205                  | 29.0 | 22.0             | 560 | 16820               | 116.0 | 2.19     |
| S4SH-32                     | 20706725 | 2            | 51 | 2.68    | 68.1 | 3650                  | 25.0 | 28.0             | 710 | 14600               | 100.7 | 3.31     |

## SR7

## SAE 100R7/EN 855 R7 | Thermoplastic



Exceeds SAE Min. Bend Radius

- Meets or exceeds the performance requirements of: SAE 100R7; EN 855 R7

**Application**

Medium-pressure thermoplastic hose with a perforated cover. Compatible with petroleum-, water- and synthetic-based fluids for mobile equipment, lube lines, blowout preventers, hydraulic lifts and construction machinery.

**Inner Tube**

Nylon

**Reinforcement**

Synthetic fiber

**Cover**

Black urethane, perforated

**Temperature Range**

-40°F to 212°F (-40°C to 100°C)  
Note: Max temperature for water-based and fire-resistant fluids is 150°F (66°C).

**Fitting Reference**

All fittings compatible with the SR7 hose family are listed in Section 2 (starting on page 91) of the catalog.

**Branding**

Example: Continental ContiTech SR7-02 SAE 100R7/EN855 R7 1/8" (DN03) W.P. 2500 psi (17.2 MPa)

| Descriptive #/<br>Product # | SAP #    | Hose Size ID |    | Hose OD |      | Max. Working Pressure |      | Min. Bend Radius |     | Min. Burst Pressure |      | Weight |
|-----------------------------|----------|--------------|----|---------|------|-----------------------|------|------------------|-----|---------------------|------|--------|
|                             |          | in.          | mm | in.     | mm   | psi                   | MPa  | in.              | mm  | psi                 | MPa  |        |
| SR7-02                      | 20243607 | 1/8          | 03 | 0.34    | 8.5  | 2500                  | 17.2 | 0.5              | 13  | 10000               | 68.9 | 0.03   |
| SR7-03                      | 20243608 | 3/16         | 05 | 0.43    | 10.8 | 3000                  | 20.7 | 0.8              | 20  | 12000               | 82.7 | 0.05   |
| SR7-04                      | 20243609 | 1/4          | 06 | 0.51    | 13.0 | 3000                  | 20.7 | 1.3              | 33  | 12000               | 82.7 | 0.06   |
| SR7-05                      | 20243650 | 5/16         | 08 | 0.59    | 15.1 | 2500                  | 17.2 | 1.8              | 46  | 10000               | 68.9 | 0.07   |
| SR7-06                      | 20243651 | 3/8          | 10 | 0.67    | 17.0 | 2250                  | 15.5 | 2.0              | 51  | 9000                | 62.1 | 0.10   |
| SR7-08                      | 20243652 | 1/2          | 12 | 0.82    | 20.7 | 2000                  | 13.8 | 3.0              | 76  | 8000                | 55.2 | 0.14   |
| SR7-12                      | 20243653 | 3/4          | 19 | 1.07    | 27.1 | 1250                  | 8.6  | 5.0              | 127 | 5000                | 34.5 | 0.19   |
| SR7-16                      | 20243654 | 1            | 25 | 1.34    | 34.0 | 1000                  | 6.9  | 8.0              | 203 | 4000                | 27.6 | 0.26   |

## TR7

## SAE 100R7 (Twin-Line) | Thermoplastic



- Meets or exceeds the performance requirements of: SAE 100R7
- Twin-Line

**Application**

Medium-pressure, twin-line thermoplastic hose with a perforated cover. Compatible with petroleum-, water- and synthetic-based fluids for mobile equipment, lube lines, blowout preventers, hydraulic lifts and construction machinery.

**Inner Tube**

Nylon

**Reinforcement**

Synthetic fiber

**Cover**

Black urethane, perforated

**Temperature Range**

-40°F to 212°F (-40°C to 100°C)  
Note: Max temperature for water-based and fire-resistant fluids is 150°F (66°C).

**Fitting Reference**

All fittings compatible with the TR7 hose family are listed in Section 2 (starting on page 91) of the catalog.

**Branding**

Example: Continental ContiTech TR7-03 SAE 100R7 3/16" (4.8mm) W.P. 3000 psi (20.7 MPa)

| Descriptive #/<br>Product # | SAP #    | Hose Size ID |      | Hose OD |      | Max. Working Pressure |      | Min. Bend Radius |    | Min. Burst Pressure |      | Weight |
|-----------------------------|----------|--------------|------|---------|------|-----------------------|------|------------------|----|---------------------|------|--------|
|                             |          | in.          | mm   | in.     | mm   | psi                   | MPa  | in.              | mm | psi                 | MPa  |        |
| TR7-03                      | 20243663 | 3/16         | 4.8  | 0.43    | 10.8 | 3000                  | 20.7 | 0.8              | 20 | 12000               | 82.7 | 0.09   |
| TR7-04                      | 20243664 | 1/4          | 6.4  | 0.51    | 13.0 | 3000                  | 20.7 | 1.3              | 33 | 12000               | 82.7 | 0.11   |
| TR7-05                      | 20243665 | 5/16         | 7.9  | 0.59    | 15.1 | 2500                  | 17.2 | 1.8              | 46 | 10000               | 68.9 | 0.14   |
| TR7-06                      | 20243666 | 3/8          | 9.5  | 0.67    | 17.0 | 2250                  | 15.5 | 2.0              | 51 | 9000                | 62.1 | 0.19   |
| TR7-08                      | 20243667 | 1/2          | 12.7 | 0.82    | 20.7 | 2000                  | 13.8 | 3.0              | 76 | 8000                | 55.2 | 0.28   |

## NR7

## SAE 100R7 (Non-Conductive) | Thermoplastic



- Meets or exceeds the performance requirements of: SAE 100R7;
- Non-Conductive

**Application**

Medium-pressure thermoplastic hose with a non-perforated cover. Compatible with petroleum-, water- and synthetic-based fluids for mobile equipment, lube lines, blowout preventers, hydraulic lifts and construction machinery requiring SAE 100R7 non-conductivity standards.

**Inner Tube**

Polyester

**Reinforcement**

Synthetic fiber

**Cover**

Orange urethane

**Temperature Range**

-65°F to 212°F (-54°C to 100°C)  
Note: Temperature range is -40°F to 200°F (-40°C to 93°C) for sizes 1/8", 3/4" and 1". Max. temperature for water-based and fire-resistant fluids is 140°F (60°C).

**Fitting Reference**

All fittings compatible with the NR7 hose family are listed in Section 2 (starting on page 91) of the catalog.

**Branding**

Example: Continental ContiTech NR7-02 SAE 100R7 (Non-Conductive) 1/8" (3.3mm) W.P. 2500 psi (17.2 MPa)

| Descriptive #/<br>Product # | SAP #    | Hose Size ID |      | Hose OD |      | Max. Working Pressure |      | Min. Bend Radius |     | Min. Burst Pressure |      | Weight |
|-----------------------------|----------|--------------|------|---------|------|-----------------------|------|------------------|-----|---------------------|------|--------|
|                             |          | in.          | mm   | in.     | mm   | psi                   | MPa  | in.              | mm  | psi                 | MPa  |        |
| NR7-02                      | 20243655 | 1/8          | 3.3  | 0.34    | 8.5  | 2500                  | 17.2 | 0.5              | 13  | 10000               | 68.9 | 0.03   |
| NR7-03                      | 20243656 | 3/16         | 4.8  | 0.43    | 10.8 | 3000                  | 20.7 | 0.8              | 20  | 12000               | 82.7 | 0.05   |
| NR7-04                      | 20243657 | 1/4          | 6.4  | 0.49    | 12.3 | 2750                  | 19.0 | 1.3              | 33  | 11000               | 75.8 | 0.06   |
| NR7-05                      | 20243658 | 5/16         | 7.9  | 0.58    | 14.7 | 2500                  | 17.2 | 1.8              | 46  | 10000               | 68.9 | 0.08   |
| NR7-06                      | 20243659 | 3/8          | 9.5  | 0.64    | 16.1 | 2250                  | 15.5 | 2.0              | 51  | 9000                | 62.1 | 0.10   |
| NR7-08                      | 20243660 | 1/2          | 12.7 | 0.82    | 20.7 | 2250                  | 15.5 | 3.0              | 76  | 9000                | 62.1 | 0.14   |
| NR7-12                      | 20243661 | 3/4          | 19.0 | 1.07    | 27.1 | 1250                  | 8.6  | 5.0              | 127 | 5000                | 34.5 | 0.19   |
| NR7-16                      | 20243662 | 1            | 25.4 | 1.34    | 34.0 | 1000                  | 6.9  | 8.0              | 203 | 4000                | 27.6 | 0.26   |

## BR7

## SAE 100R7 (Twin-Line, Non-Conductive) | Thermoplastic



- Meets or exceeds the performance requirements of: SAE 100R7
- Twin-Line
- Non-Conductive

**Application**

Medium-pressure, twin-line thermoplastic hose with a non-perforated cover. Compatible with petroleum-, water- and synthetic-based fluids for mobile equipment, lube lines, blowout preventers, hydraulic lifts and construction machinery requiring SAE 100R7 non-conductivity standards.

**Inner Tube**

Polyester

**Reinforcement**

Synthetic fiber

**Cover**

Orange urethane

**Temperature Range**

-65°F to 212°F (-54°C to 100°C)  
Note: Max temperature for water-based and fire-resistant fluids is 150°F (66°C).

**Fitting Reference**

All fittings compatible with the BR7 hose family are listed in Section 2 (starting on page 91) of the catalog.

**Branding**

Example: Continental ContiTech BR7-04 SAE 100R7 (Non-Conductive) 1/4" (6.4mm) W.P. 2750 psi (19 MPa)

| Descriptive #/<br>Product # | SAP #    | Hose Size ID |      | Hose OD |      | Max. Working Pressure |      | Min. Bend Radius |    | Min. Burst Pressure |      | Weight |
|-----------------------------|----------|--------------|------|---------|------|-----------------------|------|------------------|----|---------------------|------|--------|
|                             |          | in.          | mm   | in.     | mm   | psi                   | MPa  | in.              | mm | psi                 | MPa  |        |
| BR7-04                      | 20243684 | 1/4          | 6.4  | 0.49    | 12.3 | 2750                  | 19.0 | 1.3              | 33 | 11000               | 75.8 | 0.12   |
| BR7-05                      | 20243685 | 5/16         | 7.9  | 0.58    | 14.7 | 2500                  | 17.2 | 1.8              | 46 | 10000               | 68.9 | 0.15   |
| BR7-06                      | 20243686 | 3/8          | 9.5  | 0.64    | 16.1 | 2250                  | 15.5 | 2.0              | 51 | 9000                | 62.1 | 0.19   |
| BR7-08                      | 20243687 | 1/2          | 12.7 | 0.82    | 20.7 | 2250                  | 15.5 | 3.0              | 76 | 9000                | 62.1 | 0.29   |

## SR8

## SAE 100R8/EN 855 R8 | Thermoplastic



Exceeds SAE Min. Bend Radius

› Meets or exceeds the performance requirements of: SAE 100R8; EN 855 R8

**Application**

High-pressure thermoplastic hose with a perforated cover for petroleum-, water- and synthetic-based fluids for mobile equipment, lube lines, blowout preventers, hydraulic lifts and construction machinery.

**Inner Tube**

Nylon

**Reinforcement**

Synthetic fiber

**Cover**

Black urethane, perforated

**Temperature Range**

-40°F to 212°F (-40°C to 100°C)  
Note: Max temperature for water-based and fire-resistant fluids is 150°F (66°C).

**Fitting Reference**

All fittings compatible with the SR8 hose family are listed in Section 2 (starting on page 91) of the catalog.

**Branding**

Example: Continental ContiTech SR8-03 SAE 100R8/EN 855 R8 3/16" (DN05) W.P. 5000 psi (34.5 MPa)

| Descriptive #/<br>Product # | SAP #    | Hose Size ID |    | Hose OD |      | Max. Working Pressure |      | Min. Bend Radius |     | Min. Burst Pressure |       | Weight |
|-----------------------------|----------|--------------|----|---------|------|-----------------------|------|------------------|-----|---------------------|-------|--------|
|                             |          | in.          | mm | in.     | mm   | psi                   | MPa  | in.              | mm  | psi                 | MPa   |        |
| SR8-03                      | 20243672 | 3/16         | 05 | 0.52    | 13.1 | 5000                  | 34.5 | 1.5              | 38  | 20000               | 137.9 | 0.08   |
| SR8-04                      | 20243673 | 1/4          | 06 | 0.63    | 15.9 | 5000                  | 34.5 | 2.0              | 51  | 20000               | 137.9 | 0.12   |
| SR8-06                      | 20243674 | 3/8          | 10 | 0.77    | 19.4 | 4000                  | 27.6 | 2.5              | 64  | 16000               | 110.3 | 0.15   |
| SR8-08                      | 20243675 | 1/2          | 12 | 0.89    | 22.7 | 3500                  | 24.1 | 4.0              | 102 | 14000               | 96.5  | 0.19   |

## TR8

## SAE 100R8 (Twin-Line) | Thermoplastic



› Meets or exceeds the performance requirements of: SAE 100R8  
› Twin-Line

**Application**

High-pressure, twin-line thermoplastic hose with a perforated cover. Compatible with petroleum-, water- and synthetic-based fluids for mobile equipment, lube lines, blowout preventers, hydraulic lifts and construction machinery.

**Inner Tube**

Nylon

**Reinforcement**

Synthetic fiber

**Cover**

Black urethane, perforated

**Temperature Range**

-40°F to 212°F (-40°C to 100°C)  
Note: Max temperature for water-based and fire-resistant fluids is 150°F (66°C).

**Fitting Reference**

All fittings compatible with the TR8 hose family are listed in Section 2 (starting on page 91) of the catalog.

**Branding**

Example: Continental ContiTech TR8-06 SAE 100R8 3/8" (9.5mm) W.P. 4000 psi (27.6 MPa)

| Descriptive #/<br>Product # | SAP #    | Hose Size ID |      | Hose OD |      | Max. Working Pressure |      | Min. Bend Radius |     | Min. Burst Pressure |       | Weight |
|-----------------------------|----------|--------------|------|---------|------|-----------------------|------|------------------|-----|---------------------|-------|--------|
|                             |          | in.          | mm   | in.     | mm   | psi                   | MPa  | in.              | mm  | psi                 | MPa   |        |
| TR8-06                      | 20243679 | 3/8          | 9.5  | 0.77    | 19.4 | 4000                  | 27.6 | 2.5              | 64  | 16000               | 110.3 | 0.30   |
| TR8-08                      | 20416222 | 1/2          | 12.7 | 0.89    | 22.7 | 3500                  | 24.1 | 4.0              | 102 | 14000               | 96.5  | 0.38   |



## NR8

## SAE 100R8 (Non-Conductive) | Thermoplastic



- › Meets or exceeds the performance requirements of: SAE 100R8
- › Non-Conductive

**Application**

High-pressure thermoplastic hose with a non-perforated cover. Compatible with petroleum-, water- and synthetic-based fluids for mobile equipment, lube lines, blowout preventers, hydraulic lifts and construction machinery requiring SAE 100R8 non-conductivity standards.

**Inner Tube**

Nylon

**Reinforcement**

Synthetic fiber

**Cover**

Orange urethane

**Temperature Range**

-40°F to 212°F (-40°C to 100°C)  
Note: Max temperature for water-based and fire-resistant fluids is 150°F (66°C).

**Fitting Reference**

All fittings compatible with the NR8 hose family are listed in Section 2 (starting on page 91) of the catalog.

**Branding**

Example: Continental ContiTech NR8-04 SAE 100R8 (Non-conductive) 1/4" (6.4mm) W.P. 5000 psi (34.5 MPa)

| Descriptive #/<br>Product # | SAP #    | Hose Size ID |      | Hose OD |      | Max. Working Pressure |      | Min. Bend Radius |     | Min. Burst Pressure |       | Weight   |
|-----------------------------|----------|--------------|------|---------|------|-----------------------|------|------------------|-----|---------------------|-------|----------|
|                             |          | in.          | mm   | in.     | mm   | psi                   | MPa  | in.              | mm  | psi                 | MPa   | lbs./ft. |
| NR8-04                      | 20243676 | 1/4          | 6.4  | 0.63    | 15.9 | 5000                  | 34.5 | 2.0              | 51  | 20000               | 137.9 | 0.12     |
| NR8-06                      | 20243677 | 3/8          | 9.5  | 0.77    | 19.4 | 4000                  | 27.6 | 2.5              | 64  | 16000               | 110.3 | 0.15     |
| NR8-08                      | 20243678 | 1/2          | 12.7 | 0.89    | 22.7 | 3500                  | 24.1 | 4.0              | 102 | 14000               | 96.5  | 0.19     |

## SR18

## SAE 100R18 | Thermoplastic



Flexible at Low Temp

- › Meets or exceeds the performance requirements of: SAE 100R18
- › Low Temperature

**Application**

Thermoplastic hose, highly flexible even in cold temperatures. Compact size with a small OD and lightweight yet rugged construction. Applications for this hose include forklifts, construction equipment, general hydraulic applications, chemical and gas transfer, agricultural equipment, material handling, freezer applications, machine tools and robotics, lubrication equipment and portable hydraulic tools.

**Inner Tube**

Polyester

**Reinforcement**

Synthetic fiber

**Cover**

Polyester

**Temperature Range**

-40°F to 212°F (-40°C to 100°C)  
Note: Max temperature for water-based and fire-resistant fluids is 150°F (66°C)

**Fitting Reference**

All fittings compatible with the SR18 hose family are listed in Section 2 (starting on page 91) of the catalog.

**Branding**

Example: Continental ContiTech SR18-04 SAE 100R18 1/4" (6.4mm) W.P. 3000 psi (20.7 MPa)

| Descriptive #/<br>Product # | SAP #    | Hose Size ID |      | Hose OD |      | Max. Working Pressure |      | Min. Bend Radius |    | Min. Burst Pressure |      | Weight   |
|-----------------------------|----------|--------------|------|---------|------|-----------------------|------|------------------|----|---------------------|------|----------|
|                             |          | in.          | mm   | in.     | mm   | psi                   | MPa  | in.              | mm | psi                 | MPa  | lbs./ft. |
| SR18-04                     | 20243680 | 1/4          | 6.4  | 0.49    | 12.3 | 3000                  | 20.7 | 1.3              | 32 | 12000               | 82.7 | 0.06     |
| SR18-05                     | 20243681 | 5/16         | 7.9  | 0.61    | 15.5 | 3000                  | 20.7 | 1.5              | 38 | 12000               | 82.7 | 0.08     |
| SR18-06                     | 20243682 | 3/8          | 9.5  | 0.66    | 16.8 | 3000                  | 20.7 | 2.0              | 51 | 12000               | 82.7 | 0.12     |
| SR18-08                     | 20243683 | 1/2          | 12.7 | 0.85    | 21.6 | 3000                  | 20.7 | 3.5              | 89 | 12000               | 82.7 | 0.15     |

## NSFX

## SAFLEX® | Special Application



› Non-Conductive

**Application**

Medium-pressure applications where shock hazards exist and non-conductivity is required. Meets max leakage of 100 microamps/ft. at 75 KV for 3 minutes.

**Inner Tube**

Polychloroprene

**Reinforcement**

Two textile braids

**Cover**

Orange nitrile

**Temperature Range**

-40°F to 212°F (-40°C to 100°C)

**Fitting Reference**

All fittings compatible with the NSFX hose family are listed in Section 7 (starting on page 252) of the catalog.

**Branding**

Example: Continental ContiTech NSFX-04 SAFLEX® (Non-conductive) 1/4" (6.4mm) W.P. 2750 psi (19 MPa)

| Descriptive #/<br>Product # | SAP #    | Hose Size ID |      | Hose OD |      | Max. Working Pressure |      | Min. Bend Radius |     | Min. Burst Pressure |      | Weight |
|-----------------------------|----------|--------------|------|---------|------|-----------------------|------|------------------|-----|---------------------|------|--------|
|                             |          | in.          | mm   | in.     | mm   | psi                   | MPa  | in.              | mm  | psi                 | MPa  |        |
| NSFX-04                     | 20240283 | 1/4          | 6.4  | 0.56    | 14.2 | 2750                  | 19.0 | 3.5              | 89  | 11000               | 75.8 | 0.11   |
| NSFX-06                     | 20240284 | 3/8          | 9.5  | 0.75    | 19.0 | 2250                  | 15.5 | 4.0              | 102 | 9000                | 62.1 | 0.19   |
| NSFX-08                     | 20240285 | 1/2          | 12.7 | 0.94    | 23.7 | 2000                  | 13.8 | 6.0              | 152 | 8000                | 55.2 | 0.27   |

## Prospector™ SHR

## Slim-Hole Rotary Hose | Special Application



› Meets Flame Resistance USMSHA Designation

**Application**

High-pressure, rotary hose for slim-hole, seismograph, work-over or portable drilling rigs. For use with small- to medium-blast, water-well or shot-hole drilling applications. Used in hydraulic oil, mud or air applications or where pulsating pump is required.

**Inner Tube**

Polychloroprene

**Reinforcement**

Four alternating layers of spiralled high-tensile steel wire for the

SHR5000-16 (1") and SHR3650-32 (2"). Six alternating layers of spiralled high-tensile steel wire for the SHR5000-20 (1¼") through SHR5000-32 (2")

**Cover**

Polychloroprene, Pin Pricked

**Temperature Range**

When conveying air: -40°F to 158°F (-40°C to 70°C). When conveying fluids: -40°F to 250°F (-40°C to 121°C). When conveying fluids for SHR3650-32 : -40°F to 212°F (-40°C to 100°C)

**Fitting Reference**

All fittings compatible with the Prospector™ Slim-Hole Rotary hose family are listed in Section 7 (starting on page 252) of the catalog.

**Branding**

Example: Continental ContiTech Prospector™ Slim-Hole Rotary 1" 5000 psi W.P. Flame Resistant MSHA 2G-IC-14C/44"

**Safety Factor**

4:1 Safety Factor

| Descriptive #/<br>Product # | SAP #    | Hose Size ID |      | Hose OD |      | Max. Working Pressure |      | Min. Bend Radius |     | Min. Burst Pressure |       | Weight |
|-----------------------------|----------|--------------|------|---------|------|-----------------------|------|------------------|-----|---------------------|-------|--------|
|                             |          | in.          | mm   | in.     | mm   | psi                   | MPa  | in.              | mm  | psi                 | MPa   |        |
| SHR3000-32                  | 20749438 | 2            | 50.8 | 2.69    | 68.3 | 3000                  | 20.7 | 25.0             | 635 | 12000               | 82.7  | 1.34   |
| SHR3650-32                  | 20714905 | 2            | 50.8 | 2.74    | 69.7 | 3650                  | 25.2 | 28.0             | 710 | 14600               | 100.7 | 2.40   |
| SHR5000-16                  | 20714808 | 1            | 25.4 | 1.57    | 39.8 | 5000                  | 34.5 | 11.8             | 300 | 20000               | 138.0 | 3.35   |
| SHR5000-20                  | 20714890 | 1¼           | 31.8 | 2.02    | 51.3 | 5000                  | 34.5 | 16.5             | 420 | 20000               | 138.0 | 4.38   |
| SHR5000-24                  | 20714903 | 1½           | 38.1 | 2.31    | 58.8 | 5000                  | 34.5 | 19.7             | 500 | 20000               | 138.0 | 3.13   |
| SHR5000-32                  | 20714904 | 2            | 50.8 | 2.9     | 72.7 | 5000                  | 34.5 | 24.8             | 630 | 20000               | 138.0 | 4.27   |

## Prospector™ BOP 3000

### Special Application



Fire Tested

#### Application

BOP hose is a hydraulic control connection that is used in the well control system.

#### Inner Tube

Black nitrile

#### Reinforcement

2-Wire braid steel

#### Cover

Pink polychloroprene, wrapped finish

#### Temperature Range

-40°F to 212°F (-40°C to 100°C)

#### Verification

Independently tested per Lloyd's Register Fire Tests for Flexible Hoses on Offshore Installations.

Register Fire Tests for Flexible Hoses on Offshore Installations\* (OD/1000/499-29th June, 1992) and EUB (Directive 036)

#### Fitting Reference

Special assembly procedure required. Contact Continental ContiTech for details.

| Descriptive #/<br>Product # | SAP #    | Hose Size ID |      | Hose OD |      | Max. Working Pressure |      | Min. Bend Radius |     | Min. Burst Pressure |      | Weight |
|-----------------------------|----------|--------------|------|---------|------|-----------------------|------|------------------|-----|---------------------|------|--------|
|                             |          | in.          | mm   | in.     | mm   | psi                   | MPa  | in.              | mm  | psi                 | MPa  |        |
| BOP-06                      | 20613999 | 3/8          | 9.5  | 1.11    | 28.2 | 3000                  | 20.7 | 6.0              | 152 | 12000               | 82.7 | 0.75   |
| BOP-08                      | 20614010 | 1/2          | 12.7 | 1.19    | 30.2 | 3000                  | 20.7 | 8.0              | 203 | 12000               | 82.7 | 0.81   |
| BOP-12                      | 20614011 | 3/4          | 19.1 | 1.49    | 37.8 | 3000                  | 20.7 | 11.0             | 279 | 12000               | 82.7 | 1.22   |
| BOP-16                      | 20614012 | 1            | 25.4 | 1.84    | 46.7 | 3000                  | 20.7 | 15.0             | 381 | 12000               | 82.7 | 1.74   |

## Prospector™ BOP 5000

### Very High Pressure



Fire Tested

#### Application

BOP hose is a hydraulic control connection that is used in the well control system.

#### Inner Tube

Polychloroprene

#### Reinforcement

Four alternating layers of spiral high-tensile steel wire (size 3/8", 1/2", 3/4", 1", 1 1/4") and six alternating layers of spiraled high-tensile steel wire (size 1 1/2" and 2")

#### Cover

Pink polychloroprene, wrapped finish

#### Temperature Range

-40°F to 212°F (-40°C to 100°C)

#### Branding

Example: Continental ContiTech  
BOP 5000 3/8" (9.5mm) W.P. 5000 psi (34.5 MPa)

#### Fitting Reference

Special assembly procedure required. Contact Continental ContiTech.

#### Verification

Tested at South West Research Institute and certified by Lloyd's Register to API Specification 16D (Spec 16D, Section 10)

| Descriptive #/<br>Product # | SAP #    | Hose Size ID |      | Hose OD |      | Max. Working Pressure |      | Min. Bend Radius |     | Min. Burst Pressure |       | Weight |
|-----------------------------|----------|--------------|------|---------|------|-----------------------|------|------------------|-----|---------------------|-------|--------|
|                             |          | in.          | mm   | in.     | mm   | psi                   | MPa  | in.              | mm  | psi                 | MPa   |        |
| BOP5000-06                  | 20715121 | 3/8          | 10.0 | 1.14    | 29.0 | 5000                  | 34.5 | 7.1              | 180 | 20000               | 138.0 | 0.80   |
| BOP5000-08                  | 20715122 | 1/2          | 12.5 | 1.24    | 31.6 | 5000                  | 34.5 | 9.0              | 230 | 20000               | 138.0 | 0.90   |
| BOP5000-12                  | 20715123 | 3/4          | 19.0 | 1.58    | 40.1 | 5000                  | 34.5 | 11.8             | 300 | 20000               | 138.0 | 1.60   |
| BOP5000-16                  | 20715124 | 1            | 25.0 | 1.85    | 46.9 | 5000                  | 34.5 | 13.4             | 340 | 20000               | 138.0 | 2.00   |
| BOP5000-20                  | 20715125 | 1 1/4        | 31.5 | 2.10    | 53.4 | 5000                  | 34.5 | 18.1             | 460 | 20000               | 138.0 | 2.40   |
| BOP5000-24                  | 20715126 | 1 1/2        | 38.0 | 2.59    | 65.9 | 5000                  | 34.5 | 19.7             | 500 | 20000               | 138.0 | 4.10   |
| BOP5000-32                  | 20715127 | 2            | 51.0 | 3.14    | 79.7 | 5000                  | 34.5 | 24.8             | 630 | 20000               | 138.0 | 5.50   |

## Prospector™ Hot Oiler

### Special Application



› Meets Flame Resistance USMSHA Designation

#### Application

Static pressure, hot oiler applications. Designed specifically to handle the transfer of hot oil at 275° continuous, 300°F intermittent to clear the paraffin around the casing to help start the flow of oil to the surface.

#### Inner Tube

Black, oil resistant, synthetic rubber.

#### Reinforcement

Two braids of high-tensile steel wire

#### Cover

Black, oil and abrasion resistant, synthetic rubber.

#### Temperature Range

-40°F to 275°F (-40°C to 135°C)

#### Fitting Reference

All fittings compatible with this Hot Oiler hose are listed in Section 7 (starting on page 252) of the catalog. Parts include:  
S4-NPMAPI-2424 (SAP#20636530)  
S4-IHUF1502-2432 (SAP#20815350)  
S4-IHUM1502-2432 (SAP#20815351)

#### Branding

Continental ContiTech HOT OILER

| Descriptive #/<br>Product # | SAP #    | Hose Size ID |      | Hose OD |      | Max. Working Pressure |      | Min. Bend Radius |     | Min. Burst Pressure |      | Weight   |
|-----------------------------|----------|--------------|------|---------|------|-----------------------|------|------------------|-----|---------------------|------|----------|
|                             |          | in.          | mm   | in.     | mm   | psi                   | MPa  | in.              | mm  | psi                 | MPa  | lbs./ft. |
| Hot Oiler                   | 20739324 | 1½           | 38.0 | 2.16    | 54.8 | 2500                  | 17.2 | 20.0             | 508 | 8750                | 60.3 | 1.64     |

## SGUN

### Grease Gun Hose | Special Application



› Meets Flame Resistance USMSHA Designation

#### Application

Used as a grease whip hose or general purpose lubrication line. To be used with hand grease guns only. Not for powered units.

#### Inner Tube

Nitrile

#### Reinforcement

One braid of high-tensile steel wire

#### Cover

Black polychloroprene

#### Temperature Range

-40°F to 212°F (-40°C to 100°C)

#### Fitting Reference

All fittings compatible with the SGUN hose family are listed in Section 7 (starting on page 252) of the catalog.

#### Branding

Example: Continental ContiTech SGUN-03 Grease Gun Hose 3/16" (4.8mm) W.P. 3000 psi (20.7 MPa) MSHA 2G-14C/12

| Descriptive #/<br>Product # | SAP #    | Hose Size ID |     | Hose OD |      | Max. Working Pressure |      | Min. Bend Radius |    | Min. Burst Pressure |      | Weight   |
|-----------------------------|----------|--------------|-----|---------|------|-----------------------|------|------------------|----|---------------------|------|----------|
|                             |          | in.          | mm  | in.     | mm   | psi                   | MPa  | in.              | mm | psi                 | MPa  | lbs./ft. |
| SGUN-03                     | 20240286 | 3/16         | 4.8 | 0.41    | 10.4 | 3000                  | 20.7 | NA               | NA | 12000               | 82.7 | 0.09     |

## SHJ

## Jack Hose | Special Application



- Meets Flame Resistance USMSHA Designation

**Application**

Extreme high-pressure hydraulic lines for jacking systems.

**Inner Tube**

Nitrile

**Reinforcement**

Two braids of high-tensile steel wire

**Cover**

Black polychloroprene

**Temperature Range**

-40°F to 212°F (-40°C to 100°C)

**Fitting Reference**

All fittings compatible with the SHJ hose family are listed in Section 7 (starting on page 252) of the catalog.

**Branding**

Example: Continental ContiTech SHJ-04 Jack Hose 1/4" (6.4mm) W.P. 10000 psi (68.9 MPa) MSHA 2G-14C/12

| Descriptive #/<br>Product # | SAP #    | Hose Size ID |     | Hose OD |      | Max. Working Pressure |      | Min. Bend Radius |     | Min. Burst Pressure |       | Weight |
|-----------------------------|----------|--------------|-----|---------|------|-----------------------|------|------------------|-----|---------------------|-------|--------|
|                             |          | in.          | mm  | in.     | mm   | psi                   | MPa  | in.              | mm  | psi                 | MPa   |        |
| SHJ-04                      | 20319601 | 1/4          | 6.4 | 0.58    | 14.7 | 10000                 | 68.9 | 4.0              | 102 | 20000               | 137.9 | 0.24   |
| SHJ-06                      | 20319602 | 3/8          | 9.5 | 0.74    | 18.7 | 10000                 | 68.9 | 5.0              | 127 | 20000               | 137.9 | 0.30   |

## SR14A

## SAE 100R14A | Fleet &amp; Special Application



- Meets or exceeds the performance requirements of: SAE 100R14A; FDA 21 CFR 177, 1500 Specifications
- High Temperature
- Chemical Resistant

**Application**

Medium-pressure hydraulic applications including truck, bus, industrial and aerospace. Compatible with air, fuel, lubricants, high-temp oil and some chemical applications.

**Inner Tube**

Polytetrafluoroethylene

**Cover/Reinforcement**

304 stainless steel wire braid

**Temperature Range**

-65°F to 450°F (-54°C to 232°C) continuous -100°F to 500°F (-73°C to 260°C) intermittent

**Fitting Reference**

Hose utilizes UCF9 ferrules with Continental ContiTech Uni-Crimp® stems, see Section 5 (starting on page 187) of the catalog.

**Branding**

N/A

| Descriptive #/<br>Product # | SAP #    | Hose Size ID |      | Hose OD |      | Max. Working Pressure |      | Min. Bend Radius |     | Min. Burst Pressure |      | Weight |
|-----------------------------|----------|--------------|------|---------|------|-----------------------|------|------------------|-----|---------------------|------|--------|
|                             |          | in.          | mm   | in.     | mm   | psi                   | MPa  | in.              | mm  | psi                 | MPa  |        |
| SR14A-03                    | 20303683 | 3/16         | 4.8  | 0.31    | 7.9  | 3000                  | 20.7 | 2.0              | 51  | 12000               | 82.7 | 0.06   |
| SR14A-04                    | 20303665 | 1/4          | 6.4  | 0.38    | 9.5  | 3000                  | 20.7 | 3.0              | 76  | 12000               | 82.7 | 0.08   |
| SR14A-05                    | 20303667 | 5/16         | 7.9  | 0.45    | 11.3 | 2500                  | 17.2 | 4.0              | 102 | 10000               | 69.0 | 0.09   |
| SR14A-06                    | 20303669 | 3/8          | 9.5  | 0.50    | 12.8 | 2250                  | 15.5 | 4.5              | 114 | 9000                | 62.1 | 0.11   |
| SR14A-08                    | 20303691 | 1/2          | 12.7 | 0.65    | 16.5 | 1500                  | 10.3 | 6.5              | 165 | 6000                | 41.4 | 0.15   |
| SR14A-10                    | 20303693 | 5/8          | 15.9 | 0.78    | 19.8 | 1200                  | 8.3  | 7.7              | 196 | 4800                | 33.1 | 0.19   |
| SR14A-12                    | 20303695 | 3/4          | 19.1 | 0.89    | 22.5 | 1100                  | 7.6  | 8.2              | 208 | 4400                | 30.3 | 0.21   |
| SR14A-16                    | 20303697 | 1            | 25.4 | 1.14    | 28.8 | 900                   | 6.2  | 10.0             | 254 | 3600                | 24.8 | 0.32   |

SR5

SAE 100R5 | Fleet Application



- Meets or exceeds the performance requirements of: SAE 100R5; DOT FMVSS 106 All and SAE J1402 (sizes 3/16", 1/4", 5/16", 13/32", 1/2" and 5/8")
- SAE J1942/U.S. Coast Guard

**Application**  
General-purpose, medium-pressure hose, for use in air brakes, power steering, turbo oil lines, tilt cab cylinders, transmission coolant and filtration lines. Compatible with petroleum-based hydraulic fluids, air, water, gasoline and diesel fuel (GR-04 through -20 only), lubricating oils and coolants.  
  
Note: Not recommended for under-the-hood, automotive and truck fuel line applications. Only hoses designed and tested to meet SAE fuel line standards should be used for these applications.

Note: Sizes 7/8", 1 1/8", 1 3/8" and 1 13/16" do not meet SAE J1402 Type All & DOT FMVSS 106 Type All because these sizes are not listed in the referenced specifications.

**Inner Tube**  
Nitrile

**Reinforcement**  
One braid of high-tensile steel wire

**Cover**  
Black impregnated textile braid

**Temperature Range**  
-40°F to 212°F (-40°C to 100°C)

**Fitting Reference**  
All fittings compatible\*\*\* with the SR5 hose family are listed in Section 6 (starting on page 217) of the catalog.

**Branding**  
Example: Continental ContiTech SR5-04 5 mm (3/16") SAE 100R5 (DOT FMVSS 106 All, J1402 Air Brake) 20.7 MPa (3000 psi) W.P. GY Made in U.S.A.

| Descriptive #/<br>Product # | SAP #    | Hose Size ID |      | Hose OD |      | Max. Working Pressure |      | Min. Bend Radius |     | Min. Burst Pressure |      | Weight   | USCG Approved |
|-----------------------------|----------|--------------|------|---------|------|-----------------------|------|------------------|-----|---------------------|------|----------|---------------|
|                             |          | in.          | mm   | in.     | mm   | Psi                   | MPa  | in.              | mm  | Psi                 | MPa  | lbs./ft. |               |
| SR5-04                      | 20324155 | 3/16         | 4.8  | 0.52    | 13.2 | 3000                  | 20.7 | 3.0              | 76  | 12000               | 82.7 | 0.15     | H             |
| SR5-05                      | 20416026 | 1/4          | 6.4  | 0.58    | 14.8 | 3000                  | 20.7 | 3.4              | 86  | 12000               | 82.7 | 0.18     | H             |
| SR5-06                      | 20324042 | 5/16         | 7.9  | 0.68    | 17.1 | 2250                  | 15.5 | 4.0              | 102 | 9000                | 62.1 | 0.22     | H             |
| SR5-08                      | 20324041 | 13/32        | 10.3 | 0.77    | 19.5 | 2000                  | 13.8 | 4.6              | 117 | 8000                | 55.2 | 0.30     | H             |
| SR5-10                      | 20326081 | 1/2          | 12.7 | 0.92    | 23.4 | 1750                  | 12.1 | 5.5              | 140 | 7000                | 48.3 | 0.37     | H             |
| SR5-12                      | 20455110 | 5/8          | 15.9 | 1.08    | 27.4 | 1500                  | 10.3 | 6.5              | 165 | 6000                | 41.4 | 0.45     | H             |
| SR5-16                      | 20340597 | 7/8          | 22.2 | 1.24    | 31.4 | 800                   | 5.5  | 7.4              | 187 | 3200                | 22.1 | 0.47     | H             |
| SR5-20                      | 20239407 | 1 1/8        | 28.6 | 1.50    | 38.1 | 625                   | 4.3  | 9.0              | 229 | 2500                | 17.2 | 0.58     | H             |

\*\*\*Note: Assemblies made with Continental ContiTech's SR5 hose and Continental ContiTech's Field-Grip® or Uni-Crimp® fittings meet SAE J1402 and DOT FMVSS 571.106 specifications. Assemblies made with Uni-Crimp fittings also meet SAE J517 100R5 assembly requirements. USCG rating "H" requires GTEX protective sleeving. Federal law requires registration with the Department of Transportation for anyone producing air brake hose assemblies.





# Desert® DR5

## SAE 100R5 | Fleet Application



› Meets or exceeds the performance requirements of: SAE 100R5; SAE J1402 Type All, DOT FMVSS 106 Type All

› High Temperature

› SAE J1942/U.S. Coast Guard



### Application

High-temperature, medium pressure hose for use in applications including turbocharger oil lines, tilt cab cylinder and air brake lines, transmission coolant and filtration lines. Compatible with petroleum oil and phosphate ester-based hydraulic fluids, air, water, diesel fuel, petroleum based lubricating oils and coolants.

Note: Not recommended for under-the-hood, automotive and truck fuel line applications. Only hoses designed and tested to meet SAE fuel line standards should be used for these applications.

Note: Sizes 7/8" (-16) and 1 1/8" (-20) do not meet SAE J1402 Type All & DOT FMVSS 106 Type All because these sizes are not listed in the referenced specifications.

### Inner Tube

CPE

### Reinforcement

One braid textile, one braid steel

### Cover

Blue impregnated textile braid

### Temperature Range

SAE 100R5 Hydraulic Applications: -40°F to 302°F (-40°C to 150°C)

Air Brake Applications: -40°F to 200°F (-40°C to 93°C)

General Hot Oil Applications:

-40°F to 302°F (-40°C to 150°C)

General Air Applications: -40°F to 200°F (-40°C to 93°C)

Water Applications: -40°F to 212°F (-40°C to 100°C)

### Fitting Reference

All fittings compatible\*\*\* with the DR5 hose family are listed in Section 6 (starting on page 217) of the catalog.

### Branding

Example: Continental ContiTech DR5-06 SAE 8 mm (5/16") SAE 100R5 (DOT FMVSS 106 All, J1402 AIR BRAKE) 15.5 MPa (2250 psi) W.P. GY Made in U.S.A.

| Descriptive #/<br>Product # | SAP #    | Hose Size ID |      | Hose OD |      | Max. Working Pressure |      | Min. Bend Radius |     | Min. Burst Pressure |      | Weight   | USCG Approved |
|-----------------------------|----------|--------------|------|---------|------|-----------------------|------|------------------|-----|---------------------|------|----------|---------------|
|                             |          | in.          | mm   | in.     | mm   | psi                   | MPa  | in.              | mm  | psi                 | MPa  | lbs./ft. |               |
| DR5-04                      | 20340705 | 3/16         | 4.8  | 0.52    | 13.2 | 3000                  | 20.7 | 3.0              | 76  | 12000               | 82.7 | 0.15     | H             |
| DR5-05                      | 20341023 | 1/4          | 6.4  | 0.58    | 14.8 | 3000                  | 20.7 | 3.4              | 86  | 12000               | 82.7 | 0.18     | H             |
| DR5-06                      | 20340706 | 5/16         | 7.9  | 0.68    | 17.1 | 2250                  | 15.5 | 4.0              | 102 | 9000                | 62.1 | 0.22     | H             |
| DR5-08                      | 20340707 | 13/32        | 10.3 | 0.77    | 19.5 | 2000                  | 13.8 | 4.5              | 117 | 8000                | 55.2 | 0.30     | H             |
| DR5-10                      | 20340708 | 1/2          | 12.7 | 0.92    | 23.4 | 1750                  | 12.1 | 5.5              | 140 | 7000                | 48.3 | 0.37     | H             |
| DR5-12                      | 20341025 | 5/8          | 15.9 | 1.08    | 27.4 | 1500                  | 10.3 | 6.5              | 165 | 6000                | 41.4 | 0.45     | H             |
| DR5-16                      | 20340709 | 7/8          | 22.2 | 1.24    | 31.4 | 800                   | 5.5  | 7.4              | 187 | 3200                | 22.1 | 0.47     | H             |
| DR5-20                      | 20368015 | 1 1/8        | 28.6 | 1.50    | 38.1 | 625                   | 4.3  | 9.0              | 229 | 2500                | 17.2 | 0.58     | H             |

\*\*\*Note: Assemblies made with Continental ContiTech's DR5 hose and Continental ContiTech' Field Grip® or Uni-Crimp® fittings meet SAE J1402 and DOT FMVSS 571.106 specifications. For high-pressure hydraulic applications use the Uni-Crimp® fitting which meets SAE J517 100R5 assembly requirements. Federal law requires registration with the Department of Transportation for anyone producing air brake hose assemblies.

## SCX5

## SAE 100R5 | Fleet Application

**Application**

For use with medium-pressure applications including water, gasoline, diesel, lubricating oils and petroleum-based hydraulic oils.

**Inner Tube**

Nitrile

**Reinforcement**

One braid steel wire and one braid textile

**Cover**

Black polychloroprene

**Temperature Range**

-40°F to 212°F (-40°C to 100°C)

**Fitting Reference**

The SCX5 hose family utilizes the UC Crimp Fittings listed in Section 6 (starting on page 217) of the catalog.

**Branding**

Example: Continental ContiTech SCX5-05 1/4" (6.4 mm) 3000 psi W.P (20.7 MPa) MSHA 2G-14C/12 Made in U.S.A.

| Descriptive #/<br>Product # | SAP #    | Hose Size ID |      | Hose OD |      | Max. Working Pressure |      | Min. Bend Radius |     | Min. Burst Pressure |      | Weight   | USCG Approved |
|-----------------------------|----------|--------------|------|---------|------|-----------------------|------|------------------|-----|---------------------|------|----------|---------------|
|                             |          | in.          | mm   | in.     | mm   | psi                   | MPa  | in.              | mm  | psi                 | MPa  | lbs./ft. |               |
| SCX5-05                     | 20608834 | 1/4          | 6.4  | 0.58    | 14.8 | 3000                  | 20.7 | 3.4              | 86  | 12000               | 82.7 | 0.18     | H             |
| SCX5-06                     | 20608835 | 5/16         | 7.9  | 0.68    | 17.3 | 2250                  | 15.5 | 4.0              | 102 | 9000                | 62.1 | 0.22     | H             |
| SCX5-08                     | 20608836 | 13/32        | 10.3 | 0.78    | 19.8 | 2000                  | 13.8 | 4.6              | 117 | 8000                | 55.2 | 0.23     | H             |
| SCX5-10                     | 20608837 | 1/2          | 12.7 | 0.91    | 23.0 | 1750                  | 12.1 | 5.5              | 140 | 7000                | 48.3 | 0.34     | H             |
| SCX5-12                     | 20608838 | 5/8          | 15.9 | 1.08    | 27.4 | 1500                  | 10.3 | 6.5              | 165 | 6000                | 41.4 | 0.41     | H             |
| SCX5-16                     | 20608839 | 7/8          | 22.2 | 1.23    | 31.3 | 800                   | 5.5  | 7.4              | 188 | 3200                | 22.1 | 0.44     | H             |
| SCX5-20                     | 20608890 | 1%           | 28.6 | 1.50    | 38.1 | 625                   | 4.3  | 9.0              | 229 | 2500                | 17.2 | 0.53     | H             |



# Desert® DUT

## SAE J1402 | Universal Truck | Fleet Application



› Meets or exceeds the performance requirements of: SAE J1402 Type A1 DOT FMVSS 106 Type A1

› High Temperature

### Application

High-temperature, medium-pressure hose for use in applications including turbocharger oil lines, tilt cab cylinder and air brake lines, transmission coolant and filtration lines. Compatible with petroleum oil and phosphate ester-based hydraulic fluids, air, water, diesel fuel, petroleum-based lubricating oils and coolants.  
Note: Not recommended for under-the-hood, automotive and truck fuel line applications. Only hoses designed and tested to meet SAE fuel line standards should be used for these applications.

Note: Sizes 7/8" (-16) and 1½" (-20) do not meet SAE J1402 Type A1 & DOT FMVSS 106 Type A1 because these sizes are not listed in the referenced specifications.

### Inner Tube

CPE

### Reinforcement

One braid textile, one braid steel

### Cover

Blue impregnated textile braid

### Temperature Range

Air Brake Applications: -40°F to 200°F (-40°C to 93°C)

General Hot Oil Applications: -40°F to 302°F (-40°C to 150°C)

General Air Applications: -40°F to 200°F (-40°C to 93°C)

Water Applications: -40°F to 212°F (-40°C to 100°C)

### Fitting Reference

All fittings compatible with the Desert® DUT hose family are listed in Section 6A (starting on page 246) of the catalog.

### Branding

Example: Continental ContiTech Desert® DUT-06 SAE J1402 Type A1 Air Brake DOT FMVSS 106 A1 5/16" (7.9mm) W.P. 1500 psi (10.3 MPa)

| Descriptive #/<br>Product # | SAP #    | Hose Size ID |      | Hose OD |      | Max. Working Pressure |      | Min. Bend Radius |     | Min. Burst Pressure |      | Weight   |
|-----------------------------|----------|--------------|------|---------|------|-----------------------|------|------------------|-----|---------------------|------|----------|
|                             |          | in.          | mm   | in.     | mm   | psi                   | MPa  | in.              | mm  | psi                 | MPa  | lbs./ft. |
| DUT-04                      | 20367570 | 3/16         | 4.8  | 0.49    | 12.4 | 2000                  | 13.8 | 2.0              | 51  | 8000                | 55.2 | 0.12     |
| DUT-05                      | 20367574 | 1/4          | 6.4  | 0.55    | 14.0 | 1500                  | 10.3 | 2.5              | 64  | 6000                | 41.4 | 0.14     |
| DUT-06                      | 20367576 | 5/16         | 7.9  | 0.62    | 15.7 | 1500                  | 10.3 | 3.0              | 76  | 6000                | 41.4 | 0.17     |
| DUT-08                      | 20367577 | 13/32        | 10.3 | 0.74    | 18.8 | 1250                  | 8.6  | 3.5              | 89  | 5000                | 34.5 | 0.20     |
| DUT-10                      | 20367578 | 1/2          | 12.7 | 0.83    | 21.1 | 1000                  | 6.9  | 4.0              | 102 | 4000                | 27.6 | 0.22     |
| DUT-12                      | 20367579 | 5/8          | 15.9 | 0.96    | 24.4 | 750                   | 5.2  | 4.5              | 114 | 3000                | 20.7 | 0.24     |
| DUT-16                      | 20424721 | 7/8          | 22.2 | 1.21    | 30.7 | 400                   | 2.8  | 5.0              | 127 | 1600                | 11.0 | 0.30     |
| DUT-20                      | 20424722 | 1½           | 28.6 | 1.49    | 37.8 | 300                   | 2.1  | 5.5              | 140 | 1200                | 8.3  | 0.44     |

Note: Federal law requires registration with the Department of Transportation for anyone producing air brake hose assemblies.

## Galaxy® G4826

SAE J2064 | Air Conditioning



› Meets or exceeds the performance requirements of: SAE J2064, Type C Class II

### Application

Recommended for R134a and R12 refrigerants in automotive, heavy-duty truck, construction and agricultural air conditioning systems.

### Inner Tube

Chloroprene

### Barrier

Nylon

### Reinforcement

Two-spiral polyester

### Cover

Black Chlorobutyl (CIIR)

### Temperature Range

-22°F to 257°F (-30°C to 125°C)

### Fitting Reference

All fittings compatible with the G4826 hose family are listed in Section 8 (starting on page 263) of the catalog.

### Branding

Example: Galaxy® by Continental ContiTech SAE J2064 Type C Class II 13/32" ID (10mm) 4826 - Size 8

| Descriptive #/<br>Product # | SAP #    | Hose Size ID |      | Hose OD |      | Max. Working Pressure |     | Min. Bend Radius |    | Min. Burst Pressure |      | Weight |
|-----------------------------|----------|--------------|------|---------|------|-----------------------|-----|------------------|----|---------------------|------|--------|
|                             |          | in.          | mm   | in.     | mm   | psi                   | MPa | in.              | mm | psi                 | MPa  |        |
| G4826-06                    | 20290026 | 5/16         | 7.9  | 0.75    | 19.1 | 500                   | 3.4 | 0.6              | 16 | 2000                | 13.8 | 0.20   |
| G4826-08                    | 20290027 | 13/32        | 10.3 | 0.91    | 23.0 | 500                   | 3.4 | 1.0              | 25 | 2000                | 13.8 | 0.28   |
| G4826-10                    | 20290028 | 1/2          | 12.7 | 1.00    | 25.4 | 500                   | 3.4 | 1.3              | 32 | 2000                | 13.8 | 0.33   |
| G4826-12                    | 20290029 | 5/8          | 15.9 | 1.13    | 28.6 | 350                   | 2.4 | 2.0              | 50 | 1750                | 12.1 | 0.38   |

## Galaxy® G4867

SAE J2064 | Air Conditioning



› Meets or exceeds the performance requirements of: SAE J2064, Type C Class I

### Application

Recommended for R134a, refrigerant blends and compressor lubricants as a suction line in air conditioning systems for heavy-duty truck.

### Inner Tube

Chloroprene

### Barrier

Nylon

### Reinforcement

Single-braid polyester

### Cover

Black Chlorobutyl (CIIR)

### Temperature Range

-22°F to 257°F (-30°C to 125°C)

### Fitting Reference

All fittings compatible with the G4867 hose family are listed in Section 8 (starting on page 263) of the catalog.

### Branding

Example: Galaxy® by Continental ContiTech SAE J2064 Type C Class I 13/32" ID (10mm) 4826 - Size 8

| Descriptive #/<br>Product # | SAP #    | Hose Size ID |      | Hose OD |      | Max. Working Pressure |     | Min. Bend Radius |     | Min. Burst Pressure |      | Weight |
|-----------------------------|----------|--------------|------|---------|------|-----------------------|-----|------------------|-----|---------------------|------|--------|
|                             |          | in.          | mm   | in.     | mm   | psi                   | MPa | in.              | mm  | psi                 | MPa  |        |
| G4867-14                    | 20306586 | 3/4          | 19.0 | 1.13    | 28.6 | 350                   | 2.4 | 6.3              | 160 | 1750                | 12.1 | 0.26   |

## Galaxy® SLE G4890

SAE J2064 | Air Conditioning



› Meets or exceeds the performance requirements of: SAE J2064, Type C Class 1

### Application

Recommended for R134a, R1234yf and most refrigerant blends and compressor lubricants in automotive and heavy-duty truck air conditioning systems where significant reduction in permeation and moisture ingress is desired.

### Inner Tube

Chloroprene

### Barrier

Nylon

### Reinforcement

Single-braid polyester

### Cover

Black Chlorobutyl (CIIR)

### Temperature Range

-40°F to 275°F (-40°C to 135°C)

### Fitting Reference

All fittings compatible with the G4890 hose family are listed in Section 8 (starting on page 276) of the catalog.

### Branding

Example: Galaxy® by Continental ContiTech SAE J2064 Type C Class 1 5/16" ID (8mm) 4890 - Size 6

| Descriptive #/<br>Product # | SAP #    | Hose Size ID |      | Hose OD |      | Max. Working Pressure |     | Min. Bend Radius |     | Min. Burst Pressure |      | Weight |
|-----------------------------|----------|--------------|------|---------|------|-----------------------|-----|------------------|-----|---------------------|------|--------|
|                             |          | in.          | mm   | in.     | mm   | psi                   | MPa | in.              | mm  | psi                 | MPa  |        |
| G4890-06                    | 20306246 | 5/16         | 7.9  | 0.56    | 14.7 | 500                   | 3.4 | 1.0              | 25  | 2000                | 13.8 | 0.09   |
| G4890-08                    | 20306247 | 13/32        | 10.3 | 0.69    | 17.3 | 500                   | 3.4 | 1.5              | 38  | 2000                | 13.8 | 0.12   |
| G4890-10                    | 20306248 | 1/2          | 12.7 | 0.75    | 19.4 | 500                   | 3.4 | 2.5              | 63  | 2000                | 13.8 | 0.13   |
| G4890-12                    | 20306249 | 5/8          | 15.9 | 0.94    | 23.6 | 350                   | 2.4 | 4.0              | 104 | 1750                | 12.1 | 0.20   |

## MIL-DTL-13444H

TYPE I | Military Application



› Meets or exceeds the performance requirements of: MIL-DTL-13444H Type I

### Application

Fuel and oil lines in military vehicles and other military applications.

### Inner Tube

Nitrile

### Reinforcement

Single fabric braid

### Cover

Polychloroprene

### Temperature Range

-65°F to 250°F (-53.89°C to 121.1°C)

### Qualification

QPL-13444 Type I approved for bulk hose. QPL-13444 Type I approved for permanent UC fittings with UCF2 Ferrules on factory assemblies. Distributor-made assemblies must seek DSCC approval.

| Descriptive #/<br>Product # | SAP #    | Hose Size ID |                    | Hose OD |      | Max. Working Pressure |     | Min. Bend Radius |        | Min. Burst Pressure |      | Weight |
|-----------------------------|----------|--------------|--------------------|---------|------|-----------------------|-----|------------------|--------|---------------------|------|--------|
|                             |          | in.          | Military Dash Size | in.     | mm   | psi                   | MPa | in.              | mm     | psi                 | MPa  |        |
| MIL-H-13444-I-3             | 20472785 | 3/16         | 3                  | 0.44    | 11.1 | 425                   | 2.9 | 2.00             | 50.80  | 1700                | 11.7 | .070   |
| MIL-H-13444-I-4             | 20468052 | 1/4          | 4                  | 0.50    | 12.7 | 300                   | 2.0 | 2.25             | 57.15  | 1250                | 8.6  | .090   |
| MIL-H-13444-I-5             | 20470472 | 5/16         | 5                  | 0.56    | 14.3 | 275                   | 1.9 | 2.75             | 69.85  | 1100                | 7.6  | .100   |
| MIL-H-13444-I-6             | 20472786 | 3/8          | 6                  | 0.63    | 15.9 | 250                   | 1.7 | 3.00             | 76.20  | 1000                | 6.9  | .110   |
| MIL-H-13444-I-8             | 20485914 | 1/2          | 8                  | 0.78    | 19.8 | 200                   | 1.4 | 3.75             | 95.25  | 750                 | 5.2  | .170   |
| MIL-H-13444-I-10            | 20490906 | 5/8          | 10                 | 0.97    | 25.6 | 175                   | 1.2 | 4.75             | 120.65 | 700                 | 4.8  | .220   |
| MIL-H-13444-I-12            | 20493008 | 3/4          | 12                 | 1.09    | 27.8 | 125                   | 0.9 | 5.50             | 139.70 | 500                 | 3.4  | .260   |

# MIL-DTL-13444H

## TYPE III | Military Application



### Application

Medium-pressure hydraulic oil and fuel lines. Used in military vehicles and other support equipment.

### Inner Tube

Nitrile

### Reinforcement

Textile braid and 1-wire steel braid

### Cover

Black impregnated textile braid

### Temperature Range

-55°F to 300°F (-48.33°C to 148.89°C)

### Qualification

QPL-13444 Type III approved for bulk hose. QPL-13444 Type III approved for permanent UC fittings with UCF6 Ferrules on factory assemblies. Distributor-made assemblies must seek DSCC approval.

› Meets or exceeds the performance requirements of: MIL-DTL-13444H Type III

| Descriptive #/<br>Product # | SAP #    | Hose Size ID |                    | Hose OD |      | Max. Working Pressure |      | Min. Bend Radius |       | Min. Burst Pressure |      | Weight   |
|-----------------------------|----------|--------------|--------------------|---------|------|-----------------------|------|------------------|-------|---------------------|------|----------|
|                             |          | in.          | Military Dash Size | in.     | mm   | psi                   | MPa  | in.              | mm    | psi                 | MPa  | lbs./ft. |
| MIL-H-13444-III-4           | 20474735 | 3/16         | 4                  | 0.49    | 12.5 | 1500                  | 10.3 | 0.75             | 19.05 | 6000                | 41.4 | 0.29     |
| MIL-H-13444-III-5           | 20479489 | 1/4          | 5                  | 0.55    | 14.1 | 1500                  | 10.3 | 1.00             | 25.40 | 6000                | 41.4 | 0.28     |
| MIL-H-13444-III-6           | 20476712 | 5/16         | 6                  | 0.62    | 15.7 | 1000                  | 6.8  | 1.25             | 31.75 | 4000                | 27.5 | 0.39     |
| MIL-H-13444-III-8           | 20477294 | 13/32        | 8                  | 0.74    | 18.7 | 1000                  | 6.8  | 1.75             | 44.45 | 4000                | 27.5 | 0.47     |
| MIL-H-13444-III-10          | 20488137 | 1/2          | 10                 | 0.83    | 21.1 | 875                   | 6.0  | 2.25             | 31.75 | 3500                | 24.1 | 0.47     |
| MIL-H-13444-III-12          | 20494896 | 5/8          | 12                 | 0.96    | 24.3 | 750                   | 5.1  | 2.75             | 69.85 | 3000                | 20.7 | 0.32     |
| MIL-H-13444-III-16          | 20524468 | 7/8          | 16                 | 1.21    | 30.6 | 375                   | 2.6  | 3.50             | 88.90 | 1500                | 10.3 | 0.44     |
| MIL-H-13444-III-20          | 20597709 | 1 1/8        | 20                 | 1.49    | 37.8 | 300                   | 2.0  | 4.50             | 114.3 | 1250                | 8.6  | 0.50     |

# MIL-DTL-13531

## TYPE II, Class A | Military Application



### Application

Medium- and high-pressure hydraulic systems.

### Inner Tube

Nitrile

### Reinforcement

2 braids of high-tensile steel wire

### Cover

Black polychloroprene

### Temperature Range

-65°F to 200°F (-53.89°C to 93.33°C)

### Qualification

QPL-13531 approved for bulk hose. QPL-13531 approved for permanent UC fittings with UCF2 Ferrules on factory hose assemblies. Distributor-made assemblies must seek DSCC approval.

› Meets or exceeds the performance requirements of: MIL-DTL-13531 Type II, Class A

| Descriptive #/<br>Product # | SAP #    | Hose Size ID |                    | Hose OD |      | Max. Working Pressure |       | Min. Bend Radius |       | Min. Burst Pressure |       | Weight   |
|-----------------------------|----------|--------------|--------------------|---------|------|-----------------------|-------|------------------|-------|---------------------|-------|----------|
|                             |          | in.          | Military Dash Size | in.     | mm   | psi                   | MPa   | in.              | mm    | psi                 | MPa   | lbs./ft. |
| M13531-B3A                  | 20441525 | 3/16         | 3                  | 0.63    | 15.9 | 5000                  | 34.47 | 4.0              | 101.6 | 20000               | 137.9 | 0.26     |
| M13531-B4A                  | 20441526 | 1/4          | 4                  | 0.69    | 17.5 | 5000                  | 34.47 | 4.0              | 101.6 | 20000               | 137.9 | 0.31     |
| M13531-B5A                  | 20441527 | 5/16         | 5                  | 0.75    | 19.1 | 4250                  | 29.30 | 4.5              | 114.3 | 17000               | 117.2 | 0.33     |
| M13531-B6A                  | 20441528 | 3/8          | 6                  | 0.84    | 21.4 | 4000                  | 27.57 | 5.0              | 127.0 | 16000               | 110.3 | 0.41     |
| M13531-B8A                  | 20441529 | 1/2          | 8                  | 0.97    | 24.6 | 3500                  | 24.13 | 7.0              | 117.8 | 14000               | 96.5  | 0.50     |
| M13531-B10A                 | 20442170 | 5/8          | 10                 | 1.09    | 27.8 | 2750                  | 18.96 | 8.5              | 215.9 | 11000               | 75.8  | 0.59     |
| M13531-B12A                 | 20442171 | 3/4          | 12                 | 1.25    | 31.8 | 2250                  | 15.51 | 9.5              | 241.3 | 9000                | 62.1  | 0.72     |
| M13531-B14A                 | 20442172 | 7/8          | 14                 | 1.38    | 34.9 | 2000                  | 13.78 | 10.5             | 266.7 | 8000                | 55.2  | 0.81     |
| M13531-B16A                 | 20442173 | 1            | 16                 | 1.56    | 39.7 | 2000                  | 13.78 | 11.0             | 279.4 | 8000                | 55.2  | 1.01     |

## MIL-DTL-3992

TYPE I, Class 1 | Military Application



### Application

Low-pressure hose for flexible connections in air brake systems on automotive vehicles.

### Inner Tube

Nitrile

### Reinforcement

2 textile braids

### Cover

Black polychloroprene

### Temperature Range

-60°F to 200°F (-51°C to 93°C)

› Meets or exceeds the performance requirements of: MIL-DTL-39921

| Descriptive #/<br>Product # | SAP #    | Hose Size ID |      | Hose OD |      | Max. Working Pressure |      | Min. Bend Radius |       | Min. Burst Pressure |     | Weight |
|-----------------------------|----------|--------------|------|---------|------|-----------------------|------|------------------|-------|---------------------|-----|--------|
|                             |          | in.          | mm   | in.     | mm   | psi                   | MPa  | in.              | mm    | psi                 | MPa |        |
| M3992-B0112                 | 20024160 | 3/8          | 9.53 | 0.75    | 19.1 | 200                   | 1.38 | 3.5              | 88.9  | 900                 | 6.2 | 0.18   |
| M3992-B0116                 | 20568988 | 1/2          | 12.7 | 0.88    | 22.2 | 200                   | 1.38 | 4.0              | 101.6 | 900                 | 6.2 | 0.21   |

## MIL-DTL-8788

Hydraulic Hose | Military Application



### Application

High-pressure hydraulic systems requiring interoperability and compatibility with associated components and equipment.

### Inner Tube

Nitrile

### Reinforcement

2 braids of high-tensile steel wire

### Cover

Black polychloroprene

### Temperature Range

-65°F to 160°F (-54°C to 71°C)

› Meets or exceeds the performance requirements of: MIL-DTL-8788

| Descriptive #/<br>Product # | SAP #    | Hose Size ID |      | Hose OD |       | Max. Working Pressure |       | Min. Bend Radius |        | Min. Burst Pressure |      | Weight |
|-----------------------------|----------|--------------|------|---------|-------|-----------------------|-------|------------------|--------|---------------------|------|--------|
|                             |          | in.          | mm   | in.     | mm    | psi                   | MPa   | in.              | mm     | psi                 | MPa  |        |
| M8788-4                     | 20024593 | 0.22         | 5.6  | 0.625   | 15.88 | 3000                  | 20.68 | 3.00             | 76.20  | 12000               | 82.8 | 0.27   |
| M8788-5                     | 20024596 | 0.28         | 7.1  | 0.703   | 17.86 | 3000                  | 20.68 | 3.38             | 85.85  | 12000               | 82.8 | 0.32   |
| M8788-6                     | 20024600 | 0.34         | 8.7  | 0.766   | 19.46 | 3000                  | 20.68 | 5.00             | 127.00 | 12000               | 82.8 | 0.37   |
| M8788-8                     | 20024604 | 0.44         | 11.1 | 0.859   | 21.82 | 3000                  | 20.68 | 5.75             | 146.05 | 12000               | 82.8 | 0.44   |
| M8788-10                    | 20024613 | 0.56         | 14.3 | 1.031   | 26.19 | 3000                  | 20.68 | 6.50             | 165.10 | 12000               | 82.8 | 0.57   |
| M8788-12                    | 20024616 | 0.69         | 17.5 | 1.219   | 30.96 | 3000                  | 20.68 | 7.75             | 196.85 | 12000               | 82.8 | 0.76   |
| M8788-16                    | 20024619 | 0.88         | 22.2 | 1.500   | 38.10 | 3000                  | 20.68 | 9.63             | 244.60 | 12000               | 82.8 | 1.32   |



# Hose Working Pressure Selection Guide

## Hose dash size and recommended working pressures

This table is to be used as a guide in the selection of hose by maximum working pressure. The recommended maximum working pressure should not be the only factor in hose selection. Final selection of the hose is further dependent on fluid and ambient temperatures, concentration of the fluid, and intermittent or continuous exposure.

|                      |               |                                                   | Dash Size        |                   |                                                  |                                               |                                           |                                                      |                                                       |                                                     |
|----------------------|---------------|---------------------------------------------------|------------------|-------------------|--------------------------------------------------|-----------------------------------------------|-------------------------------------------|------------------------------------------------------|-------------------------------------------------------|-----------------------------------------------------|
| Pressure Range       | Family Part # | Hose Description                                  | 02               | 03                | 04                                               | 05                                            | 06                                        | 08                                                   | 10                                                    | 12                                                  |
|                      |               |                                                   | Hose ID          |                   |                                                  |                                               |                                           |                                                      |                                                       |                                                     |
|                      |               |                                                   | 1/8"<br>(3.3 mm) | 3/16"<br>(4.8 mm) | 1/4"<br>(6.4 mm)<br>R5, UT:<br>3/16"<br>(4.8 mm) | 5/16"<br>(7.9 mm)<br>R5, UT: 1/4"<br>(6.4 mm) | 3/8"<br>(9.5 mm)<br>R5: 5/16"<br>(7.9 mm) | 1/2" (12.7 mm)<br>R5, UT, AC:<br>13/32"<br>(10.3 mm) | 5/8"<br>(15.9 mm)<br>R5, UT, AC:<br>1/2"<br>(12.7 mm) | 3/4"<br>(19 mm)<br>R5, UT, AC:<br>5/8"<br>(15.9 mm) |
| Low Pressure         | SR6           | SAE 100R6/EN 854 R6                               |                  | 500               | 400                                              | 400                                           | 400                                       | 400                                                  | 350                                                   | 300                                                 |
|                      | HR6           | SAE 100R6/EN 854 R6 (High Temp)                   |                  |                   | 400                                              | 400                                           | 400                                       | 400                                                  | 350                                                   | 300                                                 |
|                      | HR4           | SAE 100R4                                         |                  |                   |                                                  |                                               |                                           |                                                      |                                                       | 300                                                 |
|                      | SR3           | SAE 100R3/EN 854 R3                               |                  |                   | 1250                                             | 1200                                          | 1125                                      | 1000                                                 |                                                       | 750                                                 |
| Low Pressure Push-On | IG            | Insta-Grip™ 300 (Non-Conductive)                  |                  |                   | 300                                              | 300                                           | 300                                       | 300                                                  | 300                                                   | 300                                                 |
|                      | IGHT          | Insta-Grip™ HT 300 (High Temp)                    |                  |                   | 300                                              |                                               | 300                                       | 300                                                  | 300                                                   | 300                                                 |
|                      | IGTC          | Insta-Grip™ TC                                    |                  |                   | 300                                              | 300                                           | 300                                       | 300                                                  | 300                                                   | 300                                                 |
|                      | FXG           | FLEXA-Grip™ Plus                                  |                  | 400               | 400                                              |                                               | 400                                       | 400                                                  | 400                                                   | 400                                                 |
| Medium Pressure      | SR1SN         | SAE 100R1AT/1SN                                   |                  | 3625              | 3260                                             | 3120                                          | 2615                                      | 2320                                                 | 1890                                                  | 1530                                                |
|                      | Desert® DR1SN | SAE 100R1AT/1SN (High Temp)                       |                  |                   | 3270                                             |                                               | 2615                                      | 2320                                                 | 1890                                                  | 1530                                                |
|                      | SFS           | SAE 100R1AT (Fire Suppression)                    |                  |                   | 2750                                             |                                               | 2250                                      | 2000                                                 |                                                       | 1250                                                |
| High Pressure        | SR2SN         | SAE 100R2AT/2SN                                   |                  | 6200              | 5800                                             |                                               | 4800                                      | 4000                                                 | 3630                                                  | 3120                                                |
|                      | Desert® DR2SN | SAE 100R2AT/2SN (High Temp)                       |                  |                   | 5800                                             |                                               | 4800                                      | 4000                                                 | 3630                                                  | 3120                                                |
|                      | XR16SC        | SAE 100R16/EN 857 2SC                             |                  |                   | 5800                                             |                                               | 5000                                      | 5000                                                 | 4000                                                  | 3500                                                |
|                      | LR2SN         | Arctic® SAE 100R2AT/2SN (Low Temp)                |                  |                   | 5000                                             |                                               | 4800                                      | 4000                                                 | 3630                                                  | 3120                                                |
|                      | DR16SC        | SAE 100R16/EN 857 2SC                             |                  |                   | 5075                                             |                                               | 5000                                      | 5000                                                 |                                                       | 3500                                                |
|                      | SR16SC        | SAE 100R16/EN 857 2SC                             |                  |                   | 5800                                             |                                               | 5000                                      | 5000                                                 | 4000                                                  | 3500                                                |
|                      | ARC16SC       | ARMORCOAT™ SAE 100R16/EN 857 2SC (Abrasion Cover) |                  |                   | 5800                                             |                                               | 5000                                      | 5000                                                 | 4000                                                  | 3500                                                |
|                      | XCP3          | SAE 100R17 (Constant Pressure)                    |                  |                   | 3045                                             |                                               | 3045                                      | 3045                                                 | 3045                                                  | 3045                                                |
|                      | SCP3          | SAE 100R17 (Constant Pressure)                    |                  |                   | 3045                                             |                                               | 3045                                      | 3045                                                 | 3045                                                  | 3045                                                |
|                      | ACP3          | ARMORCOAT™ SAE 100R17 (Abrasion Cover)            |                  |                   | 3045                                             |                                               | 3045                                      | 3045                                                 |                                                       |                                                     |
|                      |               |                                                   |                  |                   |                                                  |                                               |                                           |                                                      |                                                       |                                                     |

# Hose Working Pressure Selection Guide

Continued

|                      |               |                                                   | Dash Size                                       |                                              |                                                 |                                        |                                       |                  |                 |                |                  |
|----------------------|---------------|---------------------------------------------------|-------------------------------------------------|----------------------------------------------|-------------------------------------------------|----------------------------------------|---------------------------------------|------------------|-----------------|----------------|------------------|
| Pressure Range       | Family Part # | Hose Description                                  | 14                                              | 16                                           | 20                                              | 24                                     | 32                                    | 40               | 48              | 56             | 64               |
|                      |               |                                                   | Hose ID                                         |                                              |                                                 |                                        |                                       |                  |                 |                |                  |
|                      |               |                                                   | 7/8"<br>(22.2 mm)<br>UT, AC:<br>3/4"<br>(19 mm) | 1"<br>(25.4 mm)<br>R5, UT: 7/8"<br>(22.2 mm) | 1¼"<br>(31.8 mm)<br>R5, UT:<br>1½"<br>(28.6 mm) | 1½"<br>(38.1 mm)<br>R5: 1⅜"<br>(35 mm) | 2"<br>(50.8 mm)<br>R5: 1⅞"<br>(46 mm) | 2½"<br>(63.5 mm) | 3"<br>(76.2 mm) | 3½"<br>(89 mm) | 4"<br>(101.6 mm) |
| Low Pressure         | SR6           | SAE 100R6/EN 854 R6                               |                                                 |                                              |                                                 |                                        |                                       |                  |                 |                |                  |
|                      | HR6           | SAE 100R6/EN 854 R6 (High Temp)                   |                                                 |                                              |                                                 |                                        |                                       |                  |                 |                |                  |
|                      | HR4           | SAE 100R4                                         |                                                 | 250                                          | 200                                             | 150                                    | 100                                   | 62               | 56              | 45             | 35               |
|                      | SR3           | SAE 100R3/EN 854 R3                               |                                                 | 565                                          | 377                                             |                                        |                                       |                  | 58              |                |                  |
| Low Pressure Push-On | IG            | Insta-Grip™ 300 (Non-Conductive)                  |                                                 | 300                                          |                                                 |                                        |                                       |                  |                 |                |                  |
|                      | IGHT          | Insta-Grip™ HT 300 (High Temp)                    |                                                 |                                              |                                                 |                                        |                                       |                  |                 |                |                  |
|                      | IGTC          | Insta-Grip™ TC                                    |                                                 |                                              |                                                 |                                        |                                       |                  |                 |                |                  |
|                      | FXG           | FLEXA-Grip™                                       |                                                 | 400                                          |                                                 |                                        |                                       |                  |                 |                |                  |
| Medium Pressure      | SR1SN         | SAE 100R1AT/1SN                                   |                                                 | 1280                                         | 920                                             | 730                                    | 580                                   |                  |                 |                |                  |
|                      | DR1SN         | SAE 100R1AT/1SN (High Temp)                       |                                                 | 1280                                         | 920                                             | 730                                    | 580                                   |                  |                 |                |                  |
|                      | SFS           | SAE 100R1AT (Fire Suppression)                    |                                                 | 1000                                         |                                                 |                                        |                                       |                  |                 |                |                  |
| High Pressure        | SR2SN         | SAE 100R2AT/2SN                                   |                                                 | 2400                                         | 1820                                            | 1310                                   | 1160                                  |                  |                 |                |                  |
|                      | Desert® DR2SN | SAE 100R2AT/2SN (High Temp)                       |                                                 | 2400                                         |                                                 |                                        |                                       |                  |                 |                |                  |
|                      | XR16SC        | SAE 100R16/EN 857 2SC                             |                                                 | 2700                                         |                                                 |                                        |                                       |                  |                 |                |                  |
|                      | LR2SN         | Arctic® SAE 100R2AT/2SN (Low Temp)                |                                                 | 2400                                         | 1820                                            |                                        | 1160                                  |                  |                 |                |                  |
|                      | DR16SC        | SAE 100R16/EN 857 2SC                             |                                                 | 2700                                         |                                                 |                                        |                                       |                  |                 |                |                  |
|                      | SR16SC        | SAE 100R16/EN 857 2SC                             |                                                 | 2700                                         | 1813                                            |                                        |                                       |                  |                 |                |                  |
|                      | ARC16SC       | ARMORCOAT™ SAE 100R16/EN 857 2SC (Abrasion Cover) |                                                 | 2700                                         |                                                 |                                        |                                       |                  |                 |                |                  |
|                      | XCP3          | SAE 100R17 (Constant Pressure)                    |                                                 | 3045                                         |                                                 |                                        |                                       |                  |                 |                |                  |
|                      | SCP3          | (Constant Pressure)                               |                                                 | 3045                                         |                                                 |                                        |                                       |                  |                 |                |                  |
|                      | ACP3          | ARMORCOAT™ SAE 100R17 (Abrasion Cover)            |                                                 |                                              |                                                 |                                        |                                       |                  |                 |                |                  |

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|                     |               |                                                   | Dash Size        |                   |                                                  |                                               |                                           |                                                         |                                                       |                                                     |
|---------------------|---------------|---------------------------------------------------|------------------|-------------------|--------------------------------------------------|-----------------------------------------------|-------------------------------------------|---------------------------------------------------------|-------------------------------------------------------|-----------------------------------------------------|
| Pressure Range      | Family Part # | Hose Description                                  | 02               | 03                | 04                                               | 05                                            | 06                                        | 08                                                      | 10                                                    | 12                                                  |
|                     |               |                                                   | Hose ID          |                   |                                                  |                                               |                                           |                                                         |                                                       |                                                     |
|                     |               |                                                   | 1/8"<br>(3.3 mm) | 3/16"<br>(4.8 mm) | 1/4"<br>(6.4 mm)<br>R5, UT:<br>3/16"<br>(4.8 mm) | 5/16"<br>(7.9 mm)<br>R5, UT: 1/4"<br>(6.4 mm) | 3/8"<br>(9.5 mm)<br>R5: 5/16"<br>(7.9 mm) | 1/2"<br>(12.7 mm)<br>R5, UT, AC:<br>13/32"<br>(10.3 mm) | 5/8"<br>(15.9 mm)<br>R5, UT, AC:<br>1/2"<br>(12.7 mm) | 3/4"<br>(19 mm)<br>R5, UT, AC:<br>5/8"<br>(15.9 mm) |
| Very High Pressure  | XCP4          | SAE 100R19/ISO 11237                              |                  |                   | 4000                                             |                                               | 4000                                      | 4000                                                    | 4000                                                  | 4000                                                |
|                     | SR12          | SAE 100R12/EN 856 R12                             |                  |                   |                                                  |                                               | 4100                                      | 4100                                                    | 4100                                                  | 4100                                                |
|                     | ARC12         | ARMORCOAT™ SAE 100R12/EN 856 R12 (Abrasion Cover) |                  |                   |                                                  |                                               | 4100                                      | 4100                                                    | 4100                                                  | 4100                                                |
|                     | SR13          | SAE 100R13/EN 856 R13                             |                  |                   |                                                  |                                               |                                           |                                                         |                                                       | 5100                                                |
|                     | ARC13         | ARMORCOAT™ SAE 100R13/EN 856 R13 (Abrasion Cover) |                  |                   |                                                  |                                               |                                           |                                                         |                                                       | 5100                                                |
|                     | SR15          | SAE 100R15                                        |                  |                   |                                                  |                                               |                                           | 6100                                                    |                                                       | 6100                                                |
|                     | ARC15         | ARMORCOAT™ SAE 100R15 (Abrasion Cover)            |                  |                   |                                                  |                                               |                                           | 6100                                                    |                                                       | 6100                                                |
|                     | S4SP          | EN 856 4SP                                        |                  |                   |                                                  |                                               | 6455                                      | 6020                                                    | 5075                                                  | 5510                                                |
|                     | S4SH          | EN 856 4SH                                        |                  |                   |                                                  |                                               |                                           |                                                         |                                                       | 6090                                                |
| Thermoplastic       | SR7           | SAE 100R7/EN 855 R7                               | 2500             | 3000              | 3000                                             | 2500                                          | 2250                                      | 2000                                                    |                                                       | 1250                                                |
|                     | TR7           | SAE 100R7 (Twin-Line)                             |                  | 3000              | 3000                                             | 2500                                          | 2250                                      | 2000                                                    |                                                       |                                                     |
|                     | NR7           | SAE 100R7 (Non-Conductive)                        | 2500             | 3000              | 2750                                             | 2500                                          | 2250                                      | 2250                                                    |                                                       | 1250                                                |
|                     | BR7           | SAE 100R7 (Twin-Line, Non-Conductive)             |                  |                   | 2750                                             | 2500                                          | 2250                                      | 2250                                                    |                                                       |                                                     |
|                     | SR8           | SAE 100R8/EN 855 R8                               |                  | 5000              | 5000                                             |                                               | 4000                                      | 3500                                                    |                                                       |                                                     |
|                     | TR8           | SAE 100R8 (Twin-Line)                             |                  |                   |                                                  |                                               | 4000                                      | 3500                                                    |                                                       |                                                     |
|                     | NR8           | SAE 100R8 (Non-Conductive)                        |                  |                   | 5000                                             |                                               | 4000                                      | 3500                                                    |                                                       |                                                     |
|                     | SR18          | SAE 100R18                                        |                  |                   | 3000                                             | 3000                                          | 3000                                      | 3000                                                    |                                                       |                                                     |
| Special Application | NSFX          | SAFLEX® (Non-conductive)                          |                  |                   | 2750                                             |                                               | 2250                                      | 2000                                                    |                                                       |                                                     |
|                     | SHR           | Prospector™ SHR (Slim-Hole Rotary)                |                  |                   |                                                  |                                               |                                           |                                                         |                                                       |                                                     |
|                     | BOP           | Prospector™ BOP (Blow Out Preventor)              |                  |                   |                                                  |                                               | 3000/5000                                 | 3000/5000                                               |                                                       | 3000/5000                                           |
|                     | SGUN          | Grease Gun Hose                                   |                  | 3000              |                                                  |                                               |                                           |                                                         |                                                       |                                                     |
|                     | SHJ           | Jack Hose                                         |                  |                   | 10000                                            |                                               | 10000                                     |                                                         |                                                       |                                                     |
|                     | Hot Oiler     | Prospector (Hot Oiler)                            |                  |                   |                                                  |                                               |                                           |                                                         |                                                       |                                                     |

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|                     |               |                                                   | Dash Size                                       |                                              |                                                 |                                        |                                       |                  |                 |                |                  |
|---------------------|---------------|---------------------------------------------------|-------------------------------------------------|----------------------------------------------|-------------------------------------------------|----------------------------------------|---------------------------------------|------------------|-----------------|----------------|------------------|
| Pressure Range      | Family Part # | Hose Description                                  | 14                                              | 16                                           | 20                                              | 24                                     | 32                                    | 40               | 48              | 56             | 64               |
|                     |               |                                                   | Hose ID                                         |                                              |                                                 |                                        |                                       |                  |                 |                |                  |
|                     |               |                                                   | 7/8"<br>(22.2 mm)<br>UT, AC:<br>3/4"<br>(19 mm) | 1"<br>(25.4 mm)<br>R5, UT: 7/8"<br>(22.2 mm) | 1¼"<br>(31.8 mm)<br>R5, UT:<br>1½"<br>(28.6 mm) | 1½"<br>(38.1 mm)<br>R5: 1⅜"<br>(35 mm) | 2"<br>(50.8 mm)<br>R5: 1⅜"<br>(46 mm) | 2½"<br>(63.5 mm) | 3"<br>(76.2 mm) | 3½"<br>(89 mm) | 4"<br>(101.6 mm) |
| Very High Pressure  | SR12          | SAE 100R12/EN 856 R12                             |                                                 | 4100                                         | 3050                                            | 2550                                   | 2550                                  |                  |                 |                |                  |
|                     | ARC12         | ARMORCOAT™ SAE 100R12/EN 856 R12 (Abrasion Cover) |                                                 | 4100                                         | 3050                                            | 2550                                   | 2550                                  |                  |                 |                |                  |
|                     | SR13          | SAE 100R13/EN 856 R13                             |                                                 | 5100                                         | 5100                                            | 5100                                   | 5100                                  |                  |                 |                |                  |
|                     | ARC13         | ARMORCOAT™ SAE 100R13/EN 856 R13 (Abrasion Cover) |                                                 | 5100                                         | 5100                                            | 5100                                   | 5100                                  |                  |                 |                |                  |
|                     | SR15          | SAE 100R15                                        |                                                 | 6100                                         | 6100                                            | 6100                                   |                                       |                  |                 |                |                  |
|                     | ARC15         | ARMORCOAT™ SAE 100R15 (Abrasion Cover)            |                                                 | 6100                                         |                                                 |                                        |                                       |                  |                 |                |                  |
|                     | S4SP          | EN 856 4SP                                        |                                                 | 4640                                         |                                                 |                                        |                                       |                  |                 |                |                  |
|                     | S4SH          | EN 856 4SH                                        |                                                 | 5510                                         | 5080                                            | 4205                                   | 3650                                  |                  |                 |                |                  |
| Thermoplastic       | SR7           | SAE 100R7/EN 855 R7                               |                                                 | 1000                                         |                                                 |                                        |                                       |                  |                 |                |                  |
|                     | TR7           | SAE 100R7 (Twin-Line)                             |                                                 |                                              |                                                 |                                        |                                       |                  |                 |                |                  |
|                     | NR7           | SAE 100R7 (Non-Conductive)                        |                                                 | 1000                                         |                                                 |                                        |                                       |                  |                 |                |                  |
|                     | BR7           | SAE 100R7 (Twin-Line, Non-Conductive)             |                                                 |                                              |                                                 |                                        |                                       |                  |                 |                |                  |
|                     | SR8           | SAE 100R8/EN 855 R8                               |                                                 |                                              |                                                 |                                        |                                       |                  |                 |                |                  |
|                     | TR8           | SAE 100R8 (Twin-Line)                             |                                                 |                                              |                                                 |                                        |                                       |                  |                 |                |                  |
|                     | NR8           | SAE 100R8 (Non-Conductive)                        |                                                 |                                              |                                                 |                                        |                                       |                  |                 |                |                  |
|                     | SR18          | SAE 100R18                                        |                                                 |                                              |                                                 |                                        |                                       |                  |                 |                |                  |
| Special Application | NSFX          | SAFLEX® (Non-conductive)                          |                                                 |                                              |                                                 |                                        |                                       |                  |                 |                |                  |
|                     | SHR           | Prospector™ SHR (Slim-Hole Rotary)                |                                                 | 5100                                         | 5100                                            | 5100                                   | 5100/3650/3000                        |                  | 2400            |                |                  |
|                     | BOP           | Prospector™ BOP (Blow Out Preventor)              |                                                 | 3000/5000                                    | 5000                                            | 5000                                   | 5000                                  |                  |                 |                |                  |
|                     | SGUN          | Grease Gun Hose                                   |                                                 |                                              |                                                 |                                        |                                       |                  |                 |                |                  |
|                     | SHJ           | Jack Hose                                         |                                                 |                                              |                                                 |                                        |                                       |                  |                 |                |                  |
|                     | Hot Oiler     | Prospector™ (Hot Oiler)                           |                                                 |                                              |                                                 | 2500                                   |                                       |                  |                 |                |                  |

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|                      |                 |                                            | Dash Size        |                   |                                                  |                                               |                                           |                                                         |                                                       |                                                     |
|----------------------|-----------------|--------------------------------------------|------------------|-------------------|--------------------------------------------------|-----------------------------------------------|-------------------------------------------|---------------------------------------------------------|-------------------------------------------------------|-----------------------------------------------------|
| Pressure Range       | Family Part #   | Hose Description                           | 02               | 03                | 04                                               | 05                                            | 06                                        | 08                                                      | 10                                                    | 12                                                  |
|                      |                 |                                            | Hose ID          |                   |                                                  |                                               |                                           |                                                         |                                                       |                                                     |
|                      |                 |                                            | 1/8"<br>(3.3 mm) | 3/16"<br>(4.8 mm) | 1/4"<br>(6.4 mm)<br>R5, UT:<br>3/16"<br>(4.8 mm) | 5/16"<br>(7.9 mm)<br>R5, UT: 1/4"<br>(6.4 mm) | 3/8"<br>(9.5 mm)<br>R5: 5/16"<br>(7.9 mm) | 1/2"<br>(12.7 mm)<br>R5, UT, AC:<br>13/32"<br>(10.3 mm) | 5/8"<br>(15.9 mm)<br>R5, UT, AC:<br>1/2"<br>(12.7 mm) | 3/4"<br>(19 mm)<br>R5, UT, AC:<br>5/8"<br>(15.9 mm) |
| Fleet Application    | SR14A           | SAE 100R14A                                |                  | 3000              | 3000                                             | 2500                                          | 2250                                      | 1500                                                    | 1200                                                  | 1100                                                |
|                      | SR5             | SAE 100R5                                  |                  |                   | 3000                                             | 3000                                          | 2250                                      | 2000                                                    | 1750                                                  | 1500                                                |
|                      | DR5             | Desert® SAE 100R5 (High Temp)              |                  |                   | 3000                                             | 3000                                          | 2250                                      | 2000                                                    | 1750                                                  | 1500                                                |
|                      | SCX5            | SAE 100R5 (Rubber Covered)                 |                  |                   |                                                  | 3000                                          | 2250                                      | 2000                                                    | 1750                                                  | 1500                                                |
|                      | Desert® DUT     | Universal Truck                            |                  |                   | 2000                                             | 1500                                          | 1500                                      | 1250                                                    | 1000                                                  | 750                                                 |
| Air Conditioning     | G4826           | Air Conditioning SAE J2064 Type C Class II |                  |                   |                                                  |                                               | 500                                       | 500                                                     | 500                                                   | 350                                                 |
|                      | G4867           | Air Conditioning SAE J2064 Type C Class II |                  |                   |                                                  |                                               |                                           |                                                         |                                                       |                                                     |
|                      | G4890           | Air Conditioning SAE J2064 Type C Class I  |                  |                   |                                                  |                                               | 500                                       | 500                                                     | 500                                                   | 350                                                 |
| Military Application | MIL-H-13444-I   | MIL-DTL-13444H Type I                      |                  | 425               | 300                                              | 275                                           | 250                                       | 200                                                     | 175                                                   | 125                                                 |
|                      | MIL-H-13444 III | MIL-DTL-13444H Type III                    |                  |                   | 1500                                             | 1500                                          | 1000                                      | 1000                                                    | 875                                                   | 750                                                 |
|                      | M13531-BA       | MIL-DTL-13531 Type II, Class A             |                  | 5000              | 5000                                             | 4250                                          | 4000                                      | 3500                                                    | 2750                                                  | 2250                                                |
|                      | MIL-3992        | MIL-DTL-39921 Type I, Class 1              |                  |                   |                                                  |                                               | 200                                       |                                                         | 200                                                   |                                                     |
|                      | M8788           | MIL-DTL-8788                               |                  |                   | 3000                                             | 3000                                          | 3000                                      | 3000                                                    | 3000                                                  | 3000                                                |

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|                      |                 |                                            | Dash Size                                     |                                              |                                                 |                                        |                                       |                  |                 |                |                  |
|----------------------|-----------------|--------------------------------------------|-----------------------------------------------|----------------------------------------------|-------------------------------------------------|----------------------------------------|---------------------------------------|------------------|-----------------|----------------|------------------|
| Pressure Range       | Family Part #   | Hose Description                           | 14                                            | 16                                           | 20                                              | 24                                     | 32                                    | 40               | 48              | 56             | 64               |
|                      |                 |                                            | Hose ID                                       |                                              |                                                 |                                        |                                       |                  |                 |                |                  |
|                      |                 |                                            | 7/8"<br>(22.2mm)<br>UT, AC:<br>3/4"<br>(19mm) | 1"<br>(25.4 mm)<br>R5, UT: 7/8"<br>(22.2 mm) | 1¼"<br>(31.8 mm)<br>R5, UT:<br>1½"<br>(28.6 mm) | 1½"<br>(38.1 mm)<br>R5: 1⅜"<br>(35 mm) | 2"<br>(50.8 mm)<br>R5: 1⅞"<br>(46 mm) | 2½"<br>(63.5 mm) | 3"<br>(76.2 mm) | 3½"<br>(89 mm) | 4"<br>(101.6 mm) |
| Fleet Application    | SR14A           | SAE 100R14A                                |                                               | 900                                          |                                                 |                                        |                                       |                  |                 |                |                  |
|                      | SR5             | SAE 100R5                                  |                                               | 800                                          | 625                                             | 500                                    | 350                                   |                  |                 |                |                  |
|                      | DR5             | Desert® SAE 100R5 (High Temp)              |                                               | 800                                          | 625                                             |                                        |                                       |                  |                 |                |                  |
|                      | SCX5            | SAE 100R5 (Rubber Covered)                 |                                               | 800                                          | 625                                             |                                        |                                       |                  |                 |                |                  |
|                      | Desert® DUT     | Universal Truck                            |                                               | 400                                          | 300                                             |                                        |                                       |                  |                 |                |                  |
|                      |                 |                                            |                                               |                                              |                                                 |                                        |                                       |                  |                 |                |                  |
| Air Conditioning     | G4826           | Air Conditioning SAE J2064 Type C Class II |                                               |                                              |                                                 |                                        |                                       |                  |                 |                |                  |
|                      | G4867           | Air Conditioning SAE J2064 Type C Class II | 350                                           |                                              |                                                 |                                        |                                       |                  |                 |                |                  |
|                      | G4890           | Air Conditioning SAE J2064 Type C Class I  |                                               |                                              |                                                 |                                        |                                       |                  |                 |                |                  |
|                      |                 |                                            |                                               |                                              |                                                 |                                        |                                       |                  |                 |                |                  |
| Military Application | MIL-H-13444-I   | MIL-DTL-13444H Type I                      |                                               |                                              |                                                 |                                        |                                       |                  |                 |                |                  |
|                      | MIL-H-13444 III | MIL-DTL-13444H Type III                    |                                               |                                              | 375                                             | 300                                    |                                       |                  |                 |                |                  |
|                      | M13531-BA       | MIL-DTL-13531 Type II, Class A             |                                               | 2000                                         | 2000                                            |                                        |                                       |                  |                 |                |                  |
|                      | MIL-3992        | MIL-DTL-39921 Type I, Class 1              |                                               |                                              |                                                 |                                        |                                       |                  |                 |                |                  |
|                      | M8788           | MIL-DTL-8788                               |                                               |                                              | 3000                                            |                                        |                                       |                  |                 |                |                  |
|                      |                 |                                            |                                               |                                              |                                                 |                                        |                                       |                  |                 |                |                  |

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## Hydraulic Hose Special Attributes

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| Family Part # | Hose Description                            | Meets Flame Resistance USMSHA Designation | Meets Higher DIN/EN Pressure | USCG Approved | ABS Approved | Higher Temp Hose | Low Temp Hose | Abrasion Cover Hose | Twin-Line Hose | Non-Conductive Hose | Fire Tested | SAE J1402/ DOT |
|---------------|---------------------------------------------|-------------------------------------------|------------------------------|---------------|--------------|------------------|---------------|---------------------|----------------|---------------------|-------------|----------------|
| SR1SN         | SAE 100R1AT/1SN                             |                                           |                              |               |              |                  |               |                     |                |                     |             |                |
| Desert® DR1SN | SAE 100R1AT/1SN                             |                                           |                              | ≤1            | ≤1           |                  |               |                     |                |                     |             |                |
| SFS           | SAE 100R1AT/1SN (Fire Suppression)          |                                           |                              |               |              |                  |               |                     |                |                     |             |                |
| SR2SN         | SAE 100R2AT/2SN                             |                                           |                              |               |              |                  |               |                     |                |                     |             |                |
| Arctic® LR2SN | SAE 100R2AT/2SN                             |                                           |                              |               |              |                  |               |                     |                |                     |             |                |
| DR16SC        | SAE 100R16-EN 8572SC                        |                                           |                              |               |              |                  |               |                     |                |                     |             |                |
| Desert® DR2SN | SAE 100R2AT/2SN                             |                                           |                              |               |              |                  |               |                     |                |                     |             |                |
| SR3           | SAE 100R3/EN 854 R3                         |                                           |                              |               |              |                  |               |                     |                |                     |             |                |
| HR4           | SAE 100R4                                   |                                           |                              |               |              |                  |               |                     |                |                     |             |                |
| SR5           | SAE 100R5                                   |                                           |                              |               |              |                  |               |                     |                |                     |             |                |
| Desert® DR5   | SAE 100R5                                   |                                           |                              |               |              |                  |               |                     |                |                     |             |                |
| SCX5          | SAE 100R5 Working Pressure (Rubber Covered) |                                           |                              |               |              |                  |               |                     |                |                     |             |                |
| Desert® DUT   | SAE J1402 A1 (Universal Truck)              |                                           |                              |               |              |                  |               |                     |                |                     |             |                |
| SR6           | SAE 100R6/EN 854 R6                         |                                           |                              |               |              |                  |               |                     |                |                     |             |                |
| HR6           | SAE 100R6/EN 854 R6                         |                                           |                              |               |              |                  |               |                     |                |                     |             |                |
| SR7           | SAE 100R7/EN 855 R7                         |                                           |                              |               |              |                  |               |                     |                |                     |             |                |
| NR7           | SAE 100R7 (Non-Conductive)                  |                                           |                              |               |              |                  |               |                     |                |                     |             |                |
| NSFX          | SAFLEX® (Non-Conductive)                    |                                           |                              |               |              |                  |               |                     |                |                     |             |                |
| TR7           | SAE 100R7 (Twin-Line)                       |                                           |                              |               |              |                  |               |                     |                |                     |             |                |
| BR7           | SAE 100R7 (Twin-Line, Non-Conductive)       |                                           |                              |               |              |                  |               |                     |                |                     |             |                |
| SR8           | SAE 100R8/EN 855 R8                         |                                           |                              |               |              |                  |               |                     |                |                     |             |                |
| NR8           | SAE 100R8 (Non-Conductive)                  |                                           |                              |               |              |                  |               |                     |                |                     |             |                |
| TR8           | SAE 100R8 (Twin-Line)                       |                                           |                              |               |              |                  |               |                     |                |                     |             |                |
| S4SH          | EN 856 4SH/ DIN 20023 4SH                   |                                           |                              |               | Pending      |                  |               |                     |                |                     |             |                |
| S4SP          | EN 856 4SP/ DIN 20023 4SP                   |                                           |                              |               | Pending      |                  |               |                     |                |                     |             |                |
| XCP4          | SAE 100R19/ ISO 11237                       |                                           |                              | Pending       | Pending      |                  |               |                     |                |                     |             |                |
| SR12          | SAE 100R12/ EN 856 R12                      |                                           |                              |               | Pending      |                  |               |                     |                |                     |             |                |

USCG - Hose and hose assemblies meet requirements of SAE J1492. Hose fittings meet requirements of SAE J1475



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| Family Part #      | Hose Description                          | Meets Flame Resistance USMSHA Designation | Meets Higher DIN/EN Pressure | USCG Approved | ABS Approved | Higher Temp Hose | Low Temp Hose | Abrasion Cover Hose | Twin-Line Hose | Non-Conductive Hose | Fire Tested | SAE J1402/ DOT |
|--------------------|-------------------------------------------|-------------------------------------------|------------------------------|---------------|--------------|------------------|---------------|---------------------|----------------|---------------------|-------------|----------------|
| ARMORCOAT™ ARC12   | SAE 100R12/ EN 856 R12                    |                                           |                              |               |              |                  |               |                     |                |                     |             |                |
| SR13               | SAE 100R13/ EN 856 R13                    |                                           |                              |               | Pending      |                  |               |                     |                |                     |             |                |
| ARMORCOAT™ ARC13   | SAE 100R13/ EN 856 R13                    |                                           |                              |               |              |                  |               |                     |                |                     |             |                |
| SR14A              | SAE 100R14A                               |                                           |                              |               |              |                  |               |                     |                |                     |             |                |
| SR15               | SAE 100R15                                |                                           |                              |               | Pending      |                  |               |                     |                |                     |             |                |
| ARMORCOAT™ ARC15   | SAE 100R15                                |                                           |                              |               |              |                  |               |                     |                |                     |             |                |
| SR16SC             | SAE 100R16/ 857 2SC                       |                                           |                              |               |              |                  |               |                     |                |                     |             |                |
| Desert® XR16SC     | SAE 100R16/ 857 2SC                       |                                           |                              |               |              |                  |               |                     |                |                     |             |                |
| ARMORCOAT™ ARC16SC | SAE 100R16/ 857 2SC                       |                                           |                              |               |              |                  |               |                     |                |                     |             |                |
| SCP3               | SAE 100R17                                |                                           |                              |               |              |                  |               |                     |                |                     |             |                |
| ARMORCOAT™ ACP3    | SAE 100R17                                |                                           |                              |               |              |                  |               |                     |                |                     |             |                |
| XCP3               | SAE 100R17                                |                                           |                              |               |              |                  |               |                     |                |                     |             |                |
| SR18               | SAE 100R18                                |                                           |                              |               |              |                  |               |                     |                |                     |             |                |
| SHR                | Prospector™ SHR (Slim-Hole Rotary)        |                                           |                              |               |              |                  |               |                     |                |                     |             |                |
| BOP                | Prospector™ BOP (Blow-Out Preventor)      |                                           |                              |               |              |                  |               |                     |                |                     |             |                |
| SGUN               | Grease Gun Hose                           |                                           |                              |               |              |                  |               |                     |                |                     |             |                |
| SHJ                | Jack Hose                                 |                                           |                              |               |              |                  |               |                     |                |                     |             |                |
| IG                 | Insta-Grip™ 300 (Push-On)                 |                                           |                              |               |              |                  |               |                     |                |                     |             |                |
| IGHT               | Insta-Grip™ HT 300 (Push-On, High Temp)   |                                           |                              |               |              |                  |               |                     |                |                     |             |                |
| IGTC               | Insta-Grip™ TC (Push-On, Textile Cover)   |                                           |                              |               |              |                  |               |                     |                |                     |             |                |
| FXG                | FLEXA-Grip™ (Push-On)                     |                                           |                              |               |              |                  |               |                     |                |                     |             |                |
| MIL-H-13444-I      | MIL-DTL-13444H Type I (Military)          |                                           |                              |               |              |                  |               |                     |                |                     |             |                |
| MIL-H-13444-III    | MIL-DTL-13444H Type III (Military)        |                                           |                              |               |              |                  |               |                     |                |                     |             |                |
| M13531-BA          | MIL-DTL-13531 Type II, Class A (Military) |                                           |                              |               |              |                  |               |                     |                |                     |             |                |
| MIL-3992           | MIL-DTL-39921 Type I, Class 1 (Military)  |                                           |                              |               |              |                  |               |                     |                |                     |             |                |
| M8788              | MIL-DTL-8788 (Military)                   |                                           |                              |               |              |                  |               |                     |                |                     |             |                |

Fittings

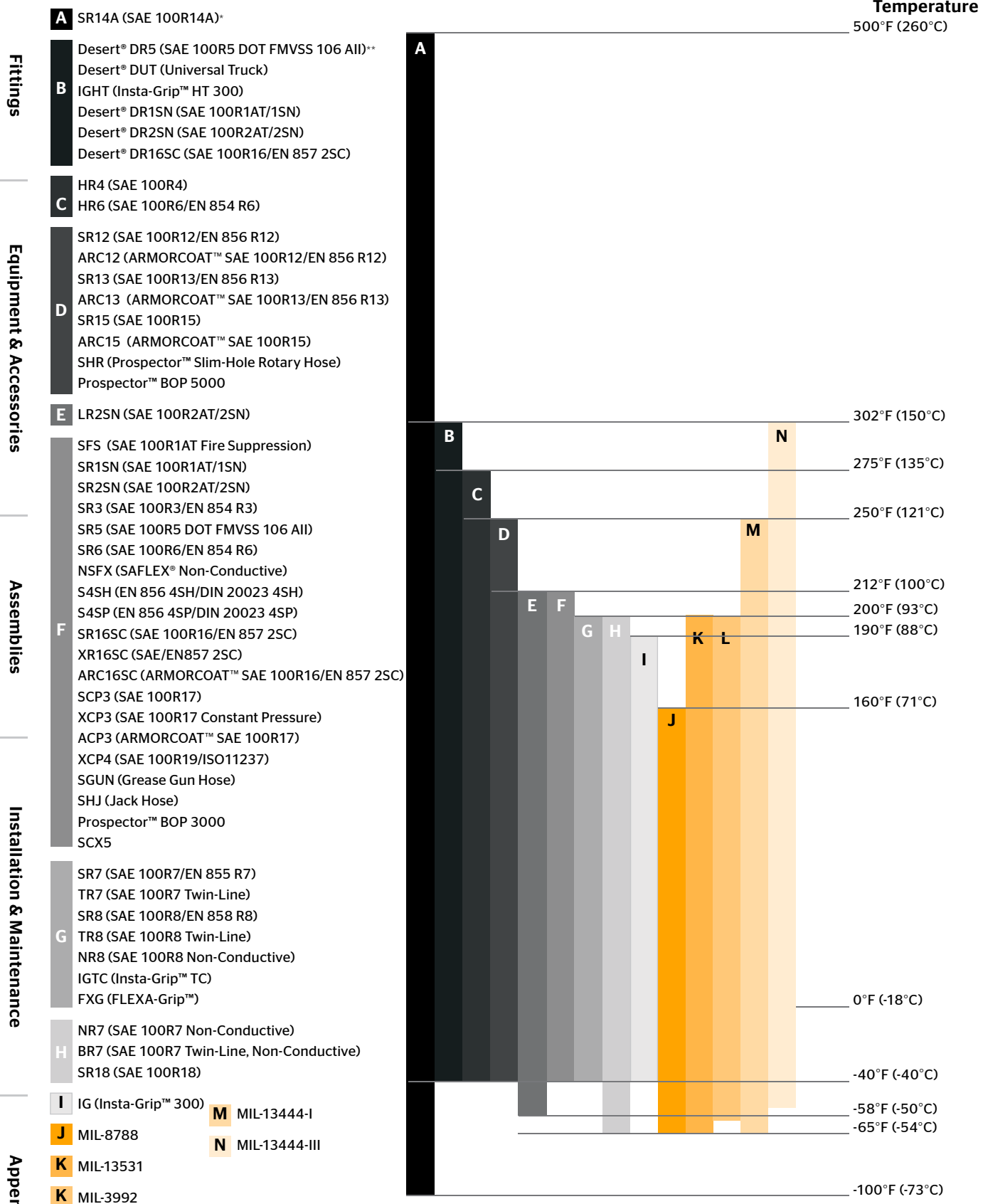
Equipment &amp; Accessories

Assemblies

Installation &amp; Maintenance

Appendix

# Hose Temperature Limits



## Hose Accessories

### Protective Sleeving



#### Application

Extends hose life by protecting hose covers from abrasion typically found in industries such as agricultural, logging, construction and mining. Protective sleeving can also be useful in bundling hose assemblies, making it easier to handle multiple hoses.

#### Features

- › Abrasion resistant
- › MSHA approved
- › Good resistance to sun, atmospheric agents and aging

#### Temperature Range

-40°F to 340°F (-40°C to 171.1°C)

#### Material

Polyamide 6 (nylon)

#### Color

Black

#### Available Lengths

Continuous 100' rolls

| Descriptive # | Product #  | SAP #    | ID   | Flat Width | Weight   |
|---------------|------------|----------|------|------------|----------|
|               |            |          | in.  | in.        | lbs./ft. |
| GTEXS20       | 60200-0020 | 20243598 | 0.79 | 1.34       | .02      |
| GTEXS25       | 60200-0025 | 20243599 | 0.98 | 1.65       | .03      |
| GTEXS27       | 60200-0027 | 20243600 | 1.06 | 1.77       | .03      |
| GTEXS31       | 60200-0031 | 20243601 | 1.22 | 2.05       | .04      |
| GTEXS36       | 60200-0036 | 20243602 | 1.42 | 2.24       | .04      |
| GTEXS40       | 60200-0040 | 20243603 | 1.57 | 2.60       | .05      |
| GTEXS44       | 60200-0044 | 20243604 | 1.73 | 2.83       | .06      |
| GTEXS55       | 60200-0055 | 20243605 | 2.17 | 3.50       | .07      |

## Hose Accessories

### Protective Wrap



#### Application

Extends hose life by offering resistance to kinking and cover abrasion. The protective wrap may also be used for the bundling of hose lines for easier handling.

#### Features

- › Can be installed without disconnecting hose
- › Can be overlapped for greater protection
- › Lightweight

#### Temperature Range

-30°F to 185°F (-34°C to 85°C)

#### Material

Cellulose acetate (thermoplastic)

#### Color

Black

#### Available Lengths

Continuous 66' rolls

| Descriptive # | Product #  | SAP #    | ID   | Flat Width | Weight   |
|---------------|------------|----------|------|------------|----------|
|               |            |          | in.  | in.        | lbs./ft. |
| HWRAP-12      | 60210-0012 | 20243592 | 0.50 | .07        | .05      |
| HWRAP-16      | 60210-0016 | 20243593 | 0.63 | .07        | .06      |
| HWRAP-19      | 60210-0019 | 20243594 | 0.75 | .09        | .08      |
| HWRAP-25      | 60210-0025 | 20243595 | 1.00 | .09        | .12      |
| HWRAP-35      | 60210-0035 | 20243596 | 1.38 | .09        | .17      |
| HWRAP-47      | 60210-0047 | 20243597 | 1.85 | .15        | .28      |

\*Extruded spiral will have +/- 4% variation in thickness and weight.

## Hose Accessories

### Hose Routing Clamps



#### Application

Used for support for long hose lengths. Also aids proper hose routing where abrasion or heat exists.

#### Material

Steel with 1/32" thick black vinyl cushion

| Descriptive # | Product #  | SAP #    | Clamping Diameter | Bolt Hole |
|---------------|------------|----------|-------------------|-----------|
|               |            |          | in.               | in.       |
| HRC-0413      | 60300-0413 | 20539632 | 3/16              | 1/4       |
| HRC-0509      | 60300-0509 | 20539633 | 1/4               | 9/32      |
| HRC-0709      | 60300-0709 | 20431807 | 3/8               | 9/32      |
| HRC-0809      | 60300-0809 | 20431808 | 7/16              | 9/32      |
| HRC-0913      | 60300-0913 | 20431809 | 1/2               | 13/32     |
| HRC-1013      | 60300-1013 | 20431810 | 9/16              | 13/32     |
| HRC-1113      | 60300-1113 | 20431811 | 5/8               | 13/32     |
| HRC-1213      | 60300-1213 | 20431812 | 11/16             | 13/32     |
| HRC-1313      | 60300-1313 | 20431813 | 3/4               | 13/32     |
| HRC-1413      | 60300-1413 | 20431814 | 13/16             | 13/32     |
| HRC-1513      | 60300-1513 | 20431815 | 7/8               | 13/32     |
| HRC-1613      | 60300-1613 | 20431816 | 15/16             | 13/32     |
| HRC-1713      | 60300-1713 | 20431817 | 1                 | 13/32     |
| HRC-1813      | 60300-1813 | 20431818 | 1 1/16            | 13/32     |
| HRC-1913      | 60300-1913 | 20431819 | 1 1/8             | 13/32     |
| HRC-2017      | 60300-2017 | 20431820 | 1 3/16            | 17/32     |
| HRC-2117      | 60300-2117 | 20431821 | 1 1/4             | 17/32     |
| HRC-2317      | 60300-2317 | 20431822 | 1 3/8             | 17/32     |
| HRC-2517      | 60300-2517 | 20431823 | 1 1/2             | 17/32     |
| HRC-2617      | 60300-2617 | 20431824 | 1 9/16            | 17/32     |
| HRC-2917      | 60300-2917 | 20431825 | 1 3/4             | 17/32     |
| HRC-3117      | 60300-3117 | 20431826 | 1 7/8             | 17/32     |
| HRC-3217      | 60300-3217 | 20431827 | 1 15/16           | 17/32     |
| HRC-3317      | 60300-3317 | 20431828 | 2                 | 17/32     |
| HRC-3417      | 60300-3417 | 20431829 | 2 5/32            | 17/32     |
| HRC-3817      | 60300-3817 | 20431830 | 2 21/32           | 17/32     |



**Fittings**

# Hydraulic Fitting Nomenclature

Example: **B2 - JCFX45 - 0608**

| Fitting Family                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Thread Description                                                                                      | Hose Dash Size                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Thread Dash Size                                                                                                                                                                                                                                      |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| First 2 characters                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Next 2-7 characters                                                                                     | Next 2 characters                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Last 2 characters                                                                                                                                                                                                                                     |
| <b>B2</b><br>S4<br>S6 Ultra-Crimp™ 1-piece fitting<br>SG<br><hr/> T7 Thermoplastic 1-piece fitting<br>T8<br><hr/> FG = Field-Grip™ 1-piece reattachable fitting<br>UT = DUT Hose 1-piece reattachable fitting<br><hr/> UC Uni-Crimp™ Stem (2-piece fitting)<br><hr/> DG Dual-Grip™ Stem (2-piece internal and external skive fitting)<br><hr/> PB = Push-On Brass (1-piece fitting)<br>SF = SAFLEX® (1-piece fitting)<br>GG = Grease Gun (1-piece fitting)<br>AC = Air Conditioning (1-piece crimp fitting)<br>GC = Cool Clip® (air conditioning clip fitting) | Refer to the next page for detailed information.<br><br>For AC and GC fittings, see Fittings Section 9. | <b>All hoses except SAE 100R5, SCX5, DUT and Galaxy Hose</b><br>02 = 1/8" (3.2 mm)<br>03 = 3/16" (4.8 mm)<br>04 = 1/4" (6.4 mm)<br>05 = 5/16" (7.9 mm)<br><b>06 = 3/8" (9.5 mm)</b><br>08 = 1/2" (12.7 mm)<br>10 = 5/8" (15.9 mm)<br>12 = 3/4" (19 mm)<br>16 = 1" (25.4 mm)<br>20 = 1 1/4" (31.8 mm)<br>24 = 1 1/2" (38.1 mm)<br>32 = 2" (50.8 mm)<br>40 = 2 1/2" (63.5 mm)<br><br><b>SAE 100R5, DUT and Galaxy® Hose</b><br>04 = 3/16" (4.8 mm)<br>05 = 1/4" (6.4 mm)<br>06 = 5/16" (7.9 mm)<br>08 = 13/32" (10.3 mm)<br>10 = 1/2" (12.7 mm)<br>12 = 5/8" (15.9 mm)<br>14 = 3/4" (19.1 mm)<br>16 = 7/8" (22.2 mm)<br>20 = 1 1/8" (28.6 mm)<br>24 = 1 3/8" (35 mm) | 02<br>03<br>04<br>05<br>06<br><b>08</b><br>10<br>12<br>14<br>15<br>16<br>18<br>20<br>22<br>24<br>26<br>28<br>30<br>32<br>36<br>40<br>42<br>45<br>52<br><br>See "Thread Reference Chart" on pages 299-300 for crossing over dash size to thread sizes. |

## Warning - Selection of Fitting

Selection of the proper fittings for the application is essential to the proper operation and safe use of the hose and related equipment. Inadequate attention to the selection of the hose fitting for the application can result in hose leakage, bursting or other failures, which can cause serious bodily injury or property damage from spraying fluids or flying projectiles. Some of the factors involved in the selection of the proper hose ends are:

› Fluid Compatibility › Pressure › Temperature › Installation Design › Hose Size › Corrosion Requirements

If there are any questions as to what fitting should be used, Continental ContiTech recommends that you consult the Continental ContiTech Hydraulics Application Group for assistance.

## Proper Assembly of Continental ContiTech Perma-Crimp™ Hose and Fittings

Continental ContiTech Perma-Crimp™ hose, fittings and crimping equipment work together to provide an efficient and reliable hose connection. Continental ContiTech hose and fittings are part of an engineered system and are to be assembled in accordance with Continental ContiTech specifications. Using non-Continental ContiTech components may produce an assembly that does not meet rated performance. Continental ContiTech DOES NOT WARRANT, EXPRESSLY OR BY IMPLICATION, HOSE ASSEMBLIES THAT DO NOT INCORPORATE Continental ContiTech PERMA-CRIMP™ HOSE AND FITTINGS, OR ARE NOT CRIMPED in ACCORDANCE WITH Continental ContiTech's PROCESS SPECIFICATIONS.

Buyers may elect to attach additional or non-standard parts or equipment, or to use different manufacturing specifications, as necessary to meet the requirements of the buyer or customer's application. In such cases, the buyer has sole responsibility to qualify the hose for these applications as necessary to ensure performance capability.

For guidance in the assembly of Continental ContiTech Perma-Crimp™ hose and couplings, please refer to the Continental ContiTech Crimp Specifications Manual. Information in this catalog is believed to be accurate, but is not warranted, and is subject to change without prior notice. For the most current available product information, check [www.contitech.us](http://www.contitech.us).

## Hydraulic Fitting Nomenclature

| Thread   | Thread Description               | Gender | Swivel | Elbow                       |
|----------|----------------------------------|--------|--------|-----------------------------|
| JC FX    | JIC 37° Flare (SAE J514)         | Female | Swivel |                             |
| JC FX45  |                                  | Female | Swivel | 45° Elbow                   |
| JC FX90  |                                  | Female | Swivel | 90° Elbow                   |
| JC FX90L |                                  | Female | Swivel | 90° Elbow (Long Drop-Tube)  |
| JC FX90S |                                  | Female | Swivel | 90° Elbow (Short Drop-Tube) |
| JC M     |                                  | Male   |        |                             |
| SF FX    | SAE 45° J512 Flare               | Female | Swivel |                             |
| SF FX45  |                                  | Female | Swivel | 45° Elbow                   |
| SF FX90  |                                  | Female | Swivel | 90° Elbow                   |
| SF FX90L |                                  | Female | Swivel | 90° Elbow (Long Drop-Tube)  |
| SF FX90S |                                  | Female | Swivel | 90° Elbow (Short Drop-Tube) |
| SF M     |                                  | Male   |        |                             |
| SI F     | SAE 45° Inverted Flare           | Female |        |                             |
| SI M     |                                  | Male   |        |                             |
| SI MX    |                                  | Male   | Swivel |                             |
| SI MX45  |                                  | Male   | Swivel | 45° Elbow                   |
| SI MX90  |                                  | Male   | Swivel | 90° Elbow                   |
| NP F     | NPTF                             | Female |        |                             |
| NP FX    |                                  | Female | Swivel |                             |
| NP M     |                                  | Male   |        |                             |
| NP M90   |                                  | Male   |        | 90° Elbow                   |
| NP MX    |                                  | Male   | Swivel |                             |
| NP MX90B |                                  | Male   | Swivel | 90° Elbow (Block)           |
| NP MAPI  | NPTF - Oil Field Connection      | Male   |        |                             |
| HM       | Hose Mender                      |        |        |                             |
| NS FX    | NPSM                             | Female | Swivel |                             |
| FT M     | SAE J514 Flareless Tube Fittings | Male   |        |                             |
| GT F     | Grease Tap                       | Female |        |                             |
| SP       | Standpipe                        |        |        |                             |
| SP 45    |                                  |        |        | 45° Elbow                   |

## Hydraulic Fitting Nomenclature

| Thread   | Thread Description                     | Gender | Swivel | Elbow                       |
|----------|----------------------------------------|--------|--------|-----------------------------|
| OF FX    | O-Ring Face Seal (SAE J1453 ORS/ORFS)  | Female | Swivel |                             |
| OF FX45  |                                        | Female | Swivel | 45° Elbow                   |
| OF FX90  |                                        | Female | Swivel | 90° Elbow                   |
| OF FX90L |                                        | Female | Swivel | 90° Elbow (Long Drop-Tube)  |
| OF FX90S |                                        | Female | Swivel | 90° Elbow (Short Drop-Tube) |
| OF M     |                                        | Male   |        |                             |
| OB M     | O-Ring Boss Straight Thread (SAE J514) | Male   |        |                             |
| OB MX    |                                        | Male   | Swivel |                             |
| OB MX90B |                                        | Male   | Swivel | 90° Elbow (Black)           |
| FL       | Code 61 Flange (SAE J518)              |        |        |                             |
| FL 22    |                                        |        |        | 22.5° Elbow                 |
| FL 30    |                                        |        |        | 30° Elbow                   |
| FL 45    |                                        |        |        | 45° Elbow                   |
| FL 60    |                                        |        |        | 60° Elbow                   |
| FL 67    |                                        |        |        | 67° Elbow                   |
| FL 90    |                                        |        |        | 90° Elbow                   |
| FL 110   |                                        |        |        | 110° Elbow                  |
| FL 135   |                                        |        |        | 135° Elbow                  |
| FL 90EOC | Engine Oil Connection                  |        |        | 90° Elbow                   |
| FH       | Code 62 Flange (SAE J518)              |        |        |                             |
| FH 22    |                                        |        |        | 22.5° Elbow                 |
| FH 30    |                                        |        |        | 30° Elbow                   |
| FH 45    |                                        |        |        | 45° Elbow                   |
| FH 60    |                                        |        |        | 60° Elbow                   |
| FH 67    |                                        |        |        | 67° Elbow                   |
| FH 90    |                                        |        |        | 90° Elbow                   |

Hydraulic Fitting Nomenclature (Continued on next page)



Hydraulic Fitting Nomenclature (Continued)

| Thread  | Thread Description                              | Gender | Swivel | Elbow       |
|---------|-------------------------------------------------|--------|--------|-------------|
| CF      | Caterpillar® Flange                             |        |        |             |
| CF 22   |                                                 |        |        | 22.5° Elbow |
| CF 30   |                                                 |        |        | 30° Elbow   |
| CF 45   |                                                 |        |        | 45° Elbow   |
| CF 60   |                                                 |        |        | 60° Elbow   |
| CF 67   |                                                 |        |        | 67° Elbow   |
| CF 90   |                                                 |        |        | 90° Elbow   |
| KF      | Komatsu® Flange                                 |        |        |             |
| KF 45   |                                                 |        |        | 45° Elbow   |
| KF 90   |                                                 |        |        | 90° Elbow   |
| BP FX   | BSPP (British Standard Pipe Parallel)           | Female | Swivel |             |
| BP FX45 |                                                 | Female | Swivel | 45° Elbow   |
| BP FX90 |                                                 | Female | Swivel | 90° Elbow   |
| BP M    |                                                 | Male   |        |             |
| BT M    | BSPT (British Standard Pipe Tapered)            | Male   |        |             |
| BF FX   | BSP Flat Seat (British Standard Pipe)           | Female | Swivel |             |
| DL FX   | DIN 24° Light                                   | Female | Swivel |             |
| DL FX45 |                                                 | Female | Swivel | 45° Elbow   |
| DL FX90 |                                                 | Female | Swivel | 90° Elbow   |
| DL M    |                                                 | Male   |        |             |
| DH FX   | DIN 24° Heavy                                   | Female | Swivel |             |
| DH FX45 |                                                 | Female | Swivel | 45° Elbow   |
| DH FX90 |                                                 | Female | Swivel | 90° Elbow   |
| DH M    |                                                 | Male   |        |             |
| DN FX45 | DIN 60°                                         | Female | Swivel | 45° Elbow   |
| DN FX90 |                                                 | Female | Swivel | 90° Elbow   |
| KM FX   | Japanese Komatsu® 30° Flare with Metric Threads | Female | Swivel |             |
| KM FX45 |                                                 | Female | Swivel | 45° Elbow   |
| KM FX90 |                                                 | Female | Swivel | 90° Elbow   |
| JS FX   | JIS 30° (Parallel Pipe Threads)                 | Female | Swivel |             |
| PTT FX  | PTT 30° (for DUT Hose)                          | Female | Swivel |             |

Hydraulic Ferrule Nomenclature

Example: **UCF3 - 08**

Ferrule Family

First 4 characters of Part Number

UCF1  
UCF2  
**UCF3**  
UCF4  
UCF5  
UCF6  
UCF7  
UCF8  
UCF9  
UCF10  
UCF11

DGF1 Dual-Grip™ Ferrules,  
DGF2 to be used only with  
Dual-Grip™ Stems.

Thread Dash Size

Last 2 characters of Part Number

03 = 3/16" (4.8 mm)  
04 = 1/4" (6.4 mm)  
05 = 5/16" (7.9 mm)  
06 = 3/8" (9.5 mm)  
**08 = 1/2" (12.7 mm)**  
10 = 5/8" (15.9 mm)  
12 = 3/4" (19 mm)  
16 = 1" (25.4 mm)  
20 = 1¼" (31.8 mm)  
24 = 1½" (38.1 mm)  
32 = 2" (50.8 mm)  
40 = 2½" (63.5 mm)

# Perma-Crimp™ Fitting Selection

## Using the Quick-Find™ Fitting Tables

Continental ContiTech Brand Quick-Find™ hydraulic hose and fitting catalog makes Perma-Crimp™ fitting selection very easy with a 5-step process.

### Step 1 - Choose the Hose Type

The first step in choosing the correct fitting is selecting the hose type. The fitting catalog and product line are broken up into 11 sections. The 11 sections are based on hose type.

#### Hose Family

| Section 1 | Section 2 | Section 3 | Section 4 | Section 5 | Section 6 | Section 6A | Section 7 | Section 8 | Section 9 |
|-----------|-----------|-----------|-----------|-----------|-----------|------------|-----------|-----------|-----------|
| SR1SN     | SR7       | SR12      | SR13      | SR3       | SR5       | DUT        | NSFX      | G4826     | Ferrules  |
| DR1SN     | TR7       | ARC12     | ARC13     | HR4       | DR5       |            | SHR       | G4867     |           |
| SFS       | NR7       |           | SR15      | SR6       | SCX5      |            | Hot Oiler | G4890     |           |
| SR2SN     | BR7       |           | ARC15     | HR6       |           |            | SGUN      |           |           |
| DR2SN     | SR8       |           | S4SP      | SR14A     |           |            | SHJ       |           |           |
| LR2SN     | TR8       |           | S4SH      |           |           |            | IG        |           |           |
| SR16SC    | NR8       |           |           |           |           |            | IGHT      |           |           |
| ARC16SC   | SR18      |           |           |           |           |            | IGTC      |           |           |
| DR16SC    |           |           |           |           |           |            | FXG       |           |           |
| XR16SC    |           |           |           |           |           |            |           |           |           |
| SCP3      |           |           |           |           |           |            |           |           |           |
| ACP3      |           |           |           |           |           |            |           |           |           |
| XCP3      |           |           |           |           |           |            |           |           |           |
| XCP4      |           |           |           |           |           |            |           |           |           |

### Step 2 - Choose the Fitting Description

Once the hose type has been identified, go to the correct section (Sections 1 to 9) and view the available fittings for that particular hose. Within the content of each section there is a table for each fitting. There is a Fitting Description at the top of each table which consists of the following elements:

#### Fitting Description Example

##### JIC 37° Flare (SAE J514)

Thread Description

##### Female

Gender

##### 45° Elbow

Elbow

##### Swivel

Swivel or Non-swivel

Reference Thread Descriptions under Fitting Nomenclature at the beginning of this section. The other attributes of the Fitting Description, including Gender, Elbow and Swivel/Non-swivel, will be found in the fitting table.

### Step 3 - Choose Hose ID and Thread Size

Choose the correct fitting selected in Step 2 based on the Hose ID and Thread Size. In some cases, a fitting may be available in several thread sizes. As an example, a JIC 37° Flare (SAE J514) Female Swivel is available for a Hose ID of 3/8" and thread sizes 9/16-18 and 3/4-16.

### Step 4 - Determine Availability for Hose Type

With the desired fitting identified by Hose ID and Thread Size in Step 3, confirm the fitting is compatible for a particular Hose Type by reading to the right of the product table. A "Y" indicates the fitting is an Ultra-Crimp™ 1-piece fitting and compatible with the hose. A part number would indicate the fitting is a 2-piece fitting, either Uni-Crimp™ or Dual-Grip™ requiring a ferrule. The ferrule part number is required to make an assembly. A blank in the compatibility chart would indicate a fitting is not compatible with a particular hose.

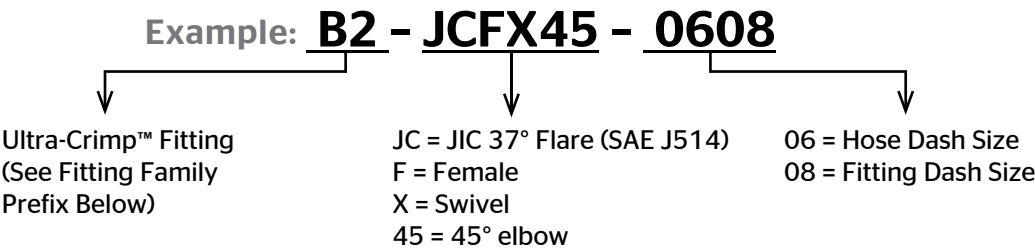
### Step 5 - Note the Part Number

The fitting part number can now be noted. The part number is found on the left side of the chart. If a ferrule is required, that part number is found on the right side of the chart under hose compatibility (Step 4).

# Explanation of Fitting Part Number, Dimensions and Attributes

## Explanation of Part Number

The Continental ContiTech Perma-Crimp™ fitting can be described through its functional part number.



The following prefix will be used in the fitting part number to indicate the Fitting Family:

| Fitting Family Prefix | ID                                                            |
|-----------------------|---------------------------------------------------------------|
| B2, S4, S6, SG        | Ultra-Crimp™ 1-piece fitting                                  |
| T7, T8                | 1-piece fitting for thermoplastic hose                        |
| FG                    | Field-Grip™ 1-piece reattachable fitting                      |
| UT                    | DUT Hose 1-piece reattachable fitting                         |
| UC                    | Uni-Crimp™ Stem (2-piece fitting)                             |
| DG                    | Dual-Grip™ Stem (2-piece internal and external skive fitting) |
| PB                    | Push-On Brass (1-piece fitting)                               |
| SF                    | SAFLEX® (1-piece fitting)                                     |
| GG                    | Grease Gun (1-piece fitting)                                  |
| AC                    | Air Conditioning (1-piece crimp fitting)                      |
| GC                    | Cool Clip® (air conditioning clip fitting)                    |

For the additional breakdown of part number attributes, see Fitting Nomenclature at the beginning of this section.

## Fitting Dimensions and Attributes

Within the product tables, you will find the fitting dimensions or attributes.

**Hose ID** - The compatible hose ID.

**Tube ID** - The tube's outside diameter.

**Thread Size** - The thread size or sizes available for a particular fitting dash size.

**Hex Size** - The wrench size for one or both nuts on the fitting.

**Drop** - The drop or "D" dimension describes the length of the elbow.

**Cut-Off** - The "C" dimension is the amount of hose to be cut for a correct assembly length.

**Length** - The "L" dimension is the overall length of the fitting.

Tables will also indicate whether the fitting is a skive or non-skive type, or whether the fitting is an Ultra-Crimp™, indicated with a "Y" and the correct hose compatibility. In some cases, the fitting might be a Ultra-Crimp™, or two-piece fitting, requiring a ferrule. The ferrule will be denoted for each type of hose applicable.

Continental ContiTech Brand Quick-Find™ catalog is easy to use, with 5 steps in selecting a Perma-Crimp™ fitting. Knowing the hose type and thread style will lead you to the desired part number.

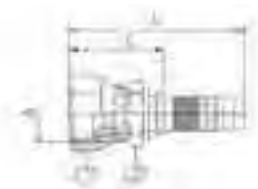
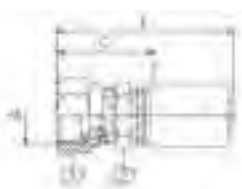
## How to Use the Fitting Tables

This section lists ALL fittings that are compatible with the following hoses:

| Hose Family | Hose Description                                 |
|-------------|--------------------------------------------------|
| SFS         | Fire Suppression                                 |
| SR1SN       | SAE 100R1AT/1SN                                  |
| DR1SN       | SAE 100R1AT/1SN (Desert®)                        |
| SCP3        | Constant Pressure 3000 SAE 100R17                |
| ACP3        | SAE 100R17 (Armorcoat)                           |
| XCP3        | Constant Pressure 3000 SAE 100R17, Extended Life |
| XCP4        | SAE 100R19 /ISO 11237 (Extended Life)            |
| SR2SN       | SAE 100R2AT/2SN                                  |
| DR2SN       | SAE 100R2AT/2SN (Desert®)                        |
| LR2SN       | SAE 100R2AT/2SN (Low Temp)                       |
| SR16SC      | SAE 100R16/EN 857 2SC                            |
| DR16SC      | SAE 100R16/EN 857 2SC (Desert®)                  |
| XR16SC      | SAE 100R16/EN 857 2SC (Extended Life)            |
| ARC16SC     | SAE 100R16/EN 857 2SC (Abrasion Cover)           |

## Fitting Description

### Fitting Type



S=Skive  
NS=Non-Skive  
DG=Dual-Grip™

| Descriptive #    | Product #  | SAP #    | Hose Size ID |     | Thread Size (A) | Hex-1 Wrench Size |    | Hex-2 Wrench Size |    | Cut-Off (C) |      | Length (L) |      | Skive Type | SR1SN, DR1SN, SFS    | SR2SN, DR2SN, LR2SN | SR16SC, XR16SC, ARC16SC, DR16SC | SCP3, XCP3, ACP3 |
|------------------|------------|----------|--------------|-----|-----------------|-------------------|----|-------------------|----|-------------|------|------------|------|------------|----------------------|---------------------|---------------------------------|------------------|
|                  |            |          | in.          | mm  |                 | in.               | mm | in.               | mm | in.         | mm   | in.        | mm   |            |                      |                     |                                 |                  |
| Ultra-Crimp, PN1 | 36400-0304 | 20557173 | 3/16         | 4.8 | 7/16-20         | 9/16              | 14 | 1/2               | 12 | 0.71        | 18.1 | 1.93       | 49.0 | S          | UCF1-03              | UCF2-03             | Y                               | Y                |
| Ultra-Crimp, PN2 | 14400-0403 | 20289599 | 1/4          | 6.4 | 3/8-24          | 9/16              | 14 | 1/2               | 12 | 0.78        | 19.8 | 2.05       | 52.0 | NS         | Y                    | Y                   | Y                               | Y                |
| Uni-Crimp, PN3   | 14400-0404 | 20293262 | 1/4          | 6.4 | 7/16-20         | 5/8               | 16 | 9/16              | 14 | 0.77        | 19.6 | 2.09       | 53.1 | NS         | Uni-Crimp Ferrule PN | Y                   |                                 | Y                |

Choose fittings carefully, considering the working pressure of both hose and fitting. The maximum working pressure of the hose assembly is the lesser of the rated working pressure of the hose and the fitting. See page 327 for working pressure.

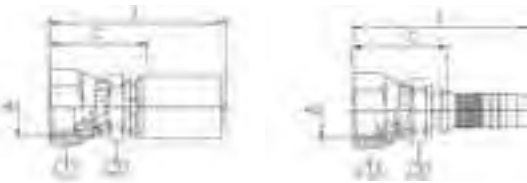
A **Part Number (Ferrule)** in the hose compatibility columns indicates that the fitting is a **Uni-Crimp™** style. The fitting, along with the ferrule shown, work together as a unit for that particular hose.

A **“Y”** in the hose compatibility columns indicates that the fitting is an **Ultra-Crimp™** style fitting and that it works for that particular hose.

A **blank space** in the hose compatibility columns indicates that the fitting **DOES NOT** work for that particular hose.

JIC 37° Flare (SAE J514)

Female | Swivel



S=Skive  
NS=Non-Skive  
DG=Dual-Grip™

| Descriptive # | Product #   | SAP #    | Hose Size ID |      | Thread Size (A) | Hex-1 Wrench Size |    | Hex-2 Wrench Size |    | Cut-Off (C) |      | Length (L) |      | Skive Type | SR1SN, DR1SN, SFS | SR2SN, DR2SN, LR2SN | SR16SC, XR16SC, ARC16SC, DR16SC | SCP3, XCP3, ACP3 | XCP4 |
|---------------|-------------|----------|--------------|------|-----------------|-------------------|----|-------------------|----|-------------|------|------------|------|------------|-------------------|---------------------|---------------------------------|------------------|------|
|               |             |          | in.          | mm   |                 | in.               | mm | in.               | mm | in.         | mm   | in.        | mm   |            |                   |                     |                                 |                  |      |
| UCH-JCFX-0304 |             | 20530659 | 3/16         | 4.8  | 7/16-20         | 9/16              | 14 | 1/2               | 12 | 1.07        | 27.2 | 1.94       | 49.4 | NS         | UCF6-03           | UCF6-03             |                                 |                  |      |
| B2-JCFX-0403  | 14400-0403  | 20293242 | 1/4          | 6.4  | 3/8-24          | 9/16              | 14 | 1/2               | 12 | 1.11        | 28.1 | 2.09       | 53.0 | NS         | Y                 | Y                   | Y                               | Y                | Y    |
| B2-JCFX-0404  | 14400-0404  | 20242031 | 1/4          | 6.4  | 7/16-20         | 5/8               | 16 | 9/16              | 14 | 1.17        | 29.6 | 2.15       | 54.5 | NS         | Y                 | Y                   | Y                               | Y                | Y    |
| B2-JCFX-0404S | 14400-0404S | 20286835 | 1/4          | 6.4  | 7/16-20         | 5/8               | 16 | 9/16              | 14 | 1.17        | 29.6 | 2.15       | 54.5 | NS         | Y                 | Y                   | Y                               | Y                | Y    |
| B2-JCFX-0405  | 14400-0405  | 20242032 | 1/4          | 6.4  | 1/2-20          | 11/16             | 17 | 9/16              | 14 | 1.24        | 31.4 | 2.22       | 56.3 | NS         | Y                 | Y                   | Y                               | Y                | Y    |
| B2-JCFX-0406  | 14400-0406  | 20242029 | 1/4          | 6.4  | 9/16-18         | 3/4               | 19 | 9/16              | 14 | 1.23        | 31.2 | 2.21       | 56.1 | NS         | Y                 | Y                   | Y                               | Y                | Y    |
| B2-JCFX-0406S | 14400-0406S | 20286836 | 1/4          | 6.4  | 9/16-18         | 3/4               | 19 | 9/16              | 14 | 1.23        | 31.2 | 2.21       | 56.1 | NS         | Y                 | Y                   | Y                               | Y                | Y    |
| B2-JCFX-0505  | 14400-0505  | 20242038 | 5/16         | 7.9  | 1/2-20          | 11/16             | 17 | 9/16              | 14 | 1.24        | 31.4 | 2.22       | 56.3 | NS         | Y                 |                     |                                 |                  |      |
| B2-JCFX-0506  | 14400-0506  | 20242037 | 5/16         | 7.9  | 9/16-18         | 3/4               | 19 | 9/16              | 14 | 1.23        | 31.2 | 2.21       | 56.1 | NS         | Y                 |                     |                                 |                  |      |
| B2-JCFX-0604  | 14400-0604  | 20265707 | 3/8          | 9.5  | 7/16-20         | 5/8               | 16 | 11/16             | 17 | 1.16        | 29.4 | 2.21       | 56.0 | NS         | Y                 | Y                   | Y                               | Y                | Y    |
| B2-JCFX-0606  | 14400-0606  | 20242041 | 3/8          | 9.5  | 9/16-18         | 3/4               | 19 | 11/16             | 17 | 1.22        | 31.1 | 2.27       | 57.7 | NS         | Y                 | Y                   | Y                               | Y                | Y    |
| B2-JCFX-0606S | 14400-0606S | 20286837 | 3/8          | 9.5  | 9/16-18         | 3/4               | 19 | 11/16             | 17 | 1.22        | 31.1 | 2.27       | 57.7 | NS         | Y                 | Y                   | Y                               | Y                | Y    |
| B2-JCFX-0608  | 14400-0608  | 20242050 | 3/8          | 9.5  | 3/4-16          | 1                 | 25 | 3/4               | 19 | 1.37        | 34.9 | 2.42       | 61.5 | NS         | Y                 | Y                   | Y                               | Y                | Y    |
| B2-JCFX-0608S | 14400-0608S | 20286838 | 3/8          | 9.5  | 3/4-16          | 1                 | 25 | 3/4               | 19 | 1.37        | 34.9 | 2.42       | 61.5 | NS         | Y                 | Y                   | Y                               | Y                | Y    |
| B2-JCFX-0610  | 14400-0610  | 20242043 | 3/8          | 9.5  | 7/8-14          | 1 1/16            | 27 | 7/8               | 22 | 1.53        | 38.8 | 2.58       | 65.5 | NS         | Y                 | Y                   | Y                               | Y                | Y    |
| B2-JCFX-0612  | 14400-0612  | 20293243 | 3/8          | 9.5  | 1 1/16-12       | 1 1/4             | 32 | 1                 | 25 | 1.64        | 41.6 | 2.69       | 68.3 | NS         | Y                 | Y                   | Y                               | Y                | Y    |
| B2-JCFX-0806  | 14400-0806  | 20242034 | 1/2          | 12.7 | 9/16-18         | 3/4               | 19 | 3/4               | 19 | 1.29        | 32.8 | 2.54       | 64.5 | NS         | Y                 | Y                   | Y                               | Y                | Y    |
| B2-JCFX-0806S | 14400-0806S | 20424925 | 1/2          | 12.7 | 9/16-18         | 3/4               | 19 | 3/4               | 19 | 1.29        | 32.8 | 2.54       | 64.5 | NS         | Y                 | Y                   | Y                               | Y                | Y    |
| B2-JCFX-0808  | 14400-0808  | 20242008 | 1/2          | 12.7 | 3/4-16          | 1                 | 25 | 3/4               | 19 | 1.44        | 36.7 | 2.69       | 68.4 | NS         | Y                 | Y                   | Y                               | Y                | Y    |
| B2-JCFX-0808S | 14400-0808S | 20286839 | 1/2          | 12.7 | 3/4-16          | 1                 | 25 | 3/4               | 19 | 1.44        | 36.7 | 2.69       | 68.4 | NS         | Y                 | Y                   | Y                               | Y                | Y    |
| B2-JCFX-0810  | 14400-0810  | 20242036 | 1/2          | 12.7 | 7/8-14          | 1 1/16            | 27 | 7/8               | 22 | 1.56        | 39.6 | 2.81       | 71.3 | NS         | Y                 | Y                   | Y                               | Y                | Y    |
| B2-JCFX-0810S | 14400-0810S | 20286840 | 1/2          | 12.7 | 7/8-14          | 1 1/16            | 27 | 7/8               | 22 | 1.56        | 39.6 | 2.81       | 71.3 | NS         | Y                 | Y                   | Y                               | Y                | Y    |
| B2-JCFX-0812  | 14400-0812  | 20241925 | 1/2          | 12.7 | 1 1/16-12       | 1 1/4             | 32 | 1                 | 25 | 1.68        | 42.6 | 2.93       | 74.3 | NS         | Y                 | Y                   | Y                               | Y                | Y    |
| B2-JCFX-0816  | 14400-0816  | 20293244 | 1/2          | 12.7 | 1 5/16-12       | 1 1/2             | 38 | 1 1/4             | 32 | 1.83        | 46.5 | 3.08       | 78.2 | NS         | Y                 | Y                   | Y                               | Y                | Y    |
| B2-JCFX-1008  | 14400-1008  | 20242005 | 5/8          | 15.9 | 3/4-16          | 1                 | 25 | 15/16             | 24 | 1.52        | 38.7 | 2.88       | 73.2 | NS         | Y                 | Y                   | Y                               | Y                | Y    |
| B2-JCFX-1010  | 14400-1010  | 20242004 | 5/8          | 15.9 | 7/8-14          | 1 1/16            | 27 | 15/16             | 24 | 1.67        | 42.4 | 3.03       | 76.9 | NS         | Y                 | Y                   | Y                               | Y                | Y    |
| B2-JCFX-1010S | 14400-1010S | 20286841 | 5/8          | 15.9 | 7/8-14          | 1 1/16            | 27 | 15/16             | 24 | 1.67        | 42.4 | 3.03       | 76.9 | NS         | Y                 | Y                   | Y                               | Y                | Y    |
| B2-JCFX-1012  | 14400-1012  | 20242026 | 5/8          | 15.9 | 1 1/16-12       | 1 1/4             | 32 | 1                 | 25 | 1.68        | 42.6 | 3.04       | 77.1 | NS         | Y                 | Y                   | Y                               | Y                | Y    |
| B2-JCFX-1210  | 14400-1210  | 20242047 | 3/4          | 19.0 | 7/8-14          | 1 1/4             | 32 | 1 1/16            | 27 | 1.63        | 41.4 | 3.18       | 80.8 | NS         | Y                 | Y                   | Y                               | Y                | Y    |
| B2-JCFX-1212  | 14400-1212  | 20242025 | 3/4          | 19.0 | 1 1/16-12       | 1 1/4             | 32 | 1 1/16            | 27 | 1.74        | 44.2 | 3.29       | 83.6 | NS         | Y                 | Y                   | Y                               | Y                | Y    |
| B2-JCFX-1212S | 14400-1212S | 20286842 | 3/4          | 19.0 | 1 1/16-12       | 1 1/4             | 32 | 1 1/16            | 27 | 1.74        | 44.2 | 3.29       | 83.6 | NS         | Y                 | Y                   | Y                               | Y                | Y    |
| B2-JCFX-1214  | 14400-1214  | 20242049 | 3/4          | 19.0 | 1 3/16-12       | 1 1/16            | 36 | 1 1/4             | 32 | 1.76        | 44.6 | 3.31       | 84.0 | NS         | Y                 | Y                   | Y                               | Y                | Y    |
| B2-JCFX-1216  | 14400-1216  | 20242046 | 3/4          | 19.0 | 1 5/16-12       | 1 1/2             | 38 | 1 1/4             | 32 | 1.89        | 48.1 | 3.45       | 87.5 | NS         | Y                 | Y                   | Y                               | Y                | Y    |

S: Stainless Steel

Continued on next page

## JIC 37° Flare (SAE J514)

Female | Swivel Continued

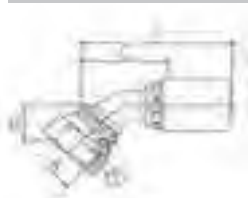
| Descriptive #  | Product #   | SAP #    | Hose Size ID |      | Thread Size (A) | Hex-1 Wrench Size | Hex-2 Wrench Size |     | Cut-Off (C) |      | Length (L) |      | Skive Type | SR15N, DR15N, SFS | SR25N, DR25N, LR25N | SR16SC, XR16SC, ARC16SC, DR16SC | SCP3, XCP3, ACP3 | XCP4 |
|----------------|-------------|----------|--------------|------|-----------------|-------------------|-------------------|-----|-------------|------|------------|------|------------|-------------------|---------------------|---------------------------------|------------------|------|
|                |             |          | in.          | mm   |                 | in.               | mm                | in. | mm          | in.  | mm         | in.  |            | mm                |                     |                                 |                  |      |
| B2-JCFX-1612   | 14400-1612  | 20241921 | 1            | 25.4 | 1½-12           | 1¼                | 32                | 1¼  | 32          | 1.88 | 47.7       | 3.65 | 92.8       | NS                | Y                   | Y                               | Y                | Y    |
| B2-JCFX-1616   | 14400-1616  | 20241916 | 1            | 25.4 | 1½-12           | 1½                | 38                | 1¼  | 32          | 1.96 | 49.8       | 3.74 | 94.9       | NS                | Y                   | Y                               | Y                | Y    |
| B2-JCFX-1616S  | 14400-1616S | 20286843 | 1            | 25.4 | 1½-12           | 1½                | 38                | 1¼  | 32          | 1.96 | 49.8       | 3.74 | 94.9       | NS                | Y                   | Y                               | Y                | Y    |
| B2-JCFX-1620T  | 14400-1620  | 20241919 | 1            | 25.4 | 1½-12           | 2                 | 50                | 1½  | 41          | 2.07 | 52.5       | 3.84 | 97.6       | NS                | Y                   | Y                               | Y                | Y    |
| S4-JCFX-2020T  | 28400-2020  | 20241915 | 1¼           | 31.8 | 1½-12           | 2                 | 50                | 1½  | 41          | 2.15 | 54.6       | 4.20 | 106.6      | NS                | Y                   | Y                               | Y                |      |
| S4-JCFX-2020ST | 28400-2020S | 20289599 | 1¼           | 31.8 | 1½-12           | 2                 | 50                | 1½  | 41          | 2.15 | 54.6       | 4.20 | 106.6      | NS                | Y                   | Y                               | Y                |      |
| S4-JCFX-2024T  | 28400-2024  | 20293262 | 1¼           | 31.8 | 1½-12           | 2¾                | 55                | 2   | 50          | 2.45 | 62.1       | 4.49 | 114.1      | NS                | Y                   | Y                               | Y                |      |
| S4-JCFX-2424T  | 28400-2424  | 20241928 | 1½           | 38.1 | 1½-12           | 2¾                | 55                | 2   | 50          | 2.42 | 61.4       | 4.75 | 120.6      | NS                | Y                   | Y                               |                  |      |
| S4-JCFX-2424ST | 28400-2424S | 20289598 | 1½           | 38.1 | 1½-12           | 2¾                | 55                | 2   | 50          | 2.42 | 61.4       | 4.75 | 120.6      | NS                | Y                   | Y                               |                  |      |
| S4-JCFX-3232T  | 28400-3232  | 20242028 | 2            | 50.8 | 2½-12           | 2¾                | 70                | 2¾  | 65          | 2.88 | 73.1       | 5.71 | 145.1      | NS                | Y                   | Y                               |                  |      |
| S4-JCFX-3232ST | 28400-3232S | 20739385 | 2            | 50.8 | 2½-12           | 2¾                | 70                | 2¾  | 65          | 2.88 | 73.1       | 5.71 | 145.1      | NS                | Y                   | Y                               |                  |      |

T: Thrust-Wire Nut (see "Fitting Identification" in Appendix for details)

S: Stainless Steel

## JIC 37° Flare (SAE J514)

Female | 45° Elbow | Swivel



S=Skive  
NS=Non-Skive  
DG=Dual-Grip™

| Descriptive #               | Product #  | SAP #    | Hose Size ID |      | Thread Size (A) | Hex-1 Wrench Size | Drop (D) |      | Cut-Off (C) |      | Length (L) |      | Skive Type | SR15N, DR15N, SFS | SR25N, DR25N, LR25N | SR16SC, XR16SC, ARC16SC, DR16SC | SCP3, XCP3, ACP3 | XCP4 |   |
|-----------------------------|------------|----------|--------------|------|-----------------|-------------------|----------|------|-------------|------|------------|------|------------|-------------------|---------------------|---------------------------------|------------------|------|---|
|                             |            |          | in.          | mm   |                 | in.               | mm       | in.  | mm          | in.  | mm         | in.  |            | mm                |                     |                                 |                  |      |   |
| B2-JCFX45-0404              | 14420-0404 | 20241948 | 1/4          | 6.4  | 7/16-20         | 5/8               | 16       | 0.39 | 10          | 1.46 | 37.0       | 2.44 | 61.9       | NS                | Y                   | Y                               | Y                | Y    | Y |
| B2-JCFX45-0405              | 14420-0405 | 20241962 | 1/4          | 6.4  | 1/2-20          | 11/16             | 17       | 0.47 | 12          | 1.46 | 37.0       | 2.44 | 61.9       | NS                | Y                   | Y                               | Y                | Y    | Y |
| B2-JCFX45-0406              | 14420-0406 | 20241949 | 1/4          | 6.4  | 9/16-18         | 3/4               | 19       | 0.43 | 11          | 1.54 | 39.0       | 2.52 | 63.9       | NS                | Y                   | Y                               | Y                | Y    | Y |
| B2-JCFX45-0606              | 14420-0606 | 20241950 | 3/8          | 9.5  | 9/16-18         | 3/4               | 19       | 0.43 | 11          | 1.81 | 46.0       | 2.86 | 72.6       | NS                | Y                   | Y                               | Y                | Y    | Y |
| B2-JCFX45-0608              | 14420-0608 | 20241954 | 3/8          | 9.5  | 3/4-16          | 1                 | 25       | 0.59 | 15          | 1.85 | 47.0       | 2.90 | 73.6       | NS                | Y                   | Y                               | Y                | Y    | Y |
| B2-JCFX45-0808              | 14420-0808 | 20241963 | 1/2          | 12.7 | 3/4-16          | 1                 | 25       | 0.59 | 15          | 2.05 | 52.0       | 3.29 | 83.7       | NS                | Y                   | Y                               | Y                | Y    | Y |
| B2-JCFX45-0810              | 14420-0810 | 20241965 | 1/2          | 12.7 | 7/8-14          | 1½                | 27       | 0.63 | 16          | 2.01 | 51.0       | 3.26 | 82.7       | NS                | Y                   | Y                               | Y                | Y    | Y |
| B2-JCFX45-1010              | 14420-1010 | 20241980 | 5/8          | 15.9 | 7/8-14          | 1½                | 27       | 0.75 | 19          | 2.44 | 62.0       | 3.92 | 99.5       | NS                | Y                   | Y                               | Y                | Y    | Y |
| B2-JCFX45-1012              | 14420-1012 | 20241967 | 5/8          | 15.9 | 1½-12           | 1¼                | 32       | 0.83 | 21          | 2.72 | 69.0       | 4.07 | 103.5      | NS                | Y                   | Y                               | Y                | Y    | Y |
| B2-JCFX45-1212              | 14420-1212 | 20241951 | 3/4          | 19.0 | 1½-12           | 1¼                | 32       | 0.83 | 21          | 2.64 | 67.0       | 4.19 | 106.5      | NS                | Y                   | Y                               | Y                | Y    | Y |
| B2-JCFX45-1216              | 14420-1216 | 20241953 | 3/4          | 19.0 | 1½-12           | 1½                | 38       | 1.02 | 26          | 2.80 | 71.0       | 4.35 | 110.4      | NS                | Y                   | Y                               | Y                | Y    | Y |
| B2-JCFX45-1612              | 14420-1612 | 20293221 | 1            | 25.4 | 1½-12           | 1¼                | 32       | 1.18 | 30          | 2.76 | 70.0       | 4.53 | 115.1      | NS                | Y                   | Y                               | Y                | Y    |   |
| B2-JCFX45-1616              | 14420-1616 | 20241957 | 1            | 25.4 | 1½-12           | 1½                | 38       | 0.94 | 24          | 3.11 | 79.0       | 4.89 | 124.1      | NS                | Y                   | Y                               | Y                | Y    |   |
| S4-JCFX45-2020 <sup>T</sup> | 28420-2020 | 20241961 | 1¼           | 31.8 | 1½-12           | 2                 | 50       | 1.46 | 37          | 3.82 | 97.0       | 5.87 | 149.0      | NS                | Y                   | Y                               | Y                |      |   |
| S4-JCFX45-2424 <sup>T</sup> | 28420-2424 | 20241960 | 1½           | 38.1 | 1½-12           | 2¾                | 55       | 1.69 | 43          | 4.45 | 113.0      | 6.78 | 172.2      | NS                | Y                   | Y                               |                  |      |   |

T: Thrust-Wire Nut (see "Fitting Identification" in Appendix for details)

JIC 37° Flare (SAE J514)

Female | 90° Elbow | Swivel



Elbow Type:  
LT=Long Tube  
ST=Short Tube

S=Skive  
NS=Non-Skive  
DG=Dual-Grip™

| Descriptive #    | Product #   | SAP #    | Hose Size ID |      | Thread Size (A) | Hex-1 Wrench Size | Elbow Type | Drop (D) |      | Cut-Off (C) |      | Length (L) |      | Skive Type | SR1SN, DR1SN, SFS | SR2SN, DR2SN, LR2SN | SR16SC, XR16SC, ARC16SC, DR16SC | SCP3, XCP3, ACP3 | XCP4 |    |
|------------------|-------------|----------|--------------|------|-----------------|-------------------|------------|----------|------|-------------|------|------------|------|------------|-------------------|---------------------|---------------------------------|------------------|------|----|
|                  |             |          |              |      |                 |                   |            |          |      |             |      |            |      |            |                   |                     |                                 |                  |      |    |
|                  |             |          | in.          | mm   | in.             | mm                | in.        | mm       | in.  | mm          | in.  | mm         | in.  |            |                   |                     |                                 |                  |      | mm |
| B2-JCFX90-0404   | 14425-0404  | 20241909 | 1/4          | 6.4  | 7/16-20         | 5/8               | 16         |          | 1.26 | 32.0        | 1.34 | 34.0       | 2.32 | 58.9       | NS                | Y                   | Y                               | Y                | Y    | Y  |
| B2-JCFX90L-0404  | 14440-0404  | 20241985 | 1/4          | 6.4  | 7/16-20         | 5/8               | 16         | LT       | 1.81 | 46.0        | 1.25 | 31.8       | 2.23 | 56.7       | NS                | Y                   | Y                               | Y                | Y    | Y  |
| B2-JCFX90S-0404  | 14445-0404  | 20241929 | 1/4          | 6.4  | 7/16-20         | 5/8               | 16         | ST       | 0.83 | 21.0        | 1.06 | 27.0       | 2.04 | 51.9       | NS                | Y                   | Y                               | Y                | Y    | Y  |
| B2-JCFX90S-0404S | 14445-0404S | 20797255 | 1/4          | 6.4  | 7/16-20         | 5/8               | 16         | ST       | 0.83 | 21.0        | 1.06 | 27.0       | 2.04 | 51.9       | NS                | Y                   | Y                               | Y                | Y    | Y  |
| B2-JCFX90-0405   | 14425-0405  | 20241913 | 1/4          | 6.4  | 1/2-20          | 11/16             | 17         |          | 1.18 | 30.0        | 1.02 | 26.0       | 2.00 | 50.9       | NS                | Y                   | Y                               | Y                | Y    | Y  |
| B2-JCFX90L-0405  | 14440-0405  | 20241988 | 1/4          | 6.4  | 1/2-20          | 11/16             | 17         | LT       | 1.77 | 45.0        | 1.02 | 26.0       | 2.00 | 50.9       | NS                | Y                   | Y                               | Y                | Y    | Y  |
| B2-JCFX90S-0405  | 14445-0405  | 20241938 | 1/4          | 6.4  | 1/2-20          | 11/16             | 17         | ST       | 0.93 | 23.5        | 1.02 | 26.0       | 2.00 | 50.9       | NS                | Y                   | Y                               | Y                | Y    | Y  |
| B2-JCFX90-0406   | 14425-0406  | 20241896 | 1/4          | 6.4  | 9/16-18         | 3/4               | 19         |          | 1.50 | 38.0        | 1.10 | 28.0       | 2.08 | 52.9       | NS                | Y                   | Y                               | Y                | Y    | Y  |
| B2-JCFX90L-0406  | 14440-0406  | 20241970 | 1/4          | 6.4  | 9/16-18         | 3/4               | 19         | LT       | 2.13 | 54.0        | 1.34 | 34.0       | 2.32 | 58.9       | NS                | Y                   | Y                               | Y                | Y    | Y  |
| B2-JCFX90S-0406  | 14445-0406  | 20241939 | 1/4          | 6.4  | 9/16-18         | 3/4               | 19         | ST       | 0.91 | 23.0        | 1.22 | 31.0       | 2.20 | 55.9       | NS                | Y                   | Y                               | Y                | Y    | Y  |
| B2-JCFX90-0604   | 14425-0604  | 20293223 | 3/8          | 9.5  | 7/16-20         | 5/8               | 16         |          | 1.26 | 32.0        | 1.38 | 35.0       | 2.43 | 61.6       | NS                | Y                   | Y                               | Y                | Y    | Y  |
| B2-JCFX90L-0604  | 14440-0604  | 20293222 | 3/8          | 9.5  | 7/16-20         | 5/8               | 16         | LT       | 1.81 | 46.0        | 1.22 | 31.0       | 2.27 | 57.6       | NS                | Y                   | Y                               | Y                | Y    | Y  |
| B2-JCFX90S-0604  | 14445-0604  | 20265709 | 3/8          | 9.5  | 7/16-20         | 5/8               | 16         | ST       | 0.83 | 21.0        | 1.10 | 28.0       | 2.15 | 54.6       | NS                | Y                   | Y                               | Y                | Y    | Y  |
| B2-JCFX90-0606   | 14425-0606  | 20241902 | 3/8          | 9.5  | 9/16-18         | 3/4               | 19         |          | 1.38 | 35.0        | 1.22 | 31.0       | 2.27 | 57.6       | NS                | Y                   | Y                               | Y                | Y    | Y  |
| B2-JCFX90L-0606  | 14440-0606  | 20241974 | 3/8          | 9.5  | 9/16-18         | 3/4               | 19         | LT       | 2.13 | 54.0        | 1.69 | 43.0       | 2.74 | 69.6       | NS                | Y                   | Y                               | Y                | Y    | Y  |
| B2-JCFX90S-0606  | 14445-0606  | 20241944 | 3/8          | 9.5  | 9/16-18         | 3/4               | 19         | ST       | 0.91 | 23.0        | 1.65 | 42.0       | 2.70 | 68.7       | NS                | Y                   | Y                               | Y                | Y    | Y  |
| B2-JCFX90-0608   | 14425-0608  | 20241895 | 3/8          | 9.5  | 3/4-16          | 1                 | 25         |          | 1.61 | 41.0        | 1.54 | 39.0       | 2.58 | 65.6       | NS                | Y                   | Y                               | Y                | Y    | Y  |
| B2-JCFX90L-0608  | 14440-0608  | 20241973 | 3/8          | 9.5  | 3/4-16          | 1                 | 25         | LT       | 2.52 | 64.0        | 1.85 | 47.0       | 2.90 | 73.6       | NS                | Y                   | Y                               | Y                | Y    | Y  |
| B2-JCFX90S-0608  | 14445-0608  | 20241943 | 3/8          | 9.5  | 3/4-16          | 1                 | 25         | ST       | 1.14 | 29.0        | 1.93 | 49.0       | 2.98 | 75.6       | NS                | Y                   | Y                               | Y                | Y    | Y  |
| B2-JCFX90-0808   | 14425-0808  | 20241914 | 1/2          | 12.7 | 3/4-16          | 1                 | 25         |          | 1.58 | 40.0        | 1.46 | 37.0       | 2.70 | 68.7       | NS                | Y                   | Y                               | Y                | Y    | Y  |
| B2-JCFX90L-0808  | 14440-0808  | 20241978 | 1/2          | 12.7 | 3/4-16          | 1                 | 25         | LT       | 2.52 | 64.0        | 1.97 | 50.0       | 3.22 | 81.7       | NS                | Y                   | Y                               | Y                | Y    | Y  |
| B2-JCFX90S-0808  | 14445-0808  | 20241936 | 1/2          | 12.7 | 3/4-16          | 1                 | 25         | ST       | 1.14 | 29.0        | 1.81 | 46.0       | 3.06 | 77.7       | NS                | Y                   | Y                               | Y                | Y    | Y  |
| B2-JCFX90-0808S  | 14425-0808S | 20424924 | 1/2          | 12.7 | 3/4-16          | 1                 | 25         |          | 1.58 | 40.0        | 1.46 | 37.0       | 2.70 | 68.7       | NS                | Y                   | Y                               | Y                | Y    | Y  |
| B2-JCFX90-0810   | 14425-0810  | 20241911 | 1/2          | 12.7 | 7/8-14          | 1 1/16            | 27         |          | 1.85 | 47.0        | 1.69 | 43.0       | 2.94 | 74.7       | NS                | Y                   | Y                               | Y                | Y    | Y  |
| B2-JCFX90L-0810  | 14440-0810  | 20241987 | 1/2          | 12.7 | 7/8-14          | 1 1/16            | 27         | LT       | 2.56 | 65.0        | 1.46 | 37.0       | 2.70 | 68.7       | NS                | Y                   | Y                               | Y                | Y    | Y  |
| B2-JCFX90S-0810  | 14445-0810  | 20241946 | 1/2          | 12.7 | 7/8-14          | 1 1/16            | 27         | ST       | 1.26 | 32.0        | 1.81 | 46.0       | 3.06 | 77.7       | NS                | Y                   | Y                               | Y                | Y    | Y  |
| B2-JCFX90-0812   | 14425-0812  | 20241908 | 1/2          | 12.7 | 1 1/16-12       | 1 1/4             | 32         |          | 1.81 | 46.0        | 1.46 | 37.0       | 2.70 | 68.7       | NS                | Y                   | Y                               | Y                | Y    | Y  |
| B2-JCFX90-1010   | 14425-1010  | 20241932 | 5/8          | 15.9 | 7/8-14          | 1 1/16            | 27         |          | 1.89 | 48.0        | 1.93 | 49.0       | 3.29 | 83.5       | NS                | Y                   | Y                               | Y                | Y    | Y  |
| B2-JCFX90L-1010  | 14440-1010  | 20241976 | 5/8          | 15.9 | 7/8-14          | 1 1/16            | 27         | LT       | 2.56 | 65.0        | 1.97 | 50.0       | 3.32 | 84.4       | NS                | Y                   | Y                               | Y                | Y    | Y  |
| B2-JCFX90S-1010  | 14445-1010  | 20241923 | 5/8          | 15.9 | 7/8-14          | 1 1/16            | 27         | ST       | 1.26 | 32.0        | 1.93 | 49.0       | 3.29 | 83.5       | NS                | Y                   | Y                               | Y                | Y    | Y  |
| B2-JCFX90-1012   | 14425-1012  | 20241930 | 5/8          | 15.9 | 1 1/16-12       | 1 1/4             | 32         |          | 2.28 | 58.0        | 1.89 | 48.0       | 3.25 | 82.5       | NS                | Y                   | Y                               | Y                | Y    | Y  |
| B2-JCFX90S-1012  | 14445-1012  | 20241945 | 5/8          | 15.9 | 1 1/16-12       | 1 1/4             | 32         | ST       | 1.89 | 48.0        | 1.89 | 48.0       | 3.25 | 82.5       | NS                | Y                   | Y                               | Y                | Y    | Y  |
| B2-JCFX90S-1208  | 14445-1208  | 20265741 | 3/4          | 19.0 | 3/4-16          | 1                 | 25         | ST       | 1.14 | 29.0        | 1.65 | 42.0       | 3.21 | 81.5       | NS                | Y                   | Y                               | Y                | Y    | Y  |
| B2-JCFX90-1210   | 14425-1210  | 20293224 | 3/4          | 19.0 | 7/8-14          | 1 1/16            | 27         |          | 1.89 | 48.0        | 1.97 | 50.0       | 3.52 | 89.5       | NS                | Y                   | Y                               | Y                | Y    | Y  |
| B2-JCFX90-1212   | 14425-1212  | 20241897 | 3/4          | 19.0 | 1 1/16-12       | 1 1/4             | 32         |          | 2.13 | 54.0        | 2.05 | 52.0       | 3.60 | 91.4       | NS                | Y                   | Y                               | Y                | Y    | Y  |
| B2-JCFX90L-1212  | 14440-1212  | 20241971 | 3/4          | 19.0 | 1 1/16-12       | 1 1/4             | 32         | LT       | 3.74 | 95.0        | 2.13 | 54.0       | 3.68 | 93.4       | NS                | Y                   | Y                               | Y                | Y    | Y  |

T: Thrust-Wire Nut (see "Fitting Identification" in Appendix for details)  
S: Stainless Steel

Continued on next page



## JIC 37° Flare (SAE J514)

Female 90° | Elbow | Swivel Continued

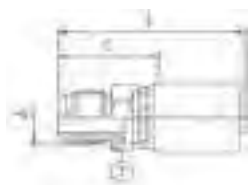
| Descriptive #    | Product #   | SAP #    | Hose Size ID |      | Thread Size (A) |        | Hex-1 Wrench Size |    | Elbow Type | Drop (D) |       | Cut-Off (C) |       | Length (L) |       | Skive Type | SR1SN, DR1SN, SFS | SR2SN, DR2SN, LR2SN | SR16SC, XR16SC, ARC16SC, DR16SC | SCP3, XCP3, ACP3 | XCP4 |
|------------------|-------------|----------|--------------|------|-----------------|--------|-------------------|----|------------|----------|-------|-------------|-------|------------|-------|------------|-------------------|---------------------|---------------------------------|------------------|------|
|                  |             |          |              |      |                 |        |                   |    |            |          |       |             |       |            |       |            |                   |                     |                                 |                  |      |
|                  |             |          | in.          | mm   |                 |        | in.               | mm |            | in.      | mm    | in.         | mm    | in.        | mm    |            |                   |                     |                                 |                  |      |
| B2-JCFX90S-1212  | 14445-1212  | 20241940 | 3/4          | 19.0 | 1 1/16-12       | 1 1/4  | 32                | ST |            | 1.81     | 46.0  | 2.28        | 58.0  | 3.84       | 97.4  | NS         | Y                 | Y                   | Y                               | Y                | Y    |
| B2-JCFX90S-1212S | 14445-1212S | 20797257 | 3/4          | 19.0 | 1 1/16-12       | 1 1/4  | 32                | ST |            | 1.81     | 46.0  | 2.28        | 58.0  | 3.84       | 97.4  | NS         | Y                 | Y                   | Y                               | Y                | Y    |
| B2-JCFX90S-1214  | 14445-1214  | 20241942 | 3/4          | 19.0 | 1 3/16-12       | 1 7/16 | 36                | ST |            | 2.07     | 52.6  | 1.93        | 49.0  | 3.48       | 88.5  | NS         | Y                 | Y                   | Y                               | Y                | Y    |
| B2-JCFX90-1216   | 14425-1216  | 20241900 | 3/4          | 19.0 | 1 5/16-12       | 1 1/2  | 38                |    |            | 2.84     | 72.0  | 2.09        | 53.0  | 3.64       | 92.5  | NS         | Y                 | Y                   | Y                               | Y                | Y    |
| B2-JCFX90S-1216  | 14445-1216  | 20662000 | 3/4          | 19.0 | 1 5/16-12       | 1 1/2  | 38                | ST |            | 2.28     | 57.8  | 1.99        | 50.5  | 3.54       | 90.0  | NS         |                   |                     |                                 |                  |      |
| B2-JCFX90-1616   | 14425-1616  | 20241977 | 1            | 25.4 | 1 5/16-12       | 1 1/2  | 38                |    |            | 2.81     | 71.4  | 2.89        | 73.4  | 4.67       | 118.5 | NS         | Y                 | Y                   | Y                               | Y                |      |
| B2-JCFX90L-1616  | 14440-1616  | 20241983 | 1            | 25.4 | 1 5/16-12       | 1 1/2  | 38                | LT |            | 4.49     | 114.0 | 3.11        | 79.0  | 4.89       | 124.1 | NS         | Y                 | Y                   | Y                               | Y                |      |
| B2-JCFX90S-1616  | 14445-1616  | 20241934 | 1            | 25.4 | 1 5/16-12       | 1 1/2  | 38                | ST |            | 2.21     | 56.0  | 2.91        | 74.0  | 4.69       | 119.1 | NS         | Y                 | Y                   | Y                               | Y                |      |
| B2-JCFX90S-1616S | 14445-1616S | 20797550 | 1            | 25.4 | 1 5/16-12       | 1 1/2  | 38                | ST |            | 2.21     | 56.0  | 2.91        | 74.0  | 4.69       | 119.1 | NS         | Y                 | Y                   | Y                               | Y                |      |
| S4-JCFX90-2020T  | 28425-2020  | 20241906 | 1 1/4        | 31.8 | 1 5/8-12        | 2      | 50                |    |            | 3.07     | 78.0  | 3.23        | 82.0  | 5.28       | 134.0 | NS         | Y                 | Y                   | Y                               |                  |      |
| S4-JCFX90-2024T  | 28425-2024  | 20432492 | 1 1/4        | 31.8 | 1 7/8-12        | 2 3/16 | 55                |    |            |          |       |             |       |            |       | NS         | Y                 | Y                   | Y                               |                  |      |
| S4-JCFX90-2424T  | 28425-2424  | 20241904 | 1 1/2        | 38.1 | 1 7/8-12        | 2 3/16 | 55                |    |            | 3.62     | 91.9  | 3.94        | 100.0 | 6.27       | 159.1 | NS         | Y                 | Y                   |                                 |                  |      |
| S4-JCFX90-3232T  | 28425-3232  | 20657096 | 2            | 50.8 | 2 1/2-12        | 2 3/4  | 70                |    |            |          |       |             |       |            |       | NS         | Y                 | Y                   |                                 |                  |      |

T: Thrust-Wire Nut (see "Fitting Identification" in Appendix for details)

S: Stainless Steel

## JIC 37° Flare (SAE J514)

Male



S=Skive  
NS=Non-Skive  
DG=Dual-Grip™

| Descriptive # | Product #   | SAP #    | Hose Size ID |      | Thread Size (A) |        | Hex-1 Wrench Size |      | Cut-Off (C) | Length (L) |      | Skive Type | SR1SN, DR1SN, SFS | SR2SN, DR2SN, LR2SN | SR16SC, XR16SC, ARC16SC, DR16SC | SCP3, XCP3, ACP3 | XCP4 |
|---------------|-------------|----------|--------------|------|-----------------|--------|-------------------|------|-------------|------------|------|------------|-------------------|---------------------|---------------------------------|------------------|------|
|               |             |          | in.          | mm   |                 |        | in.               | mm   | in.         | mm         | in.  | mm         |                   |                     |                                 |                  |      |
| B2-JCM-0404   | 14450-0404  | 20241990 | 1/4          | 6.4  | 7/16-20         | 1/2    | 12                | 0.99 | 25.2        | 1.97       | 50.1 | NS         | Y                 | Y                   | Y                               | Y                | Y    |
| B2-JCM-0405   | 14450-0405  | 20241991 | 1/4          | 6.4  | 1/2-20          | 9/16   | 14                | 1.03 | 26.2        | 2.01       | 51.1 | NS         | Y                 | Y                   | Y                               | Y                | Y    |
| B2-JCM-0406   | 14450-0406  | 20241995 | 1/4          | 6.4  | 9/16-18         | 11/16  | 17                | 1.04 | 26.4        | 2.02       | 51.3 | NS         | Y                 | Y                   | Y                               | Y                | Y    |
| B2-JCM-0506   | 14450-0506  | 20242012 | 5/16         | 7.9  | 9/16-18         | 11/16  | 17                | 1.04 | 26.5        | 2.02       | 51.4 | NS         | Y                 |                     |                                 |                  |      |
| B2-JCM-0606   | 14450-0606  | 20242014 | 3/8          | 9.5  | 9/16-18         | 11/16  | 17                | 1.05 | 26.6        | 2.10       | 53.2 | NS         | Y                 | Y                   | Y                               | Y                | Y    |
| B2-JCM-0608   | 14450-0608  | 20242007 | 3/8          | 9.5  | 3/4-16          | 3/4    | 19                | 1.14 | 28.9        | 2.19       | 55.5 | NS         | Y                 | Y                   | Y                               | Y                | Y    |
| B2-JCM-0610   | 14450-0610  | 20242024 | 3/8          | 9.5  | 7/8-14          | 15/16  | 24                | 1.33 | 33.8        | 2.38       | 60.5 | NS         | Y                 | Y                   | Y                               | Y                | Y    |
| B2-JCM-0808   | 14450-0808  | 20241994 | 1/2          | 12.7 | 3/4-16          | 3/4    | 19                | 1.17 | 29.8        | 2.42       | 61.4 | NS         | Y                 | Y                   | Y                               | Y                | Y    |
| B2-JCM-0808S  | 14450-0808S | 20424921 | 1/2          | 12.7 | 3/4-16          |        |                   | 1.17 | 29.8        | 2.42       | 61.4 | NS         | Y                 | Y                   | Y                               | Y                | Y    |
| B2-JCM-0810   | 14450-0810  | 20241993 | 1/2          | 12.7 | 7/8-14          | 15/16  | 24                | 1.35 | 34.4        | 2.60       | 66.0 | NS         | Y                 | Y                   | Y                               | Y                | Y    |
| B2-JCM-0812   | 14450-0812  | 20241997 | 1/2          | 12.7 | 1 1/16-12       | 1 1/16 | 27                | 1.46 | 37.1        | 2.71       | 68.7 | NS         | Y                 | Y                   | Y                               | Y                | Y    |
| B2-JCM-1008   | 14450-1008  | 20441227 | 5/8          | 15.9 | 3/4-16          | 15/16  | 24                | 1.21 | 30.8        | 2.57       | 65.3 | NS         | Y                 | Y                   | Y                               | Y                | Y    |
| B2-JCM-1010   | 14450-1010  | 20242010 | 5/8          | 15.9 | 7/8-14          | 15/16  | 24                | 1.38 | 35.0        | 2.73       | 69.4 | NS         | Y                 | Y                   | Y                               | Y                | Y    |
| B2-JCM-1012   | 14450-1012  | 20242011 | 5/8          | 15.9 | 1 1/16-12       | 1 1/16 | 27                | 1.46 | 37.1        | 2.82       | 71.5 | NS         | Y                 | Y                   | Y                               | Y                | Y    |

S: Stainless Steel

Continued on next page

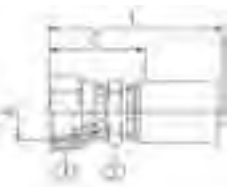
JIC 37° Flare (SAE J514)

Male Continued

| Descriptive # | Product #  | SAP #    | Hose  |      | Thread    | Hex-1  |      |             |            |        |        |          | Skive Type | SR1SN, | SR2SN, | SR16SC, | SCP3, | XCP4 |
|---------------|------------|----------|-------|------|-----------|--------|------|-------------|------------|--------|--------|----------|------------|--------|--------|---------|-------|------|
|               |            |          | Size  | ID   | Size (A)  | Wrench | Size | Cut-Off (C) | Length (L) | DR1SN, | DR2SN, | ARC16SC, |            | XCP3,  |        |         |       |      |
|               |            |          | in.   | mm   | in.       | mm     | in.  | mm          | in.        | mm     | SFS    | LR2SN    |            | DR16SC | ACP3   |         |       |      |
| B2-JCM-1210   | 14450-1210 | 20293165 | 3/4   | 19.0 | 7/8-14    | 1 1/16 | 27   | 1.38        | 35.0       | 2.93   | 74.4   | NS       | Y          | Y      | Y      | Y       | Y     |      |
| B2-JCM-1212   | 14450-1212 | 20242022 | 3/4   | 19.0 | 1 1/16-12 | 1 1/16 | 27   | 1.48        | 37.7       | 3.04   | 77.1   | NS       | Y          | Y      | Y      | Y       | Y     |      |
| B2-JCM-1214   | 14450-1214 | 20242020 | 3/4   | 19.0 | 1 3/16-12 | 1 1/4  | 32   | 1.62        | 41.0       | 3.17   | 80.5   | NS       | Y          | Y      | Y      | Y       | Y     |      |
| B2-JCM-1216   | 14450-1216 | 20242018 | 3/4   | 19.0 | 1 5/16-12 | 1 7/16 | 36   | 1.66        | 42.2       | 3.21   | 81.6   | NS       | Y          | Y      | Y      | Y       | Y     |      |
| B2-JCM-1616   | 14450-1616 | 20242002 | 1     | 25.4 | 1 5/16-12 | 1 7/16 | 36   | 1.67        | 42.4       | 3.45   | 87.5   | NS       | Y          | Y      | Y      | Y       |       |      |
| B2-JCM-1620   | 14450-1620 | 20242016 | 1     | 25.4 | 1 7/8-12  | 1 7/8  | 46   | 1.84        | 46.8       | 3.62   | 91.9   | NS       | Y          | Y      | Y      | Y       |       |      |
| S4-JCM-2020   | 28450-2020 | 20241999 | 1 1/4 | 31.8 | 1 7/8-12  | 1 7/8  | 46   | 1.91        | 48.6       | 3.96   | 100.5  | NS       | Y          | Y      | Y      |         |       |      |
| S4-JCM-2024   | 28450-2024 | 20241998 | 1 1/4 | 31.8 | 1 7/8-12  | 2      | 50   | 2.08        | 52.8       | 4.12   | 104.7  | NS       | Y          | Y      | Y      |         |       |      |
| S4-JCM-2424   | 28450-2424 | 20242027 | 1 1/2 | 38.1 | 1 7/8-12  | 2      | 50   | 2.08        | 52.7       | 4.40   | 111.8  | NS       | Y          | Y      |        |         |       |      |
| S4-JCM-3232   | 28450-3232 | 20242023 | 2     | 50.8 | 2 1/2-12  | 2 9/16 | 65   | 2.45        | 62.1       | 5.28   | 134.1  | NS       | Y          | Y      |        |         |       |      |

SAE 45° J512 Flare

Female | Swivel

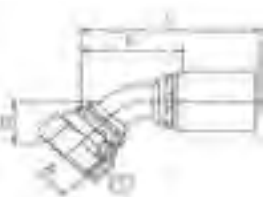


S=Skive  
NS=Non-Skive  
DG=Dual-Grip™

| Descriptive # | Product #  | SAP #    | Hose Size ID |      | Thread Size (A) | Hex-1 Wrench Size | Hex-2 Wrench Size | Cut-Off (C) |    | Length (L) |      | Skive Type | SR1SN, DR1SN, SFS | SR2SN, DR2SN, LR2SN | SR16SC, XR16SC, ARC16SC, DR16SC | SCP3, XCP3, ACP3 | XCP4 |   |   |
|---------------|------------|----------|--------------|------|-----------------|-------------------|-------------------|-------------|----|------------|------|------------|-------------------|---------------------|---------------------------------|------------------|------|---|---|
|               |            |          | in.          | mm   |                 | in.               | mm                | in.         | mm | in.        | mm   |            | in.               | mm                  |                                 |                  |      |   |   |
| B2-SFFX-0606  | 14775-0606 | 20241706 | 3/8          | 9.5  | 5/8-18          | 7/8               | 22                | 3/4         | 19 | 1.32       | 33.6 | 2.37       | 60.2              | NS                  | Y                               | Y                | Y    | Y | Y |
| B2-SFFX-0608  | 14775-0608 | 20293245 | 3/8          | 9.5  | 3/4-16          | 1                 | 25                | 3/4         | 19 | 1.37       | 34.9 | 2.42       | 61.5              | NS                  | Y                               | Y                | Y    | Y | Y |
| B2-SFFX-0808  | 14775-0808 | 20662003 | 1/2          | 12.7 | 3/4-16          |                   |                   |             |    |            |      |            |                   | NS                  | Y                               | Y                | Y    | Y | Y |
| B2-SFFX-0810  | 14775-0810 | 20293246 | 1/2          | 12.7 | 7/8-14          | 1½                | 27                | 7/8         | 22 | 1.60       | 40.6 | 2.85       | 72.3              | NS                  | Y                               | Y                | Y    | Y | Y |
| B2-SFFX-1212  | 14775-1212 | 20241707 | 3/4          | 19.0 | 1½-14           | 1¾                | 32                | 1½          | 27 | 1.74       | 44.2 | 3.29       | 83.6              | NS                  | Y                               | Y                | Y    | Y | Y |

SAE 45° J512 Flare

Female | 45° Elbow | Swivel



S=Skive  
NS=Non-Skive  
DG=Dual-Grip™

| Descriptive #  | Product #  | SAP #    | Hose Size ID |      | Thread    | Hex-1  | Hex-2  |      |      |      |      | Skive | SR1SN, | SR2SN, | SR16SC,  | SCP3, |   |   |   |
|----------------|------------|----------|--------------|------|-----------|--------|--------|------|------|------|------|-------|--------|--------|----------|-------|---|---|---|
|                |            |          |              |      | Size      | Wrench | Wrench |      |      |      |      |       | DR1SN, | DR2SN, | ARC16SC, | XCP3, |   |   |   |
|                |            |          |              |      | (A)       | Size   | Size   |      |      |      |      | SFS   | LR2SN  | DR16SC | ACP3     | XCP4  |   |   |   |
|                |            |          | in.          | mm   |           | in.    | mm     | in.  | mm   | in.  | mm   |       |        |        |          |       |   |   |   |
| B2-SFFX45-0606 | 14777-0606 | 20293247 | 3/8          | 9.5  | 5/8-18    | 7/8    | 22     | 0.47 | 12.0 | 1.81 | 46.0 | 2.86  | 72.6   | NS     | Y        | Y     | Y | Y | Y |
| B2-SFFX45-0808 | 14777-0808 | 20293248 | 1/2          | 12.7 | 3/4-16    | 1      | 25     | 0.59 | 15.0 | 2.05 | 52.0 | 3.29  | 83.7   | NS     | Y        | Y     | Y | Y | Y |
| B2-SFFX45-1212 | 14777-1212 | 20441271 | 3/4          | 19.0 | 1 1/16-14 | 1 1/4  | 32     | 0.83 | 21.0 | 2.64 | 67.0 | 4.19  | 106.5  | NS     | Y        | Y     | Y | Y | Y |

## SAE 45° J512 Flare

Female 90° | Elbow | Swivel

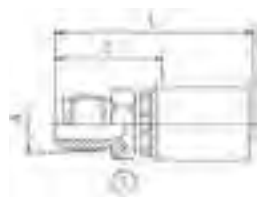


S=Skive  
NS=Non-Skive  
DG=Dual-Grip™

| Descriptive #   | Product #  | SAP #    | Hose Size ID |      | Thread Size (A) | Hex-1 Wrench Size |    | Drop (D) |      | Cut-Off (C) |      | Length (L) |      | Skive Type | SR1SN, DR1SN, SFS | SR2SN, DR2SN, LR2SN | SR16SC, XR16SC, ARC16SC, DR16SC | SCP3, XCP3, ACP3 | XCP4 |
|-----------------|------------|----------|--------------|------|-----------------|-------------------|----|----------|------|-------------|------|------------|------|------------|-------------------|---------------------|---------------------------------|------------------|------|
|                 |            |          | in.          | mm   |                 | in.               | mm | in.      | mm   | in.         | mm   | in.        | mm   |            |                   |                     |                                 |                  |      |
| B2-SFFX90-0606  | 14780-0606 | 20293249 | 3/8          | 9.5  | 5/8-18          | 7/8               | 22 | 0.95     | 24.0 | 1.65        | 42.0 | 2.70       | 68.7 | NS         | Y                 | Y                   | Y                               | Y                | Y    |
| B2-SFFX90L-0606 | 14781-0606 | 20293250 | 3/8          | 9.5  | 5/8-18          | 7/8               | 22 | 2.19     | 55.5 | 1.69        | 43.0 | 2.74       | 69.6 | NS         | Y                 | Y                   | Y                               | Y                | Y    |
| B2-SFFX90S-0808 | 14783-0808 | 20293251 | 1/2          | 12.7 | 3/4-16          | 1                 | 25 | 1.14     | 29.0 | 1.81        | 46.0 | 3.06       | 77.7 | NS         | Y                 | Y                   | Y                               | Y                | Y    |
| B2-SFFX90-1212  | 14780-1212 | 20441304 | 3/4          | 19.0 | 1 1/16-14       | 1 1/4             | 32 | 1.85     | 47.0 | 1.69        | 43.0 | 2.94       | 74.7 | NS         | Y                 | Y                   | Y                               | Y                | Y    |

## SAE 45° J512 Flare

Male



S=Skive  
NS=Non-Skive  
DG=Dual-Grip™

| Descriptive # | Product #  | SAP #    | Hose Size ID |      | Thread Size (A) | Hex-1 Wrench Size |    | Cut-Off (C) |      | Length (L) |      | Skive Type | SR1SN, DR1SN, SFS | SR2SN, DR2SN, LR2SN | SR16SC, XR16SC, ARC16SC, DR16SC | SCP3, XCP3, ACP3 | XCP4 |
|---------------|------------|----------|--------------|------|-----------------|-------------------|----|-------------|------|------------|------|------------|-------------------|---------------------|---------------------------------|------------------|------|
|               |            |          | in.          | mm   |                 | in.               | mm | in.         | mm   | in.        | mm   |            |                   |                     |                                 |                  |      |
| B2-SFM-0606   | 14785-0606 | 20293213 | 3/8          | 9.5  | 5/8-18          | 5/8               | 16 | 1.12        | 28.5 | 2.17       | 55.2 | NS         | Y                 | Y                   | Y                               | Y                | Y    |
| B2-SFM-0608   | 14785-0608 | 20293214 | 3/8          | 9.5  | 3/4-16          | 3/4               | 19 | 1.23        | 31.2 | 2.28       | 57.9 | NS         | Y                 | Y                   | Y                               | Y                | Y    |
| B2-SFM-0808   | 14785-0808 | 20293215 | 1/2          | 12.7 | 3/4-16          | 3/4               | 19 | 1.27        | 32.1 | 2.51       | 63.8 | NS         | Y                 | Y                   | Y                               | Y                | Y    |
| B2-SFM-1212   | 14785-1212 | 20293216 | 3/4          | 19.0 | 1 1/16-14       | 1 1/16            | 27 | 1.62        | 41.1 | 3.17       | 80.6 | NS         | Y                 | Y                   | Y                               | Y                | Y    |

## SAE 45° Inverted Flare

Male | Swivel



S=Skive  
NS=Non-Skive  
DG=Dual-Grip™

| Descriptive # | Product #  | SAP #    | Hose Size ID |     | Thread Size (A) | Hex-1 Wrench Size |    | Cut-Off (C) |      | Length (L) |      | Skive Type | SR1SN, DR1SN, SFS | SR2SN, DR2SN, LR2SN | SR16SC, XR16SC, ARC16SC, DR16SC | SCP3, XCP3, ACP3 | XCP4 |
|---------------|------------|----------|--------------|-----|-----------------|-------------------|----|-------------|------|------------|------|------------|-------------------|---------------------|---------------------------------|------------------|------|
|               |            |          | in.          | mm  |                 | in.               | mm | in.         | mm   | in.        | mm   |            |                   |                     |                                 |                  |      |
| B2-SIMX-0403  | 14800-0403 | 20293166 | 1/4          | 6.4 | 3/8-24          | 1/2               | 12 | 1.68        | 42.7 | 2.66       | 67.6 | NS         | Y                 | Y                   | Y                               | Y                | Y    |
| B2-SIMX-0404  | 14800-0404 | 20293167 | 1/4          | 6.4 | 7/16-24         | 1/2               | 12 | 1.70        | 43.1 | 2.68       | 67.9 | NS         | Y                 | Y                   | Y                               | Y                | Y    |
| B2-SIMX-0405  | 14800-0405 | 20293168 | 1/4          | 6.4 | 1/2-20          | 9/16              | 14 | 1.83        | 46.6 | 2.81       | 71.5 | NS         | Y                 | Y                   | Y                               | Y                | Y    |

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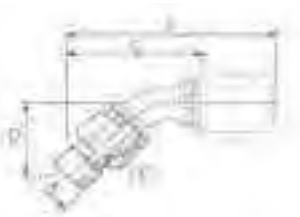
## SAE 45° Inverted Flare

Male | Swivel Continued

| Descriptive # | Product #  | SAP #    | Hose Size ID |      | Thread Size (A) | Hex-1 Wrench Size |    | Cut-Off (C) |      | Length (L) |      | Skive Type | SR1SN, DR1SN, SFS | SR2SN, DR2SN, LR2SN | SR16SC, XR16SC, ARC16SC, DR16SC | SCP3, XCP3, ACP3 | XCP4 |
|---------------|------------|----------|--------------|------|-----------------|-------------------|----|-------------|------|------------|------|------------|-------------------|---------------------|---------------------------------|------------------|------|
|               |            |          | in.          | mm   |                 | in.               | mm | in.         | mm   | in.        | mm   |            |                   |                     |                                 |                  |      |
| B2-SIMX-0605  | 14800-0605 | 20293169 | 3/8          | 9.5  | 1/2-20          | 9/16              | 14 | 1.84        | 46.8 | 2.89       | 73.4 | NS         | Y                 | Y                   | Y                               | Y                | Y    |
| B2-SIMX-0606  | 14800-0606 | 20293170 | 3/8          | 9.5  | 5/8-18          | 11/16             | 17 | 1.89        | 48.0 | 2.94       | 74.7 | NS         | Y                 | Y                   | Y                               | Y                | Y    |
| B2-SIMX-0607  | 14800-0607 | 20293171 | 3/8          | 9.5  | 11/16-18        | 3/4               | 19 | 1.92        | 48.7 | 2.965      | 75.3 | NS         | Y                 | Y                   | Y                               | Y                | Y    |
| B2-SIMX-0808  | 14800-0808 | 20293172 | 1/2          | 12.7 | 3/4-18          | 3/4               | 19 | 2.00        | 50.8 | 3.248      | 82.5 | NS         | Y                 | Y                   | Y                               | Y                | Y    |
| B2-SIMX-0810  | 14800-0810 | 20293173 | 1/2          | 12.7 | 7/8-18          | 15/16             | 24 | 2.07        | 52.7 | 3.321      | 84.4 | NS         | Y                 | Y                   | Y                               | Y                | Y    |

## SAE 45° Inverted Flare

Male 45° Elbow | Swivel



S=Skive  
NS=Non-Skive  
DG=Dual-Grip™

| Descriptive #  | Product #  | SAP #    | Hose Size ID |     | Thread Size (A) | Hex-1 Wrench Size |    | Drop (D) |      | Cut-Off (C) |      | Length (L) |       | Skive Type | SR1SN, DR1SN, SFS | SR2SN, DR2SN, LR2SN | SR16SC, XR16SC, ARC16SC, DR16SC | SCP3, XCP3, ACP3 | XCP4 |
|----------------|------------|----------|--------------|-----|-----------------|-------------------|----|----------|------|-------------|------|------------|-------|------------|-------------------|---------------------|---------------------------------|------------------|------|
|                |            |          | in.          | mm  |                 | in.               | mm | in.      | mm   | in.         | mm   | in.        | mm    |            |                   |                     |                                 |                  |      |
| B2-SIMX45-0403 | 14810-0403 | 20293174 | 1/4          | 6.4 | 3/8-24          | 1/2               | 12 | 1.24     | 31.5 | 2.68        | 68.1 | 3.66       | 93.0  | NS         | Y                 | Y                   | Y                               | Y                | Y    |
| B2-SIMX45-0404 | 14810-0404 | 20293175 | 1/4          | 6.4 | 7/16-24         | 1/2               | 12 | 1.24     | 31.5 | 2.68        | 68.1 | 3.66       | 93.0  | NS         | Y                 | Y                   | Y                               | Y                | Y    |
| B2-SIMX45-0604 | 14810-0604 | 20293382 | 3/8          | 9.5 | 7/16-24         | 1/2               | 12 | 1.57     | 39.9 | 2.95        | 74.9 | 4.00       | 101.6 | NS         | Y                 | Y                   | Y                               | Y                | Y    |
| B2-SIMX45-0605 | 14810-0605 | 20293177 | 3/8          | 9.5 | 1/2-20          | 9/16              | 14 | 1.50     | 38.1 | 2.99        | 75.9 | 4.04       | 102.6 | NS         | Y                 | Y                   | Y                               | Y                | Y    |
| B2-SIMX45-0606 | 14810-0606 | 20293178 | 3/8          | 9.5 | 5/8-18          | 11/16             | 17 | 1.50     | 38.1 | 2.99        | 75.9 | 4.04       | 102.6 | NS         | Y                 | Y                   | Y                               | Y                | Y    |
| B2-SIMX45-0607 | 14810-0607 | 20293179 | 3/8          | 9.5 | 11/16-18        | 3/4               | 19 | 1.50     | 38.1 | 2.99        | 75.9 | 4.04       | 102.6 | NS         | Y                 | Y                   | Y                               | Y                | Y    |

## SAE 45° Inverted Flare

Male | 90° Elbow | Swivel



S=Skive  
NS=Non-Skive  
DG=Dual-Grip™

| Descriptive #  | Product #  | SAP #    | Hose Size ID |     | Thread Size (A) | Hex-1 Wrench Size |    | Drop (D) |      | Cut-Off (C) |      | Length (L) |      | Skive Type | SR1SN, DR1SN, SFS | SR2SN, DR2SN, LR2SN | SR16SC, XR16SC, ARC16SC, DR16SC | SCP3, XCP3, ACP3 | XCP4 |
|----------------|------------|----------|--------------|-----|-----------------|-------------------|----|----------|------|-------------|------|------------|------|------------|-------------------|---------------------|---------------------------------|------------------|------|
|                |            |          | in.          | mm  |                 | in.               | mm | in.      | mm   | in.         | mm   | in.        | mm   |            |                   |                     |                                 |                  |      |
| B2-SIMX90-0403 | 14815-0403 | 20293180 | 1/4          | 6.4 | 3/8-24          | 1/2               | 12 | 1.97     | 50.0 | 1.38        | 35.1 | 2.36       | 59.9 | NS         | Y                 | Y                   | Y                               | Y                | Y    |
| B2-SIMX90-0404 | 14815-0404 | 20293181 | 1/4          | 6.4 | 7/16-24         | 1/2               | 12 | 2.05     | 52.1 | 1.30        | 33.0 | 2.28       | 57.9 | NS         | Y                 | Y                   | Y                               | Y                | Y    |
| B2-SIMX90-0405 | 14815-0405 | 20293182 | 1/4          | 6.4 | 1/2-20          | 9/16              | 14 | 1.96     | 49.8 | 1.52        | 38.6 | 2.50       | 63.5 | NS         | Y                 | Y                   | Y                               | Y                | Y    |

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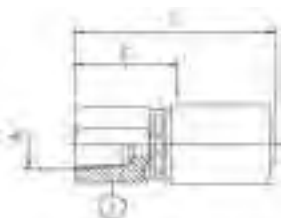
## SAE 45° Inverted Flare

Male | 90° Elbow | Swivel Continued

| Descriptive #  | Product #  | SAP #    | Hose Size ID |      | Thread Size (A) | Hex-1 Wrench Size | Drop (D) |      | Cut-Off (C) |      | Length (L) |      | Skive Type | SR1SN, DR1SN, SFS | SR2SN, DR2SN, LR2SN | SR16SC, XR16SC, ARC16SC, DR16SC | SCP3, XCP3, ACP3 | XCP4 |
|----------------|------------|----------|--------------|------|-----------------|-------------------|----------|------|-------------|------|------------|------|------------|-------------------|---------------------|---------------------------------|------------------|------|
|                |            |          | in.          | mm   |                 | in.               | mm       | in.  | mm          | in.  | mm         | in.  | mm         |                   |                     |                                 |                  |      |
| B2-SIMX90-0604 | 14815-0604 | 20293183 | 3/8          | 9.5  | 7/16-24         | 1/2               | 12       | 2.44 | 62.0        | 1.34 | 34.0       | 2.39 | 60.7       | NS                | Y                   | Y                               | Y                | Y    |
| B2-SIMX90-0605 | 14815-0605 | 20293184 | 3/8          | 9.5  | 1/2-20          | 9/16              | 14       | 2.44 | 62.0        | 1.38 | 35.1       | 2.43 | 61.7       | NS                | Y                   | Y                               | Y                | Y    |
| B2-SIMX90-0606 | 14815-0606 | 20293185 | 3/8          | 9.5  | 5/8-18          | 11/16             | 17       | 2.44 | 62.0        | 1.38 | 35.1       | 2.43 | 61.7       | NS                | Y                   | Y                               | Y                | Y    |
| B2-SIMX90-0607 | 14815-0607 | 20293186 | 3/8          | 9.5  | 11/16-18        | 3/4               | 19       | 2.44 | 62.0        | 1.38 | 35.1       | 2.43 | 61.7       | NS                | Y                   | Y                               | Y                | Y    |
| B2-SIMX90-0808 | 14815-0808 | 20293187 | 1/2          | 12.7 | 3/4-18          | 3/4               | 19       | 2.32 | 58.9        | 2.13 | 54.1       | 3.38 | 85.8       | NS                | Y                   | Y                               | Y                | Y    |

## NPTF

Female

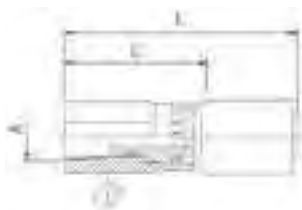


S=Skive  
NS=Non-Skive  
DG=Dual-Grip™

| Descriptive # | Product #  | SAP #    | Hose Size ID |      | Thread Size (A) | Hex-1 Wrench Size | Cut-Off (C) |      | Length (L) |      | Skive Type | SR1SN, DR1SN, SFS | SR2SN, DR2SN, LR2SN | SR16SC, XR16SC, ARC16SC, DR16SC | SCP3, XCP3, ACP3 | XCP4 |
|---------------|------------|----------|--------------|------|-----------------|-------------------|-------------|------|------------|------|------------|-------------------|---------------------|---------------------------------|------------------|------|
|               |            |          | in.          | mm   |                 | in.               | mm          | in.  | mm         | in.  | mm         |                   |                     |                                 |                  |      |
| B2-NPF-0402   | 14600-0402 | 20293225 | 1/4          | 6.4  | 1/8-27          | 9/16              | 14          | 0.88 | 22.4       | 1.86 | 47.3       | NS                | Y                   | Y                               | Y                | Y    |
| B2-NPF-0404   | 14600-0404 | 20242105 | 1/4          | 6.4  | 1/4-18          | 3/4               | 19          | 1.09 | 27.6       | 2.07 | 52.5       | NS                | Y                   | Y                               | Y                | Y    |
| B2-NPF-0604   | 14600-0604 | 20293226 | 3/8          | 9.5  | 1/4-18          | 3/4               | 19          | 1.09 | 27.8       | 2.14 | 54.4       | NS                | Y                   | Y                               | Y                | Y    |
| B2-NPF-0606   | 14600-0606 | 20242103 | 3/8          | 9.5  | 3/8-18          | 7/8               | 22          | 1.15 | 29.2       | 2.20 | 55.8       | NS                | Y                   | Y                               | Y                | Y    |
| B2-NPF-0608   | 14600-0608 | 20662001 | 3/8          | 9.5  | 1/2-14          |                   |             | 1.38 | 35.0       | 2.43 | 61.7       | Y                 | Y                   | Y                               | Y                | Y    |
| B2-NPF-0806   | 14600-0806 | 20662002 | 1/2          | 12.7 | 3/8-18          |                   |             |      |            |      |            | Y                 | Y                   | Y                               | Y                | Y    |
| B2-NPF-0808   | 14600-0808 | 20242106 | 1/2          | 12.7 | 1/2-14          | 1                 | 25          | 1.4  | 35.6       | 2.65 | 67.2       | NS                | Y                   | Y                               | Y                | Y    |
| B2-NPF-1212   | 14600-1212 | 20242104 | 3/4          | 19.0 | 3/4-14          | 1 1/4             | 32          | 1.51 | 38.4       | 3.06 | 77.8       | NS                | Y                   | Y                               | Y                | Y    |

## NPTF

Female | Swivel

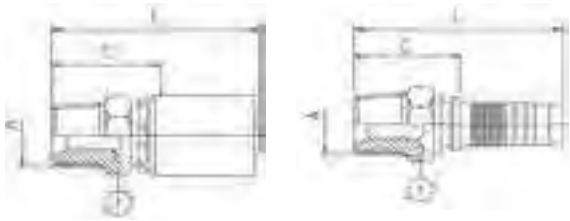


S=Skive  
NS=Non-Skive  
DG=Dual-Grip™

| Descriptive # | Product #  | SAP #    | Hose Size ID |      | Thread Size (A) | Hex-1 Wrench Size | Cut-Off (C) |      | Length (L) |      | Skive Type | SR1SN, DR1SN, SFS | SR2SN, DR2SN, LR2SN | SR16SC, XR16SC, ARC16SC, DR16SC | SCP3, XCP3, ACP3 | XCP4 |
|---------------|------------|----------|--------------|------|-----------------|-------------------|-------------|------|------------|------|------------|-------------------|---------------------|---------------------------------|------------------|------|
|               |            |          | in.          | mm   |                 | in.               | mm          | in.  | mm         | in.  | mm         |                   |                     |                                 |                  |      |
| B2-NPFX-0606  | 14605-0606 | 20293227 | 3/8          | 9.5  | 3/8-18          | 7/8               | 22          | 2.06 | 52.4       | 3.11 | 79.0       | NS                | Y                   | Y                               | Y                | Y    |
| B2-NPFX-1616  | 14605-1616 | 20293228 | 1            | 25.4 | 1-11 1/2        | 1 1/2             | 38          | 2.83 | 71.8       | 4.6  | 116.9      | NS                | Y                   | Y                               | Y                | Y    |

NPTF

Male



S=Skive  
NS=Non-Skive  
DG=Dual-Grip™

| Descriptive # | Product #   | SAP #    | Hose Size ID |      | Thread Size (A) | Hex-1 Wrench Size |    | Cut-Off (C) |      | Length (L) |       | Skive Type | SR1SN, DR1SN, SFS | SR2SN, DR2SN, LR2SN | SR16SC, XR16SC, ARC16SC, DR16SC | SCP3, XCP3, ACP3 | XCP4 |
|---------------|-------------|----------|--------------|------|-----------------|-------------------|----|-------------|------|------------|-------|------------|-------------------|---------------------|---------------------------------|------------------|------|
|               |             |          | in.          | mm   |                 | in.               | mm | in.         | mm   | in.        | mm    |            |                   |                     |                                 |                  |      |
|               |             |          |              |      |                 |                   |    |             |      |            |       |            |                   |                     |                                 |                  |      |
| UC-NPM-0302   | 36615-0302  | 20242703 | 3/16         | 4.8  | 1/8-27          | 1/2               | 12 | 0.78        | 19.7 | 1.65       | 41.9  | NS         | UCF6-03           | UCF6-03             |                                 |                  |      |
| B2-NPM-0402   | 14615-0402  | 20242110 | 1/4          | 6.4  | 1/8-27          | 9/16              | 14 | 0.84        | 21.2 | 1.82       | 46.1  | NS         | Y                 | Y                   | Y                               | Y                | Y    |
| B2-NPM-0404   | 14615-0404  | 20242111 | 1/4          | 6.4  | 1/4-18          | 11/16             | 17 | 1.06        | 27.0 | 2.04       | 51.9  | NS         | Y                 | Y                   | Y                               | Y                | Y    |
| B2-NPM-0404S  | 14615-0404S | 20286649 | 1/4          | 6.4  | 1/4-18          | 11/16             | 17 | 1.06        | 27.0 | 2.04       | 51.9  | NS         | Y                 | Y                   | Y                               | Y                | Y    |
| B2-NPM-0406   | 14615-0406  | 20242109 | 1/4          | 6.4  | 3/8-18          | 3/4               | 19 | 1.09        | 27.7 | 2.07       | 52.6  | NS         | Y                 | Y                   | Y                               | Y                | Y    |
| B2-NPM-0408   | 14615-0408  | 20242115 | 1/4          | 6.4  | 1/2-14          | 7/8               | 22 | 1.27        | 32.2 | 2.25       | 57.1  | NS         | Y                 | Y                   | Y                               | Y                | Y    |
| B2-NPM-0604   | 14615-0604  | 20242067 | 3/8          | 9.5  | 1/4-18          | 11/16             | 17 | 1.07        | 27.2 | 2.12       | 53.8  | NS         | Y                 | Y                   | Y                               | Y                | Y    |
| B2-NPM-0606   | 14615-0606  | 20242069 | 3/8          | 9.5  | 3/8-18          | 3/4               | 19 | 1.10        | 27.9 | 2.15       | 54.6  | NS         | Y                 | Y                   | Y                               | Y                | Y    |
| B2-NPM-0606S  | 14615-0606S | 20286830 | 3/8          | 9.5  | 3/8-18          | 3/4               | 19 | 1.10        | 27.9 | 2.15       | 54.6  | NS         | Y                 | Y                   | Y                               | Y                | Y    |
| B2-NPM-0608   | 14615-0608  | 20242079 | 3/8          | 9.5  | 1/2-14          | 7/8               | 22 | 1.27        | 32.4 | 2.32       | 59.0  | NS         | Y                 | Y                   | Y                               | Y                | Y    |
| B2-NPM-0806   | 14615-0806  | 20242113 | 1/2          | 12.7 | 3/8-18          | 3/4               | 19 | 1.12        | 28.4 | 2.37       | 60.1  | NS         | Y                 | Y                   | Y                               | Y                | Y    |
| B2-NPM-0806S  | 14615-0806S | 20424922 | 1/2          | 12.7 | 3/8-18          | 3/4               |    | 1.12        | 28.4 | 2.37       | 60.1  |            | Y                 | Y                   | Y                               | Y                | Y    |
| B2-NPM-0808   | 14615-0808  | 20242093 | 1/2          | 12.7 | 1/2-14          | 7/8               | 22 | 1.30        | 33.0 | 2.55       | 64.7  | NS         | Y                 | Y                   | Y                               | Y                | Y    |
| B2-NPM-0808S  | 14615-0808S | 20286831 | 1/2          | 12.7 | 1/2-14          | 7/8               | 22 | 1.30        | 33.0 | 2.55       | 64.7  | NS         | Y                 | Y                   | Y                               | Y                | Y    |
| B2-NPM-0812   | 14615-0812  | 20242116 | 1/2          | 12.7 | 3/4-14          | 1 1/16            | 27 | 1.34        | 34.1 | 2.59       | 65.8  | NS         | Y                 | Y                   | Y                               | Y                | Y    |
| B2-NPM-1008   | 14615-1008  | 20242071 | 5/8          | 15.9 | 1/2-14          | 15/16             | 24 | 1.31        | 33.3 | 2.67       | 67.7  | NS         | Y                 | Y                   | Y                               | Y                | Y    |
| B2-NPM-1008S  | 14615-1008S | 20286832 | 5/8          | 15.9 | 1/2-14          | 15/16             | 24 | 1.31        | 33.3 | 2.67       | 67.7  | NS         | Y                 | Y                   | Y                               | Y                | Y    |
| B2-NPM-1012   | 14615-1012  | 20242066 | 5/8          | 15.9 | 3/4-14          | 1 1/16            | 27 | 1.35        | 34.4 | 2.71       | 68.9  | NS         | Y                 | Y                   | Y                               | Y                | Y    |
| B2-NPM-1208   | 14615-1208  | 20242078 | 3/4          | 19.0 | 1/2-14          | 1 1/16            | 27 | 1.32        | 33.5 | 2.87       | 73.0  | NS         | Y                 | Y                   | Y                               | Y                | Y    |
| B2-NPM-1212   | 14615-1212  | 20242076 | 3/4          | 19.0 | 3/4-14          | 1 1/16            | 27 | 1.36        | 34.6 | 2.92       | 74.1  | NS         | Y                 | Y                   | Y                               | Y                | Y    |
| B2-NPM-1212S  | 14615-1212S | 20286833 | 3/4          | 19.0 | 3/4-14          | 1 1/16            | 27 | 1.36        | 34.6 | 2.92       | 74.1  | NS         | Y                 | Y                   | Y                               | Y                | Y    |
| B2-NPM-1216   | 14615-1216  | 20242077 | 3/4          | 19.0 | 1-11 1/2        | 1 7/16            | 36 | 1.72        | 43.7 | 3.27       | 83.1  | NS         | Y                 | Y                   | Y                               | Y                | Y    |
| B2-NPM-1612   | 14615-1612  | 20242107 | 1            | 25.4 | 3/4-14          | 1 7/16            | 36 | 1.56        | 39.5 | 3.33       | 84.6  | NS         | Y                 | Y                   | Y                               | Y                |      |
| B2-NPM-1616   | 14615-1616  | 20242099 | 1            | 25.4 | 1-11 1/2        | 1 7/16            | 36 | 1.73        | 43.9 | 3.51       | 89.0  | NS         | Y                 | Y                   | Y                               | Y                |      |
| B2-NPM-1616S  | 14615-1616S | 20286834 | 1            | 25.4 | 1-11 1/2        | 1 7/16            | 36 | 1.73        | 43.9 | 3.51       | 89.0  | NS         | Y                 | Y                   | Y                               | Y                |      |
| B2-NPM-1620   | 14615-1620  | 20242092 | 1            | 25.4 | 1 1/4-11 1/2    | 1 13/16           | 46 | 1.88        | 47.8 | 3.66       | 92.8  | NS         | Y                 | Y                   | Y                               | Y                |      |
| S4-NPM-2020   | 28615-2020  | 20242094 | 1 1/4        | 31.8 | 1 1/4-11 1/2    | 1 13/16           | 46 | 1.95        | 49.5 | 4.00       | 101.5 | NS         | Y                 | Y                   | Y                               |                  |      |
| S4-NPM-2020S  | 28615-2020S | 20424930 | 1 1/4        | 31.8 | 1 1/4-11 1/2    |                   |    | 1.95        | 49.5 | 4.00       | 101.5 |            | Y                 | Y                   | Y                               |                  |      |
| S4-NPM-2024   | 28615-2024  | 20242095 | 1 1/4        | 31.8 | 1 1/2-11 1/2    | 2                 | 50 | 2.01        | 51.0 | 4.06       | 103.0 | NS         | Y                 | Y                   | Y                               |                  |      |
| S4-NPM-2424   | 28615-2424  | 20242102 | 1 1/2        | 38.1 | 1 1/2-11 1/2    | 2                 | 50 | 2.01        | 51.0 | 4.34       | 110.1 | NS         | Y                 | Y                   |                                 |                  |      |
| S4-NPM-2424S  | 28615-2424S | 20424931 | 1 1/2        | 38.1 | 1 1/2-11 1/2    |                   |    | 2.01        | 51.0 | 4.34       | 110.1 |            | Y                 | Y                   |                                 |                  |      |
| S4-NPM-3232   | 28615-3232  | 20242108 | 2            | 50.8 | 2-11 1/2        | 2 9/16            | 65 | 2.14        | 54.5 | 4.98       | 126.4 | NS         | Y                 | Y                   |                                 |                  |      |

S: Stainless Steel  
BH: Brass Hybrid

## NPTF

Male | Swivel



S=Skive  
NS=Non-Skive  
DG=Dual-Grip™

| Descriptive # | Product #  | SAP #    | Hose Size ID |      | Thread Size (A) | Hex-1 Wrench Size |    | Cut-Off (C) |      | Length (L) |       | Skive Type | SR1SN, DR1SN, SFS | SR2SN, DR2SN, LR2SN | SR16SC, XR16SC, ARC16SC, DR16SC | SCP3, XCP3, ACP3 | XCP4 |
|---------------|------------|----------|--------------|------|-----------------|-------------------|----|-------------|------|------------|-------|------------|-------------------|---------------------|---------------------------------|------------------|------|
|               |            |          | in.          | mm   |                 | in.               | mm | in.         | mm   | in.        | mm    |            |                   |                     |                                 |                  |      |
| B2-NPMX-0402  | 14645-0402 | 20435592 | 1/4          | 6.4  | 1/8-27          | 5/8               | 16 | 1.51        | 38.4 | 2.49       | 63.1  | NS         | Y                 | Y                   | Y                               | Y                | Y    |
| B2-NPMX-0404  | 14645-0404 | 2042087  | 1/4          | 6.4  | 1/4-18          | 11/16             | 17 | 1.49        | 37.8 | 2.47       | 62.7  | NS         | Y                 | Y                   | Y                               | Y                | Y    |
| B2-NPMX-0406  | 14645-0406 | 2042086  | 1/4          | 6.4  | 3/8-18          | 7/8               | 22 | 1.57        | 39.9 | 2.55       | 64.8  | NS         | Y                 | Y                   | Y                               | Y                | Y    |
| B2-NPMX-0604  | 14645-0604 | 2042082  | 3/8          | 9.5  | 1/4-18          | 11/16             | 17 | 1.58        | 40.1 | 2.63       | 66.8  | NS         | Y                 | Y                   | Y                               | Y                | Y    |
| B2-NPMX-0606  | 14645-0606 | 2042081  | 3/8          | 9.5  | 3/8-18          | 7/8               | 22 | 1.49        | 37.8 | 2.54       | 64.4  | NS         | Y                 | Y                   | Y                               | Y                | Y    |
| B2-NPMX-0608  | 14645-0608 | 2042083  | 3/8          | 9.5  | 1/2-14          | 1                 | 25 | 1.71        | 43.5 | 2.76       | 70.2  | NS         | Y                 | Y                   | Y                               | Y                | Y    |
| B2-NPMX-0804  | 14645-0804 | 20293188 | 1/2          | 12.7 | 1/4-18          | 11/16             | 17 | 1.60        | 40.6 | 2.85       | 72.3  | NS         | Y                 | Y                   | Y                               | Y                | Y    |
| B2-NPMX-0806  | 14645-0806 | 2042088  | 1/2          | 12.7 | 3/8-18          | 7/8               | 22 | 1.51        | 38.5 | 2.76       | 70.1  | NS         | Y                 | Y                   | Y                               | Y                | Y    |
| B2-NPMX-0808  | 14645-0808 | 2042074  | 1/2          | 12.7 | 1/2-14          | 1                 | 25 | 1.66        | 42.3 | 2.91       | 73.9  | NS         | Y                 | Y                   | Y                               | Y                | Y    |
| B2-NPMX-1212  | 14645-1212 | 2042091  | 3/4          | 19.0 | 3/4-14          | 1 1/4             | 32 | 1.97        | 50.1 | 3.53       | 89.6  | NS         | Y                 | Y                   | Y                               | Y                | Y    |
| B2-NPMX-1616  | 14645-1616 | 2042085  | 1            | 25.4 | 1-11 1/2        | 1 3/4             | 41 | 2.30        | 58.4 | 4.07       | 103.5 | NS         | Y                 | Y                   | Y                               | Y                | Y    |

## NPTF

Male | 90° Elbow (Block) | Swivel

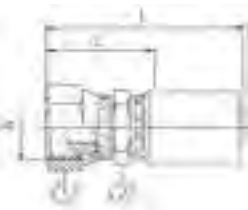


S=Skive  
NS=Non-Skive  
DG=Dual-Grip™

| Descriptive #   | Product #  | SAP #    | Hose Size ID |      | Thread Size (A) | Hex-1 Wrench Size |    | Drop (D) | Cut-Off (C) |      | Length (L) |      | Skive Type | SR1SN, DR1SN, SFS | SR2SN, DR2SN, LR2SN | SR16SC, XR16SC, ARC16SC, DR16SC | SCP3, XCP3, ACP3 | XCP4 |
|-----------------|------------|----------|--------------|------|-----------------|-------------------|----|----------|-------------|------|------------|------|------------|-------------------|---------------------|---------------------------------|------------------|------|
|                 |            |          | in.          | mm   |                 | in.               | mm | in.      | mm          | in.  | mm         | in.  | mm         |                   |                     |                                 |                  |      |
| B2-NPMX90B-0404 | 14650-0404 | 20293189 | 1/4          | 6.4  | 1/4-18          | 11/16             | 17 | 1.69     | 42.9        | 0.71 | 18.1       | 1.69 | 43.0       | NS                | Y                   | Y                               | Y                | Y    |
| B2-NPMX90B-0604 | 14650-0604 | 20293190 | 3/8          | 9.5  | 1/4-18          | 11/16             | 17 | 1.63     | 41.5        | 0.92 | 23.3       | 1.97 | 50.0       | NS                | Y                   | Y                               | Y                | Y    |
| B2-NPMX90B-0606 | 14650-0606 | 20293191 | 3/8          | 9.5  | 3/8-18          | 7/8               | 22 | 1.62     | 41.2        | 0.92 | 23.3       | 1.97 | 50.0       | NS                | Y                   | Y                               | Y                | Y    |
| B2-NPMX90B-0806 | 14650-0806 | 20441228 | 1/2          | 12.7 | 3/8-18          | 7/8               | 22 | 2.00     | 50.7        | 1.16 | 29.4       | 2.41 | 61.1       | NS                | Y                   | Y                               | Y                | Y    |
| B2-NPMX90B-0808 | 14650-0808 | 20293192 | 1/2          | 12.7 | 1/2-14          | 1                 | 25 | 2.15     | 54.6        | 1.16 | 29.4       | 2.41 | 61.1       | NS                | Y                   | Y                               | Y                | Y    |
| B2-NPMX90B-1212 | 14650-1212 | 20293193 | 3/4          | 19.0 | 3/4-14          | 1 1/4             | 32 | 2.58     | 65.6        | 1.24 | 31.5       | 2.80 | 71.0       | NS                | Y                   | Y                               | Y                | Y    |

NPSM

Female | Swivel



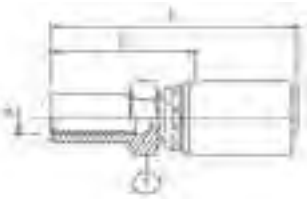
S=Skive  
NS=Non-Skive  
DG=Dual-Grip™

| Descriptive # | Product #   | SAP #    | Hose Size ID |      | Thread Size (A) | Hex-1 Wrench Size |    | Hex-2 Wrench Size |    | Cut-Off (C) |      | Length (L) |       | Skive Type | SR1SN, DR1SN, SFS | SR2SN, DR2SN, LR2SN | SR16SC, XR16SC, ARC16SC, DR16SC | SCP3, XCP3, ACP3 | XCP4 |
|---------------|-------------|----------|--------------|------|-----------------|-------------------|----|-------------------|----|-------------|------|------------|-------|------------|-------------------|---------------------|---------------------------------|------------------|------|
|               |             |          | in.          | mm   |                 | in.               | mm | in.               | mm | in.         | mm   | in.        | mm    |            |                   |                     |                                 |                  |      |
| B2-NSFX-0404  | 14655-0404  | 20242064 | 1/4          | 6.4  | 1/4-18          | 3/4               | 19 | 11/16             | 17 | 1.19        | 30.2 | 2.17       | 55.1  | NS         | Y                 | Y                   | Y                               | Y                | Y    |
| B2-NSFX-0606  | 14655-0606  | 20242065 | 3/8          | 9.5  | 3/8-18          | 7/8               | 22 | 3/4               | 19 | 1.24        | 31.4 | 2.29       | 58.0  | NS         | Y                 | Y                   | Y                               | Y                | Y    |
| B2-NSFX-0808  | 14655-0808  | 20242063 | 1/2          | 12.7 | 1/2-14          | 1 1/16            | 27 | 7/8               | 22 | 1.35        | 34.3 | 2.60       | 66.0  | NS         | Y                 | Y                   | Y                               | Y                | Y    |
| B2-NSFX-0808S | 14655-0808S | 20424926 | 1/2          | 12.7 | 1/2-14          |                   |    |                   |    | 1.35        | 34.3 | 2.60       | 66.0  |            | Y                 | Y                   | Y                               | Y                | Y    |
| B2-NSFX-1212  | 14655-1212  | 20293252 | 3/4          | 19.0 | 3/4-14          | 1 1/4             | 32 | 1 3/16            | 30 | 1.46        | 37.0 | 3.01       | 76.4  | NS         | Y                 | Y                   | Y                               | Y                | Y    |
| B2-NSFX-1616  | 14655-1616  | 20293253 | 1            | 25.4 | 1-11 1/2        | 1 1/2             | 38 | 1 7/16            | 36 | 1.76        | 44.7 | 3.54       | 89.8  | NS         | Y                 | Y                   | Y                               | Y                |      |
| S4-NSFX-2020  | 28655-2020  | 20293263 | 1 1/4        | 31.8 | 1 1/4-11 1/2    | 2                 | 50 | 1 3/4             | 41 | 2.04        | 51.7 | 4.08       | 103.7 | NS         | Y                 | Y                   | Y                               |                  |      |

S: Stainless Steel

GTF

Female



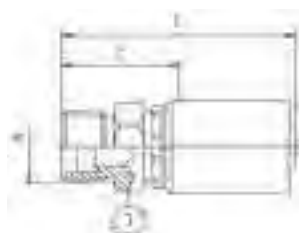
S=Skive  
NS=Non-Skive  
DG=Dual-Grip™

| Descriptive # | Product #  | SAP #    | Hose Size ID |     | Thread Size (A) | Hex-1 Wrench Size |    | Cut-Off (C) |      | Length (L) |      | Skive Type | SR1SN, DR1SN, SFS | SR2SN, DR2SN, LR2SN | SR16SC, XR16SC, ARC16SC, DR16SC | SCP3, XCP3, ACP3 | XCP4 |
|---------------|------------|----------|--------------|-----|-----------------|-------------------|----|-------------|------|------------|------|------------|-------------------|---------------------|---------------------------------|------------------|------|
|               |            |          | in.          | mm  |                 | in.               | mm | in.         | mm   | in.        | mm   |            |                   |                     |                                 |                  |      |
| B2-GTF-0404   | 14370-0404 | 20293254 | 1/4          | 6.4 | .511-27         | 3/4               | 19 | 0.92        | 23.3 | 1.9        | 48.2 | NS         | Y                 | Y                   | Y                               | Y                | Y    |



## SAE J514 Flareless Tube Fittings

Male

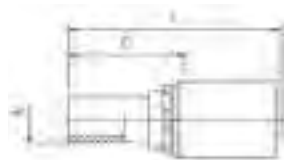


S=Skive  
NS=Non-Skive  
DG=Dual-Grip™

| Descriptive # | Product #  | SAP #    | Hose Size ID |      | Thread Size (A) | Hex-1 Wrench Size |    | Cut-Off (C) |      | Length (L) |      | Skive Type | SR1SN, DR1SN, SFS | SR2SN, DR2SN, LR2SN | SR16SC, XR16SC, ARC16SC, DR16SC | SCP3, XCP3, ACP3 | XCP4 |
|---------------|------------|----------|--------------|------|-----------------|-------------------|----|-------------|------|------------|------|------------|-------------------|---------------------|---------------------------------|------------------|------|
|               |            |          | in.          | mm   |                 | in.               | mm | in.         | mm   | in.        | mm   |            |                   |                     |                                 |                  |      |
| B2-FTM-0404   | 14360-0404 | 20286101 | 1/4          | 6.4  | 7/16-20         | 1/2               | 12 | 0.88        | 22.2 | 1.86       | 47.1 | NS         | Y                 | Y                   | Y                               | Y                | Y    |
| B2-FTM-0405   | 14360-0405 | 20294798 | 1/4          | 6.4  | 1/2-20          | 9/16              | 14 | 0.90        | 22.9 | 1.88       | 47.8 | NS         | Y                 | Y                   | Y                               | Y                | Y    |
| B2-FTM-0605   | 14360-0605 | 20294799 | 3/8          | 9.5  | 1/2-20          | 5/8               | 16 | 0.96        | 24.3 | 2.01       | 51.0 | NS         | Y                 | Y                   | Y                               | Y                | Y    |
| B2-FTM-0606   | 14360-0606 | 20286102 | 3/8          | 9.5  | 9/16-18         | 5/8               | 16 | 0.97        | 24.7 | 2.02       | 51.4 | NS         | Y                 | Y                   | Y                               | Y                | Y    |
| B2-FTM-0608   | 14360-0608 | 20661908 | 3/8          | 9.5  | 3/4-16          |                   |    | 0.97        | 24.7 | 2.02       | 51.4 |            | Y                 | Y                   | Y                               | Y                | Y    |
| B2-FTM-0808   | 14360-0808 | 20286103 | 1/2          | 12.7 | 3/4-16          | 7/8               | 22 | 1.11        | 28.2 | 2.36       | 59.9 | NS         | Y                 | Y                   | Y                               | Y                | Y    |
| B2-FTM-0810   | 14360-0810 | 20294860 | 1/2          | 12.7 | 7/8-14          | 15/16             | 24 | 1.21        | 30.7 | 2.46       | 62.4 | NS         | Y                 | Y                   | Y                               | Y                | Y    |
| B2-FTM-1212   | 14360-1212 | 20294861 | 3/4          | 19.0 | 1 1/16-12       | 1 3/16            | 30 | 1.30        | 33.1 | 2.85       | 72.5 | NS         | Y                 | Y                   | Y                               | Y                | Y    |
| B2-FTM-1616   | 14360-1616 | 20294862 | 1            | 25.4 | 1 5/16-12       | 1 7/16            | 36 | 1.48        | 37.7 | 3.26       | 82.8 | NS         | Y                 | Y                   | Y                               | Y                |      |

\*All Fittings come with Nut and Sleeve

## Standpipe



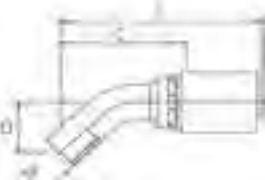
S=Skive  
NS=Non-Skive  
DG=Dual-Grip™

| Descriptive # | Product #  | SAP #    | Hose Size ID |      | Tube OD (A) | Cut-Off (C) |      | Length (L) |      | Skive Type | SR1SN, DR1SN, SFS | SR2SN, DR2SN, LR2SN | SR16SC, XR16SC, ARC16SC, DR16SC | SCP3, XCP3, ACP3 | XCP4 |
|---------------|------------|----------|--------------|------|-------------|-------------|------|------------|------|------------|-------------------|---------------------|---------------------------------|------------------|------|
|               |            |          | in.          | mm   |             | in.         | mm   | in.        | mm   |            |                   |                     |                                 |                  |      |
| B2-SP-0406    | 14825-0406 | 20441305 | 1/4          | 6.4  | 6           | 1.11        | 28.3 | 2.09       | 53.2 | NS         | Y                 | Y                   | Y                               | Y                | Y    |
| B2-SP-0408    | 14825-0408 | 20241714 | 1/4          | 6.4  | 8           | 1.19        | 30.3 | 2.17       | 55.2 | NS         | Y                 | Y                   | Y                               | Y                | Y    |
| B2-SP-0410    | 14825-0410 | 20241710 | 1/4          | 6.4  | 10          | 1.27        | 32.3 | 2.25       | 57.2 | NS         | Y                 | Y                   | Y                               | Y                | Y    |
| B2-SP-0610    | 14825-0610 | 20241712 | 3/8          | 9.5  | 10          | 1.19        | 30.2 | 2.24       | 56.9 | NS         | Y                 | Y                   | Y                               | Y                | Y    |
| B2-SP-0612    | 14825-0612 | 20241711 | 3/8          | 9.5  | 12          | 1.15        | 29.2 | 2.20       | 55.9 | NS         | Y                 | Y                   | Y                               | Y                | Y    |
| B2-SP-0815    | 14825-0815 | 20241717 | 1/2          | 12.7 | 15          | 1.26        | 32.0 | 2.51       | 63.7 | NS         | Y                 | Y                   | Y                               | Y                | Y    |
| B2-SP-0816    | 14825-0816 | 20241716 | 1/2          | 12.7 | 16          | 1.46        | 37.1 | 2.71       | 68.8 | NS         | Y                 | Y                   | Y                               | Y                | Y    |
| B2-SP-1018    | 14825-1018 | 20241715 | 5/8          | 15.9 | 18          | 1.35        | 34.2 | 2.71       | 68.7 | NS         | Y                 | Y                   | Y                               | Y                | Y    |
| B2-SP-1020    | 14825-1020 | 20241720 | 5/8          | 15.9 | 20          | 1.73        | 44.0 | 3.09       | 78.5 | NS         | Y                 | Y                   | Y                               | Y                | Y    |
| B2-SP-1222    | 14825-1222 | 20241713 | 3/4          | 19.0 | 22          | 1.44        | 36.6 | 2.99       | 76.0 | NS         | Y                 | Y                   | Y                               | Y                | Y    |
| B2-SP-1628    | 14825-1628 | 20241718 | 1            | 25.4 | 28          | 1.59        | 40.4 | 3.37       | 85.5 | NS         | Y                 | Y                   | Y                               | Y                |      |

\*All Fittings come with Nut and Sleeve

Standpipe

45° Elbow

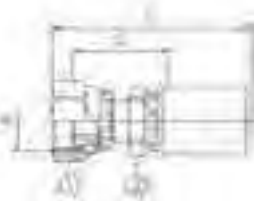


S=Skive  
NS=Non-Skive  
DG=Dual-Grip™

| Descriptive # | Product #  | SAP #    | Hose Size ID |     | Tube OD (A) | Drop (D) |      | Cut-Off (C) |      | Length (L) |    | Skive Type | SR1SN, DR1SN, SFS | SR2SN, DR2SN, LR2SN | SR16SC, XR16SC, ARC16SC, DR16SC | SCP3, XCP3, ACP3 | XCP4 |
|---------------|------------|----------|--------------|-----|-------------|----------|------|-------------|------|------------|----|------------|-------------------|---------------------|---------------------------------|------------------|------|
|               |            |          | in.          | mm  | mm          | in.      | mm   | in.         | mm   | in.        | mm |            |                   |                     |                                 |                  |      |
| B2-SP45-0408  | 14830-0408 | 20241719 | 1/4          | 6.4 | 8           | 1.69     | 42.9 | 2.67        | 67.8 | NS         | Y  | NS         | Y                 | Y                   | Y                               | Y                | Y    |

O-Ring Face Seal (SAE J1453 ORS/ORFS)

Female | Swivel

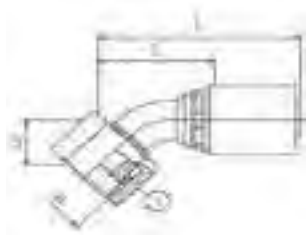


S=Skive  
NS=Non-Skive  
DG=Dual-Grip™

| Descriptive # | Product #  | SAP #    | Hose Size ID |      | Thread Size (A) | Hex-1 Wrench Size |    | Hex-2 Wrench Size |    | Cut-Off (C) |      | Length (L) |       | Skive Type | SR1SN, DR1SN, SFS | SR2SN, DR2SN, LR2SN | SR16SC, XR16SC, ARC16SC, DR16SC | SCP3, XCP3, ACP3 | XCP4 |
|---------------|------------|----------|--------------|------|-----------------|-------------------|----|-------------------|----|-------------|------|------------|-------|------------|-------------------|---------------------|---------------------------------|------------------|------|
|               |            |          | in.          | mm   |                 | in.               | mm | in.               | mm | in.         | mm   | in.        | mm    |            |                   |                     |                                 |                  |      |
| B2-OFFX-0404  | 14700-0404 | 20242188 | 1/4          | 6.4  | 9/16-18         | 11/16             | 17 | 9/16              | 14 | 1.07        | 27.3 | 2.05       | 52.2  | NS         | Y                 | Y                   | Y                               | Y                | Y    |
| B2-OFFX-0406  | 14700-0406 | 20242141 | 1/4          | 6.4  | 11/16-16        | 7/8               | 22 | 11/16             | 17 | 1.19        | 30.1 | 2.17       | 55.0  | NS         | Y                 | Y                   | Y                               | Y                | Y    |
| B2-OFFX-0408  | 14700-0408 | 20242148 | 1/4          | 6.4  | 13/16-16        | 15/16             | 24 | 7/8               | 22 | 1.39        | 35.4 | 2.37       | 60.3  | NS         | Y                 | Y                   | Y                               | Y                | Y    |
| B2-OFFX-0604  | 14700-0604 | 20293218 | 3/8          | 9.5  | 9/16-18         | 11/16             | 17 | 11/16             | 17 | 1.12        | 28.4 | 2.17       | 55.1  | NS         | Y                 | Y                   | Y                               | Y                | Y    |
| B2-OFFX-0606  | 14700-0606 | 20242196 | 3/8          | 9.5  | 11/16-16        | 7/8               | 22 | 11/16             | 17 | 1.19        | 30.3 | 2.24       | 56.9  | NS         | Y                 | Y                   | Y                               | Y                | Y    |
| B2-OFFX-0608  | 14700-0608 | 20242198 | 3/8          | 9.5  | 13/16-16        | 15/16             | 24 | 7/8               | 22 | 1.40        | 35.6 | 2.45       | 62.2  | NS         | Y                 | Y                   | Y                               | Y                | Y    |
| B2-OFFX-0806  | 14700-0806 | 20242143 | 1/2          | 12.7 | 11/16-16        | 7/8               | 22 | 3/4               | 19 | 1.26        | 32.0 | 2.51       | 63.7  | NS         | Y                 | Y                   | Y                               | Y                | Y    |
| B2-OFFX-0808  | 14700-0808 | 20242149 | 1/2          | 12.7 | 13/16-16        | 15/16             | 24 | 7/8               | 22 | 1.42        | 36.1 | 2.67       | 67.8  | NS         | Y                 | Y                   | Y                               | Y                | Y    |
| B2-OFFX-0810  | 14700-0810 | 20242144 | 1/2          | 12.7 | 1-14            | 13/16             | 30 | 15/16             | 24 | 1.56        | 39.5 | 2.80       | 71.2  | NS         | Y                 | Y                   | Y                               | Y                | Y    |
| B2-OFFX-0812  | 14700-0812 | 20242136 | 1/2          | 12.7 | 13/16-12        | 17/16             | 36 | 13/16             | 30 | 1.66        | 42.1 | 2.90       | 73.8  | NS         | Y                 | Y                   | Y                               | Y                | Y    |
| B2-OFFX-1010  | 14700-1010 | 20242178 | 5/8          | 15.9 | 1-14            | 13/16             | 30 | 15/16             | 24 | 1.56        | 39.6 | 2.92       | 74.1  | NS         | Y                 | Y                   | Y                               | Y                | Y    |
| B2-OFFX-1012  | 14700-1012 | 20242199 | 5/8          | 15.9 | 13/16-12        | 17/16             | 36 | 13/16             | 30 | 1.66        | 42.1 | 3.01       | 76.6  | NS         | Y                 | Y                   | Y                               | Y                | Y    |
| B2-OFFX-1210  | 14700-1210 | 20242201 | 3/4          | 19.0 | 1-14            | 13/16             | 30 | 17/16             | 27 | 1.58        | 40.1 | 3.13       | 79.5  | NS         | Y                 | Y                   | Y                               | Y                | Y    |
| B2-OFFX-1212  | 14700-1212 | 20242189 | 3/4          | 19.0 | 13/16-12        | 17/16             | 36 | 13/16             | 30 | 1.67        | 42.3 | 3.22       | 81.8  | NS         | Y                 | Y                   | Y                               | Y                | Y    |
| B2-OFFX-1216  | 14700-1216 | 20242169 | 3/4          | 19.0 | 17/16-12        | 15/8              | 41 | 17/16             | 36 | 1.92        | 48.6 | 3.47       | 88.1  | NS         | Y                 | Y                   | Y                               | Y                |      |
| B2-OFFX-1612  | 14700-1612 | 20242159 | 1            | 25.4 | 13/16-12        | 17/16             | 36 | 17/16             | 32 | 1.79        | 45.3 | 3.56       | 90.4  | NS         | Y                 | Y                   | Y                               | Y                |      |
| B2-OFFX-1616  | 14700-1616 | 20242142 | 1            | 25.4 | 17/16-12        | 17/16             | 41 | 17/16             | 36 | 1.95        | 49.4 | 3.72       | 94.5  | NS         | Y                 | Y                   | Y                               | Y                |      |
| B2-OFFX-1620  | 14700-1620 | 20242164 | 1            | 25.4 | 111/16-12       | 2                 | 50 | 17/16             | 41 | 1.98        | 50.3 | 3.76       | 95.4  | NS         | Y                 | Y                   | Y                               | Y                |      |
| S4-OFFX-2020  | 28700-2020 | 20242137 | 17/16        | 31.8 | 111/16-12       | 2                 | 50 | 17/16             | 41 | 2.08        | 52.9 | 4.13       | 104.9 | NS         | Y                 | Y                   | Y                               |                  |      |
| S4-OFFX-2424  | 28700-2424 | 20242138 | 17/8         | 38.1 | 2-12            | 27/16             | 60 | 2                 | 50 | 2.23        | 56.7 | 4.56       | 115.8 | NS         | Y                 | Y                   |                                 |                  |      |

# O-Ring Face Seal (SAE J1453 ORS/ORFS)

Female | 45° Elbow | Swivel



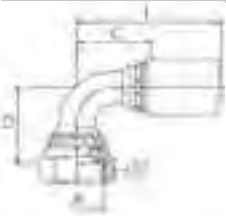
S=Skive  
NS=Non-Skive  
DG=Dual-Grip™

| Descriptive #               | Product #  | SAP #    | Hose Size ID |      | Thread Size (A) | Hex-1 Wrench Size |    | Drop (D) |      | Cut-Off (C) |       | Length (L) |       | Skive Type | SR1SN, DR1SN, SFS | SR2SN, DR2SN, LR2SN | SR16SC, XR16SC, ARC16SC, DR16SC | SCP3, XCP3, ACP3 | XCP4 |
|-----------------------------|------------|----------|--------------|------|-----------------|-------------------|----|----------|------|-------------|-------|------------|-------|------------|-------------------|---------------------|---------------------------------|------------------|------|
|                             |            |          |              |      |                 |                   |    |          |      |             |       |            |       |            |                   |                     |                                 |                  |      |
|                             |            |          | in.          | mm   |                 | in.               | mm | in.      | mm   | in.         | mm    | in.        | mm    |            |                   |                     |                                 |                  |      |
| B2-OFFX45-0404              | 14710-0404 | 20242231 | 1/4          | 6.4  | 9/16-18         | 11/16             | 17 | 0.43     | 10.9 | 1.61        | 41.0  | 2.59       | 65.9  | NS         | Y                 | Y                   | Y                               | Y                | Y    |
| B2-OFFX45-0406              | 14710-0406 | 20242230 | 1/4          | 6.4  | 11/16-16        | 7/8               | 22 | 0.43     | 10.9 | 1.81        | 46.0  | 2.79       | 70.9  | NS         | Y                 | Y                   | Y                               | Y                | Y    |
| B2-OFFX45-0606              | 14710-0606 | 20242204 | 3/8          | 9.5  | 11/16-16        | 7/8               | 22 | 0.47     | 11.9 | 1.85        | 47.0  | 2.90       | 73.6  | NS         | Y                 | Y                   | Y                               | Y                | Y    |
| B2-OFFX45-0608              | 14710-0608 | 20242206 | 3/8          | 9.5  | 13/16-16        | 15/16             | 24 | 0.59     | 15.0 | 2.01        | 51.0  | 3.06       | 77.6  | NS         | Y                 | Y                   | Y                               | Y                | Y    |
| B2-OFFX45-0808 <sup>C</sup> | 14710-0808 | 20242228 | 1/2          | 12.7 | 13/16-16        | 15/16             | 24 | 0.63     | 16.0 | 1.85        | 47.0  | 3.10       | 78.7  | NS         | Y                 | Y                   | Y                               | Y                | Y    |
| B2-OFFX45-0810              | 14710-0810 | 20242225 | 1/2          | 12.7 | 1-14            | 1 3/16            | 30 | 0.65     | 16.5 | 1.97        | 50.0  | 3.22       | 81.7  | NS         | Y                 | Y                   | Y                               | Y                | Y    |
| B2-OFFX45-1010              | 14710-1010 | 20242217 | 5/8          | 15.9 | 1-14            | 1 3/16            | 30 | 0.67     | 17.0 | 2.28        | 58.0  | 3.64       | 92.5  | NS         | Y                 | Y                   | Y                               | Y                | Y    |
| B2-OFFX45-1012              | 14710-1012 | 20242207 | 5/8          | 15.9 | 1 3/16-12       | 1 7/16            | 36 | 0.83     | 21.1 | 2.48        | 63.0  | 3.84       | 97.5  | NS         | Y                 | Y                   | Y                               | Y                | Y    |
| B2-OFFX45-1210              | 14710-1210 | 20293219 | 3/4          | 19.0 | 1-14            | 1 3/16            | 30 | 0.79     | 20.1 | 2.09        | 53.1  | 3.64       | 92.5  | NS         | Y                 | Y                   | Y                               | Y                | Y    |
| B2-OFFX45-1212              | 14710-1212 | 20242232 | 3/4          | 19.0 | 1 3/16-12       | 1 7/16            | 36 | 0.83     | 21.0 | 2.48        | 63.0  | 4.03       | 102.4 | NS         | Y                 | Y                   | Y                               | Y                | Y    |
| B2-OFFX45-1216              | 14710-1216 | 20242208 | 3/4          | 19.0 | 1 7/16-12       | 1 5/8             | 41 | 0.94     | 23.9 | 2.80        | 71.1  | 4.35       | 110.6 | NS         | Y                 | Y                   | Y                               | Y                | Y    |
| B2-OFFX45-1616              | 14710-1616 | 20242219 | 1            | 25.4 | 1 7/16-12       | 1 5/8             | 41 | 1.02     | 26.0 | 3.23        | 81.9  | 5.00       | 127.1 | NS         | Y                 | Y                   | Y                               | Y                | Y    |
| S4-OFFX45-2020              | 28710-2020 | 20242223 | 1 1/4        | 31.8 | 1 11/16-12      | 2                 | 50 | 1.02     | 25.9 | 3.82        | 97.0  | 5.87       | 149.0 | NS         | Y                 | Y                   | Y                               |                  |      |
| S4-OFFX45-2024              | 28710-2024 | 20242224 | 1 1/4        | 31.8 | 2-12            | 2 3/8             | 60 | 1.10     | 27.9 | 3.98        | 101.1 | 6.03       | 153.1 | NS         | Y                 | Y                   | Y                               |                  |      |
| S4-OFFX45-2424              | 28710-2424 | 20242222 | 1 1/2        | 38.1 | 2-12            | 2 3/8             | 60 | 1.10     | 27.9 | 4.13        | 104.9 | 6.46       | 164.0 | NS         | Y                 | Y                   |                                 |                  |      |

C: Crimp Nut (see "Fitting Identification" in Appendix for details)

O-Ring Face Seal (SAE J1453 ORS/ORFS)

Female | 90° Elbow | Swivel



Elbow Type:  
LT=Long Tube  
ST=Short Tube

S=Skive  
NS=Non-Skive  
DG=Dual-Grip™

| Descriptive #                | Product #  | SAP #    | Hose Size ID |      | Thread Size (A) | Hex-1 Wrench Size |    | Elbow Type | Drop (D) |       | Cut-Off |      | Length (L) |       | Skive Type | SR15N, DR15N, SFS |   | SR25N, DR25N, LR25N |   | SR16SC, XR16SC, ARC16SC, DR16SC |   | SCP3, XCP3, ACP3 |   | XCP4 |
|------------------------------|------------|----------|--------------|------|-----------------|-------------------|----|------------|----------|-------|---------|------|------------|-------|------------|-------------------|---|---------------------|---|---------------------------------|---|------------------|---|------|
|                              |            |          |              |      |                 |                   |    |            |          |       |         |      |            |       |            |                   |   |                     |   |                                 |   |                  |   |      |
|                              |            |          | in.          | mm   |                 | in.               | mm |            | in.      | mm    | in.     | mm   | in.        | mm    |            |                   |   |                     |   |                                 |   |                  |   |      |
| B2-OFFX90-0404               | 14715-0404 | 20242236 | 1/4          | 6.4  | 9/16-18         | 11/16             | 17 |            | 1.26     | 32.0  | 1.18    | 30.0 | 2.16       | 54.9  | NS         | Y                 | Y | Y                   | Y | Y                               | Y | Y                | Y |      |
| B2-OFFX90L-0404              | 14720-0404 | 20242254 | 1/4          | 6.4  | 9/16-18         | 11/16             | 17 | LT         | 1.81     | 46.0  | 1.30    | 33.0 | 2.28       | 57.9  | NS         | Y                 | Y | Y                   | Y | Y                               | Y | Y                | Y |      |
| B2-OFFX90S-0404              | 14725-0404 | 20242152 | 1/4          | 6.4  | 9/16-18         | 11/16             | 17 | ST         | 0.83     | 21.0  | 1.10    | 28.0 | 2.08       | 52.9  | NS         | Y                 | Y | Y                   | Y | Y                               | Y | Y                | Y |      |
| B2-OFFX90-0406               | 14715-0406 | 20242243 | 1/4          | 6.4  | 11/16-16        | 7/8               | 22 |            | 1.50     | 38.0  | 1.46    | 37.0 | 2.44       | 61.9  | NS         | Y                 | Y | Y                   | Y | Y                               | Y | Y                | Y |      |
| B2-OFFX90L-0406              | 14720-0406 | 20242250 | 1/4          | 6.4  | 11/16-16        | 7/8               | 22 | LT         | 2.13     | 54.0  | 1.38    | 35.0 | 2.36       | 59.9  | NS         | Y                 | Y | Y                   | Y | Y                               | Y | Y                | Y |      |
| B2-OFFX90S-0406              | 14725-0406 | 20242151 | 1/4          | 6.4  | 11/16-16        | 7/8               | 22 | ST         | 0.91     | 23.0  | 1.26    | 32.0 | 2.24       | 56.9  | NS         | Y                 | Y | Y                   | Y | Y                               | Y | Y                | Y |      |
| B2-OFFX90S-0604              | 14725-0604 | 20591895 | 3/8          | 9.5  | 9/16-18         | 11/16             | 17 | ST         | 0.83     | 21.0  | 1.10    | 28.0 | 2.15       | 54.6  | NS         | Y                 | Y | Y                   | Y | Y                               | Y | Y                | Y |      |
| B2-OFFX90-0606               | 14715-0606 | 20242239 | 3/8          | 9.5  | 11/16-16        | 7/8               | 22 |            | 1.50     | 38.0  | 1.65    | 42.0 | 2.70       | 68.6  | NS         | Y                 | Y | Y                   | Y | Y                               | Y | Y                | Y |      |
| B2-OFFX90L-0606              | 14720-0606 | 20241694 | 3/8          | 9.5  | 11/16-16        | 7/8               | 22 | LT         | 2.13     | 54.0  | 1.65    | 42.0 | 2.70       | 68.6  | NS         | Y                 | Y | Y                   | Y | Y                               | Y | Y                | Y |      |
| B2-OFFX90S-0606              | 14725-0606 | 20242158 | 3/8          | 9.5  | 11/16-16        | 7/8               | 22 | ST         | 0.98     | 25.0  | 1.65    | 42.0 | 2.70       | 68.6  | NS         | Y                 | Y | Y                   | Y | Y                               | Y | Y                | Y |      |
| B2-OFFX90-0608               | 14715-0608 | 20242252 | 3/8          | 9.5  | 13/16-16        | 15/16             | 24 |            | 1.61     | 41.0  | 1.73    | 44.0 | 2.78       | 70.6  | NS         | Y                 | Y | Y                   | Y | Y                               | Y | Y                | Y |      |
| B2-OFFX90L-0608              | 14720-0608 | 20241705 | 3/8          | 9.5  | 13/16-16        | 15/16             | 24 | LT         | 2.52     | 64.0  | 1.85    | 47.0 | 2.90       | 73.6  | NS         | Y                 | Y | Y                   | Y | Y                               | Y | Y                | Y |      |
| B2-OFFX90S-0608              | 14725-0608 | 20242160 | 3/8          | 9.5  | 13/16-16        | 15/16             | 24 | ST         | 1.14     | 29.0  | 1.65    | 42.0 | 2.70       | 68.6  | NS         | Y                 | Y | Y                   | Y | Y                               | Y | Y                | Y |      |
| B2-OFFX90S-0806              | 14725-0806 | 20441217 | 1/2          | 12.7 | 11/16-16        | 7/8               | 22 | ST         | 0.98     | 25.0  | 1.65    | 42.0 | 2.90       | 73.7  | NS         | Y                 | Y | Y                   | Y | Y                               | Y | Y                | Y |      |
| B2-OFFX90-0808 <sup>C</sup>  | 14715-0808 | 20241704 | 1/2          | 12.7 | 13/16-16        | 15/16             | 24 |            | 1.65     | 42.0  | 1.38    | 35.0 | 2.63       | 66.7  | NS         | Y                 | Y | Y                   | Y | Y                               | Y | Y                | Y |      |
| B2-OFFX90L-0808 <sup>C</sup> | 14720-0808 | 20242216 | 1/2          | 12.7 | 13/16-16        | 15/16             | 24 | LT         | 2.52     | 64.0  | 1.50    | 38.0 | 2.74       | 69.7  | NS         | Y                 | Y | Y                   | Y | Y                               | Y | Y                | Y |      |
| B2-OFFX90S-0808 <sup>C</sup> | 14725-0808 | 20242226 | 1/2          | 12.7 | 13/16-16        | 15/16             | 24 | ST         | 1.14     | 29.0  | 1.58    | 40.0 | 2.82       | 71.7  | NS         | Y                 | Y | Y                   | Y | Y                               | Y | Y                | Y |      |
| B2-OFFX90-0810               | 14715-0810 | 20241703 | 1/2          | 12.7 | 1-14            | 13/16             | 30 |            | 1.85     | 47.0  | 1.89    | 48.0 | 3.14       | 79.7  | NS         | Y                 | Y | Y                   | Y | Y                               | Y | Y                | Y |      |
| B2-OFFX90L-0810              | 14720-0810 | 20242214 | 1/2          | 12.7 | 1-14            | 13/16             | 30 | LT         | 2.76     | 70.1  | 1.81    | 46.0 | 3.06       | 77.6  | NS         | Y                 | Y | Y                   | Y | Y                               | Y | Y                | Y |      |
| B2-OFFX90S-0810              | 14725-0810 | 20242249 | 1/2          | 12.7 | 1-14            | 13/16             | 30 | ST         | 1.28     | 32.5  | 1.81    | 46.0 | 3.06       | 77.6  | NS         | Y                 | Y | Y                   | Y | Y                               | Y | Y                | Y |      |
| B2-OFFX90S-0812              | 14725-0812 | 20293220 | 1/2          | 12.7 | 13/16-12        | 17/16             | 36 | ST         | 2.01     | 51.1  | 2.19    | 55.6 | 3.44       | 87.3  | NS         | Y                 | Y | Y                   | Y | Y                               | Y | Y                | Y |      |
| B2-OFFX90-1010               | 14715-1010 | 20242242 | 5/8          | 15.9 | 1-14            | 13/16             | 30 |            | 1.73     | 44.0  | 2.17    | 55.0 | 3.52       | 89.5  | NS         | Y                 | Y | Y                   | Y | Y                               | Y | Y                | Y |      |
| B2-OFFX90L-1010              | 14720-1010 | 20241696 | 5/8          | 15.9 | 1-14            | 13/16             | 30 | LT         | 2.77     | 70.2  | 2.17    | 55.0 | 3.52       | 89.5  | NS         | Y                 | Y | Y                   | Y | Y                               | Y | Y                | Y |      |
| B2-OFFX90S-1010              | 14725-1010 | 20242162 | 5/8          | 15.9 | 1-14            | 13/16             | 30 | ST         | 1.28     | 32.5  | 2.05    | 52.0 | 3.40       | 86.5  | NS         | Y                 | Y | Y                   | Y | Y                               | Y | Y                | Y |      |
| B2-OFFX90S-1012              | 14725-1012 | 20242161 | 5/8          | 15.9 | 13/16-12        | 17/16             | 36 | ST         | 1.93     | 49.0  | 2.17    | 55.1 | 3.53       | 89.6  | NS         | Y                 | Y | Y                   | Y | Y                               | Y | Y                | Y |      |
| B2-OFFX90S-1210              | 14725-1210 | 20242167 | 3/4          | 19.0 | 1-14            | 13/16             | 30 | ST         | 1.54     | 39.1  | 1.75    | 44.5 | 3.30       | 83.9  | NS         | Y                 | Y | Y                   | Y | Y                               | Y | Y                | Y |      |
| B2-OFFX90-1212               | 14715-1212 | 20242237 | 3/4          | 19.0 | 13/16-12        | 17/16             | 36 |            | 2.28     | 58.0  | 2.44    | 62.0 | 3.99       | 101.4 | NS         | Y                 | Y | Y                   | Y | Y                               | Y | Y                | Y |      |
| B2-OFFX90L-1212              | 14720-1212 | 20242255 | 3/4          | 19.0 | 13/16-12        | 17/16             | 36 | LT         | 3.78     | 96.0  | 2.44    | 62.0 | 3.99       | 101.4 | NS         | Y                 | Y | Y                   | Y | Y                               | Y | Y                | Y |      |
| B2-OFFX90S-1212              | 14725-1212 | 20242153 | 3/4          | 19.0 | 13/16-12        | 17/16             | 36 | ST         | 2.01     | 51.0  | 2.40    | 61.0 | 3.96       | 100.5 | NS         | Y                 | Y | Y                   | Y | Y                               | Y | Y                | Y |      |
| B2-OFFX90S-1216              | 14725-1216 | 20242155 | 3/4          | 19.0 | 17/16-12        | 1%                | 41 | ST         | 2.80     | 71.1  | 2.60    | 66.0 | 4.15       | 105.5 | NS         | Y                 | Y | Y                   | Y | Y                               | Y | Y                | Y |      |
| B2-OFFX90S-1612              | 14725-1612 | 20441218 | 1            | 25.4 | 13/16-12        | 17/16             | 36 | ST         | 2.01     | 51.0  | 2.43    | 61.7 | 4.20       | 106.8 | NS         | Y                 | Y | Y                   | Y | Y                               | Y | Y                | Y |      |
| B2-OFFX90-1616               | 14715-1616 | 20241698 | 1            | 25.4 | 17/16-12        | 1%                | 41 |            | 2.60     | 66.0  | 3.27    | 83.0 | 5.04       | 128.1 | NS         | Y                 | Y | Y                   | Y | Y                               | Y | Y                | Y |      |
| B2-OFFX90L-1616              | 14720-1616 | 20242202 | 1            | 25.4 | 17/16-12        | 1%                | 41 | LT         | 4.49     | 114.0 | 3.27    | 83.0 | 5.04       | 128.1 | NS         | Y                 | Y | Y                   | Y | Y                               | Y | Y                | Y |      |
| B2-OFFX90S-1616              | 14725-1616 | 20242244 | 1            | 25.4 | 17/16-12        | 1%                | 41 | ST         | 2.28     | 58.0  | 3.27    | 83.0 | 5.04       | 128.1 | NS         | Y                 | Y | Y                   | Y | Y                               | Y | Y                | Y |      |
| B2-OFFX90-1620               | 14715-1620 | 20242253 | 1            | 25.4 | 11/16-12        | 2                 | 50 |            | 3.07     | 78.0  | 3.27    | 83.0 | 5.04       | 128.1 | NS         | Y                 | Y | Y                   | Y | Y                               | Y | Y                | Y |      |
| B2-OFFX90S-1620              | 14725-1620 | 20242235 | 1            | 25.4 | 11/16-12        | 2                 | 50 | ST         | 2.52     | 64.0  | 3.27    | 83.0 | 5.04       | 128.1 | NS         | Y                 | Y | Y                   | Y | Y                               | Y | Y                | Y |      |

C: Crimp Nut (see "Fitting Identification" in Appendix for details)

Continued on next page

## O-Ring Face Seal (SAE J1453 ORS/ORFS)

Female | 90° Elbow | Swivel Continued

| Descriptive #   | Product #  | SAP #    | Hose<br>Size ID |      | Thread<br>Size (A) | Hex-1<br>Wrench<br>Size |    | Elbow<br>Type | Drop (D) |       | Cut-Off (C) |       | Length (L) |       | Skive<br>Type | SR1SN,<br>DR1SN, |       | SR2SN,<br>DR2SN, |      | SR16SC,<br>XR16SC, |  | SCP3,<br>XCP3, |  | XCP4 |
|-----------------|------------|----------|-----------------|------|--------------------|-------------------------|----|---------------|----------|-------|-------------|-------|------------|-------|---------------|------------------|-------|------------------|------|--------------------|--|----------------|--|------|
|                 |            |          |                 |      |                    |                         |    |               |          |       |             |       |            |       |               |                  |       |                  |      |                    |  |                |  |      |
|                 |            |          | in.             | mm   |                    | in.                     | mm |               | in.      | mm    | in.         | mm    | in.        | mm    |               | SFS              | LR2SN | DR16SC           | ACP3 |                    |  |                |  |      |
| S4-OFFX90-2020  | 28715-2020 | 20241702 | 1¼              | 31.8 | 1½/16-12           | 2                       | 50 |               | 3.07     | 78.0  | 3.82        | 97.0  | 5.87       | 149.0 | NS            | Y                | Y     | Y                |      |                    |  |                |  |      |
| S4-OFFX90L-2020 | 28720-2020 | 20242212 | 1¼              | 31.8 | 1½/16-12           | 2                       | 50 | LT            | 5.08     | 129.0 | 3.82        | 97.0  | 5.87       | 149.0 | NS            | Y                | Y     | Y                |      |                    |  |                |  |      |
| S4-OFFX90S-2020 | 28725-2020 | 20242247 | 1¼              | 31.8 | 1½/16-12           | 2                       | 50 | ST            | 2.68     | 68.1  | 3.74        | 95.0  | 5.79       | 147.0 | NS            | Y                | Y     | Y                |      |                    |  |                |  |      |
| S4-OFFX90L-2024 | 28720-2024 | 20242213 | 1¼              | 31.8 | 2-12               | 2½                      | 60 | LT            | 5.55     | 141.0 | 4.02        | 102.1 | 6.07       | 154.1 | NS            | Y                | Y     | Y                |      |                    |  |                |  |      |
| S4-OFFX90S-2024 | 28725-2024 | 20242248 | 1¼              | 31.8 | 2-12               | 2½                      | 60 | ST            | 2.72     | 69.1  | 4.02        | 102.1 | 6.07       | 154.1 | NS            | Y                | Y     | Y                |      |                    |  |                |  |      |
| S4-OFFX90-2424  | 28715-2424 | 20241701 | 1½              | 38.1 | 2-12               | 2½                      | 60 |               | 3.43     | 87.1  | 4.25        | 108.0 | 6.58       | 167.1 | NS            | Y                | Y     |                  |      |                    |  |                |  |      |
| S4-OFFX90L-2424 | 28720-2424 | 20441321 | 1½              | 38.1 | 2-12               | 2½                      | 60 | LT            | 5.55     | 141.0 | 4.37        | 111.0 | 6.70       | 170.1 | NS            | Y                | Y     |                  |      |                    |  |                |  |      |
| S4-OFFX90S-2424 | 28725-2424 | 20242246 | 1½              | 38.1 | 2-12               | 2½                      | 60 | ST            | 3.07     | 78.0  | 4.02        | 102.1 | 6.35       | 161.2 | NS            | Y                | Y     |                  |      |                    |  |                |  |      |

## O-Ring Face Seal (SAE J1453 ORS/ORFS)

Male

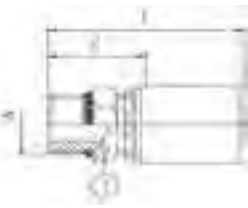


S=Skive  
NS=Non-Skive  
DG=Dual-Grip™

| Descriptive # | Product #  | SAP #    | Hose<br>Size ID |      | Thread<br>Size (A) | Hex-1<br>Wrench<br>Size |    | Cut-Off (C) |      | Length (L) |      | Skive<br>Type | SR1SN,<br>DR1SN, |       | SR2SN,<br>DR2SN, |      | SR16SC,<br>XR16SC, |   | SCP3,<br>XCP3, |   | XCP4 |
|---------------|------------|----------|-----------------|------|--------------------|-------------------------|----|-------------|------|------------|------|---------------|------------------|-------|------------------|------|--------------------|---|----------------|---|------|
|               |            |          |                 |      |                    |                         |    |             |      |            |      |               |                  |       |                  |      |                    |   |                |   |      |
|               |            |          | in.             | mm   |                    | in.                     | mm | in.         | mm   | in.        | mm   |               | SFS              | LR2SN | DR16SC           | ACP3 |                    |   |                |   |      |
| B2-OFM-0404   | 14730-0404 | 20242187 | 1/4             | 6.4  | 9/16-18            | 11/16                   | 17 | 1.00        | 25.4 | 1.98       | 50.3 | NS            | Y                | Y     | Y                | Y    | Y                  | Y | Y              | Y |      |
| B2-OFM-0406   | 14730-0406 | 20441219 | 1/4             | 6.4  | 11/16-16           | 3/4                     | 19 | 0.96        | 24.3 | 1.94       | 49.1 | NS            | Y                | Y     | Y                | Y    | Y                  | Y | Y              | Y |      |
| B2-OFM-0606   | 14730-0606 | 20242181 | 3/8             | 9.5  | 11/16-16           | 3/4                     | 19 | 1.05        | 26.7 | 2.10       | 53.4 | NS            | Y                | Y     | Y                | Y    | Y                  | Y | Y              | Y |      |
| B2-OFM-0608   | 14730-0608 | 20242183 | 3/8             | 9.5  | 13/16-16           | 7/8                     | 22 | 1.05        | 26.6 | 2.10       | 53.2 | NS            | Y                | Y     | Y                | Y    | Y                  | Y | Y              | Y |      |
| B2-OFM-0808   | 14730-0808 | 20242174 | 1/2             | 12.7 | 13/16-16           | 7/8                     | 22 | 1.19        | 30.3 | 2.44       | 62.0 | NS            | Y                | Y     | Y                | Y    | Y                  | Y | Y              | Y |      |
| B2-OFM-0810   | 14730-0810 | 20242173 | 1/2             | 12.7 | 1-14               | 1½                      | 27 | 1.21        | 30.7 | 2.46       | 62.4 | NS            | Y                | Y     | Y                | Y    | Y                  | Y | Y              | Y |      |
| B2-OFM-0812   | 14730-0812 | 20242172 | 1/2             | 12.7 | 1½/16-12           | 1¼                      | 32 | 1.34        | 34.0 | 2.59       | 65.7 | NS            | Y                | Y     | Y                | Y    | Y                  | Y | Y              | Y |      |
| B2-OFM-1010   | 14730-1010 | 20242186 | 5/8             | 15.9 | 1-14               | 1½                      | 27 | 1.22        | 30.9 | 2.57       | 65.3 | NS            | Y                | Y     | Y                | Y    | Y                  | Y | Y              | Y |      |
| B2-OFM-1012   | 14730-1012 | 20242185 | 5/8             | 15.9 | 1½/16-12           | 1¼                      | 32 | 1.34        | 34.1 | 2.70       | 68.6 | NS            | Y                | Y     | Y                | Y    | Y                  | Y | Y              | Y |      |
| B2-OFM-1212   | 14730-1212 | 20242177 | 3/4             | 19.0 | 1½/16-12           | 1¼                      | 32 | 1.36        | 34.6 | 2.92       | 74.1 | NS            | Y                | Y     | Y                | Y    | Y                  | Y | Y              | Y |      |
| B2-OFM-1216   | 14730-1216 | 20242179 | 3/4             | 19.0 | 17/16-12           | 1½                      | 41 | 1.55        | 39.3 | 3.10       | 78.8 | NS            | Y                | Y     | Y                | Y    | Y                  | Y | Y              | Y |      |
| B2-OFM-1616   | 14730-1616 | 20242194 | 1               | 25.4 | 17/16-12           | 1½                      | 38 | 1.47        | 37.4 | 3.25       | 82.5 | NS            | Y                | Y     | Y                | Y    | Y                  | Y | Y              | Y |      |
| S4-OFM-2020   | 28730-2020 | 20242171 | 1¼              | 31.8 | 1½/16-12           | 1½                      | 46 | 1.64        | 41.7 | 3.69       | 93.7 | NS            | Y                | Y     | Y                |      |                    |   |                |   |      |

O-Ring Boss Straight Thread (SAE J514)

Male

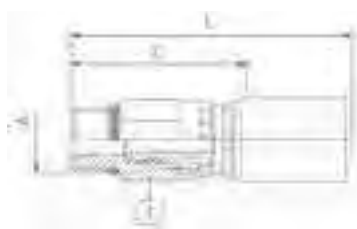


S=Skive  
NS=Non-Skive  
DG=Dual-Grip™

| Descriptive # | Product #   | SAP #    | Hose    |      | Thread    | Hex-1       | Cut-Off (C) |      |      |      | Length (L) |    | Skive | SR1SN, | SR2SN, | SR16SC,  | SCP3, | XCP4 |
|---------------|-------------|----------|---------|------|-----------|-------------|-------------|------|------|------|------------|----|-------|--------|--------|----------|-------|------|
|               |             |          | Size ID |      | Size (A)  | Wrench Size |             |      |      |      |            |    |       | DR1SN, | DR2SN, | ARC16SC, | XCP3, |      |
|               |             |          | in.     | mm   |           | in.         | mm          | in.  | mm   | in.  | mm         |    |       |        |        | DR16SC   | ACP3  |      |
| B2-OBM-0404   | 14670-0404  | 20242133 | 1/4     | 6.4  | 7/16-20   | 9/16        | 14          | 0.88 | 22.3 | 1.86 | 47.2       | NS | Y     | Y      | Y      | Y        | Y     |      |
| B2-OBM-0405   | 14670-0405  | 20242132 | 1/4     | 6.4  | 1/2-20    | 5/8         | 16          | 0.88 | 22.3 | 1.86 | 47.2       | NS | Y     | Y      | Y      | Y        | Y     |      |
| B2-OBM-0406   | 14670-0406  | 20242129 | 1/4     | 6.4  | 9/16-18   | 11/16       | 17          | 0.88 | 22.2 | 1.86 | 47.1       | NS | Y     | Y      | Y      | Y        | Y     |      |
| B2-OBM-0408   | 14670-0408  | 20297678 | 1/4     | 6.4  | 3/4-16    | 7/8         | 22          | 0.98 | 24.9 | 1.96 | 49.8       | NS | Y     | Y      | Y      | Y        | Y     |      |
| B2-OBM-0606   | 14670-0606  | 20242122 | 3/8     | 9.5  | 9/16-18   | 3/4         | 19          | 0.94 | 23.7 | 1.98 | 50.4       | NS | Y     | Y      | Y      | Y        | Y     |      |
| B2-OBM-0608   | 14670-0608  | 20242121 | 3/8     | 9.5  | 3/4-16    | 7/8         | 22          | 0.73 | 18.6 | 2.04 | 51.7       | NS | Y     | Y      | Y      | Y        | Y     |      |
| B2-OBM-0610   | 14670-0610  | 20242117 | 3/8     | 9.5  | 7/8-14    | 1 1/16      | 27          | 1.08 | 27.4 | 2.13 | 54.1       | NS | Y     | Y      | Y      | Y        | Y     |      |
| B2-OBM-0808   | 14670-0808  | 20242134 | 1/2     | 12.7 | 3/4-16    | 7/8         | 22          | 1.01 | 25.6 | 2.26 | 57.3       | NS | Y     | Y      | Y      | Y        | Y     |      |
| B2-OBM-0808S  | 14670-0808S | 20424923 | 1/2     | 12.7 | 3/4-16    |             |             | 1.01 | 25.6 | 2.26 | 57.3       | NS | Y     | Y      | Y      | Y        | Y     |      |
| B2-OBM-0810   | 14670-0810  | 20242131 | 1/2     | 12.7 | 7/8-14    | 1 1/16      | 27          | 1.10 | 27.9 | 2.35 | 59.6       | NS | Y     | Y      | Y      | Y        | Y     |      |
| B2-OBM-0812   | 14670-0812  | 20242128 | 1/2     | 12.7 | 1 1/16-12 | 1 1/4       | 32          | 1.26 | 32.1 | 2.51 | 63.8       | NS | Y     | Y      | Y      | Y        | Y     |      |
| B2-OBM-1008   | 14670-1008  | 20293194 | 5/8     | 15.9 | 3/4-16    | 15/16       | 24          | 1.04 | 26.4 | 2.40 | 60.8       | NS | Y     | Y      | Y      | Y        | Y     |      |
| B2-OBM-1010   | 14670-1010  | 20293195 | 5/8     | 15.9 | 7/8-14    | 15/16       | 24          | 1.10 | 27.9 | 2.46 | 62.4       | NS | Y     | Y      | Y      | Y        | Y     |      |
| B2-OBM-1012   | 14670-1012  | 20242123 | 5/8     | 15.9 | 1 1/16-12 | 1 1/4       | 32          | 1.27 | 32.2 | 2.63 | 66.7       | NS | Y     | Y      | Y      | Y        | Y     |      |
| B2-OBM-1210   | 14670-1210  | 20242120 | 3/4     | 19.0 | 7/8-14    | 1 1/16      | 27          | 1.13 | 28.6 | 2.68 | 68.0       | NS | Y     | Y      | Y      | Y        | Y     |      |
| B2-OBM-1212   | 14670-1212  | 20242126 | 3/4     | 19.0 | 1 1/16-12 | 1 1/4       | 32          | 1.29 | 32.7 | 2.84 | 72.2       | NS | Y     | Y      | Y      | Y        | Y     |      |
| B2-OBM-1216   | 14670-1216  | 20242118 | 3/4     | 19.0 | 1 5/16-12 | 1 1/2       | 38          | 1.37 | 34.8 | 2.92 | 74.2       | NS | Y     | Y      | Y      | Y        | Y     |      |
| B2-OBM-1616   | 14670-1616  | 20242127 | 1       | 25.4 | 1 5/16-12 | 1 1/2       | 38          | 1.38 | 35.0 | 3.15 | 80.1       | NS | Y     | Y      | Y      | Y        |       |      |
| S4-OBM-2020   | 28670-2020  | 20293258 | 1 1/4   | 31.8 | 1 5/8-12  | 1 13/16     | 46          | 1.55 | 39.3 | 3.59 | 91.3       | NS | Y     | Y      | Y      |          |       |      |
| S4-OBM-2424   | 28670-2424  | 20307206 | 1 1/2   | 38.1 | 1 7/8-12  |             |             | 1.60 | 40.5 | 3.92 | 99.7       | NS | Y     | Y      |        |          |       |      |

# O-Ring Boss Straight Thread (SAE J514)

Male | Swivel



S=Skive  
NS=Non-Skive  
DG=Dual-Grip™

| Descriptive # | Product #  | SAP #    | Hose Size ID |      | Thread Size (A) | Hex-1 Wrench Size | Cut-Off (C) |      | Length (L) |      | Skive Type | SR1SN, DR1SN, SFS | SR2SN, DR2SN, LR2SN | SR16SC, XR16SC, ARC16SC, DR16SC | SCP3, XCP3, ACP3 | XCP4 |
|---------------|------------|----------|--------------|------|-----------------|-------------------|-------------|------|------------|------|------------|-------------------|---------------------|---------------------------------|------------------|------|
|               |            |          | in.          | mm   |                 |                   | in.         | mm   | in.        | mm   |            |                   |                     |                                 |                  |      |
| B2-OBMX-0404  | 14680-0404 | 20293196 | 1/4          | 6.4  | 7/16-20         | 11/16             | 17          | 1.30 | 32.9       | 2.28 | 57.8       | NS                | Y                   | Y                               | Y                | Y    |
| B2-OBMX-0406  | 14680-0406 | 20441229 | 1/4          | 6.4  | 9/16-18         | 7/8               | 22          | 1.69 | 43.0       | 2.67 | 67.9       | NS                | Y                   | Y                               | Y                | Y    |
| B2-OBMX-0606  | 14680-0606 | 20293197 | 3/8          | 9.5  | 9/16-18         | 7/8               | 22          | 1.61 | 40.9       | 2.66 | 67.5       | NS                | Y                   | Y                               | Y                | Y    |
| B2-OBMX-0608  | 14680-0608 | 20293198 | 3/8          | 9.5  | 3/4-16          | 1                 | 25          | 1.73 | 44.0       | 2.78 | 70.6       | NS                | Y                   | Y                               | Y                | Y    |
| B2-OBMX-0808  | 14680-0808 | 20293199 | 1/2          | 12.7 | 3/4-16          | 1                 | 25          | 1.68 | 42.7       | 2.93 | 74.4       | NS                | Y                   | Y                               | Y                | Y    |
| B2-OBMX-0810  | 14680-0810 | 20293200 | 1/2          | 12.7 | 7/8-14          | 1                 | 25          | 1.69 | 42.9       | 2.94 | 74.6       | NS                | Y                   | Y                               | Y                | Y    |
| B2-OBMX-1212  | 14680-1212 | 20293201 | 3/4          | 19.0 | 1 1/16-12       | 1 1/4             | 32          | 1.97 | 50.0       | 3.52 | 89.4       | NS                | Y                   | Y                               | Y                | Y    |

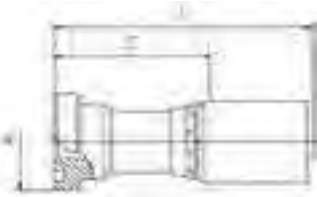
# O-Ring Boss Straight Thread (SAE J514) Male | 90° Elbow (Block) | Swivel



S=Skive  
NS=Non-Skive  
DG=Dual-Grip™

| Descriptive #   | Product #  | SAP #    | Hose Size ID |      | Thread Size (A) | Hex-1 Wrench Size | Drop (D) |      | Cut-Off (C) |      | Length (L) |      | Skive Type | SR1SN, DR1SN, SFS | SR2SN, DR2SN, LR2SN | SR16SC, XR16SC, ARC16SC, DR16SC | SCP3, XCP3, ACP3 | XCP4 |
|-----------------|------------|----------|--------------|------|-----------------|-------------------|----------|------|-------------|------|------------|------|------------|-------------------|---------------------|---------------------------------|------------------|------|
|                 |            |          | in.          | mm   |                 |                   | in.      | mm   | in.         | mm   | in.        | mm   |            |                   |                     |                                 |                  |      |
| B2-OBMX90B-0405 | 14685-0405 | 20293202 | 1/4          | 6.4  | 1/2-20          | 11/16             | 17       | 1.50 | 38.1        | 0.71 | 18.1       | 1.69 | 43.0       | NS                | Y                   | Y                               | Y                | Y    |
| B2-OBMX90B-0406 | 14685-0406 | 20441270 | 1/4          | 6.4  | 9/16-18         | 7/8               | 22       | 1.74 | 44.3        | 0.80 | 20.3       | 1.78 | 45.2       | NS                | Y                   | Y                               | Y                | Y    |
| B2-OBMX90B-0606 | 14685-0606 | 20293203 | 3/8          | 9.5  | 9/16-18         | 7/8               | 22       | 1.74 | 44.3        | 0.92 | 23.3       | 1.97 | 50.0       | NS                | Y                   | Y                               | Y                | Y    |
| B2-OBMX90B-0608 | 14685-0608 | 20293204 | 3/8          | 9.5  | 3/4-16          | 1                 | 25       | 2.17 | 55          | 1.13 | 28.8       | 2.18 | 55.4       | NS                | Y                   | Y                               | Y                | Y    |
| B2-OBMX90B-0808 | 14685-0808 | 20293205 | 1/2          | 12.7 | 3/4-16          | 1                 | 25       | 2.17 | 55          | 1.16 | 29.4       | 2.41 | 61.1       | NS                | Y                   | Y                               | Y                | Y    |
| B2-OBMX90B-0810 | 14685-0810 | 20293206 | 1/2          | 12.7 | 7/8-14          | 1                 | 25       | 2.17 | 55.2        | 1.16 | 29.4       | 2.41 | 61.1       | NS                | Y                   | Y                               | Y                | Y    |
| B2-OBMX90B-1012 | 14685-1012 | 20294829 | 5/8          | 15.9 | 1 1/16-12       | 1 1/4             | 32       | 2.58 | 65.6        | 1.23 | 31.3       | 2.59 | 65.8       | NS                | Y                   | Y                               | Y                | Y    |
| B2-OBMX90B-1212 | 14685-1212 | 20293207 | 3/4          | 19.0 | 1 1/16-12       | 1 1/4             | 32       | 2.58 | 65.5        | 1.24 | 31.5       | 2.80 | 71.0       | NS                | Y                   | Y                               | Y                | Y    |

Code 61 Flange (SAE J518)

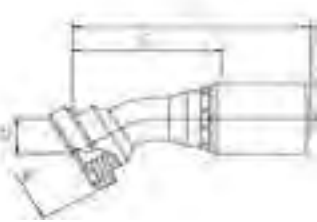


S=Skive  
NS=Non-Skive  
DG=Dual-Grip™

| Descriptive # | Product #  | SAP #    | Hose Size ID |      | Flange Size | Flange Diameter (A) |      | Cut-Off (C) |      | Length (L) |       | Skive Type | SR1SN, DR1SN, SFS | SR2SN, DR2SN, LR2SN | SR16SC, XR16SC, ARC16SC, DR16SC | SCP3, XCP3, ACP3 | XCP4 |
|---------------|------------|----------|--------------|------|-------------|---------------------|------|-------------|------|------------|-------|------------|-------------------|---------------------|---------------------------------|------------------|------|
|               |            |          | in.          | mm   |             | in.                 | mm   | in.         | mm   | in.        | mm    |            |                   |                     |                                 |                  |      |
| B2-FL-0808    | 14320-0808 | 20242908 | 1/2          | 12.7 | 1/2         | 1.19                | 30.2 | 1.61        | 40.9 | 2.86       | 72.6  | NS         | Y                 | Y                   | Y                               | Y                | Y    |
| B2-FL-0812    | 14320-0812 | 20242906 | 1/2          | 12.7 | 3/4         | 1.50                | 38.1 | 1.65        | 41.9 | 2.90       | 73.6  | NS         | Y                 | Y                   | Y                               | Y                | Y    |
| B2-FL-1012    | 14320-1012 | 20242899 | 5/8          | 15.9 | 3/4         | 1.50                | 38.1 | 1.60        | 40.7 | 3.02       | 76.6  | NS         | Y                 | Y                   | Y                               | Y                | Y    |
| B2-FL-1212    | 14320-1212 | 20242901 | 3/4          | 19.0 | 3/4         | 1.50                | 38.1 | 1.67        | 42.4 | 3.22       | 81.9  | NS         | Y                 | Y                   | Y                               | Y                | Y    |
| B2-FL-1216    | 14320-1216 | 20242903 | 3/4          | 19.0 | 1           | 1.75                | 44.5 | 1.99        | 50.5 | 3.54       | 90.0  | NS         | Y                 | Y                   | Y                               | Y                | Y    |
| B2-FL-1616    | 14320-1616 | 20242879 | 1            | 25.4 | 1           | 1.75                | 44.5 | 2.02        | 51.3 | 3.80       | 96.4  | NS         | Y                 | Y                   | Y                               | Y                | Y    |
| B2-FL-1620    | 14320-1620 | 20242902 | 1            | 25.4 | 1 1/4       | 2.00                | 50.8 | 2.12        | 53.8 | 3.90       | 98.9  | NS         | Y                 | Y                   | Y                               | Y                | Y    |
| S4-FL-2020    | 28320-2020 | 20242909 | 1 1/4        | 31.8 | 1 1/4       | 2.00                | 50.8 | 2.19        | 55.6 | 4.24       | 107.6 | NS         | Y                 | Y                   | Y                               | Y                | Y    |
| S4-FL-2024    | 28320-2024 | 20242910 | 1 1/4        | 31.8 | 1 1/2       | 2.37                | 60.3 | 2.30        | 58.4 | 4.35       | 110.4 | NS         | Y                 | Y                   | Y                               | Y                | Y    |
| S4-FL-2424    | 28320-2424 | 20242886 | 1 1/2        | 38.1 | 1 1/2       | 2.37                | 60.3 | 2.31        | 58.7 | 4.64       | 117.8 | NS         | Y                 | Y                   | Y                               | Y                | Y    |
| S4-FL-2432    | 28320-2432 | 20242911 | 1 1/2        | 38.1 | 2           | 2.81                | 71.4 | 2.76        | 70.1 | 5.09       | 129.2 | NS         | Y                 | Y                   | Y                               | Y                | Y    |
| S4-FL-3232    | 28320-3232 | 20242895 | 2            | 50.8 | 2           | 2.81                | 71.4 | 2.76        | 70.1 | 5.59       | 142.1 | NS         | Y                 | Y                   | Y                               | Y                | Y    |

Code 61 Flange (SAE J518)

22.5° Elbow



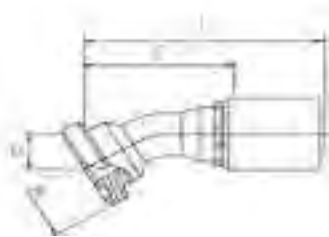
S=Skive  
NS=Non-Skive  
DG=Dual-Grip™

| Descriptive # | Product #  | SAP #    | Hose Size ID |      | Flange Size | Flange Diameter (A) |      | Drop (D) | Cut-Off (C) |      | Length (L) |      | Skive Type | SR1SN, DR1SN, SFS | SR2SN, DR2SN, LR2SN | SR16SC, XR16SC, ARC16SC, DR16SC | SCP3, XCP3, ACP3 | XCP4 |
|---------------|------------|----------|--------------|------|-------------|---------------------|------|----------|-------------|------|------------|------|------------|-------------------|---------------------|---------------------------------|------------------|------|
|               |            |          | in.          | mm   |             | in.                 | mm   | in.      | mm          | in.  | mm         | in.  |            |                   |                     |                                 |                  |      |
| B2-FL22-1616  | 14330-1616 | 20242939 | 1            | 25.4 | 1           | 1.75                | 44.5 | 0.47     | 11.9        | 3.66 | 93.0       | 5.44 | 138.0      | NS                | Y                   | Y                               | Y                | Y    |
| S4-FL22-2020  | 28330-2020 | 20242928 | 1 1/4        | 31.8 | 1 1/4       | 2.00                | 50.8 | 0.63     | 16.0        | 4.49 | 114.0      | 6.54 | 166.0      | NS                | Y                   | Y                               | Y                | Y    |
| S4-FL22-2024  | 28330-2024 | 20293266 | 1 1/4        | 31.8 | 1 1/2       | 2.37                | 60.3 | 0.81     | 20.6        | 4.53 | 115.1      | 6.58 | 167.0      | NS                | Y                   | Y                               | Y                | Y    |
| S4-FL22-2424  | 28330-2424 | 20242923 | 1 1/2        | 38.1 | 1 1/2       | 2.37                | 60.3 | 0.65     | 16.5        | 5.16 | 131.1      | 7.49 | 190.2      | NS                | Y                   | Y                               | Y                | Y    |
| S4-FL22-3232  | 28330-3232 | 20293267 | 2            | 50.8 | 2           | 2.81                | 71.4 | 0.87     | 22.1        | 6.02 | 152.9      | 8.85 | 224.9      | NS                | Y                   | Y                               | Y                | Y    |



## Code 61 Flange (SAE J518)

30° Elbow

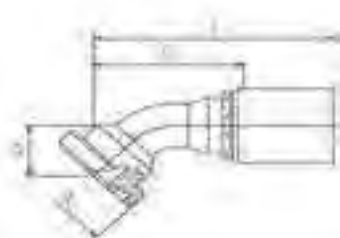


S=Skive  
NS=Non-Skive  
DG=Dual-Grip™

| Descriptive # | Product #  | SAP #    | Hose Size ID |      | Flange Size | Flange Diameter (A) |      | Drop (D) |      | Cut-Off (C) |       | Length (L) |       | Skive Type | SR1SN, DR1SN, SFS | SR2SN, DR2SN, LR2SN | SR16SC, XR16SC, ARC16SC, DR16SC | SCP3, XCP3, ACP3 | XCP4 |
|---------------|------------|----------|--------------|------|-------------|---------------------|------|----------|------|-------------|-------|------------|-------|------------|-------------------|---------------------|---------------------------------|------------------|------|
|               |            |          | in.          | mm   |             | in.                 | mm   | in.      | mm   | in.         | mm    | in.        | mm    |            |                   |                     |                                 |                  |      |
| B2-FL30-1616  | 14335-1616 | 20242927 | 1            | 25.4 | 1           | 1.75                | 44.5 | 0.83     | 21.1 | 3.54        | 89.9  | 5.32       | 135.0 | NS         | Y                 | Y                   | Y                               | Y                |      |
| S4-FL30-2020  | 28335-2020 | 20242922 | 1¼           | 31.8 | 1¼          | 2.00                | 50.8 | 0.98     | 24.9 | 4.02        | 102.1 | 6.07       | 154.1 | NS         | Y                 | Y                   | Y                               |                  |      |
| S4-FL30-2024  | 28335-2024 | 20242913 | 1¼           | 31.8 | 1½          | 2.37                | 60.3 | 1.06     | 26.9 | 4.41        | 112.0 | 6.46       | 164.0 | NS         | Y                 | Y                   | Y                               |                  |      |
| S4-FL30-2424  | 28335-2424 | 20242924 | 1½           | 38.1 | 1½          | 2.37                | 60.3 | 0.91     | 23.1 | 5.35        | 135.9 | 7.68       | 195.0 | NS         | Y                 | Y                   |                                 |                  |      |
| S4-FL30-2432  | 28335-2432 | 20293269 | 1½           | 38.1 | 2           | 2.81                | 71.4 | 1.44     | 36.6 | 5.91        | 150.1 | 8.24       | 209.2 | NS         | Y                 | Y                   |                                 |                  |      |
| S4-FL30-3232  | 28335-3232 | 20293270 | 2            | 50.8 | 2           | 2.81                | 71.4 | 1.18     | 30.0 | 5.87        | 149.1 | 8.70       | 221.1 | NS         | Y                 | Y                   |                                 |                  |      |

## Code 61 Flange (SAE J518)

45° Elbow

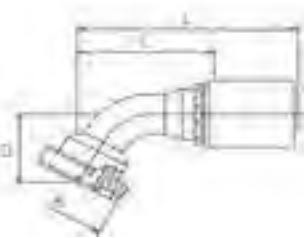


S=Skive  
NS=Non-Skive  
DG=Dual-Grip™

| Descriptive # | Product #  | SAP #    | Hose Size ID |      | Flange Size | Flange Diameter (A) |      | Drop (D) |      | Cut-Off (C) |       | Length (L) |       | Skive Type | SR1SN, DR1SN, SFS | SR2SN, DR2SN, LR2SN | SR16SC, XR16SC, ARC16SC, DR16SC | SCP3, XCP3, ACP3 | XCP4 |
|---------------|------------|----------|--------------|------|-------------|---------------------|------|----------|------|-------------|-------|------------|-------|------------|-------------------|---------------------|---------------------------------|------------------|------|
|               |            |          | in.          | mm   |             | in.                 | mm   | in.      | mm   | in.         | mm    | in.        | mm    |            |                   |                     |                                 |                  |      |
| B2-FL45-0808  | 14340-0808 | 20242949 | 1/2          | 12.7 | 1/2         | 1.19                | 30.2 | 0.87     | 22.1 | 2.09        | 53.1  | 3.34       | 84.8  | NS         | Y                 | Y                   | Y                               | Y                | Y    |
| B2-FL45-0812  | 14340-0812 | 20242947 | 1/2          | 12.7 | 3/4         | 1.50                | 38.1 | 1.02     | 25.9 | 2.36        | 59.9  | 3.61       | 91.6  | NS         | Y                 | Y                   | Y                               | Y                | Y    |
| B2-FL45-1212  | 14340-1212 | 20242942 | 3/4          | 19.0 | 3/4         | 1.50                | 38.1 | 1.26     | 32.0 | 2.91        | 73.9  | 4.46       | 113.4 | NS         | Y                 | Y                   | Y                               | Y                | Y    |
| B2-FL45-1216  | 14340-1216 | 20242944 | 3/4          | 19.0 | 1           | 1.75                | 44.5 | 1.14     | 29.0 | 3.07        | 78.0  | 4.62       | 117.4 | NS         | Y                 | Y                   | Y                               | Y                | Y    |
| B2-FL45-1616  | 14340-1616 | 20242919 | 1            | 25.4 | 1           | 1.75                | 44.5 | 1.32     | 33.5 | 3.27        | 83.1  | 5.05       | 128.1 | NS         | Y                 | Y                   | Y                               | Y                |      |
| B2-FL45-1620  | 14340-1620 | 20242917 | 1            | 25.4 | 1¼          | 2.00                | 50.8 | 1.42     | 36.1 | 3.23        | 82.0  | 5.01       | 127.1 | NS         | Y                 | Y                   | Y                               | Y                |      |
| S4-FL45-2020  | 28340-2020 | 20242934 | 1¼           | 31.8 | 1¼          | 2.00                | 50.8 | 1.48     | 37.6 | 3.74        | 95.0  | 5.79       | 147.0 | NS         | Y                 | Y                   | Y                               |                  |      |
| S4-FL45-2024  | 28340-2024 | 20242921 | 1¼           | 31.8 | 1½          | 2.37                | 60.3 | 1.57     | 39.9 | 4.09        | 103.9 | 6.14       | 155.9 | NS         | Y                 | Y                   | Y                               |                  |      |
| S4-FL45-2424  | 28340-2424 | 20242915 | 1½           | 38.1 | 1½          | 2.37                | 60.3 | 1.89     | 48.0 | 4.61        | 117.1 | 6.94       | 176.2 | NS         | Y                 | Y                   |                                 |                  |      |
| S4-FL45-2432  | 28340-2432 | 20242914 | 1½           | 38.1 | 2           | 2.81                | 71.4 | 2.19     | 55.6 | 5.35        | 135.9 | 7.68       | 195.1 | NS         | Y                 | Y                   |                                 |                  |      |
| S4-FL45-3232  | 28340-3232 | 20242945 | 2            | 50.8 | 2           | 2.81                | 71.4 | 1.87     | 47.5 | 5.55        | 141.0 | 8.38       | 213.0 | NS         | Y                 | Y                   |                                 |                  |      |

Code 61 Flange (SAE J518)

60° Elbow

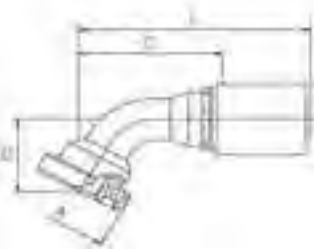


S=Skive  
NS=Non-Skive  
DG=Dual-Grip™

| Descriptive # | Product #  | SAP #    | Hose Size ID |      | Flange Size | Flange Diameter (A) |      | Drop (D) |      | Cut-Off (C) |       | Length (L) |       | Skive Type | SR1SN, DR1SN, SFS | SR2SN, DR2SN, LR2SN | SR16SC, XR16SC, ARC16SC, DR16SC | SCP3, XCP3, ACP3 | XCP4 |
|---------------|------------|----------|--------------|------|-------------|---------------------|------|----------|------|-------------|-------|------------|-------|------------|-------------------|---------------------|---------------------------------|------------------|------|
|               |            |          | in.          | mm   |             | in.                 | mm   | in.      | mm   | in.         | mm    | in.        | mm    |            |                   |                     |                                 |                  |      |
| B2-FL60-1212  | 14345-1212 | 20242938 | 3/4          | 19.0 | 3/4         | 1.50                | 38.1 | 1.46     | 37.1 | 3.39        | 86.1  | 4.94       | 125.6 | NS         | Y                 | Y                   | Y                               | Y                | Y    |
| B2-FL60-1216  | 14345-1216 | 20242936 | 3/4          | 19.0 | 1           | 1.75                | 44.5 | 1.73     | 43.9 | 4.02        | 102.1 | 5.66       | 143.8 | NS         | Y                 | Y                   | Y                               | Y                | Y    |
| B2-FL60-1616  | 14345-1616 | 20293255 | 1            | 25.4 | 1           | 1.75                | 44.5 | 1.85     | 47.0 | 3.98        | 101.1 | 5.76       | 146.2 | NS         | Y                 | Y                   | Y                               | Y                |      |
| S4-FL60-2020  | 28345-2020 | 20242937 | 1 1/4        | 31.8 | 1 1/4       | 2.00                | 50.8 | 2.22     | 56.4 | 5.10        | 129.5 | 7.15       | 181.5 | NS         | Y                 | Y                   | Y                               |                  |      |
| S4-FL60-2024  | 28345-2024 | 20293271 | 1 1/4        | 31.8 | 1 1/2       | 2.37                | 60.3 | 2.22     | 56.5 | 5.98        | 151.9 | 8.31       | 211.0 | NS         | Y                 | Y                   | Y                               |                  |      |
| S4-FL60-2424  | 28345-2424 | 20293272 | 1 1/2        | 38.1 | 1 1/2       | 2.37                | 60.3 | 2.28     | 57.9 | 5.31        | 134.9 | 7.36       | 186.8 | NS         | Y                 | Y                   |                                 |                  |      |
| S4-FL60-2432  | 28345-2432 | 20293273 | 1 1/2        | 38.1 | 2           | 2.81                | 71.4 | 3.05     | 77.5 | 6.52        | 165.6 | 8.85       | 224.7 | NS         | Y                 | Y                   |                                 |                  |      |
| S4-FL60-3232  | 28345-3232 | 20293274 | 2            | 50.8 | 2           | 2.81                | 71.4 | 3.62     | 91.9 | 6.81        | 173.0 | 9.64       | 245.0 | NS         | Y                 | Y                   |                                 |                  |      |

Code 61 Flange (SAE J518)

67° Elbow

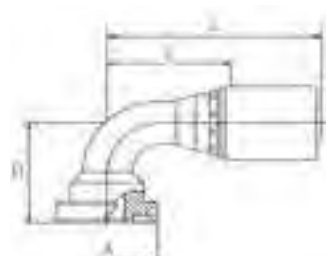


S=Skive  
NS=Non-Skive  
DG=Dual-Grip™

| Descriptive # | Product #  | SAP #    | Hose Size ID |      | Flange Size | Flange Diameter (A) |      | Drop (D) |      | Cut-Off (C) |       | Length (L) |       | Skive Type | SR1SN, DR1SN, SFS | SR2SN, DR2SN, LR2SN | SR16SC, XR16SC, ARC16SC, DR16SC | SCP3, XCP3, ACP3 | XCP4 |
|---------------|------------|----------|--------------|------|-------------|---------------------|------|----------|------|-------------|-------|------------|-------|------------|-------------------|---------------------|---------------------------------|------------------|------|
|               |            |          | in.          | mm   |             | in.                 | mm   | in.      | mm   | in.         | mm    | in.        | mm    |            |                   |                     |                                 |                  |      |
| B2-FL67-1616  | 14347-1616 | 20293256 | 1            | 25.4 | 1           | 1.75                | 44.5 | 1.95     | 49.5 | 3.68        | 93.5  | 5.46       | 138.6 | NS         | Y                 | Y                   | Y                               | Y                |      |
| S4-FL67-2020  | 28347-2020 | 20293278 | 1 1/4        | 31.8 | 1 1/4       | 2.00                | 50.8 | 2.46     | 62.5 | 4.72        | 119.9 | 6.77       | 171.9 | NS         | Y                 | Y                   | Y                               |                  |      |
| S4-FL67-2024  | 28347-2024 | 20293279 | 1 1/4        | 31.8 | 1 1/2       | 2.37                | 60.3 | 2.58     | 65.5 | 4.78        | 121.5 | 6.83       | 173.5 | NS         | Y                 | Y                   | Y                               |                  |      |
| S4-FL67-2424  | 28347-2424 | 20293280 | 1 1/2        | 38.1 | 1 1/2       | 2.37                | 60.3 | 2.58     | 65.5 | 5.33        | 135.4 | 7.66       | 194.5 | NS         | Y                 | Y                   |                                 |                  |      |
| S4-FL67-2432  | 28347-2432 | 20293281 | 1 1/2        | 38.1 | 2           | 2.81                | 71.4 | 3.46     | 87.9 | 5.55        | 141.0 | 7.88       | 200.1 | NS         | Y                 | Y                   |                                 |                  |      |
| S4-FL67-3232  | 28347-3232 | 20293282 | 2            | 50.8 | 2           | 2.81                | 71.4 | 3.76     | 95.5 | 7.05        | 179.1 | 9.88       | 251.1 | NS         | Y                 | Y                   |                                 |                  |      |

## Code 61 Flange (SAE J518)

90° Elbow



S=Skive  
NS=Non-Skive  
DG=Dual-Grip™

| Descriptive # | Product #  | SAP #    | Hose Size ID |      | Flange Size | Flange Diameter (A) |      | Drop (D) |       | Cut-Off (C) |       | Length (L) |       | Skive Type | SR1SN, DR1SN, SFS | SR2SN, DR2SN, LR2SN | SR16SC, XR16SC, ARC16SC, DR16SC | SCP3, XCP3, ACP3 | XCP4 |
|---------------|------------|----------|--------------|------|-------------|---------------------|------|----------|-------|-------------|-------|------------|-------|------------|-------------------|---------------------|---------------------------------|------------------|------|
|               |            |          | in.          | mm   |             | in.                 | mm   | in.      | mm    | in.         | mm    | in.        | mm    |            |                   |                     |                                 |                  |      |
| B2-FL90-0808  | 14350-0808 | 20242888 | 1/2          | 12.7 | 1/2         | 1.19                | 30.2 | 1.65     | 41.9  | 1.81        | 46.0  | 3.06       | 77.6  | NS         | Y                 | Y                   | Y                               | Y                | Y    |
| B2-FL90-0812  | 14350-0812 | 20242877 | 1/2          | 12.7 | 3/4         | 1.50                | 38.1 | 2.01     | 51.1  | 1.77        | 45.0  | 3.02       | 76.6  | NS         | Y                 | Y                   | Y                               | Y                | Y    |
| B2-FL90-1212  | 14350-1212 | 20242881 | 3/4          | 19.0 | 3/4         | 1.50                | 38.1 | 2.36     | 59.9  | 2.28        | 57.9  | 3.83       | 97.4  | NS         | Y                 | Y                   | Y                               | Y                | Y    |
| B2-FL90-1216  | 14350-1216 | 20242883 | 3/4          | 19.0 | 1           | 1.75                | 44.5 | 2.54     | 64.5  | 2.60        | 66.0  | 4.15       | 105.5 | NS         | Y                 | Y                   | Y                               | Y                | Y    |
| B2-FL90-1616  | 14350-1616 | 20242930 | 1            | 25.4 | 1           | 1.75                | 44.5 | 2.64     | 67.1  | 2.80        | 71.1  | 4.58       | 116.2 | NS         | Y                 | Y                   | Y                               | Y                |      |
| B2-FL90-1620  | 14350-1620 | 20242893 | 1            | 25.4 | 1 1/4       | 2.00                | 50.8 | 2.80     | 71.1  | 2.91        | 73.9  | 4.69       | 119.0 | NS         | Y                 | Y                   | Y                               | Y                |      |
| S4-FL90-2016  | 28350-2016 | 20242897 | 1 1/4        | 31.8 | 1           | 1.75                | 44.5 | 2.56     | 65.0  | 3.70        | 94.0  | 5.75       | 145.9 | NS         | Y                 | Y                   | Y                               |                  |      |
| S4-FL90-2020  | 28350-2020 | 20242931 | 1 1/4        | 31.8 | 1 1/4       | 2.00                | 50.8 | 3.31     | 84.1  | 3.46        | 87.9  | 5.51       | 139.9 | NS         | Y                 | Y                   | Y                               |                  |      |
| S4-FL90-2024  | 28350-2024 | 20242889 | 1 1/4        | 31.8 | 1 1/2       | 2.37                | 60.3 | 3.44     | 87.4  | 3.58        | 90.9  | 5.63       | 142.9 | NS         | Y                 | Y                   | Y                               |                  |      |
| S4-FL90-2424  | 28350-2424 | 20242891 | 1 1/2        | 38.1 | 1 1/2       | 2.37                | 60.3 | 3.58     | 90.9  | 4.13        | 104.9 | 6.46       | 164.0 | NS         | Y                 | Y                   |                                 |                  |      |
| S4-FL90-2432  | 28350-2432 | 20242890 | 1 1/2        | 38.1 | 2           | 2.81                | 71.4 | 4.53     | 115.1 | 4.13        | 104.9 | 6.46       | 164.0 | NS         | Y                 | Y                   |                                 |                  |      |
| S4-FL90-3232  | 28350-3232 | 20242894 | 2            | 50.8 | 2           | 2.81                | 71.4 | 5.12     | 130.0 | 5.08        | 129.0 | 7.91       | 201.0 | NS         | Y                 | Y                   |                                 |                  |      |

## Code 62 Flange (SAE J518)

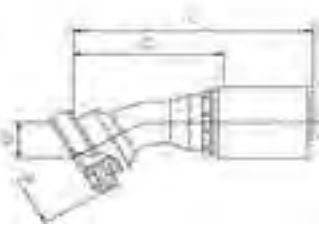


S=Skive  
NS=Non-Skive  
DG=Dual-Grip™

| Descriptive # | Product #  | SAP #    | Hose Size ID |      | Flange Size | Flange Diameter (A) |      | Cut-Off (C) |      | Length (L) |       | Skive Type | SR1SN, DR1SN, SFS | SR2SN, DR2SN, LR2SN | SR16SC, XR16SC, ARC16SC, DR16SC | SCP3, XCP3, ACP3 | XCP4 |
|---------------|------------|----------|--------------|------|-------------|---------------------|------|-------------|------|------------|-------|------------|-------------------|---------------------|---------------------------------|------------------|------|
|               |            |          | in.          | mm   |             | in.                 | mm   | in.         | mm   | in.        | mm    |            |                   |                     |                                 |                  |      |
| B2-FH-1212    | 14300-1212 | 20241745 | 3/4          | 19.0 | 3/4         | 1.63                | 41.3 | 2.07        | 52.6 | 3.62       | 92.0  | NS         | Y                 | Y                   | Y                               | Y                | Y    |
| B2-FH-1616    | 14300-1616 | 20242954 | 1            | 25.4 | 1           | 1.87                | 47.6 | 2.22        | 56.4 | 4.00       | 101.5 | NS         | Y                 | Y                   | Y                               | Y                |      |
| B2-FH-1620    | 14300-1620 | 20242951 | 1            | 25.4 | 1 1/4       | 2.13                | 54.0 | 2.48        | 62.9 | 4.25       | 108.0 | NS         | Y                 | Y                   | Y                               | Y                |      |
| S4-FH-2016    | 28300-2016 | 20441292 | 1 1/4        | 31.8 | 1           | 1.87                | 47.6 | 3.26        | 82.9 | 5.31       | 134.9 | NS         | Y                 | Y                   | Y                               |                  |      |
| S4-FH-2020    | 28300-2020 | 20241752 | 1 1/4        | 31.8 | 1 1/4       | 2.13                | 54.0 | 3.27        | 83.1 | 5.32       | 135.0 | NS         | Y                 | Y                   | Y                               |                  |      |
| S4-FH-2024    | 28300-2024 | 20241754 | 1 1/4        | 31.8 | 1 1/2       | 2.50                | 63.5 | 2.79        | 71.0 | 4.84       | 122.9 | NS         | Y                 | Y                   | Y                               |                  |      |
| S4-FH-2424    | 28300-2424 | 20241751 | 1 1/2        | 38.1 | 1 1/2       | 2.50                | 63.5 | 3.74        | 95.0 | 6.07       | 154.1 | NS         | Y                 | Y                   |                                 |                  |      |
| S4-FH-2432    | 28300-2432 | 20241757 | 1 1/2        | 38.1 | 2           | 3.13                | 79.4 | 2.99        | 75.9 | 5.32       | 135.1 | NS         | Y                 | Y                   |                                 |                  |      |
| S4-FH-3232    | 28300-3232 | 20241759 | 2            | 50.8 | 2           | 3.13                | 79.4 | 2.99        | 75.9 | 5.82       | 147.9 | NS         | Y                 | Y                   |                                 |                  |      |

Code 62 Flange (SAE J518)

22.5° Elbow

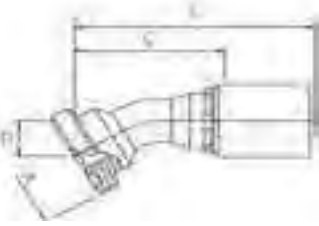


S=Skive  
NS=Non-Skive  
DG=Dual-Grip™

| Descriptive # | Product #  | SAP #    | Hose Size ID |      | Flange Size | Flange Diameter (A) |      | Drop (D) | Cut-Off (C) |      | Length (L) |      | Skive Type | SR1SN, DR1SN, |       | SR2SN, DR2SN, |      | SR16SC, XR16SC, ARC16SC, |  | SCP3, XCP3, |  |
|---------------|------------|----------|--------------|------|-------------|---------------------|------|----------|-------------|------|------------|------|------------|---------------|-------|---------------|------|--------------------------|--|-------------|--|
|               |            |          |              |      |             |                     |      |          |             |      |            |      |            | SFS           | LR2SN | DR16SC        | ACP3 | XCP4                     |  |             |  |
|               |            |          | in.          | mm   | in.         | mm                  | in.  | mm       | in.         | mm   | in.        | mm   | in.        | mm            |       |               |      |                          |  |             |  |
| S4-FH22-2020  | 28303-2020 | 20293291 | 1¼           | 31.8 | 1¼          | 2.13                | 54.0 | 0.69     | 17.5        | 4.72 | 119.9      | 6.77 | 171.8      | NS            | Y     | Y             | Y    |                          |  |             |  |
| S4-FH22-2024  | 28303-2024 | 20293292 | 1¼           | 31.8 | 1½          | 2.50                | 63.5 | 0.81     | 20.6        | 5.04 | 128.0      | 7.09 | 180.0      | NS            | Y     | Y             | Y    |                          |  |             |  |

Code 62 Flange (SAE J518)

30° Elbow

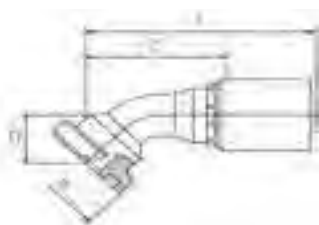


S=Skive  
NS=Non-Skive  
DG=Dual-Grip™

| Descriptive # | Product #  | SAP #    | Hose Size ID |       | Flange Size | Flange Diameter (A) |      | Drop (D) |      | Cut-Off (C) |       | Length (L) |       | Skive Type | SR1SN, |        | SR2SN,   |       | SR16SC, |  | SCP3, |  |
|---------------|------------|----------|--------------|-------|-------------|---------------------|------|----------|------|-------------|-------|------------|-------|------------|--------|--------|----------|-------|---------|--|-------|--|
|               |            |          |              |       |             |                     |      |          |      |             |       |            |       |            | DR1SN, | DR2SN, | ARC16SC, | XCP3, |         |  |       |  |
|               |            |          | SFS          | LR2SN | DR16SC      | ACP3                | XCP4 |          |      |             |       |            |       |            |        |        |          |       |         |  |       |  |
|               |            |          | in.          | mm    |             | in.                 | mm   | in.      | mm   | in.         | mm    | in.        | mm    |            |        |        |          |       |         |  |       |  |
| S4-FH30-2020  | 28305-2020 | 20293295 | 1¼           | 31.8  | 1¼          | 2.13                | 54.0 | 0.96     | 24.4 | 4.61        | 117.1 | 6.66       | 169.0 | NS         | Y      | Y      | Y        |       |         |  |       |  |
| S4-FH30-2024  | 28305-2024 | 20293296 | 1¼           | 31.8  | 1½          | 2.50                | 63.5 | 1.12     | 28.4 | 4.90        | 124.5 | 6.95       | 176.4 | NS         | Y      | Y      | Y        |       |         |  |       |  |
| S4-FH30-2424  | 28305-2424 | 20293297 | 1½           | 38.1  | 1½          | 2.50                | 63.5 | 1.08     | 27.4 | 5.22        | 132.6 | 7.55       | 191.7 | NS         | Y      | Y      |          |       |         |  |       |  |
| S4-FH30-3232  | 28305-3232 | 20293298 | 2            | 50.8  | 2           | 3.13                | 79.4 | 1.44     | 36.6 | 6.65        | 168.9 | 9.48       | 240.9 | NS         | Y      | Y      |          |       |         |  |       |  |

## Code 62 Flange (SAE J518)

45° Elbow

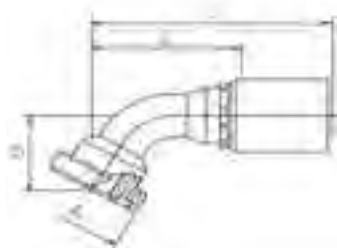


S=Skive  
NS=Non-Skive  
DG=Dual-Grip™

| Descriptive # | Product #  | SAP #    | Hose Size ID |      | Flange Size | Flange Diameter (A) |      | Drop (D) |      | Cut-Off (C) |       | Length (L) |       | Skive Type | SR1SN, DR1SN, SFS | SR2SN, DR2SN, LR2SN | SR16SC, XR16SC, ARC16SC, DR16SC | SCP3, XCP3, ACP3 | SCP3, XCP3, ACP3 |
|---------------|------------|----------|--------------|------|-------------|---------------------|------|----------|------|-------------|-------|------------|-------|------------|-------------------|---------------------|---------------------------------|------------------|------------------|
|               |            |          | in.          | mm   |             | in.                 | mm   | in.      | mm   | in.         | mm    | in.        | mm    |            |                   |                     |                                 |                  |                  |
| B2-FH45-1212  | 14310-1212 | 20241791 | ¾            | 19.0 | ¾           | 1.63                | 41.3 | 1.22     | 31.0 | 3.31        | 84.1  | 4.86       | 123.5 | NS         | Y                 | Y                   | Y                               | Y                | Y                |
| B2-FH45-1616  | 14310-1616 | 20241775 | 1            | 25.4 | 1           | 1.87                | 47.6 | 1.42     | 36.1 | 3.82        | 97.0  | 5.60       | 142.1 | NS         | Y                 | Y                   | Y                               | Y                |                  |
| B2-FH45-1620  | 14310-1620 | 20241772 | 1            | 25.4 | 1¼          | 2.13                | 54.0 | 1.54     | 39.1 | 3.78        | 96.0  | 5.56       | 141.1 | NS         | Y                 | Y                   | Y                               | Y                |                  |
| S4-FH45-2020  | 28310-2020 | 20241764 | 1¼           | 31.8 | 1¼          | 2.13                | 54.0 | 1.57     | 39.9 | 4.29        | 109.0 | 6.34       | 160.9 | NS         | Y                 | Y                   | Y                               |                  |                  |
| S4-FH45-2024  | 28310-2024 | 20241765 | 1¼           | 31.8 | 1½          | 2.50                | 63.5 | 1.79     | 45.5 | 4.53        | 115.1 | 6.58       | 167.0 | NS         | Y                 | Y                   | Y                               |                  |                  |
| S4-FH45-2424  | 28310-2424 | 20241769 | 1½           | 38.1 | 1½          | 2.50                | 63.5 | 1.77     | 45.0 | 4.84        | 122.9 | 7.17       | 182.1 | NS         | Y                 | Y                   |                                 |                  |                  |
| S4-FH45-2432  | 28310-2432 | 20241776 | 1½           | 38.1 | 2           | 3.13                | 79.4 | 2.26     | 57.4 | 5.24        | 133.1 | 7.57       | 192.2 | NS         | Y                 | Y                   |                                 |                  |                  |
| S4-FH45-3232  | 28310-3232 | 20241767 | 2            | 50.8 | 2           | 3.13                | 79.4 | 2.36     | 59.9 | 6.18        | 157.0 | 9.01       | 229.0 | NS         | Y                 | Y                   |                                 |                  |                  |

## Code 62 Flange (SAE J518)

60° Elbow

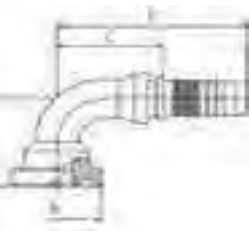


S=Skive  
NS=Non-Skive  
DG=Dual-Grip™

| Descriptive # | Product #  | SAP #    | Hose Size ID |      | Flange Size | Flange Diameter (A) |      | Drop (D) |      | Cut-Off (C) |       | Length (L) |       | Skive Type | SR1SN, DR1SN, SFS | SR2SN, DR2SN, LR2SN | SR16SC, XR16SC, ARC16SC, DR16SC | SCP3, XCP3, ACP3 | XCP4 |
|---------------|------------|----------|--------------|------|-------------|---------------------|------|----------|------|-------------|-------|------------|-------|------------|-------------------|---------------------|---------------------------------|------------------|------|
|               |            |          | in.          | mm   |             | in.                 | mm   | in.      | mm   | in.         | mm    | in.        | mm    |            |                   |                     |                                 |                  |      |
| S4-FH60-2020  | 28312-2020 | 20293301 | 1¼           | 31.8 | 1¼          | 2.13                | 54.0 | 2.32     | 58.9 | 5.26        | 133.6 | 7.31       | 185.5 | NS         | Y                 | Y                   | Y                               |                  |      |
| S4-FH60-2024  | 28312-2024 | 20293302 | 1¼           | 31.8 | 1½          | 2.50                | 63.5 | 2.48     | 63.0 | 5.49        | 139.4 | 7.54       | 191.4 | NS         | Y                 | Y                   | Y                               |                  |      |

Code 62 Flange (SAE J518)

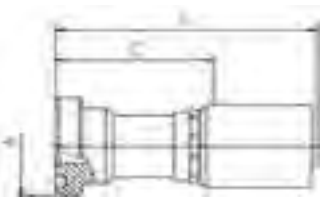
90° Elbow



S=Skive  
NS=Non-Skive  
DG=Dual-Grip™

| Descriptive # | Product #  | SAP #    | Hose |      | Flange Size | Flange Diameter (A) |      | Drop (D) |       | Cut-Off (C) |       | Length (L) |       | Skive Type | SR1SN, | SR2SN, | SR16SC,  | SCP3, | XCP4 |
|---------------|------------|----------|------|------|-------------|---------------------|------|----------|-------|-------------|-------|------------|-------|------------|--------|--------|----------|-------|------|
|               |            |          | Size | ID   |             |                     |      |          |       |             |       |            |       |            | DR1SN, | DR2SN, | ARC16SC, | XCP3, |      |
|               |            |          |      |      |             |                     |      |          |       |             |       |            |       |            | SFS    | LR2SN  | DR16SC   | ACP3  |      |
|               |            |          | in.  | mm   |             | in.                 | mm   | in.      | mm    | in.         | mm    | in.        | mm    |            |        |        |          |       |      |
| B2-FH90-0808  | 14315-0808 | 20241744 | 1/2  | 12.7 | 1/2         | 1.25                | 31.8 | 1.81     | 46.0  | 1.89        | 48.0  | 3.32       | 84.3  | NS         | Y      | Y      | Y        | Y     | Y    |
| B2-FH90-1212  | 14315-1212 | 20241732 | 3/4  | 19.0 | 3/4         | 1.63                | 41.3 | 2.40     | 61.0  | 2.48        | 63.0  | 4.03       | 102.4 | NS         | Y      | Y      | Y        | Y     | Y    |
| B2-FH90-1616  | 14315-1616 | 20241788 | 1    | 25.4 | 1           | 1.87                | 47.6 | 2.95     | 74.9  | 2.91        | 73.9  | 4.69       | 119.0 | NS         | Y      | Y      | Y        | Y     |      |
| B2-FH90-1620  | 14315-1620 | 20241785 | 1    | 25.4 | 1¼          | 2.13                | 54.0 | 3.07     | 78.0  | 3.07        | 78.0  | 4.85       | 123.1 | NS         | Y      | Y      | Y        | Y     |      |
| S4-FH90-2016  | 28315-2016 | 20441315 | 1¼   | 31.8 | 1           | 1.87                | 47.6 | 2.83     | 71.9  | 3.35        | 85.1  | 5.40       | 137.0 | NS         | Y      | Y      | Y        |       |      |
| S4-FH90-2020  | 28315-2020 | 20241780 | 1¼   | 31.8 | 1¼          | 2.13                | 54.0 | 3.50     | 88.9  | 3.70        | 94.0  | 5.75       | 145.9 | NS         | Y      | Y      | Y        |       |      |
| S4-FH90-2024  | 28315-2024 | 20241781 | 1¼   | 31.8 | 1½          | 2.50                | 63.5 | 3.70     | 94.0  | 3.86        | 98.0  | 5.91       | 150.0 | NS         | Y      | Y      | Y        |       |      |
| S4-FH90-2424  | 28315-2424 | 20241771 | 1½   | 38.1 | 1½          | 2.50                | 63.5 | 4.13     | 104.9 | 3.94        | 100.1 | 6.27       | 159.2 | NS         | Y      | Y      |          |       |      |
| S4-FH90-2432  | 28315-2432 | 20241777 | 1½   | 38.1 | 2           | 3.13                | 79.4 | 4.84     | 122.9 | 4.53        | 115.1 | 6.86       | 174.2 | NS         | Y      | Y      |          |       |      |
| S4-FH90-3232  | 28315-3232 | 20241740 | 2    | 50.8 | 2           | 3.13                | 79.4 | 5.20     | 132.1 | 5.63        | 143.0 | 8.46       | 215.0 | NS         | Y      | Y      |          |       |      |

Komatsu® Flange

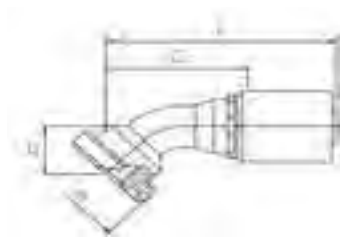


S=Skive  
NS=Non-Skive  
DG=Dual-Grip™

| Descriptive # | Product #  | SAP #    | Hose Size ID |      | Flange Size | Flange Diameter (A) |      | Cut-Off (C) |      | Length (L) |      | Skive Type | SR1SN, DR1SN, SFS | SR2SN, DR2SN, LR2SN | SR16SC, XR16SC, ARC16SC, DR16SC |  |   | SCP3, XCP3, ACP3 |  | XCP4 |
|---------------|------------|----------|--------------|------|-------------|---------------------|------|-------------|------|------------|------|------------|-------------------|---------------------|---------------------------------|--|---|------------------|--|------|
|               |            |          |              |      |             |                     |      |             |      |            |      |            |                   |                     |                                 |  |   |                  |  |      |
|               |            |          | in.          | mm   | in.         | mm                  | in.  | mm          | in.  | mm         | in.  | mm         |                   |                     |                                 |  |   |                  |  |      |
| B2-KF-0810    | 14530-0810 | 20293257 | 1/2          | 12.7 | 5/8         | 1.34                | 34.0 | 1.83        | 46.6 | 3.08       | 78.2 | NS         | Y                 | Y                   | Y                               |  | Y | Y                |  |      |
| B2-KF-1010    | 14530-1010 | 20242060 | 5/8          | 15.9 | 5/8         | 1.34                | 34.0 | 1.84        | 46.8 | 3.20       | 81.3 | NS         | Y                 | Y                   | Y                               |  | Y | Y                |  |      |

## Komatsu® Flange

45° Elbow



S=Skive  
NS=Non-Skive  
DG=Dual-Grip™

| Descriptive # | Product #  | SAP #    | Hose Size ID |      | Flange Size | Flange Diameter (A) |      | Drop (D) |      | Cut-Off (C) |      | Length (L) |      | Skive Type | SR1SN, DR1SN, SFS |  | SR2SN, DR2SN, LR2SN |  | SR16SC, XR16SC, ARC16SC, DR16SC |  | SCP3, XCP3, ACP3 |  | XCP4 |
|---------------|------------|----------|--------------|------|-------------|---------------------|------|----------|------|-------------|------|------------|------|------------|-------------------|--|---------------------|--|---------------------------------|--|------------------|--|------|
|               |            |          | in.          | mm   |             | in.                 | mm   | in.      | mm   | in.         | mm   | in.        | mm   |            |                   |  |                     |  |                                 |  |                  |  |      |
| B2-KF45-1010  | 14535-1010 | 20242061 | 5/8          | 15.9 | 5/8         | 1.34                | 34.0 | 0.98     | 24.9 | 2.32        | 58.9 | 3.68       | 93.4 | NS         | Y                 |  | Y                   |  | Y                               |  | Y                |  | Y    |

## Komatsu® Flange

90° Elbow

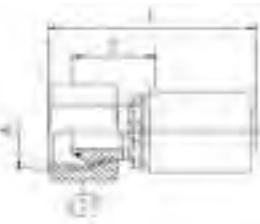


S=Skive  
NS=Non-Skive  
DG=Dual-Grip™

| Descriptive # | Product #  | SAP #    | Hose Size ID |      | Flange Size | Flange Diameter (A) |      | Drop (D) |      | Cut-Off (C) |      | Length (L) |      | Skive Type | SR1SN, DR1SN, SFS |  | SR2SN, DR2SN, LR2SN |  | SR16SC, XR16SC, ARC16SC, DR16SC |  | SCP3, XCP3, ACP3 |  | XCP4 |
|---------------|------------|----------|--------------|------|-------------|---------------------|------|----------|------|-------------|------|------------|------|------------|-------------------|--|---------------------|--|---------------------------------|--|------------------|--|------|
|               |            |          | in.          | mm   |             | in.                 | mm   | in.      | mm   | in.         | mm   | in.        | mm   |            |                   |  |                     |  |                                 |  |                  |  |      |
| B2-KF90-1010  | 14540-1010 | 20242062 | 5/8          | 15.9 | 5/8         | 1.34                | 34.0 | 2.01     | 51.1 | 1.97        | 50.0 | 3.33       | 84.5 | NS         | Y                 |  | Y                   |  | Y                               |  | Y                |  | Y    |

BSPP (British Standard Pipe Parallel)

Female | Swivel



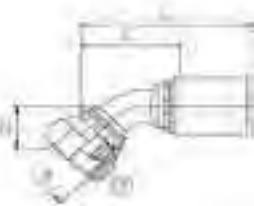
S=Skive  
NS=Non-Skive  
DG=Dual-Grip™

| Descriptive #             | Product #  | SAP #    | Hose    |      | Thread<br>Size (A) | Hex-1<br>Wrench<br>Size | Cut-Off (C) |      | Length (L) |       | Skive<br>Type | SR1SN,<br>DR1SN,<br>SFS | SR2SN,<br>DR2SN,<br>LR2SN | SR16SC,<br>XR16SC,<br>ARC16SC,<br>DR16SC | SCP3,<br>XCP3,<br>ACP3 | XCP4 |     |    |
|---------------------------|------------|----------|---------|------|--------------------|-------------------------|-------------|------|------------|-------|---------------|-------------------------|---------------------------|------------------------------------------|------------------------|------|-----|----|
|                           |            |          | Size ID |      |                    |                         | in.         | mm   | in.        | mm    |               |                         |                           |                                          |                        |      | in. | mm |
|                           |            |          | in.     | mm   |                    |                         |             |      |            |       |               |                         |                           |                                          |                        |      |     |    |
| B2-BPFX-0404              | 14105-0404 | 20242821 | 1/4     | 6.4  | 1/4-19             | 19                      | 0.93        | 23.7 | 1.91       | 48.6  | NS            | Y                       | Y                         | Y                                        | Y                      | Y    |     |    |
| B2-BPFX-0406              | 14105-0406 | 20242820 | 1/4     | 6.4  | 3/8-19             | 22                      | 1.09        | 27.6 | 2.07       | 52.5  | NS            | Y                       | Y                         | Y                                        | Y                      | Y    |     |    |
| B2-BPFX-0606              | 14105-0606 | 20242834 | 3/8     | 9.5  | 3/8-19             | 22                      | 1.09        | 27.8 | 2.14       | 54.4  | NS            | Y                       | Y                         | Y                                        | Y                      | Y    |     |    |
| B2-BPFX-0608              | 14105-0608 | 20242822 | 3/8     | 9.5  | 1/2-14             | 27                      | 1.20        | 30.4 | 2.24       | 57.0  | NS            | Y                       | Y                         | Y                                        | Y                      | Y    |     |    |
| B2-BPFX-0808              | 14105-0808 | 20242826 | 1/2     | 12.7 | 1/2-14             | 27                      | 1.22        | 31.0 | 2.47       | 62.7  | NS            | Y                       | Y                         | Y                                        | Y                      | Y    |     |    |
| B2-BPFX-0810              | 14105-0810 | 20242823 | 1/2     | 12.7 | 5/8-14             | 27                      | 1.48        | 37.6 | 2.73       | 69.3  | NS            | Y                       | Y                         | Y                                        | Y                      | Y    |     |    |
| B2-BPFX-1010 <sup>C</sup> | 14105-1010 | 20242824 | 5/8     | 15.9 | 5/8-14             | 27                      | 1.12        | 28.5 | 2.48       | 62.9  | NS            | Y                       | Y                         | Y                                        | Y                      | Y    |     |    |
| B2-BPFX-1012              | 14105-1012 | 20242839 | 5/8     | 15.9 | 3/4-14             | 32                      | 1.49        | 37.8 | 2.84       | 72.2  | NS            | Y                       | Y                         | Y                                        | Y                      | Y    |     |    |
| B2-BPFX-1212 <sup>C</sup> | 14105-1212 | 20242818 | 3/4     | 19.0 | 3/4-14             | 32                      | 1.17        | 29.7 | 2.72       | 69.1  | NS            | Y                       | Y                         | Y                                        | Y                      | Y    |     |    |
| B2-BPFX-1616 <sup>C</sup> | 14105-1616 | 20242862 | 1       | 25.4 | 1-11               | 38                      | 1.36        | 34.4 | 3.13       | 79.5  | NS            | Y                       | Y                         | Y                                        | Y                      |      |     |    |
| S4-BPFX-2020 <sup>T</sup> | 28105-2020 | 20242842 | 1¼      | 31.8 | 1¼-11              | 50                      | 1.69        | 42.8 | 3.73       | 94.8  | NS            | Y                       | Y                         | Y                                        |                        |      |     |    |
| S4-BPFX-2424 <sup>T</sup> | 28105-2424 | 20242860 | 1½      | 38.1 | 1½-11              | 55                      | 1.80        | 45.8 | 4.13       | 105.0 | NS            | Y                       | Y                         |                                          |                        |      |     |    |
| S4-BPFX-3232 <sup>T</sup> | 28105-3232 | 20242819 | 2       | 50.8 | 2-11               | 70                      | 1.98        | 50.2 | 4.81       | 122.2 | NS            | Y                       | Y                         |                                          |                        |      |     |    |

C: Crimp Nut T: Thrust-Wire Nut (see "Fitting Identification" in Appendix for details)

BSPP (British Standard Pipe Parallel)

Female | 45° Elbow | Swivel



S=Skive  
NS=Non-Skive  
DG=Dual-Grip™

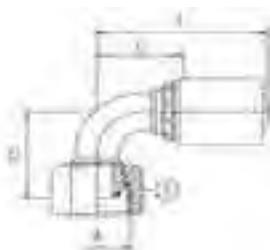
| Descriptive #               | Product #  | SAP #    | Hose    |      | Thread<br>Size (A) | Hex-1<br>Wrench<br>Size |      |      |      |       |      |       | Skive<br>Type | SR1SN,<br>DR1SN, | SR2SN,<br>DR2SN,<br>LR2SN | SR16SC,<br>XR16SC,<br>ARC16SC,<br>DR16SC | SCP3,<br>XCP3,<br>ACP3 | XCP4 |
|-----------------------------|------------|----------|---------|------|--------------------|-------------------------|------|------|------|-------|------|-------|---------------|------------------|---------------------------|------------------------------------------|------------------------|------|
|                             |            |          | Size ID |      |                    |                         |      |      |      |       |      |       |               |                  |                           |                                          |                        |      |
|                             |            |          | in.     | mm   |                    |                         |      | mm   | in.  | mm    | in.  | mm    |               |                  |                           |                                          |                        |      |
| B2-BPFX45-0404 <sup>S</sup> | 14115-0404 | 20242851 | 1/4     | 6.4  | 1/4-19             | 19                      | 0.59 | 15.0 | 1.81 | 46.0  | 2.79 | 70.9  | NS            | Y                | Y                         | Y                                        | Y                      | Y    |
| B2-BPFX45-0606 <sup>S</sup> | 14115-0606 | 20242847 | 3/8     | 9.5  | 3/8-19             | 22                      | 0.81 | 20.6 | 1.97 | 50.0  | 3.02 | 76.7  | NS            | Y                | Y                         | Y                                        | Y                      | Y    |
| B2-BPFX45-0808 <sup>S</sup> | 14115-0808 | 20242853 | 1/2     | 12.7 | 1/2-14             | 27                      | 0.83 | 21.1 | 2.17 | 55.1  | 3.42 | 86.8  | NS            | Y                | Y                         | Y                                        | Y                      | Y    |
| B2-BPFX45-1010              | 14115-1010 | 20242846 | 5/8     | 15.9 | 5/8-14             | 27                      | 0.85 | 21.6 | 2.52 | 64.0  | 3.88 | 98.5  | NS            | Y                | Y                         | Y                                        | Y                      | Y    |
| B2-BPFX45-1212              | 14115-1212 | 20242849 | 3/4     | 19.0 | 3/4-14             | 32                      | 1.10 | 27.9 | 2.76 | 70.1  | 4.31 | 109.6 | NS            | Y                | Y                         | Y                                        | Y                      | Y    |
| B2-BPFX45-1616              | 14115-1616 | 20242850 | 1       | 25.4 | 1-11               | 38                      | 1.34 | 34.0 | 3.31 | 84.1  | 5.09 | 129.2 | NS            | Y                | Y                         | Y                                        | Y                      |      |
| S4-BPFX45-2020 <sup>T</sup> | 28115-2020 | 20242854 | 1 1/4   | 31.8 | 1 1/4-11           | 50                      | 1.57 | 39.9 | 3.98 | 101.1 | 6.03 | 153.1 | NS            | Y                | Y                         | Y                                        |                        |      |
| S4-BPFX45-2424 <sup>T</sup> | 28115-2424 | 20242855 | 1 1/2   | 38.1 | 1 1/2-11           | 55                      | 1.81 | 46.0 | 4.57 | 116.1 | 6.90 | 175.2 | NS            | Y                | Y                         |                                          |                        |      |
| S4-BPFX45-3232 <sup>T</sup> | 28115-3232 | 20242841 | 2       | 50.8 | 2-11               | 70                      | 2.36 | 59.9 | 5.98 | 151.9 | 8.81 | 223.9 | NS            | Y                | Y                         |                                          |                        |      |

T: Thrust-Wire Nut S: Slip Nut (see "Fitting Identification" in Appendix for details)



# BSPP (British Standard Pipe Parallel)

Female | 90° Elbow | Swivel



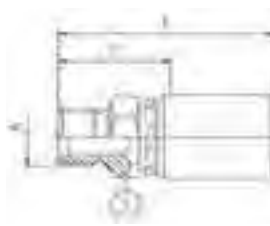
S=Skive  
NS=Non-Skive  
DG=Dual-Grip™

| Descriptive #               | Product #  | SAP #    | Hose Size ID |      | Thread Size (A) | Hex-1 Wrench Size | Drop (D) |       | Cut-Off (C) |       | Length (L) |       | Skive Type | SR1SN, DR1SN, SFS | SR2SN, DR2SN, LR2SN | SR16SC, XR16SC, ARC16SC, DR16SC | SCP3, XCP3, ACP3 | XCP4 |
|-----------------------------|------------|----------|--------------|------|-----------------|-------------------|----------|-------|-------------|-------|------------|-------|------------|-------------------|---------------------|---------------------------------|------------------|------|
|                             |            |          | in.          | mm   |                 |                   | in.      | mm    | in.         | mm    | in.        | mm    |            |                   |                     |                                 |                  |      |
| B2-BPFX90-0404              | 14120-0404 | 20242868 | 1/4          | 6.4  | 1/4-19          | 19                | 1.14     | 29.0  | 1.14        | 29.0  | 2.12       | 53.8  | NS         | Y                 | Y                   | Y                               | Y                | Y    |
| B2-BPFX90-0606              | 14120-0606 | 20242864 | 3/8          | 9.5  | 3/8-19          | 22                | 1.65     | 41.9  | 1.38        | 35.1  | 2.43       | 61.7  | NS         | Y                 | Y                   | Y                               | Y                | Y    |
| B2-BPFX90-0608              | 14120-0608 | 20242859 | 3/8          | 9.5  | 1/2-14          | 27                | 1.40     | 35.6  | 1.34        | 34.0  | 2.39       | 60.7  | NS         | Y                 | Y                   | Y                               | Y                | Y    |
| B2-BPFX90-0808              | 14120-0808 | 20242870 | 1/2          | 12.7 | 1/2-14          | 27                | 1.61     | 40.9  | 1.42        | 36.1  | 2.67       | 67.7  | NS         | Y                 | Y                   | Y                               | Y                | Y    |
| B2-BPFX90-1010 <sup>C</sup> | 14120-1010 | 20242863 | 5/8          | 15.9 | 5/8-14          | 27                | 1.85     | 47.0  | 1.89        | 48.0  | 3.25       | 82.5  | NS         | Y                 | Y                   | Y                               | Y                | Y    |
| B2-BPFX90-1212 <sup>C</sup> | 14120-1212 | 20242866 | 3/4          | 19.0 | 3/4-14          | 32                | 2.09     | 53.1  | 1.93        | 49.0  | 3.48       | 88.5  | NS         | Y                 | Y                   | Y                               | Y                | Y    |
| B2-BPFX90-1616 <sup>C</sup> | 14120-1616 | 20242845 | 1            | 25.4 | 1-11            | 38                | 2.72     | 69.1  | 2.95        | 74.9  | 4.73       | 120.0 | NS         | Y                 | Y                   | Y                               | Y                | Y    |
| S4-BPFX90-2020 <sup>T</sup> | 28120-2020 | 20242848 | 1 1/4        | 31.8 | 1 1/4-11        | 50                | 3.27     | 83.1  | 3.23        | 82.0  | 5.28       | 134.1 | NS         | Y                 | Y                   | Y                               |                  |      |
| S4-BPFX90-2424 <sup>T</sup> | 28120-2424 | 20242843 | 1 1/2        | 38.1 | 1 1/2-11        | 55                | 3.78     | 96.0  | 3.78        | 96.0  | 6.11       | 155.1 | NS         | Y                 | Y                   |                                 |                  |      |
| S4-BPFX90-3232 <sup>T</sup> | 28120-3232 | 20242867 | 2            | 50.8 | 2-11            | 70                | 5.35     | 135.9 | 5.04        | 128.0 | 7.87       | 200.0 | NS         | Y                 | Y                   |                                 |                  |      |

C: Crimp Nut T: Thrust-Wire Nut (see "Fitting Identification" in Appendix for details)

# BSPP (British Standard Pipe Parallel)

Male

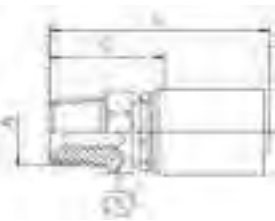


S=Skive  
NS=Non-Skive  
DG=Dual-Grip™

| Descriptive # | Product #  | SAP #    | Hose Size ID |      | Thread Size (A) | Hex-1 Wrench Size | Cut-Off (C) |      | Length (L) |       | Skive Type | SR1SN, DR1SN, SFS | SR2SN, DR2SN, LR2SN | SR16SC, XR16SC, ARC16SC, DR16SC | SCP3, XCP3, ACP3 | XCP4 |
|---------------|------------|----------|--------------|------|-----------------|-------------------|-------------|------|------------|-------|------------|-------------------|---------------------|---------------------------------|------------------|------|
|               |            |          | in.          | mm   |                 |                   | in.         | mm   | in.        | mm    |            |                   |                     |                                 |                  |      |
| B2-BPM-0404   | 14130-0404 | 20242840 | 1/4          | 6.4  | 1/4-19          | 19                | 1.03        | 26.2 | 2.01       | 51.1  | NS         | Y                 | Y                   | Y                               | Y                | Y    |
| B2-BPM-0606   | 14130-0606 | 20242829 | 3/8          | 9.5  | 3/8-19          | 22                | 1.10        | 28.0 | 2.15       | 54.6  | NS         | Y                 | Y                   | Y                               | Y                | Y    |
| B2-BPM-0608   | 14130-0608 | 20242830 | 3/8          | 9.5  | 1/2-14          | 27                | 1.24        | 31.5 | 2.29       | 58.1  | NS         | Y                 | Y                   | Y                               | Y                | Y    |
| B2-BPM-0806   | 14130-0806 | 20242835 | 1/2          | 12.7 | 3/8-19          | 22                | 1.12        | 28.5 | 2.37       | 60.2  | NS         | Y                 | Y                   | Y                               | Y                | Y    |
| B2-BPM-0808   | 14130-0808 | 20242827 | 1/2          | 12.7 | 1/2-14          | 27                | 1.26        | 32.0 | 2.51       | 63.7  | NS         | Y                 | Y                   | Y                               | Y                | Y    |
| B2-BPM-1010   | 14130-1010 | 20242828 | 5/8          | 15.9 | 5/8-14          | 30                | 1.35        | 34.3 | 2.71       | 68.8  | NS         | Y                 | Y                   | Y                               | Y                | Y    |
| B2-BPM-1212   | 14130-1212 | 20242832 | 3/4          | 19.0 | 3/4-14          | 32                | 1.45        | 36.7 | 3.00       | 76.1  | NS         | Y                 | Y                   | Y                               | Y                | Y    |
| B2-BPM-1616   | 14130-1616 | 20242838 | 1            | 25.4 | 1-11            | 41                | 1.69        | 43.0 | 3.47       | 88.1  | NS         | Y                 | Y                   | Y                               | Y                | Y    |
| S4-BPM-2020   | 28130-2020 | 20242836 | 1 1/4        | 31.8 | 1 1/4-11        | 50                | 1.89        | 48.0 | 3.40       | 86.3  | NS         | Y                 | Y                   | Y                               |                  |      |
| S4-BPM-2424   | 28130-2424 | 20242837 | 1 1/2        | 38.1 | 1 1/2-11        | 55                | 2.00        | 50.7 | 4.33       | 109.9 | NS         | Y                 | Y                   |                                 |                  |      |
| S4-BPM-3232   | 28130-3232 | 20242833 | 2            | 50.8 | 2-11            | 70                | 2.28        | 57.9 | 5.11       | 129.8 | NS         | Y                 | Y                   |                                 |                  |      |

BSPT (British Standard Pipe Tapered)

Male

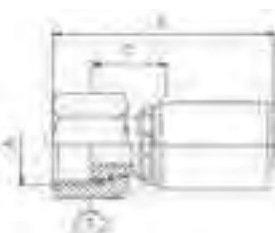


S=Skive  
NS=Non-Skive  
DG=Dual-Grip™

| Descriptive # | Product #  | SAP #    | Hose Size ID |      | Thread Size (A) | Hex-1 Wrench Size | Cut-Off (C) |      | Length (L) |      | Skive Type | SR1SN, DR1SN, SFS | SR2SN, DR2SN, LR2SN | SR16SC, XR16SC, ARC16SC, DR16SC | SCP3, XCP3, ACP3 | XCP4 |
|---------------|------------|----------|--------------|------|-----------------|-------------------|-------------|------|------------|------|------------|-------------------|---------------------|---------------------------------|------------------|------|
|               |            |          | in.          | mm   |                 |                   | in.         | mm   | in.        | mm   |            |                   |                     |                                 |                  |      |
| B2-BTM-0404   | 14170-0404 | 20242873 | 1/4          | 6.4  | 1/4-19          | 17                | 1.06        | 27.0 | 2.04       | 51.9 | NS         | Y                 | Y                   | Y                               | Y                | Y    |
| B2-BTM-0606   | 14170-0606 | 20242872 | 3/8          | 9.5  | 3/8-19          | 19                | 1.10        | 27.9 | 2.15       | 54.6 | NS         | Y                 | Y                   | Y                               | Y                | Y    |
| B2-BTM-0808   | 14170-0808 | 20242871 | 1/2          | 12.7 | 1/2-14          | 22                | 1.31        | 33.1 | 2.55       | 64.8 | NS         | Y                 | Y                   | Y                               | Y                | Y    |
| B2-BTM-1212   | 14170-1212 | 20242876 | 3/4          | 19.0 | 3/4-14          | 27                | 1.36        | 34.6 | 2.92       | 74.1 | NS         | Y                 | Y                   | Y                               | Y                | Y    |
| B2-BTM-1616   | 14170-1616 | 20242874 | 1            | 25.4 | 1-11            | 36                | 1.73        | 43.9 | 3.51       | 89.0 | NS         | Y                 | Y                   | Y                               | Y                | Y    |

BSP Flat Seat (British Standard Pipe)

Female | Swivel



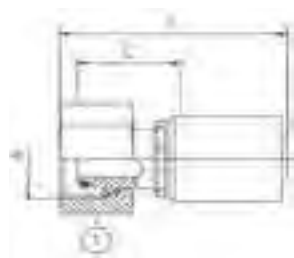
S=Skive  
NS=Non-Skive  
DG=Dual-Grip™

| Descriptive # | Product #  | SAP #    | Hose Size ID |      | Thread Size (A) | Hex-1 Wrench Size | Cut-Off (C) |      | Length (L) |      | Skive Type | SR1SN, DR1SN, SFS | SR2SN, DR2SN, LR2SN | SR16SC, XR16SC, ARC16SC, DR16SC | SCP3, XCP3, ACP3 | XCP4 |
|---------------|------------|----------|--------------|------|-----------------|-------------------|-------------|------|------------|------|------------|-------------------|---------------------|---------------------------------|------------------|------|
|               |            |          | in.          | mm   |                 |                   | in.         | mm   | in.        | mm   |            |                   |                     |                                 |                  |      |
| B2-BFFX-0606  | 14100-0606 | 20242815 | 3/8          | 9.5  | 3/8-19          | 22                | 0.75        | 19.0 | 1.80       | 45.6 | NS         | Y                 | Y                   | Y                               | Y                | Y    |
| B2-BFFX-0608  | 14100-0608 | 20242814 | 3/8          | 9.5  | 1/2-14          | 27                | 0.80        | 20.2 | 1.84       | 46.8 | NS         | Y                 | Y                   | Y                               | Y                | Y    |
| B2-BFFX-0808  | 14100-0808 | 20242816 | 1/2          | 12.7 | 1/2-14          | 27                | 0.82        | 20.9 | 2.07       | 52.5 | NS         | Y                 | Y                   | Y                               | Y                | Y    |
| B2-BFFX-0812  | 14100-0812 | 20242812 | 1/2          | 12.7 | 3/4-14          | 32                | 0.97        | 24.5 | 2.21       | 56.2 | NS         | Y                 | Y                   | Y                               | Y                | Y    |
| B2-BFFX-1212C | 14100-1212 | 20242813 | 3/4          | 19.0 | 3/4-14          | 32                | 0.72        | 18.2 | 2.27       | 57.6 | NS         | Y                 | Y                   | Y                               | Y                | Y    |

C: Crimp Nut (see "Fitting Identification" in Appendix for details)

## DIN 24° Light

Female | Swivel



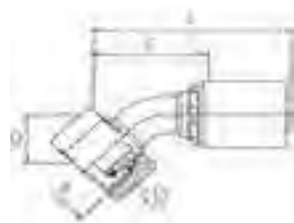
S=Skive  
NS=Non-Skive  
DG=Dual-Grip™

| Descriptive #             | Product #  | SAP #    | Hose Size ID |      | Thread Size (A) | Hex-1 Wrench Size | Cut-Off (C) |      | Length (L) |       | Skive Type | SR1SN, DR1SN, SFS | SR2SN, DR2SN, LR2SN | SR16SC, XR16SC, ARC16SC, DR16SC | SCP3, XCP3, ACP3 | XCP4 |
|---------------------------|------------|----------|--------------|------|-----------------|-------------------|-------------|------|------------|-------|------------|-------------------|---------------------|---------------------------------|------------------|------|
|                           |            |          | in.          | mm   |                 |                   | in.         | mm   | in.        | mm    |            |                   |                     |                                 |                  |      |
| B2-DLFX-0412 <sup>T</sup> | 14240-0412 | 20241852 | 1/4          | 6.4  | 12x1.5          | 14                | 1.07        | 27.2 | 2.05       | 52.0  | NS         | Y                 | Y                   | Y                               | Y                | Y    |
| B2-DLFX-0414              | 14240-0414 | 20241837 | 1/4          | 6.4  | 14x1.5          | 17                | 1.02        | 25.9 | 2.00       | 50.8  | NS         | Y                 | Y                   | Y                               | Y                | Y    |
| B2-DLFX-0416              | 14240-0416 | 20241845 | 1/4          | 6.4  | 16x1.5          | 19                | 1.08        | 27.4 | 2.06       | 52.2  | NS         | Y                 | Y                   | Y                               | Y                | Y    |
| B2-DLFX-0616              | 14240-0616 | 20241842 | 3/8          | 9.5  | 16x1.5          | 19                | 2.21        | 56.2 | 2.26       | 57.5  | NS         | Y                 | Y                   | Y                               | Y                | Y    |
| B2-DLFX-0618              | 14240-0618 | 20241843 | 3/8          | 9.5  | 18x1.5          | 22                | 1.08        | 27.5 | 2.13       | 54.2  | NS         | Y                 | Y                   | Y                               | Y                | Y    |
| B2-DLFX-0622              | 14240-0622 | 20782409 | 3/8          | 9.5  | 22x1.5          |                   | 1.18        | 30.0 | 2.23       | 56.7  | NS         | Y                 | Y                   | Y                               | Y                | Y    |
| B2-DLFX-0822              | 14240-0822 | 20241859 | 1/2          | 12.7 | 22x1.5          | 27                | 1.21        | 30.7 | 2.46       | 62.4  | NS         | Y                 | Y                   | Y                               | Y                | Y    |
| B2-DLFX-1026              | 14240-1026 | 20241844 | 5/8          | 15.9 | 26x1.5          | 32                | 1.24        | 31.5 | 2.60       | 65.9  | NS         | Y                 | Y                   | Y                               | Y                | Y    |
| B2-DLFX-1230              | 14240-1230 | 20241840 | 3/4          | 19.0 | 30x2.0          | 36                | 1.42        | 36.0 | 2.97       | 75.4  | NS         | Y                 | Y                   | Y                               | Y                | Y    |
| B2-DLFX-1636              | 14240-1636 | 20241871 | 1            | 25.4 | 36x2.0          | 41                | 1.49        | 37.9 | 3.27       | 83.0  | NS         | Y                 | Y                   | Y                               | Y                | Y    |
| S4-DLFX-2045              | 28240-2045 | 20241857 | 1 1/4        | 31.8 | 45x2.0          | 50                | 1.74        | 44.1 | 3.78       | 96.1  | NS         | Y                 | Y                   | Y                               |                  |      |
| S4-DLFX-2452              | 28240-2452 | 20441314 | 1 1/2        | 38.1 | 52x2.0          | 60                | 1.74        | 44.1 | 4.07       | 103.3 | NS         | Y                 | Y                   |                                 |                  |      |

T: Thrust-Wire Nut (see "Fitting Identification" in Appendix for details)

## DIN 24° Light

Female | 45° Elbow | Swivel

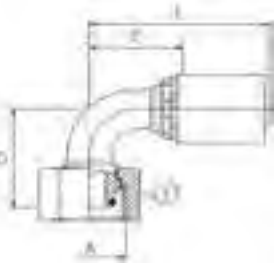


S=Skive  
NS=Non-Skive  
DG=Dual-Grip™

| Descriptive #  | Product #  | SAP #    | Hose Size ID |      | Thread Size (A) | Hex-1 Wrench Size | Drop (D) |      | Cut-Off (C) |       | Length (L) |       | Skive Type | SR1SN, DR1SN, SFS | SR2SN, DR2SN, LR2SN | SR16SC, XR16SC, ARC16SC, DR16SC | SCP3, XCP3, ACP3 | XCP4 |
|----------------|------------|----------|--------------|------|-----------------|-------------------|----------|------|-------------|-------|------------|-------|------------|-------------------|---------------------|---------------------------------|------------------|------|
|                |            |          | in.          | mm   |                 |                   | in.      | mm   | in.         | mm    | in.        | mm    |            |                   |                     |                                 |                  |      |
| B2-DLFX45-0414 | 14245-0414 | 20241855 | 1/4          | 6.4  | 14x1.5          | 17                | 0.69     | 17.5 | 1.69        | 42.9  | 2.67       | 67.8  | NS         | Y                 | Y                   | Y                               | Y                | Y    |
| B2-DLFX45-0416 | 14245-0416 | 20241860 | 1/4          | 6.4  | 16x1.5          | 19                | 0.79     | 20.1 | 1.65        | 41.9  | 2.63       | 66.8  | NS         | Y                 | Y                   | Y                               | Y                | Y    |
| B2-DLFX45-0616 | 14245-0616 | 20441216 | 3/8          | 9.5  | 16x1.5          | 19                | 0.71     | 18.0 | 1.73        | 43.9  | 2.78       | 70.6  | NS         | Y                 | Y                   | Y                               | Y                | Y    |
| B2-DLFX45-0618 | 14245-0618 | 20241862 | 3/8          | 9.5  | 18x1.5          | 22                | 0.77     | 19.6 | 1.85        | 47.0  | 2.90       | 73.6  | NS         | Y                 | Y                   | Y                               | Y                | Y    |
| B2-DLFX-0622   | 14245-0622 | 20782411 | 3/8          | 9.5  | 22x1.5          |                   | 0.83     | 21.1 | 2.14        | 54.5  | 3.19       | 81.1  | NS         | Y                 | Y                   | Y                               | Y                | Y    |
| B2-DLFX45-0822 | 14245-0822 | 20241858 | 1/2          | 12.7 | 22x1.5          | 27                | 0.83     | 21.1 | 2.17        | 55.1  | 3.42       | 86.8  | NS         | Y                 | Y                   | Y                               | Y                | Y    |
| B2-DLFX45-1026 | 14245-1026 | 20241863 | 5/8          | 15.9 | 26x1.5          | 32                | 0.94     | 23.9 | 2.56        | 65.0  | 3.92       | 99.5  | NS         | Y                 | Y                   | Y                               | Y                | Y    |
| B2-DLFX45-1230 | 14245-1230 | 20241861 | 3/4          | 19.0 | 30x2.0          | 36                | 1.26     | 32.0 | 2.72        | 69.1  | 4.27       | 108.5 | NS         | Y                 | Y                   | Y                               | Y                | Y    |
| B2-DLFX45-1636 | 14245-1636 | 20241856 | 1            | 25.4 | 36x2.0          | 41                | 1.26     | 32.0 | 3.58        | 90.9  | 5.36       | 136.0 | NS         | Y                 | Y                   | Y                               | Y                | Y    |
| S4-DLFX45-2452 | 28245-2452 | 20588801 | 1 1/2        | 38.1 | 52x2.0          | 60                | 1.85     | 47.0 | 4.49        | 114.0 | 6.82       | 173.1 | NS         | Y                 | Y                   |                                 |                  |      |

DIN 24° Light

Female | 90° Elbow | Swivel

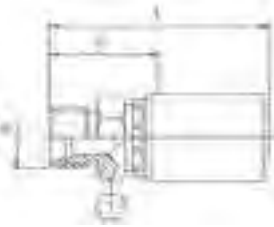


S=Skive  
NS=Non-Skive  
DG=Dual-Grip™

| Descriptive #    | Product #  | SAP #    | Hose Size ID |      | Thread Size (A) | Hex-1 Wrench Size | Drop (D) |      | Cut-Off (C) |       | Length (L) |       | Skive Type | SR1SN, | SR2SN, | SR16SC,  | SCP3, | XCP4 |
|------------------|------------|----------|--------------|------|-----------------|-------------------|----------|------|-------------|-------|------------|-------|------------|--------|--------|----------|-------|------|
|                  |            |          |              |      |                 |                   |          |      |             |       |            |       |            | DR1SN, | DR2SN, | ARC16SC, | ACP3  |      |
|                  |            |          | in.          | mm   | mm              | in.               | mm       | in.  | mm          | in.   | mm         | in.   | mm         | NS     | Y      | Y        | Y     | Y    |
| B2-DLFX90-0412   | 14250-0412 | 20241866 | 1/4          | 6.4  | 12x1.5          | 14                | 1.02     | 25.9 | 1.14        | 29.0  | 2.12       | 53.8  | NS         | Y      | Y      | Y        | Y     | Y    |
| B2-DLFX90-0414   | 14250-0414 | 20241867 | 1/4          | 6.4  | 14x1.5          | 17                | 1.28     | 32.5 | 1.10        | 27.9  | 2.08       | 52.8  | NS         | Y      | Y      | Y        | Y     | Y    |
| B2-DLFX90-0416   | 14250-0416 | 20241868 | 1/4          | 6.4  | 16x1.5          | 19                | 1.28     | 32.5 | 1.10        | 27.9  | 2.08       | 52.8  | NS         | Y      | Y      | Y        | Y     | Y    |
| B2-DLFX90-0616   | 14250-0616 | 20289910 | 3/8          | 9.5  | 16x1.5          | 19                | 1.42     | 36.1 | 1.18        | 30.0  | 2.23       | 56.6  | NS         | Y      | Y      | Y        | Y     | Y    |
| B2-DLFX90-0618   | 14250-0618 | 20241870 | 3/8          | 9.5  | 18x1.5          | 22                | 1.54     | 39.1 | 1.30        | 33.0  | 2.35       | 59.7  | NS         | Y      | Y      | Y        | Y     | Y    |
| B2-DLFX90-0622   | 14250-0622 | 20782412 | 3/8          | 9.5  | 22x1.5          |                   | 1.59     | 40.4 | 1.54        | 39.2  | 2.59       | 65.9  | NS         | Y      | Y      | Y        | Y     | Y    |
| B2-DLFX90-0822   | 14250-0822 | 20241865 | 1/2          | 12.7 | 22x1.5          | 27                | 1.59     | 40.4 | 1.57        | 39.9  | 2.82       | 71.6  | NS         | Y      | Y      | Y        | Y     | Y    |
| B2-DLFX90-1026   | 14250-1026 | 20241853 | 5/8          | 15.9 | 26x1.5          | 32                | 1.89     | 48.0 | 2.01        | 51.1  | 3.37       | 85.5  | NS         | Y      | Y      | Y        | Y     | Y    |
| B2-DLFX90-1230   | 14250-1230 | 20241869 | 3/4          | 19.0 | 30x2.0          | 36                | 2.32     | 58.9 | 2.05        | 52.1  | 3.60       | 91.5  | NS         | Y      | Y      | Y        | Y     | Y    |
| B2-DLFX90-1636   | 14250-1636 | 20241864 | 1            | 25.4 | 36x2.0          | 41                | 2.68     | 68.1 | 3.07        | 78.0  | 4.85       | 123.1 | NS         | Y      | Y      | Y        | Y     |      |
| S4-DLFX90-2045   | 28250-2045 | 20241872 | 1 1/4        | 31.8 | 45x2.0          | 50                | 3.50     | 88.9 | 3.54        | 89.9  | 5.59       | 141.9 | NS         | Y      | Y      | Y        |       |      |
| S4-DLFX90-2452   | 28250-2452 | 20588800 | 1 1/2        | 38.1 | 52x2.0          | 60                | 3.84     | 97.5 | 4.21        | 107.0 | 6.54       | 166.1 | NS         | Y      | Y      |          |       |      |
| S4-DLFX90XL-2452 | 28224-2452 | 20793531 | 1 1/2        | 38.1 | 52x2.0          |                   |          |      |             |       |            |       | NS         | Y      | Y      |          |       |      |

DIN 24° Light

Male

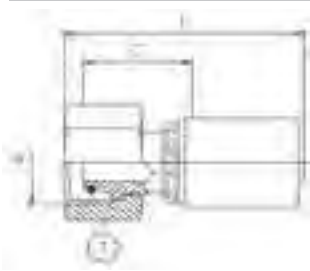


S=Skive  
NS=Non-Skive  
DG=Dual-Grip™

| Descriptive # | Product #  | SAP #    | Hose    |      | Thread<br>Size (A) | Hex-1<br>Wrench<br>Size | Cut-Off (C) |      | Length (L) |      | Skive<br>Type | SR1SN,<br>DR1SN,<br>SFS | SR2SN,<br>DR2SN,<br>LR2SN | SR16SC,<br>XR16SC,<br>ARC16SC,<br>DR16SC | SCP3,<br>XCP3,<br>ACP3 | XCP4 |
|---------------|------------|----------|---------|------|--------------------|-------------------------|-------------|------|------------|------|---------------|-------------------------|---------------------------|------------------------------------------|------------------------|------|
|               |            |          | Size ID |      |                    |                         | in.         | mm   | in.        | mm   |               |                         |                           |                                          |                        |      |
|               |            |          | in.     | mm   |                    | mm                      |             |      |            |      |               | in.                     | mm                        | in.                                      | mm                     |      |
| B2-DLM-0412   | 14255-0412 | 20241847 | 1/4     | 6.4  | 12x1.5             | 14                      | 0.84        | 21.4 | 1.82       | 46.3 | NS            | Y                       | Y                         | Y                                        | Y                      | Y    |
| B2-DLM-0414   | 14255-0414 | 20241848 | 1/4     | 6.4  | 14x1.5             | 14                      | 0.84        | 21.4 | 1.82       | 46.3 | NS            | Y                       | Y                         | Y                                        | Y                      | Y    |
| B2-DLM-0416   | 14255-0416 | 20241849 | 1/4     | 6.4  | 16x1.5             | 17                      | 0.92        | 23.4 | 1.90       | 48.3 | NS            | Y                       | Y                         | Y                                        | Y                      | Y    |
| B2-DLM-0616   | 14255-0616 | 20241850 | 3/8     | 9.5  | 16x1.5             | 17                      | 0.93        | 23.6 | 1.98       | 50.2 | NS            | Y                       | Y                         | Y                                        | Y                      | Y    |
| B2-DLM-0618   | 14255-0618 | 20241838 | 3/8     | 9.5  | 18x1.5             | 19                      | 0.96        | 24.4 | 2.01       | 51.1 | NS            | Y                       | Y                         | Y                                        | Y                      | Y    |
| B2-DLM-0622   | 14255-0622 | 20274103 | 3/8     | 9.5  | 22x1.5             | 22                      | 1.00        | 25.4 | 2.05       | 52.1 | NS            | Y                       | Y                         | Y                                        | Y                      | Y    |
| B2-DLM-0822   | 14255-0822 | 20241846 | 1/2     | 12.7 | 22x1.5             | 22                      | 1.02        | 26.0 | 2.27       | 57.6 | NS            | Y                       | Y                         | Y                                        | Y                      | Y    |
| B2-DLM-1026   | 14255-1026 | 20241851 | 5/8     | 15.9 | 26x1.5             | 27                      | 1.07        | 27.1 | 2.42       | 61.6 | NS            | Y                       | Y                         | Y                                        | Y                      | Y    |
| B2-DLM-1230   | 14255-1230 | 20241854 | 3/4     | 19.0 | 30x2.0             | 32                      | 1.24        | 31.5 | 2.79       | 70.9 | NS            | Y                       | Y                         | Y                                        | Y                      | Y    |
| B2-DLM-1636   | 14255-1636 | 20241839 | 1       | 25.4 | 36x2.0             | 36                      | 1.34        | 34.1 | 3.12       | 79.1 | NS            | Y                       | Y                         | Y                                        | Y                      |      |

## DIN 24° Heavy

Female | Swivel



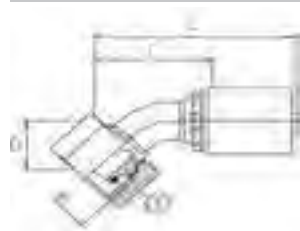
S=Skive  
NS=Non-Skive  
DG=Dual-Grip™

| Descriptive #             | Product #  | SAP #    | Hose Size ID |      | Thread Size (A) | Hex-1 Wrench Size | Cut-Off (C) |      | Length (L) |       | Skive Type | SR1SN, DR1SN, SFS | SR2SN, DR2SN, LR2SN | SR16SC, XR16SC, ARC16SC, DR16SC | SCP3, XCP3, ACP3 | XCP4 |
|---------------------------|------------|----------|--------------|------|-----------------|-------------------|-------------|------|------------|-------|------------|-------------------|---------------------|---------------------------------|------------------|------|
|                           |            |          | in.          | mm   |                 |                   | in.         | mm   | in.        | mm    |            |                   |                     |                                 |                  |      |
| B2-DHFX-0416              | 14210-0416 | 20241801 | 1/4          | 6.4  | 16x1.5          | 19                | 1.20        | 30.5 | 2.18       | 55.4  | NS         | Y                 | Y                   | Y                               | Y                | Y    |
| B2-DHFX-0418              | 14210-0418 | 20241805 | 1/4          | 6.4  | 18x1.5          | 22                | 1.21        | 30.8 | 2.19       | 55.7  | NS         | Y                 | Y                   | Y                               | Y                | Y    |
| B2-DHFX-0618              | 14210-0618 | 20293217 | 3/8          | 9.5  | 18x1.5          | 22                | 1.23        | 31.3 | 2.28       | 57.9  | NS         | Y                 | Y                   | Y                               | Y                | Y    |
| B2-DHFX-0620              | 14210-0620 | 20241796 | 3/8          | 9.5  | 20x1.5          | 24                | 1.21        | 30.8 | 2.26       | 57.4  | NS         | Y                 | Y                   | Y                               | Y                | Y    |
| B2-DHFX-0622              | 14210-0622 | 20241803 | 3/8          | 9.5  | 22x1.5          | 27                | 1.42        | 36.2 | 2.47       | 62.8  | NS         | Y                 | Y                   | Y                               | Y                | Y    |
| B2-DHFX-0624              | 14210-0624 | 20790636 | 3/8          | 9.5  | 24x1.5          |                   |             |      |            |       | NS         | Y                 | Y                   | Y                               | Y                | Y    |
| B2-DHFX-0820              | 14210-0820 | 20441214 | 1/2          | 12.7 | 20x1.5          | 24                | 1.24        | 31.4 | 2.48       | 63.0  | NS         | Y                 | Y                   | Y                               | Y                | Y    |
| B2-DHFX-0824              | 14210-0824 | 20241815 | 1/2          | 12.7 | 24x1.5          | 30                | 1.44        | 36.5 | 2.68       | 68.2  | NS         | Y                 | Y                   | Y                               | Y                | Y    |
| B2-DHFX-1030              | 14210-1030 | 20241807 | 5/8          | 15.9 | 30x2.0          | 36                | 1.64        | 41.7 | 2.99       | 76.0  | NS         | Y                 | Y                   | Y                               | Y                | Y    |
| B2-DHFX-1230 <sup>T</sup> | 14210-1230 | 20241800 | 3/4          | 19.0 | 30x2.0          | 36                | 1.62        | 41.0 | 3.17       | 80.5  | NS         | Y                 | Y                   | Y                               | Y                | Y    |
| B2-DHFX-1236              | 14210-1236 | 20241799 | 3/4          | 19.0 | 36x2.0          | 46                | 1.89        | 47.9 | 3.44       | 87.4  | NS         | Y                 | Y                   | Y                               | Y                | Y    |
| B2-DHFX-1642              | 14210-1642 | 20241830 | 1            | 25.4 | 42x2.0          | 50                | 1.88        | 47.9 | 3.66       | 92.9  | NS         | Y                 | Y                   | Y                               | Y                |      |
| S4-DHFX-2042              | 28210-2042 | 20241721 | 1 1/4        | 31.8 | 42x2.0          | 50                | 1.96        | 49.8 | 4.01       | 101.8 | NS         | Y                 | Y                   | Y                               |                  |      |
| S4-DHFX-2052              | 28210-2052 | 20241818 | 1 1/4        | 31.8 | 52x2.0          | 60                | 2.20        | 55.8 | 4.24       | 107.7 | NS         | Y                 | Y                   | Y                               |                  |      |

T: Thrust-Wire Nut (see "Fitting Identification" in Appendix for details)

## DIN 24° Heavy

Female | 45° Elbow | Swivel

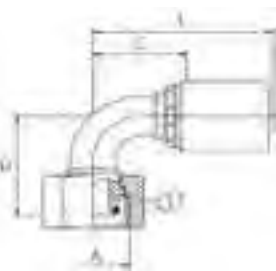


S=Skive  
NS=Non-Skive  
DG=Dual-Grip™

| Descriptive #  | Product #  | SAP #    | Hose Size ID |      | Thread Size (A) | Hex-1 Wrench Size | Drop (D) | Cut-Off (C) |      | Length (L) |      | Skive Type | SR1SN, DR1SN, SFS | SR2SN, DR2SN, LR2SN | SR16SC, XR16SC, ARC16SC, DR16SC | SCP3, XCP3, ACP3 | XCP4 |
|----------------|------------|----------|--------------|------|-----------------|-------------------|----------|-------------|------|------------|------|------------|-------------------|---------------------|---------------------------------|------------------|------|
|                |            |          | in.          | mm   |                 |                   |          | in.         | mm   | in.        | mm   |            |                   |                     |                                 |                  |      |
| B2-DHFX45-0416 | 14215-0416 | 20441303 | 1/4          | 6.4  | 16x1.5          | 19                | 0.63     | 16.0        | 1.93 | 49.0       | 2.91 | 73.9       | NS                | Y                   | Y                               | Y                | Y    |
| B2-DHFX45-0418 | 14215-0418 | 20241817 | 1/4          | 6.4  | 18x1.5          | 22                | 0.75     | 19.1        | 1.69 | 42.9       | 2.67 | 67.8       | NS                | Y                   | Y                               | Y                | Y    |
| B2-DHFX45-0620 | 14215-0620 | 20241821 | 3/8          | 9.5  | 20x1.5          | 24                | 0.79     | 20.1        | 2.01 | 51.1       | 3.06 | 77.7       | NS                | Y                   | Y                               | Y                | Y    |
| B2-DHFX45-0622 | 14215-0622 | 20241822 | 3/8          | 9.5  | 22x1.5          | 27                | 0.83     | 21.1        | 2.09 | 53.1       | 3.14 | 79.7       | NS                | Y                   | Y                               | Y                | Y    |
| B2-DHFX45-0624 | 14215-0624 | 20790638 | 3/8          | 9.5  | 24x1.5          |                   | 0.85     | 21.6        | 2.17 | 55.2       | 3.22 | 81.9       | NS                | Y                   | Y                               | Y                | Y    |
| B2-DHFX45-0824 | 14215-0824 | 20241819 | 1/2          | 12.7 | 24x1.5          | 30                | 0.85     | 21.6        | 2.20 | 55.9       | 3.45 | 87.6       | NS                | Y                   | Y                               | Y                | Y    |
| B2-DHFX45-1030 | 14215-1030 | 20241823 | 5/8          | 15.9 | 30x2.0          | 36                | 1.18     | 30.0        | 2.60 | 66.0       | 3.96 | 100.5      | NS                | Y                   | Y                               | Y                | Y    |
| B2-DHFX45-1236 | 14215-1236 | 20241820 | 3/4          | 19.0 | 36x2.0          | 46                | 1.30     | 33.0        | 2.72 | 69.1       | 4.27 | 108.5      | NS                | Y                   | Y                               | Y                | Y    |
| B2-DHFX45-1642 | 14215-1642 | 20241828 | 1            | 25.4 | 42x2.0          | 50                | 1.59     | 40.4        | 4.33 | 110.0      | 6.11 | 155.1      | NS                | Y                   | Y                               | Y                |      |

DIN 24° Heavy

Female | 90° Elbow | Swivel

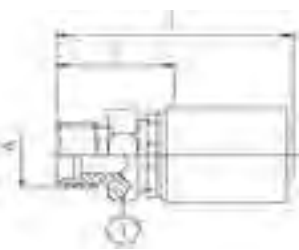


S=Skive  
NS=Non-Skive  
DG=Dual-Grip™

| Descriptive #    | Product #  | SAP #    | Hose<br>Size ID |      | Thread<br>Size<br>(A) | Hex-1<br>Wrench<br>Size | Drop (D) |      | Cut-Off (C) |      | Length (L) |       | Skive<br>Type | SR1SN, | SR2SN, | SR16SC,  | SCP3, | XCP4 |
|------------------|------------|----------|-----------------|------|-----------------------|-------------------------|----------|------|-------------|------|------------|-------|---------------|--------|--------|----------|-------|------|
|                  |            |          |                 |      |                       |                         |          |      |             |      |            |       |               | DR1SN, | DR2SN, | ARC16SC, | XCP3, |      |
|                  |            |          | in.             | mm   | mm                    | in.                     | mm       | in.  | mm          | in.  | mm         | in.   | mm            | NS     | Y      | Y        | Y     | Y    |
| B2-DHFX90-0416   | 14220-0416 | 20477376 | 1/4             | 6.4  | 16x1.5                | 19                      | 1.30     | 33.0 | 1.26        | 32.0 | 2.24       | 56.9  | NS            | Y      | Y      | Y        | Y     | Y    |
| B2-DHFX90-0418   | 14220-0418 | 20241829 | 1/4             | 6.4  | 18x1.5                | 22                      | 1.34     | 34.0 | 1.06        | 26.9 | 2.04       | 51.8  | NS            | Y      | Y      | Y        | Y     | Y    |
| B2-DHFX90-0618   | 14220-0618 | 20441215 | 3/8             | 9.5  | 18x1.5                | 22                      | 1.34     | 34.0 | 1.18        | 30.0 | 2.23       | 56.6  | NS            | Y      | Y      | Y        | Y     | Y    |
| B2-DHFX90-0620   | 14220-0620 | 20241797 | 3/8             | 9.5  | 20x1.5                | 24                      | 1.52     | 38.6 | 1.34        | 34.0 | 2.39       | 60.7  | NS            | Y      | Y      | Y        | Y     | Y    |
| B2-DHFX90-0622   | 14220-0622 | 20241835 | 3/8             | 9.5  | 22x1.5                | 27                      | 1.59     | 40.4 | 1.34        | 34.0 | 2.39       | 60.7  | NS            | Y      | Y      | Y        | Y     | Y    |
| B2-DHFX90-0624   | 14220-0624 | 20790639 | 3/8             | 9.5  | 24x1.5                |                         |          |      |             |      |            |       | NS            | Y      | Y      | Y        | Y     | Y    |
| B2-DHFX90-0824   | 14220-0824 | 20241825 | 1/2             | 12.7 | 24x1.5                | 30                      | 1.63     | 41.4 | 1.57        | 39.9 | 2.82       | 71.6  | NS            | Y      | Y      | Y        | Y     | Y    |
| B2-DHFX90XL-0824 | 14224-0824 | 20790664 | 1/2             | 12.7 | 24x1.5                |                         |          |      |             |      |            |       | NS            | Y      | Y      | Y        | Y     | Y    |
| B2-DHFX90-1030   | 14220-1030 | 20241832 | 5/8             | 15.9 | 30x2.0                | 36                      | 2.17     | 55.1 | 1.97        | 50.0 | 3.33       | 84.5  | NS            | Y      | Y      | Y        | Y     | Y    |
| B2-DHFX90-1236   | 14220-1236 | 20241836 | 3/4             | 19.0 | 36x2.0                | 46                      | 2.34     | 59.4 | 2.01        | 51.1 | 3.56       | 90.5  | NS            | Y      | Y      | Y        | Y     | Y    |
| B2-DHFX90-1642   | 14220-1642 | 20241824 | 1               | 25.4 | 42x2.0                | 50                      | 3.11     | 79.0 | 2.99        | 75.9 | 4.77       | 121.0 | NS            | Y      | Y      | Y        | Y     |      |
| S4-DHFX90-2052   | 28220-2052 | 20265706 | 1 1/4           | 31.8 | 52x2.0                | 60                      | 3.62     | 91.9 | 3.70        | 94.0 | 5.75       | 145.9 | NS            | Y      | Y      | Y        |       |      |

DIN 24° Heavy

Male

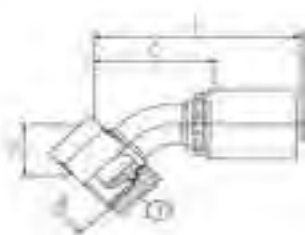


S=Skive  
NS=Non-Skive  
DG=Dual-Grip™

| Descriptive # | Product #  | SAP #    | Hose    |      | Thread<br>Size (A) | Hex-1<br>Wrench<br>Size | Cut-Off (C) |      | Length (L) |      | Skive<br>Type | SR1SN,<br>DR1SN,<br>SFS | SR2SN,<br>DR2SN,<br>LR2SN | SR16SC,<br>XR16SC,<br>ARC16SC,<br>DR16SC | SCP3,<br>XCP3,<br>ACP3 | XCP4 |  |
|---------------|------------|----------|---------|------|--------------------|-------------------------|-------------|------|------------|------|---------------|-------------------------|---------------------------|------------------------------------------|------------------------|------|--|
|               |            |          | Size ID |      |                    |                         | in.         | mm   | in.        | mm   |               |                         |                           |                                          |                        |      |  |
|               |            |          | in.     | mm   |                    |                         |             |      |            |      |               |                         |                           |                                          |                        |      |  |
| B2-DHM-0416   | 14225-0416 | 20241810 | 1/4     | 6.4  | 16x1.5             | 17                      | 0.95        | 24.2 | 1.93       | 49.1 | NS            | Y                       | Y                         | Y                                        | Y                      | Y    |  |
| B2-DHM-0418   | 14225-0418 | 20241811 | 1/4     | 6.4  | 18x1.5             | 19                      | 0.99        | 25.2 | 1.97       | 50.1 | NS            | Y                       | Y                         | Y                                        | Y                      | Y    |  |
| B2-DHM-0620   | 14225-0620 | 20241813 | 3/8     | 9.5  | 20x1.5             | 22                      | 1.00        | 25.4 | 2.05       | 52.1 | NS            | Y                       | Y                         | Y                                        | Y                      | Y    |  |
| B2-DHM-0622   | 14225-0622 | 20241804 | 3/8     | 9.5  | 22x1.5             | 22                      | 1.08        | 27.4 | 2.13       | 54.1 | NS            | Y                       | Y                         | Y                                        | Y                      | Y    |  |
| B2-DHM-0824   | 14225-0824 | 20241809 | 1/2     | 12.7 | 24x1.5             | 24                      | 1.14        | 29.0 | 2.39       | 60.7 | NS            | Y                       | Y                         | Y                                        | Y                      | Y    |  |
| B2-DHM-1030   | 14225-1030 | 20241814 | 5/8     | 15.9 | 30x2.0             | 32                      | 1.31        | 33.1 | 2.66       | 67.6 | NS            | Y                       | Y                         | Y                                        | Y                      | Y    |  |
| B2-DHM-1230   | 14225-1230 | 20241812 | 3/4     | 19.0 | 30x2.0             | 32                      | 1.33        | 33.7 | 2.88       | 73.1 | NS            | Y                       | Y                         | Y                                        | Y                      | Y    |  |
| B2-DHM-1236   | 14225-1236 | 20241816 | 3/4     | 19.0 | 36x2.0             | 36                      | 1.48        | 37.7 | 3.04       | 77.1 | NS            | Y                       | Y                         | Y                                        | Y                      | Y    |  |
| B2-DHM-1642   | 14225-1642 | 20241808 | 1       | 25.4 | 42x2.0             | 46                      | 1.66        | 42.1 | 3.43       | 87.2 | NS            | Y                       | Y                         | Y                                        | Y                      |      |  |

## DIN 60°

Female | 45° Elbow | Swivel

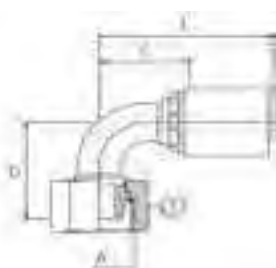


S=Skive  
NS=Non-Skive  
DG=Dual-Grip™

| Descriptive #  | Product #  | SAP #    | Hose Size ID |      | Thread Size (A) | Hex-1 Wrench Size | Drop (D) |      | Cut-Off (C) |      | Length (L) |      | Skive Type | SR1SN, DR1SN, SFS | SR2SN, DR2SN, LR2SN | SR16SC, XR16SC, ARC16SC, DR16SC | SCP3, XCP3, ACP3 | XCP4 |
|----------------|------------|----------|--------------|------|-----------------|-------------------|----------|------|-------------|------|------------|------|------------|-------------------|---------------------|---------------------------------|------------------|------|
|                |            |          | in.          | mm   |                 |                   | in.      | mm   | in.         | mm   | in.        | mm   |            |                   |                     |                                 |                  |      |
| B2-DNFX45-0414 | 14275-0414 | 20241882 | 1/4          | 6.4  | 14x1.5          | 17                | 0.63     | 16.0 | 1.38        | 35.1 | 2.36       | 59.9 | NS         | Y                 | Y                   | Y                               | Y                | Y    |
| B2-DNFX45-0416 | 14275-0416 | 20241881 | 1/4          | 6.4  | 16x1.5          | 19                | 0.67     | 17.0 | 1.42        | 36.1 | 2.40       | 61.0 | NS         | Y                 | Y                   | Y                               | Y                | Y    |
| B2-DNFX45-0618 | 14275-0618 | 20241873 | 3/8          | 9.5  | 18x1.5          | 22                | 0.77     | 19.6 | 1.69        | 42.9 | 2.74       | 69.6 | NS         | Y                 | Y                   | Y                               | Y                | Y    |
| B2-DNFX45-0822 | 14275-0822 | 20241879 | 1/2          | 12.7 | 22x1.5          | 27                | 0.79     | 20.1 | 2.17        | 55.1 | 3.42       | 86.8 | NS         | Y                 | Y                   | Y                               | Y                | Y    |
| B2-DNFX45-1026 | 14275-1026 | 20241880 | 5/8          | 15.9 | 26x1.5          | 32                | 1.02     | 25.9 | 2.44        | 62.0 | 3.80       | 96.4 | NS         | Y                 | Y                   | Y                               | Y                | Y    |

## DIN 60°

Female | 90° Elbow | Swivel

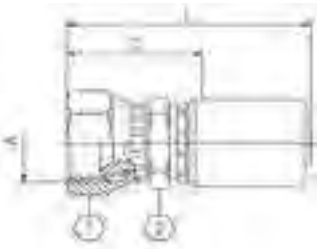


S=Skive  
NS=Non-Skive  
DG=Dual-Grip™

| Descriptive #  | Product #  | SAP #    | Hose Size ID |      | Thread Size (A) | Hex-1 Wrench Size | Drop (D) |      | Cut-Off (C) |      | Length (L) |      | Skive Type | SR1SN, DR1SN, SFS | SR2SN, DR2SN, LR2SN | SR16SC, XR16SC, ARC16SC, DR16SC | SCP3, XCP3, ACP3 | XCP4 |
|----------------|------------|----------|--------------|------|-----------------|-------------------|----------|------|-------------|------|------------|------|------------|-------------------|---------------------|---------------------------------|------------------|------|
|                |            |          | in.          | mm   |                 |                   | in.      | mm   | in.         | mm   | in.        | mm   |            |                   |                     |                                 |                  |      |
| B2-DNFX90-0414 | 14280-0414 | 20241878 | 1/4          | 6.4  | 14x1.5          | 17                | 1.28     | 32.5 | 1.18        | 30.0 | 2.16       | 54.9 | NS         | Y                 | Y                   | Y                               | Y                | Y    |
| B2-DNFX90-0416 | 14280-0416 | 20241877 | 1/4          | 6.4  | 16x1.5          | 19                | 1.28     | 32.5 | 1.10        | 27.9 | 2.08       | 52.8 | NS         | Y                 | Y                   | Y                               | Y                | Y    |
| B2-DNFX90-0616 | 14280-0616 | 20241876 | 3/8          | 9.5  | 16x1.5          | 19                | 1.26     | 32.0 | 1.18        | 30.0 | 2.23       | 56.6 | NS         | Y                 | Y                   | Y                               | Y                | Y    |
| B2-DNFX90-0618 | 14280-0618 | 20241875 | 3/8          | 9.5  | 18x1.5          | 22                | 1.46     | 37.1 | 1.30        | 33.0 | 2.44       | 62.0 | NS         | Y                 | Y                   | Y                               | Y                | Y    |
| B2-DNFX90-0822 | 14280-0822 | 20241883 | 1/2          | 12.7 | 22x1.5          | 27                | 1.57     | 39.9 | 1.57        | 39.9 | 2.82       | 71.6 | NS         | Y                 | Y                   | Y                               | Y                | Y    |
| B2-DNFX90-1026 | 14280-1026 | 20241874 | 5/8          | 15.9 | 26x1.5          | 32                | 1.85     | 47.0 | 2.05        | 52.1 | 3.41       | 86.5 | NS         | Y                 | Y                   | Y                               | Y                | Y    |

# Japanese Komatsu® 30° Flare with Metric Threads

Female | Swivel

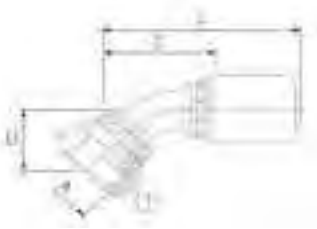


S=Skive  
NS=Non-Skive  
DG=Dual-Grip™

| Descriptive # | Product #  | SAP #    | Hose Size ID |      | Thread Size (A) | Hex-1 Wrench Size | Hex-2 Wrench Size | Cut-Off (C) |      | Length (L) |       | Skive Type | SR1SN, DR1SN, SFS | SR2SN, DR2SN, LR2SN | SR16SC, XR16SC, ARC16SC, DR16SC | SCP3, XCP3, ACP3 | XCP4 |
|---------------|------------|----------|--------------|------|-----------------|-------------------|-------------------|-------------|------|------------|-------|------------|-------------------|---------------------|---------------------------------|------------------|------|
|               |            |          | in.          | mm   |                 | mm                | mm                | in.         | mm   | in.        | mm    |            |                   |                     |                                 |                  |      |
| B2-KMFX-0414  | 14545-0414 | 20241888 | 1/4          | 6.4  | 14X1.5          | 19                | 17                | 1.22        | 30.9 | 2.20       | 55.8  | NS         | Y                 | Y                   | Y                               | Y                | Y    |
| B2-KMFX-0618  | 14545-0618 | 20241894 | 3/8          | 9.5  | 18X1.5          | 22                | 19                | 1.26        | 32.1 | 2.31       | 58.7  | NS         | Y                 | Y                   | Y                               | Y                | Y    |
| B2-KMFX-0822  | 14545-0822 | 20241891 | 1/2          | 12.7 | 22X1.5          | 27                | 22                | 1.38        | 35.2 | 2.63       | 66.8  | NS         | Y                 | Y                   | Y                               | Y                | Y    |
| B2-KMFX-1024  | 14545-1024 | 20241886 | 5/8          | 15.9 | 24X1.5          | 32                | 30                | 1.66        | 42.2 | 3.02       | 76.6  | NS         | Y                 | Y                   | Y                               | Y                | Y    |
| B2-KMFX-1230  | 14545-1230 | 20241884 | 3/4          | 19.0 | 30X1.5          | 36                | 30                | 1.84        | 46.7 | 3.39       | 86.1  | NS         | Y                 | Y                   | Y                               | Y                | Y    |
| B2-KMFX-1633  | 14545-1633 | 20241893 | 1            | 25.4 | 33X1.5          | 41                | 36                | 2.24        | 56.9 | 4.02       | 102.0 | NS         | Y                 | Y                   | Y                               | Y                |      |
| S4-KMFX-2036  | 28545-2036 | 20241889 | 1 1/4        | 31.8 | 36X1.5          | 46                | 46                | 2.50        | 63.6 | 4.55       | 115.5 | NS         | Y                 | Y                   | Y                               |                  |      |
| S4-KMFX-2442  | 28545-2442 | 20241890 | 1 1/2        | 38.1 | 42X1.5          | 55                | 55                | 2.63        | 66.9 | 4.96       | 126.0 | NS         | Y                 | Y                   |                                 |                  |      |

# Japanese Komatsu® 30° Flare with Metric Threads

Female | 45° Elbow | Swivel



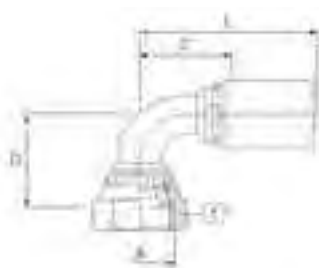
S=Skive  
NS=Non-Skive  
DG=Dual-Grip™

| Descriptive #  | Product #  | SAP #    | Hose Size ID |      | Thread Size (A) | Hex-1 Wrench Size | Drop (D) | Cut-Off (C) |      | Length (L) |      | Skive Type | SR1SN, DR1SN, SFS | SR2SN, DR2SN, LR2SN | SR16SC, XR16SC, ARC16SC, DR16SC |   |  | SCP3, XCP3, ACP3 |   | XCP4 |
|----------------|------------|----------|--------------|------|-----------------|-------------------|----------|-------------|------|------------|------|------------|-------------------|---------------------|---------------------------------|---|--|------------------|---|------|
|                |            |          |              |      |                 |                   |          |             |      |            |      |            |                   |                     |                                 |   |  |                  |   |      |
|                |            |          | in.          | mm   | mm              | in.               | mm       | in.         | mm   | in.        | mm   |            |                   |                     |                                 |   |  |                  |   |      |
| B2-KMFX45-0414 | 14548-0414 | 20293383 | 1/4          | 6.4  | 14X1.5          | 19                | 0.61     | 15.5        | 1.50 | 38.1       | 2.48 | 63.0       | NS                | Y                   | Y                               | Y |  | Y                | Y |      |
| B2-KMFX45-0618 | 14548-0618 | 20293384 | 3/8          | 9.5  | 18X1.5          | 22                | 0.71     | 18.0        | 1.73 | 43.9       | 2.78 | 70.6       | NS                | Y                   | Y                               | Y |  | Y                | Y |      |
| B2-KMFX45-0822 | 14548-0822 | 20293385 | 1/2          | 12.7 | 22X1.5          |                   | 1.16     | 29.5        | 2.20 | 55.9       | 3.45 | 87.6       | NS                | Y                   | Y                               | Y |  | Y                | Y |      |
| B2-KMFX45-1024 | 14548-1024 | 20293386 | 5/8          | 15.9 | 24X1.5          | 32                | 1.32     | 33.5        | 2.27 | 57.7       | 4.08 | 103.6      | NS                | Y                   | Y                               | Y |  | Y                | Y |      |
| B2-KMFX45-1230 | 14548-1230 | 20293387 | 3/4          | 19.0 | 30X1.5          | 36                | 1.67     | 42.4        | 3.11 | 79.0       | 4.66 | 118.4      | NS                | Y                   | Y                               | Y |  | Y                | Y |      |
| B2-KMFX45-1633 | 14548-1633 | 20293388 | 1            | 25.4 | 33X1.5          | 41                | 2.52     | 64.0        | 4.69 | 119.1      | 6.47 | 164.2      | NS                | Y                   | Y                               | Y |  | Y                |   |      |



# Japanese Komatsu® 30° Flare with Metric Threads

Female | 90° Elbow | Swivel

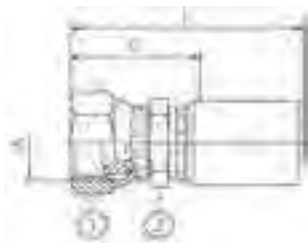


S=Skive  
NS=Non-Skive  
DG=Dual-Grip™

| Descriptive #  | Product #  | SAP #    | Hose Size ID |      | Thread Size (A) | Hex-1 Wrench Size | Drop (D) |       | Cut-Off (C) |      | Length (L) |       | Skive Type | SR1SN, DR1SN, SFS | SR2SN, DR2SN, LR2SN | SR16SC, XR16SC, ARC16SC, DR16SC | SCP3, XCP3, ACP3 | XCP4 |
|----------------|------------|----------|--------------|------|-----------------|-------------------|----------|-------|-------------|------|------------|-------|------------|-------------------|---------------------|---------------------------------|------------------|------|
|                |            |          | in.          | mm   |                 |                   | in.      | mm    | in.         | mm   | in.        | mm    |            |                   |                     |                                 |                  |      |
| B2-KMFX90-0414 | 14550-0414 | 20293389 | 1/4          | 6.4  | 14X1.5          | 19                | 1.16     | 29.5  | 1.30        | 33.0 | 2.28       | 57.9  | NS         | Y                 | Y                   | Y                               | Y                | Y    |
| B2-KMFX90-0822 | 14550-0822 | 20293391 | 1/2          | 12.7 | 22X1.5          | 27                | 2.09     | 53.1  | 1.74        | 44.1 | 2.98       | 75.8  | NS         | Y                 | Y                   | Y                               | Y                | Y    |
| B2-KMFX90-1024 | 14550-1024 | 20293392 | 5/8          | 15.9 | 24X1.5          | 32                | 2.44     | 62.0  | 1.97        | 50.0 | 3.33       | 84.5  | NS         | Y                 | Y                   | Y                               | Y                | Y    |
| B2-KMFX90-1230 | 14550-1230 | 20293393 | 3/4          | 19.0 | 30X1.5          | 36                | 2.99     | 75.9  | 2.05        | 52.1 | 3.60       | 91.5  | NS         | Y                 | Y                   | Y                               | Y                | Y    |
| B2-KMFX90-1633 | 14550-1633 | 20293394 | 1            | 25.4 | 33X1.5          | 41                | 4.49     | 114.0 | 3.11        | 79.0 | 4.89       | 124.1 | NS         | Y                 | Y                   | Y                               | Y                | Y    |

## JIS 30° (Parallel Pipe Threads)

Female | Swivel



S=Skive  
NS=Non-Skive  
DG=Dual-Grip™

| Descriptive #             | Product #  | SAP #    | Hose Size ID |      | Thread Size (A) | Hex-1 Wrench Size | Hex-2 Wrench Size | Cut-Off (C) |      | Length (L) |       | Skive Type | SR1SN, DR1SN, SFS | SR2SN, DR2SN, LR2SN | SR16SC, XR16SC, ARC16SC, DR16SC | SCP3, XCP3, ACP3 | XCP4 |
|---------------------------|------------|----------|--------------|------|-----------------|-------------------|-------------------|-------------|------|------------|-------|------------|-------------------|---------------------|---------------------------------|------------------|------|
|                           |            |          | in.          | mm   |                 |                   |                   | in.         | mm   | in.        | mm    |            |                   |                     |                                 |                  |      |
| B2-JSFX-0404              | 14520-0404 | 20242055 | 1/4          | 6.4  | 1/4-19          | 19                | 17                | 1.22        | 30.9 | 2.20       | 55.8  | NS         | Y                 | Y                   | Y                               | Y                | Y    |
| B2-JSFX-0606              | 14520-0606 | 20242058 | 3/8          | 9.5  | 3/8-19          | 22                | 19                | 1.26        | 32.1 | 2.31       | 58.7  | NS         | Y                 | Y                   | Y                               | Y                | Y    |
| B2-JSFX-0808              | 14520-0808 | 20242057 | 1/2          | 12.7 | 1/2-14          | 27                | 22                | 1.39        | 35.2 | 2.63       | 66.9  | NS         | Y                 | Y                   | Y                               | Y                | Y    |
| B2-JSFX-1012              | 14520-1012 | 20293229 | 5/8          | 15.9 | 3/4-14          | 36                | 30                | 1.56        | 39.7 | 2.92       | 74.1  | NS         | Y                 | Y                   | Y                               | Y                | Y    |
| B2-JSFX-1212              | 14520-1212 | 20242054 | 3/4          | 19.0 | 3/4-14          | 36                | 30                | 1.58        | 40.2 | 3.14       | 79.6  | NS         | Y                 | Y                   | Y                               | Y                | Y    |
| B2-JSFX-1616              | 14520-1616 | 20242052 | 1            | 25.4 | 1-11            | 41                | 36                | 1.87        | 47.5 | 3.65       | 92.6  | NS         | Y                 | Y                   | Y                               | Y                | Y    |
| S4-JSFX-2020 <sup>T</sup> | 28520-2020 | 20241722 | 1 1/4        | 31.8 | 1 1/4-11        | 50                | 46                | 2.16        | 54.9 | 4.21       | 106.9 | NS         | Y                 | Y                   | Y                               |                  |      |

C: Crimp Nut T: Thrust-Wire Nut (see "Fitting Identification" in Appendix for details)

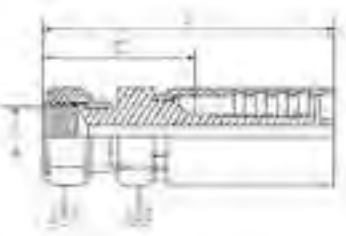
# How to Use the Fitting Tables

This section lists ALL fittings that are compatible with the following hoses:

| Hose Family | Hose Description                      |
|-------------|---------------------------------------|
| SR7         | SAE 100R7/EN 855 R7                   |
| TR7         | SAE 100R7 (Twin-Line)                 |
| NR7         | SAE 100R7 (Non-Conductive)            |
| BR7         | SAE 100R7 (Twin-Line, Non-Conductive) |
| SR8         | SAE 100R8/EN 855 R8                   |
| TR8         | SAE 100R8 (Twin-Line)                 |
| NR8         | SAE 100R8 (Non-Conductive)            |
| SR18        | SAE 100R18                            |

## Fitting Description

### Fitting Type



|                  |            |          |              |     |                 |                   |                   |             |      |            |      | Hose Family        |               |      |     |
|------------------|------------|----------|--------------|-----|-----------------|-------------------|-------------------|-------------|------|------------|------|--------------------|---------------|------|-----|
| Descriptive #    | Product #  | SAP #    | Hose Size ID |     | Thread Size (A) | Hex-1 Wrench Size | Hex-2 Wrench Size | Cut-Off (C) |      | Length (L) |      | SR7, TR7, NR7, BR7 | SR8, TR8, NR8 | SR18 |     |
|                  |            |          | in.          | mm  |                 |                   |                   | in.         | mm   | in.        | mm   |                    |               |      | in. |
| Ultra-Crimp, PN1 | 32400-0204 | 20243997 | 1/8          | 3.2 | 7/16-20         | 5/8               | 1/2               | 1.06        | 27.0 | 1.71       | 43.5 | Y                  |               | Y    |     |
| Ultra-Crimp, PN2 | 32400-0303 | 20243995 | 3/16         | 4.8 | 3/8-24          | 9/16              | 9/16              | 1.31        | 33.3 | 2.21       | 56.2 | Y                  |               |      |     |
| Ultra-Crimp, PN3 | 32400-0304 | 20243994 | 3/16         | 4.8 | 7/16-20         | 5/8               | 9/16              | 1.38        | 34.9 | 2.16       | 54.8 | Y                  |               |      |     |

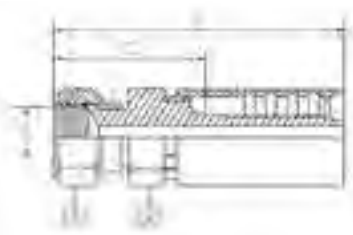
Choose fittings carefully, considering the working pressure of both hose and fitting. The maximum working pressure of the hose assembly is the lesser of the rated working pressure of the hose and the fitting. See page 313 for working pressure.

A “Y” in the hose compatibility columns indicates that the fitting is an **Ultra-Crimp™** style fitting and that it works for that particular hose.

A **blank space** in the hose compatibility columns indicates that the fitting **DOES NOT** work for that particular hose.

## JIC 37° Flare (SAE J514)

Female | Swivel

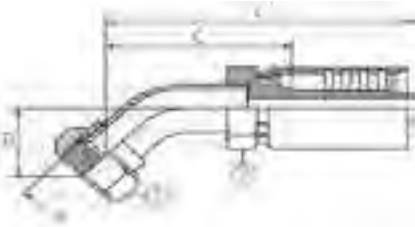


| Descriptive # | Product #   | SAP #    | Hose Size ID |      | Thread Size (A) | Hex-1 Wrench Size | Hex-2 Wrench Size | Cut-Off (C) |      | Length (L) |       | SR7, TR7, NR7, BR7 | SR8, TR8, NR8 | SR18 |
|---------------|-------------|----------|--------------|------|-----------------|-------------------|-------------------|-------------|------|------------|-------|--------------------|---------------|------|
|               |             |          | in.          | mm   |                 |                   |                   | in.         | mm   | in.        | mm    |                    |               |      |
| T7-JCFX-0204  | 32400-0204  | 20243997 | 1/8          | 3.2  | 7/16-20         | 5/8               | 1/2               | 1.06        | 27.0 | 1.71       | 43.5  | Y                  |               |      |
| T7-JCFX-0303  | 32400-0303  | 20243995 | 3/16         | 4.8  | 3/8-24          | 9/16              | 9/16              | 1.31        | 33.3 | 2.21       | 56.2  | Y                  |               |      |
| T7-JCFX-0304  | 32400-0304  | 20243994 | 3/16         | 4.8  | 7/16-20         | 5/8               | 9/16              | 1.38        | 34.9 | 2.16       | 54.8  | Y                  |               |      |
| T8-JCFX-0304  | 34400-0304  | 20243993 | 3/16         | 4.8  | 7/16-20         | 5/8               | 9/16              | 1.38        | 34.9 | 2.16       | 54.8  |                    | Y             |      |
| T7-JCFX-0305  | 32400-0305  | 20243996 | 3/16         | 4.8  | 1/2-20          | 3/4               | 9/16              | 1.38        | 34.9 | 2.16       | 54.8  | Y                  |               |      |
| T8-JCFX-0305  | 34400-0305  | 20243999 | 3/16         | 4.8  | 1/2-20          | 3/4               | 9/16              | 1.38        | 34.9 | 2.16       | 54.8  |                    | Y             |      |
| T7-JCFX-0404  | 32400-0404  | 20244000 | 1/4          | 6.4  | 7/16-20         | 5/8               | 5/8               | 1.44        | 36.5 | 2.53       | 64.3  | Y                  |               | Y    |
| T7-JCFX-0404S | 32400-0404S | 20298359 | 1/4          | 6.4  | 7/16-20         | 5/8               | 5/8               | 1.44        | 36.5 | 2.53       | 64.3  | Y                  |               | Y    |
| T8-JCFX-0404  | 34400-0404  | 20243991 | 1/4          | 6.4  | 7/16-20         | 5/8               | 5/8               | 1.44        | 36.5 | 2.53       | 64.3  |                    | Y             |      |
| T8-JCFX-0404S | 34400-0404S | 20435884 | 1/4          | 6.4  | 7/16-20         | 5/8               | 5/8               | 1.44        | 36.5 | 2.53       | 64.3  |                    | Y             |      |
| T7-JCFX-0405  | 32400-0405  | 20244002 | 1/4          | 6.4  | 1/2-20          | 3/4               | 5/8               | 1.44        | 36.5 | 2.53       | 64.3  | Y                  |               | Y    |
| T8-JCFX-0405  | 34400-0405  | 20244001 | 1/4          | 6.4  | 1/2-20          | 3/4               | 5/8               | 1.44        | 36.5 | 2.53       | 64.3  |                    | Y             |      |
| T7-JCFX-0406  | 32400-0406  | 20244007 | 1/4          | 6.4  | 9/16-18         | 3/4               | 5/8               | 1.44        | 36.5 | 2.53       | 64.3  | Y                  |               | Y    |
| T8-JCFX-0406  | 34400-0406  | 20243998 | 1/4          | 6.4  | 9/16-18         | 3/4               | 5/8               | 1.44        | 36.5 | 2.53       | 64.3  |                    | Y             |      |
| T7-JCFX-0505  | 32400-0505  | 20244010 | 5/16         | 7.9  | 1/2-20          | 3/4               | 5/8               | 1.25        | 31.8 | 2.53       | 64.3  | Y                  |               | Y    |
| T7-JCFX-0506  | 32400-0506  | 20244009 | 5/16         | 7.9  | 9/16-18         | 3/4               | 5/8               | 1.38        | 34.9 | 2.53       | 64.3  | Y                  |               | Y    |
| T7-JCFX-0604  | 32400-0604  | 20244015 | 3/8          | 9.5  | 7/16-20         | 5/8               | 13/16             | 1.25        | 31.8 | 2.69       | 68.3  | Y                  |               | Y    |
| T8-JCFX-0604  | 34400-0604  | 20244014 | 3/8          | 9.5  | 7/16-20         | 5/8               | 13/16             | 1.25        | 31.8 | 2.69       | 68.3  |                    | Y             |      |
| T7-JCFX-0606  | 32400-0606  | 20244011 | 3/8          | 9.5  | 9/16-18         | 3/4               | 3/4               | 1.50        | 38.1 | 2.81       | 71.5  | Y                  |               | Y    |
| T8-JCFX-0606  | 34400-0606  | 20244008 | 3/8          | 9.5  | 9/16-18         | 3/4               | 3/4               | 1.38        | 34.9 | 2.81       | 71.5  |                    | Y             |      |
| T7-JCFX-0608  | 32400-0608  | 20244017 | 3/8          | 9.5  | 3/4-16          | 15/16             | 3/4               | 1.38        | 34.9 | 2.81       | 71.5  | Y                  |               | Y    |
| T8-JCFX-0608  | 34400-0608  | 20244018 | 3/8          | 9.5  | 3/4-16          | 15/16             | 3/4               | 1.38        | 34.9 | 2.81       | 71.5  |                    | Y             |      |
| T7-JCFX-0610  | 32400-0610  | 20244013 | 3/8          | 9.5  | 7/8-14          | 1 1/16            | 7/8               | 1.50        | 38.1 | 2.97       | 75.4  | Y                  |               | Y    |
| T8-JCFX-0610  | 34400-0610  | 20244012 | 3/8          | 9.5  | 7/8-14          | 1 1/16            | 7/8               | 1.50        | 38.1 | 2.97       | 75.4  |                    | Y             |      |
| T7-JCFX-0808  | 32400-0808  | 20243932 | 1/2          | 12.7 | 3/4-16          | 15/16             | 7/8               | 1.62        | 41.3 | 3.16       | 80.2  | Y                  |               | Y    |
| T7-JCFX-0808S | 32400-0808S | 20296980 | 1/2          | 12.7 | 3/4-16          | 15/16             | 7/8               | 1.62        | 41.3 | 3.16       | 80.2  | Y                  |               | Y    |
| T8-JCFX-0808  | 34400-0808  | 20244006 | 1/2          | 12.7 | 3/4-16          | 15/16             | 7/8               | 1.62        | 41.3 | 3.16       | 80.2  |                    | Y             |      |
| T7-JCFX-0810  | 32400-0810  | 20244005 | 1/2          | 12.7 | 7/8-14          | 1 1/16            | 7/8               | 1.62        | 41.3 | 3.16       | 80.2  | Y                  |               | Y    |
| T8-JCFX-0810  | 34400-0810  | 20244004 | 1/2          | 12.7 | 7/8-14          | 1 1/16            | 7/8               | 1.62        | 41.3 | 3.16       | 80.2  |                    | Y             |      |
| T7-JCFX-0812  | 32400-0812  | 20243934 | 1/2          | 12.7 | 1 1/16-12       | 1 1/4             | 1 1/8             | 1.62        | 41.3 | 3.25       | 82.6  | Y                  |               | Y    |
| T8-JCFX-0812  | 34400-0812  | 20243935 | 1/2          | 12.7 | 1 1/16-12       | 1 1/4             | 1 1/8             | 1.62        | 41.3 | 3.25       | 82.6  |                    | Y             |      |
| T7-JCFX-1210  | 32400-1210  | 20244016 | 3/4          | 19.0 | 7/8-14          | 1 1/16            | 1 1/8             | 1.62        | 41.3 | 3.44       | 87.3  | Y                  |               |      |
| T7-JCFX-1212  | 32400-1212  | 20243992 | 3/4          | 19.0 | 1 1/16-12       | 1 1/4             | 1 1/8             | 1.62        | 41.3 | 3.44       | 87.3  | Y                  |               |      |
| T7-JCFX-1216  | 32400-1216  | 20244019 | 3/4          | 19.0 | 1 5/16-12       | 1 1/2             | 1 1/8             | 1.69        | 42.9 | 3.50       | 88.9  | Y                  |               |      |
| T7-JCFX-1616  | 32400-1616  | 20243933 | 1            | 25.4 | 1 5/16-12       | 1 1/2             | 1 1/8             | 1.69        | 42.9 | 4.06       | 103.2 | Y                  |               |      |

S: Stainless Steel

JIC 37° Flare (SAE J514)

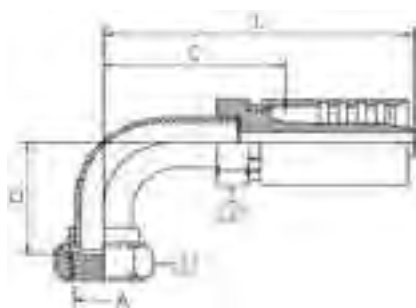
Female | 45° Elbow | Swivel



| Descriptive #  | Product #  | SAP #    | Hose Size ID |      | Thread Size (A) | Hex-1 Wrench Size | Hex-2 Wrench Size | Drop (D) |      | Cut-Off (C) |      | Length (L) |       | SR7, TR7, NR7, BR7 | SR8, TR8, NR8 | SR18 |
|----------------|------------|----------|--------------|------|-----------------|-------------------|-------------------|----------|------|-------------|------|------------|-------|--------------------|---------------|------|
|                |            |          | in.          | mm   |                 |                   |                   | in.      | mm   | in.         | mm   | in.        | mm    |                    |               |      |
| T7-JCFX45-0404 | 32420-0404 | 20243938 | 1/4          | 6.4  | 7/16-20         | 9/16              | 5/8               | 0.47     | 11.9 | 1.50        | 38.1 | 2.55       | 64.9  | Y                  |               | Y    |
| T8-JCFX45-0404 | 34420-0404 | 20243939 | 1/4          | 6.4  | 7/16-20         | 9/16              | 5/8               | 0.47     | 11.9 | 1.50        | 38.1 | 2.55       | 64.9  |                    | Y             |      |
| T7-JCFX45-0405 | 32420-0405 | 20243942 | 1/4          | 6.4  | 1/2-20          | 5/8               | 5/8               | 0.53     | 13.4 | 1.62        | 41.3 | 2.73       | 69.4  | Y                  |               | Y    |
| T8-JCFX45-0405 | 34420-0405 | 20243950 | 1/4          | 6.4  | 1/2-20          | 5/8               | 5/8               | 0.53     | 13.4 | 1.56        | 39.7 | 2.64       | 67.2  |                    | Y             |      |
| T7-JCFX45-0406 | 32420-0406 | 20243940 | 1/4          | 6.4  | 9/16-18         | 11/16             | 5/8               | 0.39     | 9.9  | 1.94        | 49.2 | 3.04       | 77.3  | Y                  |               | Y    |
| T8-JCFX45-0406 | 34420-0406 | 20243941 | 1/4          | 6.4  | 9/16-18         | 11/16             | 5/8               | 0.59     | 14.9 | 1.69        | 42.9 | 2.73       | 69.3  |                    | Y             |      |
| T7-JCFX45-0506 | 32420-0506 | 20243965 | 5/16         | 7.9  | 9/16-18         | 11/16             | 5/8               | 0.39     | 9.9  | 1.94        | 49.2 | 3.11       | 79.0  | Y                  |               | Y    |
| T7-JCFX45-0606 | 32420-0606 | 20243936 | 3/8          | 9.5  | 9/16-18         | 11/16             | 3/4               | 0.39     | 9.9  | 1.94        | 49.2 | 3.30       | 83.8  | Y                  |               | Y    |
| T8-JCFX45-0606 | 34420-0606 | 20243945 | 3/8          | 9.5  | 9/16-18         | 11/16             | 3/4               | 0.39     | 9.9  | 1.94        | 49.2 | 3.30       | 83.8  |                    | Y             |      |
| T7-JCFX45-0608 | 32420-0608 | 20243943 | 3/8          | 9.5  | 3/4-16          | 7/8               | 3/4               | 0.55     | 14.0 | 2.25        | 57.2 | 3.54       | 89.9  | Y                  |               | Y    |
| T8-JCFX45-0608 | 34420-0608 | 20243944 | 3/8          | 9.5  | 3/4-16          | 7/8               | 3/4               | 0.55     | 14.0 | 2.25        | 57.2 | 3.54       | 89.9  |                    | Y             |      |
| T7-JCFX45-0808 | 32420-0808 | 20243949 | 1/2          | 12.7 | 3/4-16          | 7/8               | 7/8               | 0.71     | 18.1 | 1.62        | 41.3 | 3.28       | 83.4  | Y                  |               | Y    |
| T8-JCFX45-0808 | 34420-0808 | 20243947 | 1/2          | 12.7 | 3/4-16          | 7/8               | 7/8               | 0.71     | 18.1 | 1.62        | 41.3 | 3.28       | 83.4  |                    | Y             |      |
| T7-JCFX45-0810 | 32420-0810 | 20243951 | 1/2          | 12.7 | 7/8-14          | 1                 | 7/8               | 0.84     | 21.3 | 1.88        | 47.6 | 3.91       | 99.3  | Y                  |               | Y    |
| T8-JCFX45-0810 | 34420-0810 | 20243952 | 1/2          | 12.7 | 7/8-14          | 1                 | 7/8               | 0.63     | 16.0 | 2.25        | 57.2 | 3.91       | 99.3  |                    | Y             |      |
| T7-JCFX45-1212 | 32420-1212 | 20243946 | 3/4          | 19.0 | 1½-12           | 1¼                | 1½                | 0.63     | 16.0 | 2.25        | 57.2 | 4.33       | 110.0 | Y                  |               |      |
| T7-JCFX45-1616 | 32420-1616 | 20243948 | 1            | 25.4 | 1½-12           | 1½                | 1½                | 1.15     | 29.1 | 2.62        | 66.7 | 5.02       | 127.5 | Y                  |               |      |

## JIC 37° Flare (SAE J514)

Female | 90° Elbow | Swivel

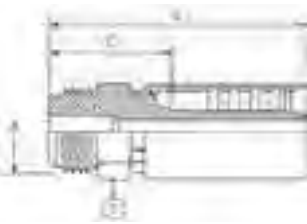


Elbow Type:  
LT=Long Tube  
ST=Short Tube

| Descriptive #   | Product #  | SAP #    | Hose Size ID |      | Thread Size (A) | Hex-1 Wrench Size | Hex-2 Wrench Size | Elbow Type | Drop (D) |       | Cut-Off (C) |      | Length (L) |       | SR7, TR7, NR7, BR7 | SR8, TR8, NR8 | SR18 |
|-----------------|------------|----------|--------------|------|-----------------|-------------------|-------------------|------------|----------|-------|-------------|------|------------|-------|--------------------|---------------|------|
|                 |            |          | in.          | mm   |                 | in.               | in.               |            | in.      | mm    | in.         | mm   | in.        | mm    |                    |               |      |
| T7-JCFX90-0404  | 32425-0404 | 20243919 | 1/4          | 6.4  | 7/16-20         | 9/16              | 5/8               |            | 0.68     | 17.3  | 1.69        | 42.9 | 2.76       | 70.0  | Y                  |               | Y    |
| T8-JCFX90-0404  | 34425-0404 | 20243931 | 1/4          | 6.4  | 7/16-20         | 9/16              | 5/8               |            | 0.68     | 17.3  | 1.69        | 42.9 | 2.76       | 70.0  |                    | Y             |      |
| T7-JCFX90L-0404 | 32440-0404 | 20243958 | 1/4          | 6.4  | 7/16-20         | 9/16              | 5/8               | LT         | 1.80     | 45.7  | 1.25        | 31.8 | 2.31       | 58.7  | Y                  |               | Y    |
| T8-JCFX90L-0404 | 34440-0404 | 20243957 | 1/4          | 6.4  | 7/16-20         | 9/16              | 5/8               | LT         | 1.80     | 45.7  | 1.25        | 31.8 | 2.31       | 58.7  |                    | Y             |      |
| T7-JCFX90-0405  | 32425-0405 | 20243929 | 1/4          | 6.4  | 1/2-20          | 5/8               | 5/8               |            | 1.00     | 25.4  | 1.31        | 33.3 | 2.38       | 60.3  | Y                  |               | Y    |
| T8-JCFX90-0405  | 34425-0405 | 20243930 | 1/4          | 6.4  | 1/2-20          | 5/8               | 5/8               |            | 1.00     | 25.4  | 1.31        | 33.3 | 2.38       | 60.3  |                    | Y             |      |
| T7-JCFX90L-0405 | 32440-0405 | 20243968 | 1/4          | 6.4  | 1/2-20          | 5/8               | 5/8               | LT         | 1.77     | 45.0  | 1.30        | 32.9 | 2.38       | 60.3  | Y                  |               | Y    |
| T8-JCFX90L-0405 | 34440-0405 | 20243969 | 1/4          | 6.4  | 1/2-20          | 5/8               | 5/8               | LT         | 1.77     | 45.0  | 1.31        | 33.3 | 2.38       | 60.3  |                    | Y             |      |
| T7-JCFX90-0406  | 32425-0406 | 20243927 | 1/4          | 6.4  | 9/16-18         | 11/16             | 5/8               |            | 1.12     | 28.6  | 1.94        | 49.2 | 3.25       | 82.6  | Y                  |               | Y    |
| T8-JCFX90-0406  | 34425-0406 | 20243916 | 1/4          | 6.4  | 9/16-18         | 11/16             | 5/8               |            | 1.12     | 28.6  | 1.31        | 33.3 | 2.41       | 61.1  |                    | Y             |      |
| T7-JCFX90L-0406 | 32440-0406 | 20243954 | 1/4          | 6.4  | 9/16-18         | 11/16             | 5/8               | LT         | 2.18     | 55.4  | 1.19        | 30.2 | 2.44       | 61.9  | Y                  |               | Y    |
| T8-JCFX90L-0406 | 34440-0406 | 20243955 | 1/4          | 6.4  | 9/16-18         | 11/16             | 5/8               | LT         | 2.18     | 55.4  | 1.19        | 30.2 | 2.44       | 61.9  |                    | Y             |      |
| T7-JCFX90-0505  | 32425-0505 | 20243922 | 5/16         | 7.9  | 1/2-20          | 5/8               | 5/8               |            | 1.00     | 25.4  | 1.12        | 28.6 | 2.38       | 60.3  | Y                  |               | Y    |
| T7-JCFX90-0506  | 32425-0506 | 20243937 | 5/16         | 7.9  | 9/16-18         | 11/16             | 5/8               |            | 0.85     | 21.6  | 1.88        | 47.6 | 3.06       | 77.7  | Y                  |               | Y    |
| T7-JCFX90L-0506 | 32440-0506 | 20243960 | 5/16         | 7.9  | 9/16-18         | 11/16             | 5/8               | LT         | 2.18     | 55.4  | 1.19        | 30.2 | 2.44       | 61.9  | Y                  |               | Y    |
| T7-JCFX90-0606  | 32425-0606 | 20243920 | 3/8          | 9.5  | 9/16-18         | 11/16             | 3/4               |            | 0.85     | 21.6  | 1.94        | 49.2 | 3.25       | 82.6  | Y                  |               | Y    |
| T8-JCFX90-0606  | 34425-0606 | 20243921 | 3/8          | 9.5  | 9/16-18         | 11/16             | 3/4               |            | 0.85     | 21.6  | 1.94        | 49.2 | 3.25       | 82.6  |                    | Y             |      |
| T7-JCFX90L-0606 | 32440-0606 | 20243953 | 3/8          | 9.5  | 9/16-18         | 11/16             | 3/4               | LT         | 2.18     | 55.4  | 1.94        | 49.2 | 3.24       | 82.3  | Y                  |               | Y    |
| T8-JCFX90L-0606 | 34440-0606 | 20243959 | 3/8          | 9.5  | 9/16-18         | 11/16             | 3/4               | LT         | 2.18     | 55.4  | 1.94        | 49.2 | 3.24       | 82.3  |                    | Y             |      |
| T7-JCFX90-0608  | 32425-0608 | 20243923 | 3/8          | 9.5  | 3/4-16          | 7/8               | 3/4               |            | 1.09     | 27.7  | 2.00        | 50.8 | 3.34       | 84.8  | Y                  |               | Y    |
| T8-JCFX90-0608  | 34425-0608 | 20243918 | 3/8          | 9.5  | 3/4-16          | 7/8               | 3/4               |            | 1.09     | 27.7  | 2.00        | 50.8 | 3.34       | 84.8  |                    | Y             |      |
| T7-JCFX90L-0608 | 32440-0608 | 20243956 | 3/8          | 9.5  | 3/4-16          | 7/8               | 3/4               | LT         | 2.43     | 61.7  | 1.31        | 33.3 | 2.75       | 69.9  | Y                  |               | Y    |
| T8-JCFX90L-0608 | 34440-0608 | 20243962 | 3/8          | 9.5  | 3/4-16          | 7/8               | 3/4               | LT         | 2.43     | 61.7  | 1.31        | 33.3 | 2.75       | 69.9  |                    | Y             |      |
| T7-JCFX90-0808  | 32425-0808 | 20243925 | 1/2          | 12.7 | 3/4-16          | 7/8               | 7/8               |            | 1.09     | 27.7  | 1.94        | 49.2 | 3.53       | 89.7  | Y                  |               | Y    |
| T8-JCFX90-0808  | 34425-0808 | 20243926 | 1/2          | 12.7 | 3/4-16          | 7/8               | 7/8               |            | 1.09     | 27.7  | 1.94        | 49.2 | 3.53       | 89.7  |                    | Y             |      |
| T7-JCFX90L-0808 | 32440-0808 | 20243970 | 1/2          | 12.7 | 3/4-16          | 7/8               | 7/8               | LT         | 2.43     | 61.7  | 1.31        | 33.3 | 2.94       | 74.6  | Y                  |               | Y    |
| T8-JCFX90L-0808 | 34440-0808 | 20243964 | 1/2          | 12.7 | 3/4-16          | 7/8               | 7/8               | LT         | 2.43     | 61.7  | 1.31        | 33.3 | 2.94       | 74.6  |                    | Y             |      |
| T7-JCFX90-0810  | 32425-0810 | 20243924 | 1/2          | 12.7 | 7/8-14          | 1                 | 7/8               |            | 1.23     | 31.2  | 2.19        | 55.6 | 3.74       | 95.0  | Y                  |               | Y    |
| T8-JCFX90-0810  | 34425-0810 | 20243928 | 1/2          | 12.7 | 7/8-14          | 1                 | 7/8               |            | 1.23     | 31.2  | 2.19        | 55.6 | 3.74       | 95.0  |                    | Y             |      |
| T7-JCFX90L-0810 | 32440-0810 | 20243966 | 1/2          | 12.7 | 7/8-14          | 1                 | 7/8               | LT         | 2.57     | 65.3  | 2.19        | 55.6 | 3.77       | 95.8  | Y                  |               | Y    |
| T8-JCFX90L-0810 | 34440-0810 | 20243967 | 1/2          | 12.7 | 7/8-14          | 1                 | 7/8               | LT         | 2.57     | 65.3  | 2.19        | 55.6 | 3.77       | 95.8  |                    | Y             |      |
| T7-JCFX90-1212  | 32425-1212 | 20243917 | 3/4          | 19.0 | 1 1/16-12       | 1 1/4             | 1 1/4             |            | 2.31     | 58.7  | 2.06        | 52.4 | 3.88       | 98.4  | Y                  |               |      |
| T7-JCFX90-1616  | 32425-1616 | 20243961 | 1            | 25.4 | 1 5/16-12       | 1 1/2             | 1 1/2             |            | 2.50     | 63.5  | 2.94        | 74.6 | 4.75       | 120.7 | Y                  |               |      |
| T7-JCFX90L-1616 | 32440-1616 | 20243963 | 1            | 25.4 | 1 5/16-12       | 1 1/2             | 1 1/2             | LT         | 4.33     | 110.0 | 2.31        | 58.7 | 4.69       | 119.1 | Y                  |               |      |

JIC 37° Flare (SAE J514)

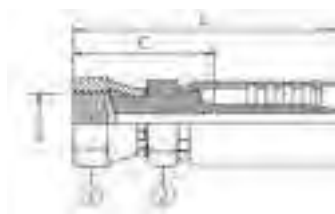
Male



| Descriptive # | Product #  | SAP #    | Hose Size ID |      | Thread Size (A) | Hex-1 Wrench Size | Cut-Off (C) |      | Length (L) |       | SR7, TR7, NR7, BR7 | SR8, TR8, NR8 | SR18 |
|---------------|------------|----------|--------------|------|-----------------|-------------------|-------------|------|------------|-------|--------------------|---------------|------|
|               |            |          | in.          | mm   |                 | in.               | in.         | mm   | in.        | mm    |                    |               |      |
| T7-JCM-0304   | 32450-0304 | 20243990 | 3/16         | 4.8  | 7/16-20         | 9/16              | 1.25        | 31.8 | 2.05       | 52.1  | Y                  |               |      |
| T8-JCM-0304   | 34450-0304 | 20243989 | 3/16         | 4.8  | 7/16-20         | 9/16              | 1.25        | 31.8 | 2.05       | 52.1  |                    | Y             |      |
| T7-JCM-0404   | 32450-0404 | 20243973 | 1/4          | 6.4  | 7/16-20         | 5/8               | 1.25        | 31.8 | 2.30       | 58.4  | Y                  |               | Y    |
| T8-JCM-0404   | 34450-0404 | 20243972 | 1/4          | 6.4  | 7/16-20         | 5/8               | 1.25        | 31.8 | 2.30       | 58.4  |                    | Y             |      |
| T7-JCM-0405   | 32450-0405 | 20243975 | 1/4          | 6.4  | 1/2-20          | 5/8               | 1.25        | 31.8 | 2.30       | 58.4  | Y                  |               | Y    |
| T8-JCM-0405   | 34450-0405 | 20243974 | 1/4          | 6.4  | 1/2-20          | 5/8               | 1.25        | 31.8 | 2.30       | 58.4  |                    | Y             |      |
| T7-JCM-0406   | 32450-0406 | 20243985 | 1/4          | 6.4  | 9/16-18         | 3/4               | 1.32        | 33.5 | 2.40       | 61.0  | Y                  |               | Y    |
| T8-JCM-0406   | 34450-0406 | 20243978 | 1/4          | 6.4  | 9/16-18         | 3/4               | 1.31        | 33.3 | 2.40       | 61.0  |                    | Y             |      |
| T7-JCM-0505   | 32450-0505 | 20243982 | 5/16         | 7.9  | 1/2-20          | 5/8               | 1.06        | 27.0 | 2.36       | 60.0  | Y                  |               | Y    |
| T7-JCM-0506   | 32450-0506 | 20243981 | 5/16         | 7.9  | 9/16-18         | 11/16             | 1.31        | 33.3 | 2.30       | 58.4  | Y                  |               | Y    |
| T7-JCM-0606   | 32450-0606 | 20243984 | 3/8          | 9.5  | 9/16-18         | 3/4               | 1.38        | 34.9 | 2.59       | 65.7  | Y                  |               | Y    |
| T8-JCM-0606   | 34450-0606 | 20243983 | 3/8          | 9.5  | 9/16-18         | 3/4               | 1.12        | 28.6 | 2.59       | 65.7  |                    | Y             |      |
| T7-JCM-0608   | 32450-0608 | 20243987 | 3/8          | 9.5  | 3/4-16          | 13/16             | 1.38        | 34.9 | 2.69       | 68.3  | Y                  |               | Y    |
| T8-JCM-0608   | 34450-0608 | 20243986 | 3/8          | 9.5  | 3/4-16          | 13/16             | 1.25        | 31.8 | 2.69       | 68.3  |                    | Y             |      |
| T7-JCM-0808   | 32450-0808 | 20243979 | 1/2          | 12.7 | 3/4-16          | 7/8               | 1.44        | 36.5 | 2.88       | 73.1  | Y                  |               | Y    |
| T8-JCM-0808   | 34450-0808 | 20243971 | 1/2          | 12.7 | 3/4-16          | 7/8               | 1.25        | 31.8 | 2.88       | 73.1  |                    | Y             |      |
| T7-JCM-0810   | 32450-0810 | 20243977 | 1/2          | 12.7 | 7/8-14          | 15/16             | 1.44        | 36.5 | 3.10       | 78.8  | Y                  |               | Y    |
| T8-JCM-0810   | 34450-0810 | 20243976 | 1/2          | 12.7 | 7/8-14          | 15/16             | 1.50        | 38.1 | 3.10       | 78.8  |                    | Y             |      |
| T7-JCM-1212   | 32450-1212 | 20243988 | 3/4          | 19.0 | 1 1/16-12       | 1 1/8             | 1.50        | 38.1 | 3.32       | 84.4  | Y                  |               |      |
| T7-JCM-1616   | 32450-1616 | 20243980 | 1            | 25.4 | 1 5/16-12       | 1 3/8             | 1.62        | 41.3 | 3.94       | 100.1 | Y                  |               |      |

## SAE 45° J512 Flare

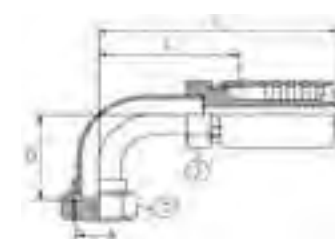
Female | Swivel



| Descriptive # | Product #  | SAP #    | Hose Size ID |      | Thread Size (A) | Hex-1 Wrench Size | Hex-2 Wrench Size | Cut-Off (C) |      | Length (L) |      | SR7, TR7, NR7, BR7 | SR8, TR8, NR8 | SR18 |
|---------------|------------|----------|--------------|------|-----------------|-------------------|-------------------|-------------|------|------------|------|--------------------|---------------|------|
|               |            |          | in.          | mm   |                 | in.               | in.               | in.         | mm   | in.        | mm   |                    |               |      |
| T7-SFFX-0404  | 32775-0404 | 20244137 | 1/4          | 6.4  | 7/16-20         | 5/8               | 5/8               | 1.44        | 36.5 | 2.53       | 64.3 | Y                  |               | Y    |
| T8-SFFX-0404  | 34775-0404 | 20244136 | 1/4          | 6.4  | 7/16-20         | 5/8               | 5/8               | 1.45        | 36.7 | 2.53       | 64.3 |                    | Y             |      |
| T7-SFFX-0405  | 32775-0405 | 20244140 | 1/4          | 6.4  | 1/2-20          | 3/4               | 5/8               | 1.45        | 36.7 | 2.53       | 64.3 | Y                  |               | Y    |
| T8-SFFX-0405  | 34775-0405 | 20244139 | 1/4          | 6.4  | 1/2-20          | 3/4               | 5/8               | 1.45        | 36.7 | 2.53       | 64.3 |                    | Y             |      |
| T7-SFFX-0406  | 32775-0406 | 20244138 | 1/4          | 6.4  | 5/8-18          | 13/16             | 5/8               | 1.44        | 36.5 | 2.53       | 64.3 | Y                  |               | Y    |
| T8-SFFX-0406  | 34775-0406 | 20244145 | 1/4          | 6.4  | 5/8-18          | 13/16             | 5/8               | 1.44        | 36.5 | 2.53       | 64.3 |                    | Y             |      |
| T7-SFFX-0506  | 32775-0506 | 20244132 | 5/16         | 7.9  | 5/8-18          | 13/16             | 5/8               | 1.25        | 31.8 | 2.53       | 64.3 | Y                  |               | Y    |
| T7-SFFX-0606  | 32775-0606 | 20244134 | 3/8          | 9.5  | 5/8-18          | 13/16             | 3/4               | 1.38        | 34.9 | 2.81       | 71.5 | Y                  |               | Y    |
| T8-SFFX-0606  | 34775-0606 | 20244133 | 3/8          | 9.5  | 5/8-18          | 13/16             | 3/4               | 1.38        | 34.9 | 2.81       | 71.5 |                    | Y             |      |
| T7-SFFX-0808  | 32775-0808 | 20244142 | 1/2          | 12.7 | 3/4-16          | 15/16             | 7/8               | 1.66        | 42.1 | 3.15       | 80.0 | Y                  |               | Y    |
| T8-SFFX-0808  | 34775-0808 | 20244141 | 1/2          | 12.7 | 3/4-16          | 15/16             | 7/8               | 1.66        | 42.1 | 3.15       | 80.0 |                    | Y             |      |
| T7-SFFX-1212  | 32775-1212 | 20244135 | 3/4          | 19.0 | 1 1/16-14       | 1 1/4             | 1 1/4             | 1.62        | 41.3 | 3.44       | 87.3 | Y                  |               |      |

## SAE 45° J512 Flare

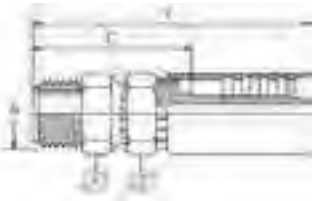
Female | 90° Elbow | Swivel



| Descriptive #  | Product #  | SAP #    | Hose Size ID |     | Thread Size (A) | Hex-1 Wrench Size | Hex-2 Wrench Size | Drop (D) |      | Cut-Off (C) |      | Length (L) |      | SR7, TR7, NR7, BR7 | SR8, TR8, NR8 | SR18 |
|----------------|------------|----------|--------------|-----|-----------------|-------------------|-------------------|----------|------|-------------|------|------------|------|--------------------|---------------|------|
|                |            |          | in.          | mm  |                 | in.               | in.               | in.      | mm   | in.         | mm   | in.        | mm   |                    |               |      |
| T7-SFFX90-0606 | 32780-0606 | 20244144 | 3/8          | 9.5 | 5/8-18          | 3/4               | 3/4               | 1.12     | 28.6 | 1.19        | 30.2 | 2.63       | 66.8 | Y                  |               | Y    |
| T8-SFFX90-0606 | 34780-0606 | 20244143 | 3/8          | 9.5 | 5/8-18          | 3/4               | 3/4               | 1.12     | 28.6 | 1.19        | 30.2 | 2.63       | 66.8 |                    | Y             |      |

SAE 45° Inverted Flare

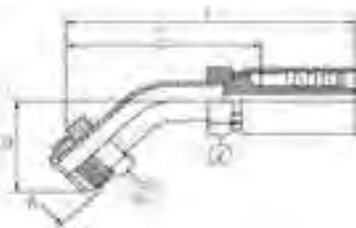
Male | Swivel



| Descriptive # | Product #  | SAP #    | Hose Size ID |     | Thread Size (A) | Hex-1 Wrench Size | Hex-2 Wrench Size | Cut-Off (C) |      | Length (L) |      | SR7, TR7, NR7, BR7 | SR8, TR8, NR8 | SR18 |
|---------------|------------|----------|--------------|-----|-----------------|-------------------|-------------------|-------------|------|------------|------|--------------------|---------------|------|
|               |            |          | in.          | mm  |                 | in.               | in.               | in.         | mm   | in.        | mm   |                    |               |      |
| T7-SIMX-0404  | 32800-0404 | 20244127 | 1/4          | 6.4 | 7/16-24         | 7/16              | 5/8               | 1.64        | 41.6 | 2.72       | 69.1 | Y                  |               | Y    |
| T7-SIMX-0405  | 32800-0405 | 20244128 | 1/4          | 6.4 | 1/2-20          | 1/2               | 5/8               | 1.69        | 42.9 | 2.78       | 70.6 | Y                  |               | Y    |

SAE 45° Inverted Flare

Male | 45° Elbow | Swivel

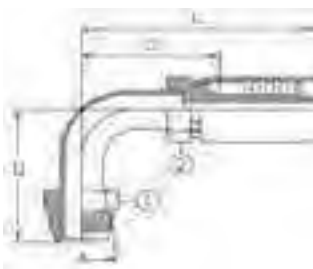


| Descriptive #  | Product #  | SAP #    | Hose Size ID |     | Thread Size (A) | Hex-1 Wrench Size | Hex-2 Wrench Size | Drop (D) |      | Cut-Off (C) |      | Length (L) |      | SR7, TR7, NR7, BR7 | SR8, TR8, NR8 | SR18 |
|----------------|------------|----------|--------------|-----|-----------------|-------------------|-------------------|----------|------|-------------|------|------------|------|--------------------|---------------|------|
|                |            |          | in.          | mm  |                 | in.               | in.               | in.      | mm   | in.         | mm   | in.        | mm   |                    |               |      |
| T8-SIMX45-0606 | 34810-0606 | 20244130 | 3/8          | 9.5 | 5/8-18          | 5/8               | 3/4               | 0.96     | 24.5 | 1.88        | 47.6 | 3.30       | 83.8 |                    | Y             |      |



## SAE 45° Inverted Flare

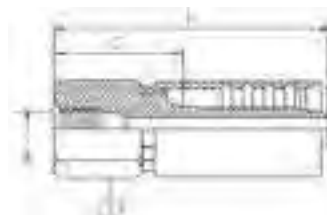
Male | 90° Elbow | Swivel



| Descriptive #  | Product #  | SAP #    | Hose Size ID |     | Thread Size (A) | Hex-1 Wrench Size | Hex-2 Wrench Size | Drop (D) |      | Cut-Off (C) |      | Length (L) |      | SR7, TR7, NR7, BR7 | SR8, TR8, NR8 | SR18 |
|----------------|------------|----------|--------------|-----|-----------------|-------------------|-------------------|----------|------|-------------|------|------------|------|--------------------|---------------|------|
|                |            |          | in.          | mm  |                 |                   |                   | in.      | mm   | in.         | mm   | in.        | mm   |                    |               |      |
| T7-SIMX90-0404 | 32815-0404 | 20244129 | 1/4          | 6.4 | 7/16-24         | 7/16              | 9/16              | 1.31     | 33.3 | 1.23        | 31.3 | 2.31       | 58.7 | Y                  |               | Y    |
| T7-SIMX90-0606 | 32815-0606 | 20244131 | 3/8          | 9.5 | 5/8-18          | 5/8               | 3/4               | 1.66     | 42.2 | 1.19        | 30.2 | 2.62       | 66.7 | Y                  |               | Y    |
| T8-SIMX90-0606 | 34815-0606 | 20244126 | 3/8          | 9.5 | 5/8-18          | 5/8               | 3/4               | 1.66     | 42.2 | 1.19        | 30.2 | 2.63       | 66.8 |                    | Y             |      |

## NPTF

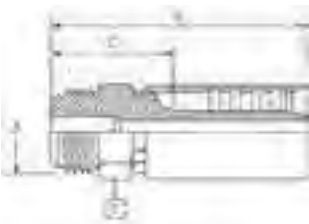
Female



| Descriptive # | Product #  | SAP #    | Hose Size ID |      | Thread Size (A) | Hex-1 Wrench Size | Cut-Off (C) |      | Length (L) |      | SR7, TR7, NR7, BR7 | SR8, TR8, NR8 | SR18 |
|---------------|------------|----------|--------------|------|-----------------|-------------------|-------------|------|------------|------|--------------------|---------------|------|
|               |            |          | in.          | mm   |                 |                   | in.         | mm   | in.        | mm   |                    |               |      |
| T7-NPF-0404   | 32600-0404 | 20244060 | 1/4          | 6.4  | 1/4-18          | 3/4               | 1.25        | 31.8 | 2.34       | 59.5 | Y                  |               | Y    |
| T8-NPF-0404   | 34600-0404 | 20244059 | 1/4          | 6.4  | 1/4-18          | 3/4               | 1.25        | 31.8 | 2.34       | 59.5 |                    | Y             |      |
| T7-NPF-0604   | 32600-0604 | 20244058 | 3/8          | 9.5  | 1/4-18          | 3/4               | 1.06        | 27.0 | 2.53       | 64.3 | Y                  |               | Y    |
| T7-NPF-0606   | 32600-0606 | 20244057 | 3/8          | 9.5  | 3/8-18          | 7/8               | 1.19        | 30.2 | 2.63       | 66.7 | Y                  |               | Y    |
| T8-NPF-0606   | 34600-0606 | 20244056 | 3/8          | 9.5  | 3/8-18          | 7/8               | 1.19        | 30.2 | 2.63       | 66.7 |                    | Y             |      |
| T7-NPF-0808   | 32600-0808 | 20244062 | 1/2          | 12.7 | 1/2-14          | 1 1/16            | 1.31        | 33.3 | 3.03       | 77.0 | Y                  |               | Y    |
| T8-NPF-0808   | 34600-0808 | 20244061 | 1/2          | 12.7 | 1/2-14          | 1 1/16            | 1.31        | 33.3 | 3.03       | 77.0 |                    | Y             |      |

NPTF

Male

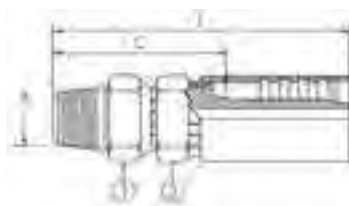


| Descriptive # | Product #   | SAP #    | Hose Size ID |      | Thread Size (A) | Hex-1 Wrench Size | Cut-Off (C) |      | Length (L) |       | SR7, TR7, NR7, BR7 | SR8, TR8, NR8 | SR18 |
|---------------|-------------|----------|--------------|------|-----------------|-------------------|-------------|------|------------|-------|--------------------|---------------|------|
|               |             |          | in.          | mm   |                 |                   | in.         | mm   | in.        | mm    |                    |               |      |
| T7-NPM-0202   | 32615-0202  | 20244064 | 1/8          | 3.2  | 1/8-27          | 1/2               | 0.75        | 19.1 | 1.34       | 34.1  | Y                  |               |      |
| T7-NPM-0302   | 32615-0302  | 20244065 | 3/16         | 4.8  | 1/8-27          | 9/16              | 1.06        | 27.0 | 1.88       | 47.8  | Y                  |               |      |
| T8-NPM-0302   | 34615-0302  | 20244055 | 3/16         | 4.8  | 1/8-27          | 9/16              | 1.06        | 27.0 | 1.88       | 47.8  |                    | Y             |      |
| T7-NPM-0304   | 32615-0304  | 20244067 | 3/16         | 4.8  | 1/4-18          | 11/16             | 1.25        | 31.8 | 2.06       | 52.3  | Y                  |               |      |
| T8-NPM-0304   | 34615-0304  | 20244066 | 3/16         | 4.8  | 1/4-18          | 11/16             | 1.25        | 31.8 | 2.06       | 52.3  |                    | Y             |      |
| T7-NPM-0306   | 32615-0306  | 20244052 | 3/16         | 4.8  | 3/8-18          | 3/4               | 1.38        | 34.9 | 2.15       | 54.7  | Y                  |               |      |
| T8-NPM-0306   | 34615-0306  | 20244038 | 3/16         | 4.8  | 3/8-18          | 3/4               | 1.38        | 34.9 | 2.15       | 54.7  |                    | Y             |      |
| T7-NPM-0402   | 32615-0402  | 20244072 | 1/4          | 6.4  | 1/8-27          | 5/8               | 1.06        | 27.0 | 2.13       | 54.1  | Y                  |               | Y    |
| T8-NPM-0402   | 34615-0402  | 20244071 | 1/4          | 6.4  | 1/8-27          | 5/8               | 1.06        | 27.0 | 2.13       | 54.1  |                    | Y             |      |
| T7-NPM-0404   | 32615-0404  | 20244078 | 1/4          | 6.4  | 1/4-18          | 11/16             | 1.25        | 31.8 | 2.31       | 58.7  | Y                  |               | Y    |
| T8-NPM-0404   | 34615-0404  | 20244079 | 1/4          | 6.4  | 1/4-18          | 11/16             | 1.25        | 31.8 | 2.31       | 58.7  |                    | Y             |      |
| T8-NPM-0404S  | 34615-0404S | 20435885 | 1/4          | 6.4  | 1/4-18          | 11/16             | 1.25        | 31.8 | 2.31       | 58.7  |                    | Y             |      |
| T7-NPM-0406   | 32615-0406  | 20244070 | 1/4          | 6.4  | 3/8-18          | 3/4               | 1.31        | 33.3 | 2.40       | 61.1  | Y                  |               | Y    |
| T8-NPM-0406   | 34615-0406  | 20244069 | 1/4          | 6.4  | 3/8-18          | 3/4               | 1.31        | 33.3 | 2.40       | 61.1  |                    | Y             |      |
| T7-NPM-0408   | 32615-0408  | 20244076 | 1/4          | 6.4  | 1/2-14          | 15/16             | 1.56        | 39.7 | 2.66       | 67.5  | Y                  |               | Y    |
| T8-NPM-0408   | 34615-0408  | 20244077 | 1/4          | 6.4  | 1/2-14          | 15/16             | 1.56        | 39.7 | 2.66       | 67.5  |                    | Y             |      |
| T7-NPM-0504   | 32615-0504  | 20244032 | 5/16         | 7.9  | 1/4-18          | 11/16             | 1.12        | 28.6 | 2.31       | 58.8  | Y                  |               | Y    |
| T7-NPM-0604   | 32615-0604  | 20244033 | 3/8          | 9.5  | 1/4-18          | 3/4               | 1.31        | 33.3 | 2.59       | 65.8  | Y                  |               | Y    |
| T8-NPM-0604   | 34615-0604  | 20244030 | 3/8          | 9.5  | 1/4-18          | 3/4               | 1.31        | 33.3 | 2.59       | 65.8  |                    | Y             |      |
| T7-NPM-0606   | 32615-0606  | 20244028 | 3/8          | 9.5  | 3/8-18          | 3/4               | 1.31        | 33.3 | 2.59       | 65.8  | Y                  |               | Y    |
| T8-NPM-0606   | 34615-0606  | 20244029 | 3/8          | 9.5  | 3/8-18          | 3/4               | 1.31        | 33.3 | 2.59       | 65.8  |                    | Y             |      |
| T7-NPM-0608   | 32615-0608  | 20244031 | 3/8          | 9.5  | 1/2-14          | 15/16             | 1.56        | 39.7 | 2.84       | 72.2  | Y                  |               | Y    |
| T8-NPM-0608   | 34615-0608  | 20244035 | 3/8          | 9.5  | 1/2-14          | 15/16             | 1.56        | 39.7 | 2.84       | 72.2  |                    | Y             |      |
| T7-NPM-0806   | 32615-0806  | 20244073 | 1/2          | 12.7 | 3/8-18          | 7/8               | 1.28        | 32.5 | 2.78       | 70.7  | Y                  |               | Y    |
| T8-NPM-0806   | 34615-0806  | 20244075 | 1/2          | 12.7 | 3/8-18          | 7/8               | 1.25        | 31.8 | 2.78       | 70.7  |                    | Y             |      |
| T7-NPM-0808   | 32615-0808  | 20244054 | 1/2          | 12.7 | 1/2-14          | 15/16             | 1.50        | 38.1 | 3.03       | 77.0  | Y                  |               | Y    |
| T8-NPM-0808   | 34615-0808  | 20244053 | 1/2          | 12.7 | 1/2-14          | 15/16             | 1.50        | 38.1 | 3.03       | 77.0  |                    | Y             |      |
| T7-NPM-0812   | 32615-0812  | 20244068 | 1/2          | 12.7 | 3/4-14          | 1%                | 1.50        | 38.1 | 3.04       | 77.1  | Y                  |               | Y    |
| T8-NPM-0812   | 34615-0812  | 20244074 | 1/2          | 12.7 | 3/4-14          | 1%                | 1.50        | 38.1 | 3.09       | 78.6  |                    | Y             |      |
| T7-NPM-1208   | 32615-1208  | 20244037 | 3/4          | 19.0 | 1/2-14          | 1%                | 1.44        | 36.5 | 3.22       | 81.8  | Y                  |               |      |
| T7-NPM-1212   | 32615-1212  | 20244036 | 3/4          | 19.0 | 3/4-14          | 1%                | 1.38        | 34.9 | 3.22       | 81.8  | Y                  |               |      |
| T8-NPM-1212   | 34615-1212  | 20440323 | 3/4          | 19.0 | 3/4-14          |                   |             |      |            |       |                    | Y             |      |
| T7-NPM-1616   | 32615-1616  | 20244063 | 1            | 25.4 | 1-11½           | 1%                | 1.62        | 41.3 | 3.97       | 100.8 | Y                  |               |      |
| T8-NPM-1616   | 34615-1616  | 20440324 | 1            | 25.4 | 1-11½           |                   |             |      |            |       |                    | Y             |      |

S: Stainless Steel

## NPTF

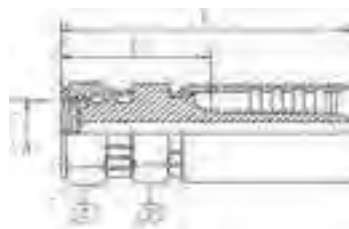
Male | Swivel



| Descriptive # | Product #  | SAP #    | Hose Size ID |      | Thread Size (A) | Hex-1 Wrench Size | Hex-2 Wrench Size | Cut-Off (C) |      | Length (L) |       | SR7, TR7, NR7, BR7 | SR8, TR8, NR8 | SR18 |
|---------------|------------|----------|--------------|------|-----------------|-------------------|-------------------|-------------|------|------------|-------|--------------------|---------------|------|
|               |            |          | in.          | mm   |                 | in.               | in.               | in.         | mm   | in.        | mm    |                    |               |      |
| T7-NPMX-0202  | 32645-0202 | 20598101 | 1/8          | 3.2  | 1/8-27          | 1/2               | 1/2               | 1.33        | 33.8 | 1.90       | 48.2  | Y                  |               |      |
| T7-NPMX-0304  | 32645-0304 | 20244047 | 3/16         | 4.8  | 1/4-18          | 11/16             | 5/8               | 1.81        | 46.0 | 2.64       | 67.0  | Y                  |               |      |
| T8-NPMX-0304  | 34645-0304 | 20244039 | 3/16         | 4.8  | 1/4-18          | 11/16             | 5/8               | 1.81        | 46.0 | 2.64       | 67.0  |                    | Y             |      |
| T7-NPMX-0404  | 32645-0404 | 20244050 | 1/4          | 6.4  | 1/4-18          | 11/16             | 5/8               | 1.81        | 46.0 | 2.87       | 73.0  | Y                  |               | Y    |
| T8-NPMX-0404  | 34645-0404 | 20244049 | 1/4          | 6.4  | 1/4-18          | 11/16             | 5/8               | 1.81        | 46.0 | 2.87       | 73.0  |                    | Y             |      |
| T7-NPMX-0406  | 32645-0406 | 20244048 | 1/4          | 6.4  | 3/8-18          | 3/4               | 5/8               | 1.93        | 49.0 | 3.02       | 76.7  | Y                  |               | Y    |
| T7-NPMX-0504  | 32645-0504 | 20244040 | 5/16         | 7.9  | 1/4-18          | 11/16             | 5/8               | 1.62        | 41.3 | 2.87       | 73.0  | Y                  |               | Y    |
| T7-NPMX-0606  | 32645-0606 | 20244042 | 3/8          | 9.5  | 3/8-18          | 3/4               | 3/4               | 1.69        | 42.9 | 3.15       | 80.0  | Y                  |               | Y    |
| T8-NPMX-0606  | 34645-0606 | 20244041 | 3/8          | 9.5  | 3/8-18          | 3/4               | 3/4               | 1.69        | 42.9 | 3.15       | 80.0  |                    | Y             |      |
| T7-NPMX-0608  | 32645-0608 | 20244044 | 3/8          | 9.5  | 1/2-14          | 7/8               | 3/4               | 1.88        | 47.6 | 3.38       | 85.7  | Y                  |               | Y    |
| T8-NPMX-0608  | 34645-0608 | 20244043 | 3/8          | 9.5  | 1/2-14          | 7/8               | 3/4               | 1.88        | 47.6 | 3.31       | 84.2  |                    | Y             |      |
| T7-NPMX-0808  | 32645-0808 | 20244045 | 1/2          | 12.7 | 1/2-14          | 15/16             | 7/8               | 1.94        | 49.2 | 3.61       | 91.7  | Y                  |               | Y    |
| T8-NPMX-0808  | 34645-0808 | 20244051 | 1/2          | 12.7 | 1/2-14          | 15/16             | 7/8               | 1.94        | 49.2 | 3.61       | 91.7  |                    | Y             |      |
| T7-NPMX-1212  | 32645-1212 | 20244046 | 3/4          | 19.0 | 3/4-14          | 1 1/2             | 1 1/2             | 2.00        | 50.8 | 3.84       | 97.5  | Y                  |               |      |
| T7-NPMX-1616  | 32645-1616 | 20244034 | 1            | 25.4 | 1-11 1/2        | 1 1/2             | 1 1/2             | 2.31        | 58.7 | 4.65       | 118.1 | Y                  |               |      |

## NPSM

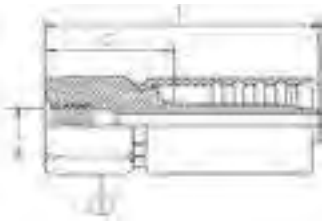
Female | Swivel



| Descriptive # | Product #  | SAP #    | Hose Size ID |      | Thread Size (A) | Hex-1 Wrench Size | Hex-2 Wrench Size | Cut-Off (C) |      | Length (L) |      | SR7, TR7, NR7, BR7 | SR8, TR8, NR8 | SR18 |
|---------------|------------|----------|--------------|------|-----------------|-------------------|-------------------|-------------|------|------------|------|--------------------|---------------|------|
|               |            |          | in.          | mm   |                 | in.               | in.               | in.         | mm   | in.        | mm   |                    |               |      |
| T7-NSFX-0808  | 32655-0808 | 20244026 | 1/2          | 12.7 | 1/2-14          | 1                 | 1                 | 1.38        | 34.9 | 3.06       | 77.8 | Y                  |               | Y    |
| T8-NSFX-0808  | 34655-0808 | 20244027 | 1/2          | 12.7 | 1/2-14          | 1                 | 1                 | 1.38        | 34.9 | 3.06       | 77.8 |                    | Y             |      |

SAE J514 Flareless Tube Fittings

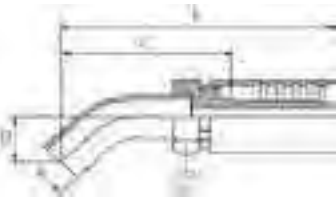
Male



| Descriptive # | Product #  | SAP #    | Hose Size ID |      | Thread Size (A) | Hex-1 Wrench Size | Cut-Off (C) |      | Length (L) |      | SR7, TR7, NR7, BR7 | SR8, TR8, NR8 | SR18 |
|---------------|------------|----------|--------------|------|-----------------|-------------------|-------------|------|------------|------|--------------------|---------------|------|
|               |            |          | in.          | mm   |                 | in.               | in.         | mm   | in.        | mm   |                    |               |      |
| T7-FTM-0606   | 32360-0606 | 20244148 | 3/8          | 9.5  | 9/16-18         | 3/4               | 1.06        | 27.0 | 2.50       | 63.4 | Y                  |               | Y    |
| T8-FTM-0606   | 34360-0606 | 20244147 | 3/8          | 9.5  | 9/16-18         | 3/4               | 1.06        | 26.9 | 2.50       | 63.5 |                    | Y             |      |
| T7-FTM-0808   | 32360-0808 | 20244146 | 1/2          | 12.7 | 3/4-16          | 7/8               | 1.16        | 29.4 | 2.78       | 70.6 | Y                  |               | Y    |

Standpipe

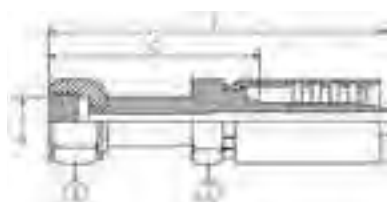
45° Elbow



| Descriptive # | Product #  | SAP #    | Hose Size ID |     | Thread Size (A) | Hex-1 Wrench Size | Drop (D) |      | Cut-Off (C) |      | Length (L) |      | SR7, TR7, NR7, BR7 | SR8, TR8, NR8 | SR18 |
|---------------|------------|----------|--------------|-----|-----------------|-------------------|----------|------|-------------|------|------------|------|--------------------|---------------|------|
|               |            |          | in.          | mm  |                 | in.               | in.      | mm   | in.         | mm   | in.        | mm   |                    |               |      |
| T7-SP45-0408  | 32830-0408 | 20244149 | 1/4          | 6.4 | 8               | 5/8               | 0.75     | 19.0 | 1.77        | 45.0 | 2.80       | 71.0 | Y                  |               | Y    |
| T8-SP45-0408  | 34830-0408 | 20244150 | 1/4          | 6.4 | 8               | 5/8               | 0.75     | 19.0 | 1.77        | 45.0 | 2.80       | 71.0 |                    | Y             |      |

## O-Ring Face Seal (SAE J1453 ORS/ORFS)

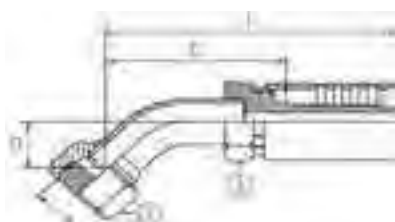
Female | Swivel



| Descriptive # | Product #  | SAP #    | Hose Size ID |      | Thread Size (A) | Hex-1 Wrench Size | Hex-2 Wrench Size | Cut-Off (C) |      | Length (L) |       | SR7, TR7, NR7, BR7 | SR8, TR8, NR8 | SR18 |
|---------------|------------|----------|--------------|------|-----------------|-------------------|-------------------|-------------|------|------------|-------|--------------------|---------------|------|
|               |            |          | in.          | mm   |                 | in.               | in.               | in.         | mm   | in.        | mm    |                    |               |      |
| T7-OFFX-0404  | 32700-0404 | 20244101 | 1/4          | 6.4  | 9/16-18         | 11/16             | 5/8               | 1.50        | 38.1 | 2.60       | 66.0  | Y                  |               | Y    |
| T8-OFFX-0404  | 34700-0404 | 20244105 | 1/4          | 6.4  | 9/16-18         | 11/16             | 5/8               | 1.50        | 38.1 | 2.60       | 66.0  |                    | Y             |      |
| T7-OFFX-0506  | 32700-0506 | 20244108 | 5/16         | 7.9  | 11/16-16        | 13/16             | 5/8               | 1.56        | 39.7 | 2.74       | 69.7  | Y                  |               | Y    |
| T7-OFFX-0606  | 32700-0606 | 20244103 | 3/8          | 9.5  | 11/16-16        | 7/8               | 3/4               | 1.44        | 36.5 | 2.75       | 69.9  | Y                  |               | Y    |
| T8-OFFX-0606  | 34700-0606 | 20244106 | 3/8          | 9.5  | 11/16-16        | 7/8               | 3/4               | 1.44        | 36.5 | 2.75       | 69.9  |                    | Y             |      |
| T7-OFFX-0608  | 32700-0608 | 20244107 | 3/8          | 9.5  | 13/16-16        | 15/16             | 3/4               | 1.88        | 47.6 | 3.22       | 81.8  | Y                  |               | Y    |
| T7-OFFX-0808  | 32700-0808 | 20244097 | 1/2          | 12.7 | 13/16-16        | 15/16             | 7/8               | 1.56        | 39.7 | 3.12       | 79.4  | Y                  |               | Y    |
| T8-OFFX-0808  | 34700-0808 | 20244098 | 1/2          | 12.7 | 13/16-16        | 15/16             | 7/8               | 1.69        | 42.9 | 3.28       | 83.4  |                    | Y             |      |
| T8-OFFX-0810  | 34700-0810 | 20244096 | 1/2          | 12.7 | 1-14            | 1 1/8             | 7/8               | 1.88        | 47.6 | 3.39       | 86.1  |                    | Y             |      |
| T7-OFFX-1212  | 32700-1212 | 20244104 | 3/4          | 19.0 | 1 1/16-12       | 1 1/8             | 1 1/8             | 2.12        | 54.0 | 3.88       | 98.7  | Y                  |               |      |
| T7-OFFX-1616  | 32700-1616 | 20244095 | 1            | 25.4 | 1 7/16-12       | 1 3/8             | 1 3/8             | 2.12        | 54.0 | 4.36       | 110.7 | Y                  |               |      |

## O-Ring Face Seal (SAE J1453 ORS/ORFS)

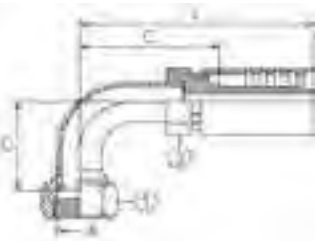
Female | 45° Elbow | Swivel



| Descriptive #  | Product #  | SAP #    | Hose Size ID |      | Thread Size (A) | Hex-1 Wrench Size | Hex-2 Wrench Size | Drop (D) |      | Cut-Off (C) |      | Length (L) |      | SR7, TR7, NR7, BR7 | SR8, TR8, NR8 | SR18 |
|----------------|------------|----------|--------------|------|-----------------|-------------------|-------------------|----------|------|-------------|------|------------|------|--------------------|---------------|------|
|                |            |          | in.          | mm   |                 | in.               | in.               | in.      | mm   | in.         | mm   | in.        | mm   |                    |               |      |
| T7-OFFX45-0404 | 32710-0404 | 20244116 | 1/4          | 6.4  | 9/16-18         | 11/16             | 5/8               | 0.41     | 10.4 | 1.50        | 38.1 | 2.55       | 64.8 | Y                  |               | Y    |
| T8-OFFX45-0404 | 34710-0404 | 20244117 | 1/4          | 6.4  | 9/16-18         | 11/16             | 5/8               | 0.41     | 10.4 | 1.50        | 38.1 | 2.55       | 64.8 |                    | Y             |      |
| T7-OFFX45-0506 | 32710-0506 | 20244111 | 5/16         | 7.9  | 11/16-16        | 13/16             | 5/8               | 0.43     | 10.9 | 1.50        | 38.1 | 2.63       | 66.9 | Y                  |               | Y    |
| T7-OFFX45-0606 | 32710-0606 | 20244109 | 3/8          | 9.5  | 11/16-16        | 13/16             | 3/4               | 0.43     | 10.9 | 1.50        | 38.1 | 2.82       | 71.8 | Y                  |               | Y    |
| T8-OFFX45-0606 | 34710-0606 | 20244110 | 3/8          | 9.5  | 11/16-16        | 13/16             | 3/4               | 0.43     | 10.9 | 1.50        | 38.1 | 2.82       | 71.8 |                    | Y             |      |
| T7-OFFX45-0608 | 32710-0608 | 20268564 | 3/8          | 9.5  | 13/16-16        | 15/16             | 3/4               | 0.47     | 11.9 | 1.65        | 41.9 | 3.12       | 79.2 | Y                  |               | Y    |
| T7-OFFX45-0808 | 32710-0808 | 20244115 | 1/2          | 12.7 | 13/16-16        | 15/16             | 7/8               | 0.59     | 15.0 | 1.75        | 44.5 | 3.32       | 84.2 | Y                  |               | Y    |
| T8-OFFX45-0808 | 34710-0808 | 20244114 | 1/2          | 12.7 | 13/16-16        | 15/16             | 7/8               | 0.59     | 15.0 | 1.75        | 44.5 | 3.32       | 84.2 |                    | Y             |      |

O-Ring Face Seal (SAE J1453 ORS/ORFS)

Female | 90° Elbow | Swivel

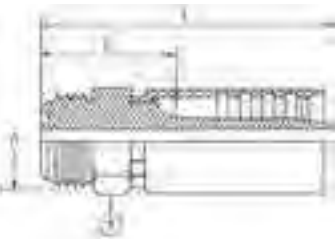


Elbow Type:  
LT=Long Tube  
ST=Short Tube

| Descriptive #   | Product #  | SAP #    | Hose Size ID |      | Thread Size (A) | Hex-1 Wrench Size | Hex-2 Wrench Size | Elbow Type | Drop (D) |      | Cut-Off (C) |      | Length (L) |       | SR7, TR7, NR7, BR7 | SR8, TR8, NR8 | SR18 |
|-----------------|------------|----------|--------------|------|-----------------|-------------------|-------------------|------------|----------|------|-------------|------|------------|-------|--------------------|---------------|------|
|                 |            |          | in.          | mm   |                 |                   |                   |            | in.      | mm   | in.         | mm   | in.        | mm    |                    |               |      |
| T7-OFFX90-0404  | 32715-0404 | 20244118 | 1/4          | 6.4  | 9/16-18         | 11/16             | 5/8               |            | 0.78     | 19.8 | 1.25        | 31.8 | 2.31       | 58.8  | Y                  |               | Y    |
| T8-OFFX90-0404  | 34715-0404 | 20244123 | 1/4          | 6.4  | 9/16-18         | 11/16             | 5/8               |            | 0.78     | 19.8 | 1.25        | 31.8 | 2.31       | 58.8  |                    | Y             |      |
| T7-OFFX90-0506  | 32715-0506 | 20244100 | 5/16         | 7.9  | 11/16-16        | 13/16             | 3/4               |            | 0.90     | 22.9 | 1.94        | 49.2 | 3.10       | 78.7  | Y                  |               | Y    |
| T7-OFFX90-0606  | 32715-0606 | 20244119 | 3/8          | 9.5  | 11/16-16        | 13/16             | 3/4               |            | 0.90     | 22.9 | 2.00        | 50.8 | 3.30       | 83.8  | Y                  |               | Y    |
| T8-OFFX90-0606  | 34715-0606 | 20244120 | 3/8          | 9.5  | 11/16-16        | 13/16             | 3/4               |            | 0.90     | 22.9 | 2.00        | 50.8 | 3.30       | 83.8  |                    | Y             |      |
| T7-OFFX90L-0606 | 32720-0606 | 20244121 | 3/8          | 9.5  | 11/16-16        | 13/16             | 3/4               | LT         | 2.13     | 54.1 | 1.44        | 36.5 | 2.74       | 69.6  | Y                  |               | Y    |
| T8-OFFX90L-0606 | 34720-0606 | 20244122 | 3/8          | 9.5  | 11/16-16        | 13/16             | 3/4               | LT         | 2.13     | 54.1 | 1.44        | 36.5 | 2.74       | 69.6  |                    | Y             |      |
| T7-OFFX90-0808  | 32715-0808 | 20244124 | 1/2          | 12.7 | 13/16-16        | 15/16             | 7/8               |            | 1.15     | 29.2 | 1.50        | 38.1 | 3.04       | 77.3  | Y                  |               | Y    |
| T8-OFFX90-0808  | 34715-0808 | 20244125 | 1/2          | 12.7 | 13/16-16        | 15/16             | 7/8               |            | 1.15     | 29.2 | 1.50        | 38.1 | 3.04       | 77.3  |                    | Y             |      |
| T7-OFFX90L-0808 | 32720-0808 | 20244112 | 1/2          | 12.7 | 13/16-16        | 15/16             | 7/8               | LT         | 2.51     | 63.8 | 1.56        | 39.7 | 3.16       | 80.3  | Y                  |               | Y    |
| T8-OFFX90L-0808 | 34720-0808 | 20244113 | 1/2          | 12.7 | 13/16-16        | 15/16             | 7/8               | LT         | 2.51     | 63.8 | 1.56        | 39.7 | 3.16       | 80.3  |                    | Y             |      |
| T7-OFFX90-1212  | 32715-1212 | 20244099 | 3/4          | 19.0 | 1 3/16-12       | 1 1/2             | 1 1/2             |            | 1.88     | 47.8 | 2.75        | 69.9 | 4.47       | 113.7 | Y                  |               |      |

O-Ring Face Seal (SAE J1453 ORS/ORFS)

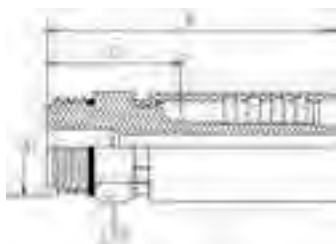
Male



| Descriptive # | Product #  | SAP #    | Hose Size ID |     | Thread Size (A) | Hex-1 Wrench Size | Cut-Off (C) |      | Length (L) |      | SR7, TR7, NR7, BR7 | SR8, TR8, NR8 | SR18 |
|---------------|------------|----------|--------------|-----|-----------------|-------------------|-------------|------|------------|------|--------------------|---------------|------|
|               |            |          | in.          | mm  |                 |                   | in.         | mm   | in.        | mm   |                    |               |      |
| T7-OFM-0404   | 32730-0404 | 20244102 | 1/4          | 6.4 | 9/16-18         | 5/8               | 1.06        | 27.0 | 2.13       | 54.1 | Y                  |               | Y    |

## O-Ring Boss Straight Thread (SAE J514)

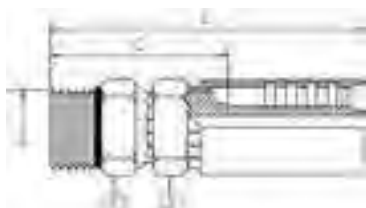
Male



| Descriptive # | Product #  | SAP #    | Hose Size ID |      | Thread Size (A) | Hex-1 Wrench Size | Cut-Off (C) |      | Length (L) |      | SR7, TR7, NR7, BR7 | SR8, TR8, NR8 | SR18 |
|---------------|------------|----------|--------------|------|-----------------|-------------------|-------------|------|------------|------|--------------------|---------------|------|
|               |            |          | in.          | mm   |                 |                   | in.         | mm   | in.        | mm   |                    |               |      |
| T7-OBM-0406   | 32670-0406 | 20244092 | 1/4          | 6.4  | 9/16-18         | 11/16             | 1.06        | 27.0 | 2.14       | 54.4 | Y                  |               | Y    |
| T8-OBM-0406   | 34670-0406 | 20244093 | 1/4          | 6.4  | 9/16-18         | 11/16             | 1.06        | 27.0 | 2.14       | 54.4 |                    | Y             |      |
| T7-OBM-0606   | 32670-0606 | 20244083 | 3/8          | 9.5  | 9/16-18         | 3/4               | 1.00        | 25.4 | 2.42       | 61.5 | Y                  |               | Y    |
| T8-OBM-0606   | 34670-0606 | 20244084 | 3/8          | 9.5  | 9/16-18         | 3/4               | 1.00        | 25.4 | 2.42       | 61.5 |                    | Y             |      |
| T7-OBM-0608   | 32670-0608 | 20244081 | 3/8          | 9.5  | 3/4-16          | 7/8               | 1.03        | 26.2 | 2.47       | 62.7 | Y                  |               | Y    |
| T8-OBM-0608   | 34670-0608 | 20244082 | 3/8          | 9.5  | 3/4-16          | 7/8               | 1.03        | 26.2 | 2.47       | 62.7 |                    | Y             |      |
| T7-OBM-0808   | 32670-0808 | 20244090 | 1/2          | 12.7 | 3/4-16          | 15/16             | 1.09        | 27.8 | 2.78       | 70.7 | Y                  |               | Y    |
| T8-OBM-0808   | 34670-0808 | 20244091 | 1/2          | 12.7 | 3/4-16          | 15/16             | 1.09        | 27.8 | 2.78       | 70.7 |                    | Y             |      |

## O-Ring Boss Straight Thread (SAE J514)

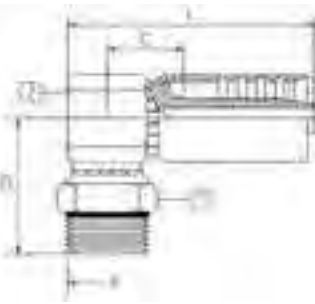
Male | Swivel



| Descriptive # | Product #  | SAP #    | Hose Size ID |     | Thread Size (A) | Hex-1 Wrench Size | Hex-2 Wrench Size | Cut-Off (C) |      | Length (L) |      | SR7, TR7, NR7, BR7 | SR8, TR8, NR8 | SR18 |
|---------------|------------|----------|--------------|-----|-----------------|-------------------|-------------------|-------------|------|------------|------|--------------------|---------------|------|
|               |            |          | in.          | mm  |                 |                   |                   | in.         | mm   | in.        | mm   |                    |               |      |
| T7-OBMX-0606  | 32680-0606 | 20244080 | 3/8          | 9.5 | 9/16-18         | 3/4               | 3/4               | 1.50        | 38.1 | 2.97       | 75.4 | Y                  |               | Y    |
| T8-OBMX-0606  | 34680-0606 | 20244086 | 3/8          | 9.5 | 9/16-18         | 3/4               | 3/4               | 1.50        | 38.1 | 2.97       | 75.4 |                    | Y             |      |

O-Ring Boss Straight Thread (SAE J514)

Male | 90° Elbow (Block) | Swivel

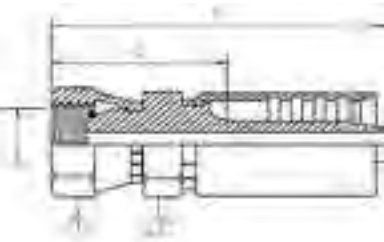


Elbow Type:  
BE=Block Elbow

| Descriptive #   | Product #  | SAP #    | Hose Size ID |     | Thread Size (A) | Hex-1 Wrench Size |    | Hex-2 Wrench Size |    | Elbow Type | Drop (D) |      | Cut-Off (C) |      | Length (L) |      | SR7, TR7, NR7, BR7 | SR8, TR8, NR8 | SR18 |
|-----------------|------------|----------|--------------|-----|-----------------|-------------------|----|-------------------|----|------------|----------|------|-------------|------|------------|------|--------------------|---------------|------|
|                 |            |          | in.          | mm  |                 | in.               | mm | in.               | mm |            | in.      | mm   | in.         | mm   | in.        | mm   |                    |               |      |
| T7-OBMX90B-0608 | 32685-0608 | 20244088 | 3/8          | 9.5 | 3/4-16          | 7/8               |    | 13/16             |    | BE         | 1.11     | 28.1 | 0.88        | 22.2 | 2.63       | 66.8 | Y                  |               | Y    |
| T8-OBMX90B-0608 | 34685-0608 | 20244094 | 3/8          | 9.5 | 3/4-16          | 7/8               |    | 13/16             |    | BE         | 1.11     | 28.1 | 0.88        | 22.2 | 2.63       | 66.8 |                    | Y             |      |

BSPP (British Standard Pipe Parallel)

Female | Swivel

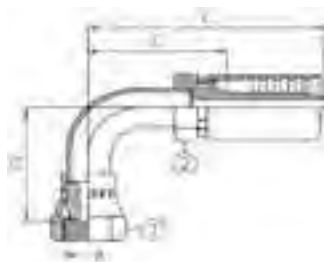


| Descriptive # | Product #  | SAP #    | Hose Size ID |      | Thread Size (A) | Hex-1 Wrench Size |    | Hex-2 Wrench Size |    | Cut-Off (C) |      | Length (L) |       | SR7, TR7, NR7, BR7 | SR8, TR8, NR8 | SR18 |
|---------------|------------|----------|--------------|------|-----------------|-------------------|----|-------------------|----|-------------|------|------------|-------|--------------------|---------------|------|
|               |            |          | in.          | mm   |                 | in.               | mm | in.               | mm | in.         | mm   | in.        | mm    |                    |               |      |
| T7-BPFX-0404  | 32105-0404 | 20243906 | 1/4          | 6.4  | 1/4-19          | 3/4               | 19 | 9/16              | 14 | 1.29        | 32.8 | 2.31       | 58.8  | Y                  |               | Y    |
| T8-BPFX-0404  | 34105-0404 | 20243903 | 1/4          | 6.4  | 1/4-19          | 3/4               | 19 | 9/16              | 14 | 1.29        | 32.8 | 2.31       | 58.8  |                    | Y             |      |
| T7-BPFX-0606  | 32105-0606 | 20243907 | 3/8          | 9.5  | 3/8-19          | 7/8               | 22 | 11/16             | 17 | 1.41        | 35.8 | 2.67       | 67.8  | Y                  |               | Y    |
| T8-BPFX-0606  | 34105-0606 | 20243908 | 3/8          | 9.5  | 3/8-19          | 7/8               | 22 | 11/16             | 17 | 1.41        | 35.8 | 2.67       | 67.8  |                    | Y             |      |
| T7-BPFX-0608  | 32105-0608 | 20243902 | 3/8          | 9.5  | 1/2-14          | 1 1/16            | 27 | 11/16             | 18 | 1.59        | 40.5 | 2.85       | 72.5  | Y                  |               | Y    |
| T8-BPFX-0608  | 34105-0608 | 20243901 | 3/8          | 9.5  | 1/2-14          | 1 1/16            | 27 | 11/16             | 18 | 1.59        | 40.5 | 2.85       | 72.5  |                    | Y             |      |
| T7-BPFX-0806  | 32105-0806 | 20243904 | 1/2          | 12.7 | 5/8-14          | 7/8               | 22 | 1 1/4             | 22 | 1.74        | 44.1 | 3.23       | 82.1  | Y                  |               | Y    |
| T8-BPFX-0806  | 34105-0806 | 20243900 | 1/2          | 12.7 | 5/8-14          | 7/8               | 22 | 1 1/4             | 22 | 1.74        | 44.1 | 3.23       | 82.1  |                    | Y             |      |
| T7-BPFX-0808  | 32105-0808 | 20243909 | 1/2          | 12.7 | 1/2-14          | 1 1/16            | 27 | 1 1/4             | 22 | 1.55        | 39.4 | 3.05       | 77.4  | Y                  |               | Y    |
| T8-BPFX-0808  | 34105-0808 | 20243905 | 1/2          | 12.7 | 1/2-14          | 1 1/16            | 27 | 1 1/4             | 22 | 1.55        | 39.4 | 3.05       | 77.4  |                    | Y             |      |
| T7-BPFX-1616  | 32105-1616 | 20243910 | 1            | 25.4 | 1-11            | 1 3/4             | 41 | 1 1/16            | 36 | 1.76        | 44.7 | 4.00       | 101.7 | Y                  |               |      |



## BSPP (British Standard Pipe Parallel)

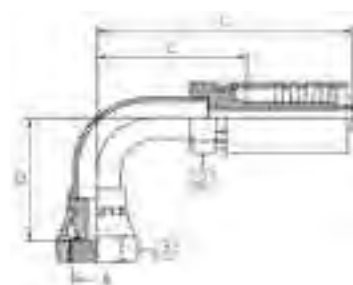
Female | 90° Elbow | Swivel



| Descriptive #  | Product #  | SAP #    | Hose Size ID |      | Thread Size (A) | Hex-1 Wrench Size |    | Hex-2 Wrench Size |    | Drop (D) |      | Cut-Off (C) |      | Length (L) |      | SR7, TR7, NR7, BR7 | SR8, TR8, NR8 | SR18 |
|----------------|------------|----------|--------------|------|-----------------|-------------------|----|-------------------|----|----------|------|-------------|------|------------|------|--------------------|---------------|------|
|                |            |          | in.          | mm   |                 | in.               | mm | in.               | mm | in.      | mm   | in.         | mm   | in.        | mm   |                    |               |      |
| T7-BPFX90-0606 | 32120-0606 | 20243911 | 3/8          | 9.5  | 3/8-19          | 7/8               | 22 | 11/16             | 17 | 1.50     | 38.0 | 1.57        | 40.0 | 2.83       | 72.0 | Y                  |               | Y    |
| T8-BPFX90-0606 | 34120-0606 | 20243914 | 3/8          | 9.5  | 3/8-19          | 7/8               | 22 | 11/16             | 17 | 1.50     | 38.0 | 1.57        | 40.0 | 2.83       | 72.0 |                    | Y             |      |
| T7-BPFX90-0808 | 32120-0808 | 20243913 | 1/2          | 12.7 | 1/2-14          | 1 1/16            | 27 | 7/8               | 22 | 1.67     | 42.5 | 1.65        | 42.0 | 3.15       | 80.0 | Y                  |               | Y    |
| T8-BPFX90-0808 | 34120-0808 | 20243912 | 1/2          | 12.7 | 1/2-14          | 1 1/16            | 27 | 7/8               | 22 | 1.67     | 42.5 | 1.65        | 42.0 | 3.15       | 80.0 |                    | Y             |      |

## DIN 60°

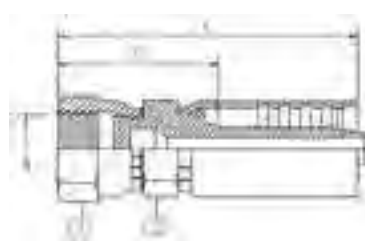
Female | 90° Elbow | Swivel



| Descriptive #  | Product #  | SAP #    | Hose Size ID |     | Thread Size (A) | Hex-1 Wrench Size |    | Hex-2 Wrench Size |    | Drop (D) |      | Cut-Off (C) |      | Length (L) |      | SR7, TR7, NR7, BR7 | SR8, TR8, NR8 | SR18 |
|----------------|------------|----------|--------------|-----|-----------------|-------------------|----|-------------------|----|----------|------|-------------|------|------------|------|--------------------|---------------|------|
|                |            |          | in.          | mm  |                 | in.               | mm | in.               | mm | in.      | mm   | in.         | mm   | in.        | mm   |                    |               |      |
| T8-DNFX90-0418 | 34280-0418 | 20243915 | 1/4          | 6.4 | 18x1 1/2        | 22                |    | 17                |    | 1.40     | 35.5 | 1.30        | 33.0 | 2.32       | 59.0 |                    | Y             |      |

## JIS 30° (Parallel Pipe Threads)

Female | Swivel



| Descriptive # | Product #  | SAP #    | Hose Size ID |      | Thread Size (A) | Hex-1 Wrench Size |    | Hex-2 Wrench Size |    | Cut-Off (C) |      | Length (L) |      | SR7, TR7, NR7, BR7 | SR8, TR8, NR8 | SR18 |
|---------------|------------|----------|--------------|------|-----------------|-------------------|----|-------------------|----|-------------|------|------------|------|--------------------|---------------|------|
|               |            |          | in.          | mm   |                 | in.               | mm | in.               | mm | in.         | mm   | in.        | mm   |                    |               |      |
| T7-JSFX-0404  | 32520-0404 | 20244023 | 1/4          | 6.4  | 1/4-19          | 3/4               | 19 | 13/16             | 19 | 1.38        | 34.9 | 2.46       | 62.6 | Y                  |               | Y    |
| T8-JSFX-0404  | 34520-0404 | 20244020 | 1/4          | 6.4  | 1/4-19          | 3/4               | 19 | 13/16             | 19 | 1.38        | 34.9 | 2.46       | 62.6 |                    | Y             |      |
| T7-JSFX-0606  | 32520-0606 | 20244022 | 3/8          | 9.5  | 3/8-19          | 7/8               | 22 | 7/8               | 22 | 1.56        | 39.7 | 2.82       | 71.6 | Y                  |               | Y    |
| T8-JSFX-0606  | 34520-0606 | 20244021 | 3/8          | 9.5  | 3/8-19          | 7/8               | 22 | 7/8               | 22 | 1.56        | 39.7 | 2.82       | 71.6 |                    | Y             |      |
| T7-JSFX-0808  | 32520-0808 | 20244025 | 1/2          | 12.7 | 1/2-14          | 1 1/16            | 27 | 7/8               | 22 | 1.69        | 42.9 | 3.32       | 84.4 | Y                  |               | Y    |
| T8-JSFX-0808  | 34520-0808 | 20244024 | 1/2          | 12.7 | 1/2-14          | 1 1/16            | 27 | 7/8               | 22 | 1.69        | 42.9 | 3.32       | 84.4 |                    | Y             |      |

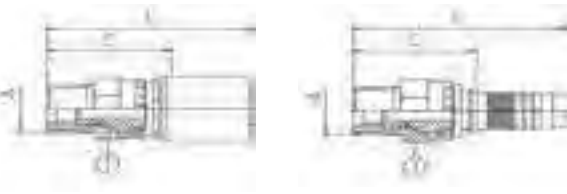
# How to Use the Fitting Tables

This section lists ALL fittings that are compatible with the following hoses:

| Hose Family | Hose Description                       |
|-------------|----------------------------------------|
| SR12        | SAE 100R12/EN 856 R12                  |
| ARC12       | SAE 100R12/EN 856 R12 (Abrasion Cover) |

Fitting Description

Fitting Type



S=Skive  
NS=Non-Skive  
DG=Dual-Grip™

| Descriptive #    | Product #  | SAP #    | Hose Size ID |      | Thread Size (A) | Hex-1 Wrench Size |    | Cut-Off (C) |      | Length (L) |      | Skive Type | SR12, ARC12          |
|------------------|------------|----------|--------------|------|-----------------|-------------------|----|-------------|------|------------|------|------------|----------------------|
|                  |            |          | in.          | mm   |                 | in.               | mm | in.         | mm   | in.        | mm   |            |                      |
| Ultra-Crimp, PN1 | 28645-0606 | 20242080 | 3/8          | 9.5  | 3/8-18          | 7/8               | 22 | 1.48        | 37.5 | 2.53       | 64.2 | NS         | Y                    |
| Ultra-Crimp, PN2 | 28645-0808 | 20242089 | 1/2          | 12.7 | 1/2-14          | 1                 | 25 | 1.67        | 42.3 | 2.91       | 73.8 | NS         |                      |
| Uni-Crimp, PN3   | 28645-1212 | 20242084 | 3/4          | 19.0 | 3/4-14          | 1 1/4             | 32 | 1.97        | 50.1 | 3.53       | 89.6 | NS         | Uni-Crimp Ferrule PN |

Choose fittings carefully, considering the working pressure of both hose and fitting. The maximum working pressure of the hose assembly is the lesser of the rated working pressure of the hose and the fitting. See page 327 for working pressure.

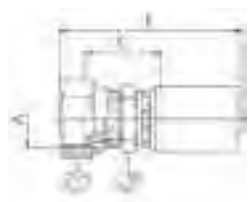
A **Part Number (Ferrule)** in the hose compatability columns indicates that the fitting is a **Uni-Crimp™** or **Dual-Grip™** style. The fitting, along with the Ferrule shown, work together as a unit for that particular hose.

A **“Y”** in the hose compatibility columns indicates that the fitting is an **Ultra-Crimp™** style fitting and that it works for that particular hose.

A **blank space** in the hose compatibility columns indicates that the fitting **DOES NOT** work for that particular hose.

## JIC 37° Flare (SAE J514)

Female | Swivel



S=Skive  
NS=Non-Skive  
DG=Dual-Grip™

| Descriptive #             | Product #   | SAP #    | Hose Size ID |      | Thread Size (A) | Hex-1 Wrench Size |    | Hex-2 Wrench Size |    | Cut-Off (C) |      | Length (L) |       | Skive Type | SR12, ARC12 |
|---------------------------|-------------|----------|--------------|------|-----------------|-------------------|----|-------------------|----|-------------|------|------------|-------|------------|-------------|
|                           |             |          | in.          | mm   |                 | in.               | mm | in.               | mm | in.         | mm   | in.        | mm    |            |             |
| S4-JCFX-0606              | 28400-0606  | 20242039 | 3/8          | 9.5  | 9/16-18         | 3/4               | 19 | 11/16             | 17 | 0.84        | 21.3 | 2.26       | 57.5  | NS         | Y           |
| S4-JCFX-0608              | 28400-0608  | 20242051 | 3/8          | 9.5  | 3/4-16          | 1                 | 25 | 3/4               | 19 | 0.98        | 24.8 | 2.45       | 62.2  | NS         | Y           |
| S4-JCFX-0806              | 28400-0806  | 20242033 | 1/2          | 12.7 | 9/16-18         | 3/4               | 19 | 3/4               | 19 | 0.91        | 23.1 | 2.52       | 64.1  | NS         | Y           |
| S4-JCFX-0808              | 28400-0808  | 20241956 | 1/2          | 12.7 | 3/4-16          | 1                 | 25 | 3/4               | 19 | 1.01        | 25.6 | 2.67       | 67.8  | NS         | Y           |
| S4-JCFX-0808S             | 28400-0808S | 20565523 | 1/2          | 12.7 | 3/4-16          | 1                 | 25 | 3/4               | 19 | 1.01        | 25.6 | 2.67       | 67.8  | NS         | Y           |
| S4-JCFX-0810              | 28400-0810  | 20242035 | 1/2          | 12.7 | 7/8-14          | 1 1/16            | 27 | 7/8               | 22 | 1.05        | 26.6 | 2.79       | 70.8  | NS         | Y           |
| S4-JCFX-0812              | 28400-0812  | 20241926 | 1/2          | 12.7 | 1 1/16-12       | 1 1/4             | 32 | 1                 | 25 | 1.11        | 28.1 | 2.91       | 73.9  | NS         | Y           |
| S4-JCFX-1008              | 28400-1008  | 20449625 | 5/8          | 15.9 | 3/4-16          | 1                 | 25 | 15/16             | 24 | 1.05        | 26.6 | 2.82       | 71.6  | NS         | Y           |
| S4-JCFX-1010              | 28400-1010  | 20242003 | 5/8          | 15.9 | 7/8-14          | 1 1/16            | 27 | 15/16             | 24 | 1.09        | 27.6 | 2.94       | 74.6  | NS         | Y           |
| S4-JCFX-1010S             | 28400-1010S | 20424907 | 5/8          | 15.9 | 7/8-14          | 1 1/16            | 27 | 15/16             | 24 | 1.09        | 27.6 | 2.94       | 74.6  | NS         | Y           |
| S4-JCFX-1012              | 28400-1012  | 20241989 | 5/8          | 15.9 | 1 1/16-12       | 1 1/4             | 32 | 1                 | 25 | 1.11        | 28.1 | 3.02       | 76.7  | NS         | Y           |
| S4-JCFX-1210              | 28400-1210  | 20242048 | 3/4          | 19.0 | 7/8-14          | 1 1/16            | 27 | 1 1/16            | 27 | 0.79        | 20.1 | 2.85       | 72.3  | NS         | Y           |
| S4-JCFX-1212              | 28400-1212  | 20242030 | 3/4          | 19.0 | 1 1/16-12       | 1 1/4             | 32 | 1 1/16            | 27 | 1.13        | 28.6 | 3.24       | 82.4  | NS         | Y           |
| S4-JCFX-1212S             | 28400-1212S | 20424909 | 3/4          | 19.0 | 1 1/16-12       | 1 1/4             | 32 | 1 1/16            | 27 | 1.13        | 28.6 | 3.24       | 82.4  | NS         | Y           |
| S4-JCFX-1214              | 28400-1214  | 20242045 | 3/4          | 19.0 | 1 3/16-12       | 1 1/16            | 36 | 1 1/4             | 32 | 0.78        | 19.9 | 2.92       | 74.1  | NS         | Y           |
| S4-JCFX-1216              | 28400-1216  | 20242044 | 3/4          | 19.0 | 1 5/16-12       | 1 1/2             | 38 | 1 1/4             | 32 | 1.26        | 32.1 | 3.41       | 86.7  | NS         | Y           |
| S4-JCFX-1612              | 28400-1612  | 20241937 | 1            | 25.4 | 1 1/16-12       | 1 1/4             | 32 | 1 1/4             | 32 | 1.24        | 31.4 | 3.56       | 90.3  | NS         | Y           |
| S4-JCFX-1616              | 28400-1616  | 20241917 | 1            | 25.4 | 1 5/16-12       | 1 1/2             | 38 | 1 1/4             | 32 | 1.30        | 32.9 | 3.65       | 92.6  | NS         | Y           |
| S4-JCFX-1616S             | 28400-1616S | 20424920 | 1            | 25.4 | 1 5/16-12       | 1 1/2             | 38 | 1 1/4             | 32 | 1.30        | 32.9 | 3.65       | 92.6  | NS         | Y           |
| S4-JCFX-1620 <sup>T</sup> | 28400-1620  | 20241920 | 1            | 25.4 | 1 3/8-12        | 2                 | 50 | 1 3/8             | 41 | 1.48        | 37.5 | 3.86       | 98.0  | NS         | Y           |
| S4-JCFX-2020 <sup>T</sup> | 28400-2020  | 20241915 | 1 1/4        | 31.8 | 1 3/8-12        | 2                 | 50 | 1 3/8             | 41 | 1.54        | 39.1 | 4.21       | 107.0 | NS         | Y           |
| S4-JCFX-2020S             | 28400-2020S | 20289599 | 1 1/4        | 31.8 | 1 3/8-12        | 2                 | 50 | 1 3/8             | 41 | 1.54        | 39.1 | 4.21       | 107.0 | NS         | Y           |
| S4-JCFX-2024 <sup>T</sup> | 28400-2024  | 20293262 | 1 1/4        | 31.8 | 1 7/8-12        | 2 3/16            | 55 | 2                 | 50 | 1.71        | 43.4 | 4.49       | 114.0 | NS         | Y           |
| S4-JCFX-2424 <sup>T</sup> | 28400-2424  | 20241928 | 1 1/2        | 38.1 | 1 7/8-12        | 2 3/16            | 55 | 2                 | 50 | 1.71        | 43.4 | 4.76       | 121.0 | NS         | Y           |
| S4-JCFX-2424S             | 28400-2424S | 20289598 | 1 1/2        | 38.1 | 1 7/8-12        | 2 3/16            | 55 | 2                 | 50 | 1.71        | 43.4 | 4.76       | 121.0 | NS         | Y           |
| S4-JCFX-3232 <sup>T</sup> | 28400-3232  | 20242028 | 2            | 50.8 | 2 1/2-12        | 2 3/4             | 70 | 2 9/16            | 65 | 1.93        | 49.0 | 5.71       | 145.0 | NS         | Y           |
| S4-JCFX-3232S             | 28400-3232S | 20739385 | 2            | 50.8 | 2 1/2-12        | 2 3/4             | 70 | 2 9/16            | 65 | 1.93        | 49.0 | 5.71       | 145.0 | NS         | Y           |

| Descriptive # | Product #   | SAP #    | Hose Size ID |     | Thread Size (A) | Hex-1 Wrench Size |    | Hex-2 Wrench Size |    | Cut-Off (C) |      | Length (L) |      | Skive Type | SR12, ARC12 |
|---------------|-------------|----------|--------------|-----|-----------------|-------------------|----|-------------------|----|-------------|------|------------|------|------------|-------------|
|               |             |          | in.          | mm  |                 | in.               | mm | in.               | mm | in.         | mm   | in.        | mm   |            |             |
| SG-JCFX-0604  | 29400-0604  | 20822056 | 3/8          | 9.5 | 7/16-20         | 5/8               | 16 | 11/16             | 17 | 1.27        | 32.2 | 2.73       | 69.2 | NS         | Y           |
| SG-JCFX-0606  | 29400-0606  | 20758248 | 3/8          | 9.5 | 9/16-18         | 3/4               | 19 | 11/16             | 17 | 1.32        | 33.6 | 2.78       | 70.6 | NS         | Y           |
| SG-JCFX-0606S | 29400-0606S | 20822055 | 3/8          | 9.5 | 9/16-18         | 3/4               | 19 | 11/16             | 17 | 1.32        | 33.6 | 2.78       | 70.6 | NS         | Y           |
| SG-JCFX-0608  | 29400-0608  | 20758284 | 3/8          | 9.5 | 3/4-16          | 1                 | 25 | 3/4               | 19 | 1.09        | 27.7 | 2.55       | 64.7 | NS         | Y           |
| SG-JCFX-0610  | 29400-0610  | 20822054 | 3/8          | 9.5 | 7/8-14          | 1 1/16            | 27 | 7/8               | 22 | 1.63        | 41.4 | 3.09       | 78.5 | NS         | Y           |

T: Thrust-Wire Nut (See "Fitting Identification" in Appendix for details) S: Stainless Steel

Continued on next page

JIC 37° Flare (SAE J514)

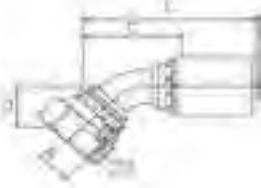
Female | Swivel Continued

| Descriptive #  | Product #   | SAP #    | Hose Size ID |      | Thread Size (A) | Hex-1 Wrench Size |    | Hex-2 Wrench Size |    | Cut-Off (C) |      | Length (L) |       | Skive Type | SR12, ARC12 |
|----------------|-------------|----------|--------------|------|-----------------|-------------------|----|-------------------|----|-------------|------|------------|-------|------------|-------------|
|                |             |          | in.          | mm   |                 | in.               | mm | in.               | mm | in.         | mm   | in.        | mm    |            |             |
| SG-JCFX-0806   | 29400-0806  | 20822053 | 1/2          | 12.7 | 9/16-18         | 3/4               | 19 | 3/4               | 19 | 1.36        | 34.6 | 2.90       | 73.6  | NS         | Y           |
| SG-JCFX-0808   | 29400-0808  | 20753008 | 1/2          | 12.7 | 3/4-16          | 1                 | 25 | 3/4               | 19 | 1.09        | 27.7 | 2.63       | 66.7  | NS         | Y           |
| SG-JCFX-0808S  | 29400-0808S | 20822052 | 1/2          | 12.7 | 3/4-16          | 1                 | 25 | 3/4               | 19 | 1.09        | 27.7 | 2.63       | 66.7  | NS         | Y           |
| SG-JCFX-0810   | 29400-0810  | 20758294 | 1/2          | 12.7 | 7/8-14          | 1 1/16            | 27 | 7/8               | 22 | 1.64        | 41.6 | 3.17       | 80.6  | NS         | Y           |
| SG-JCFX-0812T  | 29400-0812  | 20758299 | 1/2          | 12.7 | 1 1/16-12       | 1 1/4             | 32 | 1                 | 25 | 1.74        | 44.2 | 3.28       | 83.2  | NS         | Y           |
| SG-JCFX-1008   | 29400-1008  | 20822051 | 5/8          | 15.9 | 3/4-16          | 1                 | 25 | 15/16             | 24 | 1.65        | 41.9 | 3.24       | 82.3  | NS         | Y           |
| SG-JCFX-1010   | 29400-1010  | 20822050 | 5/8          | 15.9 | 7/8-14          | 1 1/16            | 27 | 15/16             | 24 | 1.76        | 44.8 | 3.36       | 85.3  | NS         | Y           |
| SG-JCFX-1010S  | 29400-1010S | 20822049 | 5/8          | 15.9 | 7/8-14          | 1 1/16            | 27 | 15/16             | 24 | 1.76        | 44.8 | 3.36       | 85.3  | NS         | Y           |
| SG-JCFX-1012T  | 29400-1012  | 20822048 | 5/8          | 15.9 | 1 1/16-12       | 1 1/4             | 32 | 1                 | 25 | 1.76        | 44.7 | 3.35       | 85.2  | NS         | Y           |
| SG-JCFX-1210   | 29400-1210  | 20822047 | 3/4          | 19.0 | 7/8-14          | 1 1/16            | 27 | 1 1/16            | 27 | 1.74        | 44.2 | 3.61       | 91.7  | NS         | Y           |
| SG-JCFX-1212T  | 29400-1212  | 20822046 | 3/4          | 19.0 | 1 1/16-12       | 1 1/4             | 32 | 1 1/16            | 27 | 1.80        | 45.7 | 3.67       | 93.2  | NS         | Y           |
| SG-JCFX-1212ST | 29400-1212S | 20822045 | 3/4          | 19.0 | 1 1/16-12       | 1 1/4             | 32 | 1 1/16            | 27 | 1.80        | 45.7 | 3.67       | 93.2  | NS         | Y           |
| SG-JCFX-1214   | 29400-1214  | 20822044 | 3/4          | 19.0 | 1 3/16-12       | 1 1/16            | 36 | 1 1/4             | 32 | 1.87        | 47.5 | 3.74       | 95.0  | NS         | Y           |
| SG-JCFX-1216T  | 29400-1216  | 20822043 | 3/4          | 19.0 | 1 5/16-12       | 1 1/2             | 38 | 1 1/4             | 32 | 1.46        | 37.1 | 3.33       | 84.6  | NS         | Y           |
| SG-JCFX-1612T  | 29400-1612  | 20822042 | 1            | 25.4 | 1 1/16-12       | 1 1/4             | 32 | 1 1/4             | 32 | 1.42        | 36.1 | 3.71       | 94.1  | NS         | Y           |
| SG-JCFX-1616T  | 29400-1616  | 20822041 | 1            | 25.4 | 1 5/16-12       | 1 1/2             | 38 | 1 1/4             | 32 | 2.12        | 53.7 | 4.40       | 111.7 | NS         | Y           |
| SG-JCFX-1616ST | 29400-1616S | 20822040 | 1            | 25.4 | 1 5/16-12       | 1 1/2             | 38 | 1 1/4             | 32 | 2.12        | 53.7 | 4.40       | 111.7 | NS         | Y           |
| SG-JCFX-1620T  | 29400-1620  | 20822039 | 1            | 25.4 | 1 1/2-12        | 2                 | 50 | 1 3/8             | 41 | 1.62        | 41.1 | 3.90       | 99.1  | NS         | Y           |

T: Thrust-Wire Nut (see "Fitting Identification" in Appendix for details)  
S: Stainless Steel

JIC 37° Flare (SAE J514)

Female | 45° Elbow | Swivel



S=Skive  
NS=Non-Skive  
DG=Dual-Grip™

| Descriptive #   | Product #  | SAP #    | Hose Size ID |      | Thread Size (A) | Hex-1 Wrench Size |    | Drop (D) |      | Cut-Off (C) |       | Length (L) |       | Skive Type | SR12, ARC12 |
|-----------------|------------|----------|--------------|------|-----------------|-------------------|----|----------|------|-------------|-------|------------|-------|------------|-------------|
|                 |            |          | in.          | mm   |                 | in.               | mm | in.      | mm   | in.         | mm    | in.        | mm    |            |             |
| S4-JCFX45-0606  | 28420-0606 | 20241969 | 3/8          | 9.5  | 9/16-18         | 3/4               | 19 | 0.43     | 11.0 | 1.81        | 46.0  | 2.87       | 73.0  | NS         | Y           |
| S4-JCFX45-0608  | 28420-0608 | 20241955 | 3/8          | 9.5  | 3/4-16          | 1                 | 25 | 0.59     | 15.0 | 1.85        | 47.0  | 2.91       | 74.0  | NS         | Y           |
| S4-JCFX45-0808  | 28420-0808 | 20241964 | 1/2          | 12.7 | 3/4-16          | 1                 | 25 | 0.59     | 15.0 | 2.05        | 52.0  | 3.27       | 83.0  | NS         | Y           |
| S4-JCFX45-0810  | 28420-0810 | 20241966 | 1/2          | 12.7 | 7/8-14          | 1 1/16            | 27 | 0.63     | 16.0 | 2.01        | 51.0  | 3.23       | 82.0  | NS         | Y           |
| S4-JCFX45-1010  | 28420-1010 | 20428863 | 5/8          | 15.9 | 7/8-14          | 1 1/16            | 27 | 0.75     | 19.0 | 2.44        | 62.0  | 3.78       | 96.0  | NS         | Y           |
| S4-JCFX45-1212  | 28420-1212 | 20241947 | 3/4          | 19.0 | 1 1/16-12       | 1 1/4             | 32 | 0.83     | 21.0 | 2.64        | 67.0  | 4.21       | 107.0 | NS         | Y           |
| S4-JCFX45-1616  | 28420-1616 | 20241958 | 1            | 25.4 | 1 5/16-12       | 1 1/2             | 38 | 0.94     | 24.0 | 3.11        | 79.0  | 4.88       | 124.0 | NS         | Y           |
| S4-JCFX45-1616S | 28423-1616 | 20241981 | 1            | 25.4 | 1 5/16-12       | 1 1/2             | 38 | 0.94     | 24.0 | 3.11        | 79.0  | 4.88       | 124.0 | NS         | Y           |
| S4-JCFX45-1620  | 28420-1620 | 20293259 | 1            | 25.4 | 1 1/2-12        | 2                 | 50 | 1.46     | 37.0 | 3.37        | 85.5  | 5.47       | 139.0 | NS         | Y           |
| S4-JCFX45-2020T | 28420-2020 | 20241961 | 1 1/4        | 31.8 | 1 1/2-12        | 2                 | 50 | 1.46     | 37.0 | 3.82        | 97.0  | 6.18       | 157.0 | NS         | Y           |
| S4-JCFX45-2424T | 28420-2424 | 20241960 | 1 1/2        | 38.1 | 1 7/8-12        | 2 3/16            | 55 | 1.69     | 43.0 | 4.45        | 113.0 | 7.15       | 181.5 | NS         | Y           |

T: Thrust-Wire Nut (see "Fitting Identification" in Appendix for details)

Continued on next page

## JIC 37° Flare (SAE J514)

Female | 45° Elbow | Swivel Continued

| Descriptive #    | Product #   | SAP #    | Hose Size ID |      | Thread Size (A) | Hex-1 Wrench Size |    | Hex-2 Wrench Size |      | Cut-Off (C) |      | Length (L) |       | Skive Type | SR12, ARC12 |
|------------------|-------------|----------|--------------|------|-----------------|-------------------|----|-------------------|------|-------------|------|------------|-------|------------|-------------|
|                  |             |          | in.          | mm   |                 | in.               | mm | in.               | mm   | in.         | mm   | in.        | mm    |            |             |
| SG-JCFX45-0606   | 29240-0606  | 20758293 | 3/8          | 9.5  | 9/16-18         | 3/4               | 19 | 0.43              | 11.0 | 1.81        | 46.0 | 3.27       | 83.0  | NS         | Y           |
| SG-JCFX45-0608   | 29240-0608  | 20822038 | 3/8          | 9.5  | 3/4-16          | 1                 | 25 | 0.59              | 15.0 | 1.85        | 47.0 | 3.31       | 84.0  | NS         | Y           |
| SG-JCFX45-0808   | 29240-0808  | 20758293 | 1/2          | 12.7 | 3/4-16          | 1                 | 25 | 0.59              | 15.0 | 2.08        | 52.9 | 3.62       | 91.9  | NS         | Y           |
| SG-JCFX45-0810   | 29240-0810  | 20822037 | 1/2          | 12.7 | 7/8-14          | 1 1/16            | 27 | 0.63              | 16.0 | 2.01        | 51.0 | 3.54       | 90.0  | NS         | Y           |
| SG-JCFX45-1010   | 29240-1010  | 20822036 | 5/8          | 15.9 | 7/8-14          | 1 1/16            | 27 | 0.63              | 16.0 | 1.76        | 44.8 | 4.15       | 105.5 | NS         | Y           |
| SG-JCFX45-1012T  | 29240-1012  | 20822035 | 5/8          | 15.9 | 1 1/16-12       | 1 1/4             | 32 | 0.90              | 22.9 | 2.56        | 65.0 | 4.15       | 105.5 | NS         | Y           |
| SG-JCFX45-1212T  | 29420-1212  | 20822034 | 3/4          | 19.0 | 1 1/16-12       | 1 1/4             | 32 | 1.08              | 27.4 | 2.79        | 70.8 | 4.91       | 124.8 | NS         | Y           |
| SG-JCFX45-1216   | 29420-1216  | 20822033 | 3/4          | 19.0 | 1 5/16-12       | 1 1/2             | 38 | 1.02              | 26.0 | 2.80        | 71.0 | 4.67       | 118.5 | NS         | Y           |
| SG-JCFX45-1616T  | 29420-1616  | 20822032 | 1            | 25.4 | 1 5/16-12       | 1 1/2             | 38 | 1.19              | 30.1 | 3.30        | 83.7 | 5.58       | 141.7 | NS         | Y           |
| SG-JCFX45-1616ST | 29420-1616S | 20822031 | 1            | 25.4 | 1 5/16-12       | 1 1/2             | 38 | 1.19              | 30.1 | 3.30        | 83.7 | 5.58       | 141.7 | NS         | Y           |
| SG-JCFX45-1620T  | 29420-1620  | 20822030 | 1            | 25.4 | 1 3/8-12        | 2                 | 50 | 1.25              | 31.8 | 3.37        | 85.6 | 5.65       | 143.6 | NS         | Y           |

T: Thrust-Wire Nut (See "Fitting Identification" in Appendix for details)

S: Stainless Steel

## JIC 37° Flare (SAE J514)

Female | 90° Elbow | Swivel

LT=Long Tube  
ST=Short TubeS=Skive  
NS=Non-Skive  
DG=Dual-Grip™

| Descriptive #   | Product #  | SAP #    | Hose Size ID |      | Thread Size (A) | Hex-1 Wrench Size |    | Elbow Type | Drop (D) |       | Cut-Off (C) |      | Length (L) |       | Skive Type | SGR12, ARC12 |
|-----------------|------------|----------|--------------|------|-----------------|-------------------|----|------------|----------|-------|-------------|------|------------|-------|------------|--------------|
|                 |            |          | in.          | mm   |                 | in.               | mm |            | in.      | mm    | in.         | mm   | in.        | mm    |            |              |
| S4-JCFX90-0606  | 28425-0606 | 20241903 | 3/8          | 9.5  | 9/16-18         | 3/4               | 19 |            | 1.38     | 35.0  | 1.22        | 31.0 | 2.28       | 58.0  | NS         | Y            |
| S4-JCFX90L-0606 | 28440-0606 | 20241975 | 3/8          | 9.5  | 9/16-18         | 3/4               | 19 | LT         | 2.13     | 54.0  | 1.69        | 43.0 | 2.76       | 70.0  | NS         | Y            |
| S4-JCFX90-0808  | 28425-0808 | 20241910 | 1/2          | 12.7 | 3/4-16          | 1                 | 25 |            | 1.57     | 40.0  | 1.46        | 37.0 | 2.72       | 69.0  | NS         | Y            |
| S4-JCFX90L-0808 | 28440-0808 | 20241986 | 1/2          | 12.7 | 3/4-16          | 1                 | 25 | LT         | 2.52     | 64.0  | 1.97        | 50.0 | 3.19       | 81.0  | NS         | Y            |
| S4-JCFX90-0810  | 28425-0810 | 20241912 | 1/2          | 12.7 | 7/8-14          | 1 1/16            | 27 |            | 1.85     | 47.0  | 1.69        | 43.0 | 2.95       | 75.0  | NS         | Y            |
| S4-JCFX90L-0810 | 28440-0810 | 20293261 | 1/2          | 12.7 | 7/8-14          | 1 1/16            | 27 | LT         | 2.56     | 65.0  | 1.46        | 37.0 | 2.72       | 69.0  | NS         | Y            |
| S4-JCFX90-1010  | 28425-1010 | 20241933 | 5/8          | 15.9 | 7/8-14          | 1 1/16            | 27 |            | 1.89     | 48.0  | 1.93        | 49.0 | 3.31       | 84.0  | NS         | Y            |
| S4-JCFX90-1012  | 28425-1012 | 20241931 | 5/8          | 15.9 | 1 1/16-12       | 1 1/4             | 32 |            | 2.28     | 58.0  | 1.89        | 48.0 | 3.23       | 82.0  | NS         | Y            |
| S4-JCFX90-1210  | 28425-1210 | 20457475 | 3/4          | 19.0 | 7/8-14          | 1 1/16            | 27 |            | 1.89     | 48.0  | 1.97        | 50.0 | 3.50       | 89.0  | NS         | Y            |
| S4-JCFX90-1212  | 28425-1212 | 20241898 | 3/4          | 19.0 | 1 1/16-12       | 1 1/4             | 32 |            | 2.13     | 54.0  | 2.05        | 52.0 | 3.62       | 92.0  | NS         | Y            |
| S4-JCFX90L-1212 | 28440-1212 | 20241972 | 3/4          | 19.0 | 1 1/16-12       | 1 1/4             | 32 | LT         | 3.74     | 95.0  | 2.13        | 54.0 | 3.70       | 94.0  | NS         | Y            |
| S4-JCFX90S-1212 | 28445-1212 | 20241941 | 3/4          | 19.0 | 1 1/16-12       | 1 1/4             | 32 | ST         | 1.81     | 46.0  | 2.28        | 58.0 | 3.82       | 97.0  | NS         | Y            |
| S4-JCFX90-1216  | 28425-1216 | 20241901 | 3/4          | 19.0 | 1 5/16-12       | 1 1/2             | 38 |            | 2.83     | 72.0  | 2.09        | 53.0 | 3.62       | 92.0  | NS         | Y            |
| S4-JCFX90-1616  | 28425-1616 | 20241979 | 1            | 25.4 | 1 5/16-12       | 1 1/2             | 38 |            | 2.81     | 71.5  | 2.87        | 73.0 | 4.61       | 117.0 | NS         | Y            |
| S4-JCFX90L-1616 | 28440-1616 | 20241984 | 1            | 25.4 | 1 5/16-12       | 1 1/2             | 38 | LT         | 4.49     | 114.0 | 3.11        | 79.0 | 4.84       | 123.0 | NS         | Y            |
| S4-JCFX90S-1616 | 28445-1616 | 20241935 | 1            | 25.4 | 1 5/16-12       | 1 1/2             | 38 | ST         | 2.20     | 56.0  | 2.91        | 74.0 | 4.69       | 119.0 | NS         | Y            |
| S4-JCFX90-1620  | 28425-1620 | 20432491 | 1            | 25.4 | 1 3/8-12        | 2                 | 50 |            | 3.07     | 78.0  | 2.87        | 73.0 | 4.61       | 117.0 | NS         | Y            |

Continued on next page

JIC 37° Flare (SAE J514)

Female | 90° Elbow | Swivel Continued

| Descriptive #               | Product #  | SAP #    | Hose Size ID |      | Thread Size (A) | Hex-1 Wrench Size |    | Elbow Type | Drop (D) |      | Cut-Off (C) |      | Length (L) |       | Skive Type | SGR12, ARC12 |
|-----------------------------|------------|----------|--------------|------|-----------------|-------------------|----|------------|----------|------|-------------|------|------------|-------|------------|--------------|
|                             |            |          | in.          | mm   |                 | in.               | mm |            | in.      | mm   | in.         | mm   | in.        | mm    |            |              |
| S4-JCFX90-2020 <sup>T</sup> | 28425-2020 | 20241906 | 1¼           | 31.8 | 1½-12           | 2                 | 50 |            | 3.07     | 78.0 | 3.23        | 82.0 | 5.28       | 134.0 | NS         | Y            |
| S4-JCFX90-2024 <sup>T</sup> | 28425-2024 | 20432492 | 1¼           | 31.8 | 1½-12           | 2¾ <sup>16</sup>  | 55 |            | 3.23     | 82.0 | 3.43        | 87.0 | 5.47       | 139.0 | NS         | Y            |
| S4-JCFX90-2424 <sup>T</sup> | 28425-2424 | 20241904 | 1½           | 38.1 | 1¾-12           | 2¾ <sup>16</sup>  | 55 |            | 3.62     | 92.0 | 3.74        | 95.0 | 6.06       | 154.0 | NS         | Y            |
| S4-JCFX90-3232 <sup>T</sup> | 28425-3232 | 20657096 | 2            | 50.8 | 2½-12           | 2¾                | 70 |            |          |      |             |      |            |       | NS         | Y            |

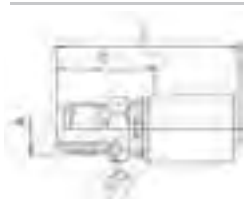
T: Thrust-Wire Nut (see "Fitting Identification" in Appendix for details)

| Descriptive #                | Product #  | SAP #    | Hose Size ID |      | Thread Size (A)      | Hex-1 Wrench Size |    | Elbow Type | Drop (D) |       | Cut-Off (C) |      | Length (L) |       | Skive Type | SGR12, ARC12 |
|------------------------------|------------|----------|--------------|------|----------------------|-------------------|----|------------|----------|-------|-------------|------|------------|-------|------------|--------------|
|                              |            |          | in.          | mm   |                      | in.               | mm |            | in.      | mm    | in.         | mm   | in.        | mm    |            |              |
| SG-JCFX90-0606               | 29425-0606 | 20758283 | 3/8          | 9.5  | 9/16-18              | 3/4               | 19 |            | 1.50     | 38.0  | 1.22        | 31.0 | 2.67       | 67.7  | NS         | Y            |
| SG-JCFX90L-0606              | 29440-0606 | 20822017 | 3/8          | 9.5  | 9/16-18              | 3/4               | 19 | LT         | 2.13     | 54.0  | 1.69        | 43.0 | 3.15       | 80.0  | NS         | Y            |
| SG-JCFX90S-0606              | 29445-0606 | 20822008 | 3/8          | 9.5  | 9/16-18              | 3/4               | 19 | ST         | 0.91     | 23.0  | 1.65        | 42.0 | 3.11       | 79.0  | NS         | Y            |
| SG-JCFX90-0608               | 29425-0608 | 20822028 | 3/8          | 9.5  | 3/4-16               | 1                 | 25 |            | 1.61     | 41.0  | 1.54        | 39.0 | 2.99       | 76.0  | NS         | Y            |
| SG-JCFX90L-0608              | 29440-0608 | 20822016 | 3/8          | 9.5  | 3/4-16               | 1                 | 25 | LT         | 2.52     | 64.0  | 1.85        | 47.0 | 3.31       | 84.0  | NS         | Y            |
| SG-JCFX90S-0608              | 29445-0608 | 20822007 | 3/8          | 9.5  | 3/4-16               | 1                 | 25 | ST         | 1.85     | 47.0  | 1.93        | 49.0 | 3.39       | 86.0  | NS         | Y            |
| SG-JCFX90-0808               | 29425-0808 | 20758292 | 1/2          | 12.7 | 3/4-16               | 1                 | 25 |            | 1.58     | 40.0  | 1.49        | 37.9 | 3.03       | 76.9  | NS         | Y            |
| SG-JCFX90L-0808              | 29440-0808 | 20822015 | 1/2          | 12.7 | 3/4-16               | 1                 | 25 | LT         | 2.52     | 64.0  | 2.01        | 50.9 | 3.54       | 89.9  | NS         | Y            |
| SG-JCFX90S-0808              | 29445-0808 | 20822006 | 1/2          | 12.7 | 3/4-16               | 1                 | 25 | ST         | 1.14     | 29.0  | 1.81        | 46.0 | 3.38       | 85.9  | NS         | Y            |
| SG-JCFX90-0810               | 29425-0810 | 20822027 | 1/2          | 12.7 | 7/8-14               | 1½ <sup>16</sup>  | 27 |            | 1.85     | 47.0  | 1.69        | 43.0 | 3.23       | 82.0  | NS         | Y            |
| SG-JCFX90L-0810              | 29440-0810 | 20822014 | 1/2          | 12.7 | 7/8-14               | 1½ <sup>16</sup>  | 27 | LT         | 2.76     | 70.0  | 1.46        | 37.0 | 2.99       | 76.0  | NS         | Y            |
| SG-JCFX90S-0810              | 29445-0810 | 20822005 | 1/2          | 12.7 | 7/8-14               | 1½ <sup>16</sup>  | 27 | ST         | 1.26     | 32.0  | 1.81        | 46.0 | 3.38       | 85.9  | NS         | Y            |
| SG-JCFX90-0812               | 29445-0812 | 20822026 | 1/2          | 12.7 | 1½ <sup>16</sup> -12 | 1¼                | 32 |            | 1.81     | 46.0  | 1.49        | 37.9 | 3.03       | 76.9  | NS         | Y            |
| SG-JCFX90-1010               | 29425-1010 | 20822025 | 5/8          | 15.9 | 7/8-14               | 1½ <sup>16</sup>  | 27 |            | 1.85     | 47.0  | 1.76        | 44.8 | 3.52       | 89.5  | NS         | Y            |
| SG-JCFX90L-1010              | 29440-1010 | 20822013 | 5/8          | 15.9 | 7/8-14               | 1½ <sup>16</sup>  | 27 | LT         | 2.76     | 70.0  | 1.76        | 44.8 | 3.56       | 90.5  | NS         | Y            |
| SG-JCFX90S-1010              | 29445-1010 | 20822004 | 5/8          | 15.9 | 7/8-14               | 1½ <sup>16</sup>  | 27 | ST         | 1.26     | 32.0  | 1.76        | 44.8 | 3.52       | 89.5  | NS         | Y            |
| SG-JCFX90-1012 <sup>T</sup>  | 29425-1012 | 20822024 | 5/8          | 15.9 | 1½ <sup>16</sup> -12 | 1¼                | 32 |            | 2.28     | 58.0  | 2.35        | 59.7 | 3.94       | 100.2 | NS         | Y            |
| SG-JCFX90L-1012 <sup>T</sup> | 29440-1012 | 20822012 | 5/8          | 15.9 | 1½ <sup>16</sup> -12 | 1¼                | 32 | LT         | 3.78     | 96.0  | 2.35        | 59.7 | 3.94       | 100.2 | NS         | Y            |
| SG-JCFX90-1210               | 29425-1210 | 20822023 | 3/4          | 19.0 | 7/8-14               | 1½ <sup>16</sup>  | 27 |            | 1.85     | 47.0  | 1.97        | 50.0 | 3.84       | 97.5  | NS         | Y            |
| SG-JCFX90L-1210              | 29440-1210 | 20822011 | 3/4          | 19.0 | 7/8-14               | 1½ <sup>16</sup>  | 27 | LT         | 2.76     | 70.0  | 1.97        | 50.0 | 3.84       | 97.5  | NS         | Y            |
| SG-JCFX90S-1210              | 29445-1210 | 20822003 | 3/4          | 19.0 | 7/8-14               | 1½ <sup>16</sup>  | 27 | ST         | 1.26     | 32.0  | 1.97        | 50.0 | 3.84       | 97.5  | NS         | Y            |
| SG-JCFX90-1212 <sup>T</sup>  | 29425-1212 | 20822022 | 3/4          | 19.0 | 1½ <sup>16</sup> -12 | 1¼                | 32 |            | 2.24     | 56.9  | 2.35        | 59.7 | 4.22       | 107.2 | NS         | Y            |
| SG-JCFX90L-1212 <sup>T</sup> | 29440-1212 | 20822010 | 3/4          | 19.0 | 1½ <sup>16</sup> -12 | 1¼                | 32 | LT         | 3.78     | 96.0  | 2.35        | 59.7 | 4.22       | 107.2 | NS         | Y            |
| SG-JCFX90S-1212 <sup>T</sup> | 29445-1212 | 20822002 | 3/4          | 19.0 | 1½ <sup>16</sup> -12 | 1¼                | 32 | ST         | 1.89     | 48.0  | 2.35        | 59.7 | 4.22       | 107.2 | NS         | Y            |
| SG-JCFX90-1216 <sup>T</sup>  | 29425-1216 | 20822021 | 3/4          | 19.0 | 1½ <sup>16</sup> -12 | 1½                | 38 |            | 2.80     | 71.0  | 2.35        | 59.7 | 4.22       | 107.2 | NS         | Y            |
| SG-JCFX90-1616 <sup>T</sup>  | 29425-1616 | 20822020 | 1            | 25.4 | 1½ <sup>16</sup> -12 | 1½                | 38 |            | 2.80     | 71.0  | 2.97        | 75.5 | 5.25       | 133.5 | NS         | Y            |
| SG-JCFX90L-1616 <sup>T</sup> | 29440-1616 | 20822009 | 1            | 25.4 | 1½ <sup>16</sup> -12 | 1½                | 38 | LT         | 4.49     | 114.0 | 3.10        | 78.7 | 5.38       | 136.7 | NS         | Y            |
| SG-JCFX90S-1616 <sup>T</sup> | 29445-1616 | 20822001 | 1            | 25.4 | 1½ <sup>16</sup> -12 | 1½                | 38 | ST         | 2.44     | 61.9  | 2.55        | 64.8 | 4.83       | 122.8 | NS         | Y            |
| SG-JCFX90-1620 <sup>T</sup>  | 29425-1620 | 20822019 | 1            | 25.4 | 1¾-12                | 2                 | 50 |            | 3.07     | 78.0  | 2.87        | 72.9 | 5.15       | 130.9 | NS         | Y            |

T: Thrust-Wire Nut (see "Fitting Identification" in Appendix for details)

## JIC 37° Flare (SAE J514)

Male



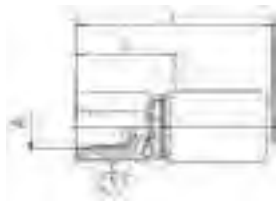
S=Skive  
NS=Non-Skive  
DG=Dual-Grip™

| Descriptive # | Product #  | SAP #    | Hose Size ID |      | Thread Size (A) | Hex-1 Wrench Size |    | Cut-Off (C) |      | Length (L) |       | Skive Type | SR12, ARC12 |
|---------------|------------|----------|--------------|------|-----------------|-------------------|----|-------------|------|------------|-------|------------|-------------|
|               |            |          | in.          | mm   |                 | in.               | mm | in.         | mm   | in.        | mm    |            |             |
| S4-JCM-0606   | 28450-0606 | 20242013 | 3/8          | 9.5  | 9/16-18         | 11/16             | 17 | 1.04        | 26.3 | 2.09       | 53.0  | NS         | Y           |
| S4-JCM-0608   | 28450-0608 | 20242015 | 3/8          | 9.5  | 3/4-16          | 3/4               | 19 | 1.17        | 29.8 | 2.22       | 56.5  | NS         | Y           |
| S4-JCM-0808   | 28450-0808 | 20242006 | 1/2          | 12.7 | 3/4-16          | 3/4               | 19 | 1.20        | 30.6 | 2.44       | 62.1  | NS         | Y           |
| S4-JCM-0810   | 28450-0810 | 20241992 | 1/2          | 12.7 | 7/8-14          | 15/16             | 24 | 1.36        | 34.6 | 2.60       | 66.1  | NS         | Y           |
| S4-JCM-0812   | 28450-0812 | 20241996 | 1/2          | 12.7 | 1 1/16-12       | 1 1/16            | 27 | 1.46        | 37.1 | 2.70       | 68.6  | NS         | Y           |
| S4-JCM-1010   | 28450-1010 | 20242009 | 5/8          | 15.9 | 7/8-14          | 15/16             | 24 | 1.36        | 34.6 | 2.71       | 68.9  | NS         | Y           |
| S4-JCM-1212   | 28450-1212 | 20242021 | 3/4          | 19.0 | 1 1/16-12       | 1 1/16            | 27 | 1.48        | 37.6 | 3.04       | 77.1  | NS         | Y           |
| S4-JCM-1214   | 28450-1214 | 20242019 | 3/4          | 19.0 | 1 3/16-12       | 1 1/4             | 32 | 1.58        | 40.1 | 3.13       | 79.6  | NS         | Y           |
| S4-JCM-1216   | 28450-1216 | 20242017 | 3/4          | 19.0 | 1 5/16-12       | 1 7/16            | 36 | 1.68        | 42.6 | 3.23       | 82.1  | NS         | Y           |
| S4-JCM-1616   | 28450-1616 | 20242001 | 1            | 25.4 | 1 5/16-12       | 1 7/16            | 36 | 1.71        | 43.4 | 3.46       | 88.0  | NS         | Y           |
| S4-JCM-1620   | 28450-1620 | 20242000 | 1            | 25.4 | 1 5/8-12        | 1 13/16           | 46 | 1.85        | 46.9 | 3.60       | 91.5  | NS         | Y           |
| S4-JCM-2020   | 28450-2020 | 20241999 | 1 1/4        | 31.8 | 1 5/8-12        | 1 13/16           | 46 | 1.91        | 48.5 | 3.96       | 100.5 | NS         | Y           |
| S4-JCM-2024   | 28450-2024 | 20241998 | 1 1/4        | 31.8 | 1 7/8-12        | 2                 | 50 | 2.07        | 52.5 | 4.11       | 104.5 | NS         | Y           |
| S4-JCM-2424   | 28450-2424 | 20242027 | 1 1/2        | 38.1 | 1 7/8-12        | 2                 | 50 | 2.07        | 52.5 | 4.39       | 111.5 | NS         | Y           |
| S4-JCM-3232   | 28450-3232 | 20242023 | 2            | 50.8 | 2 1/2-12        | 2 9/16            | 65 | 2.44        | 62.0 | 5.28       | 134.0 | NS         | Y           |

| Descriptive # | Product #  | SAP #    | Hose Size ID |      | Thread Size (A) | Hex-1 Wrench Size |    | Cut-Off (C) |      | Length (L) |       | Skive Type | SR12, ARC12 |
|---------------|------------|----------|--------------|------|-----------------|-------------------|----|-------------|------|------------|-------|------------|-------------|
|               |            |          | in.          | mm   |                 | in.               | mm | in.         | mm   | in.        | mm    |            |             |
| SG-JCM-0606   | 29450-0606 | 20758249 | 3/8          | 9.5  | 9/16-18         | 11/16             | 17 | 1.15        | 29.1 | 2.60       | 66.1  | NS         | Y           |
| SG-JCM-0608   | 29450-0608 | 20758285 | 3/8          | 9.5  | 3/4-16          | 3/4               | 19 | 1.29        | 32.8 | 2.75       | 69.9  | NS         | Y           |
| SG-JCM-0610   | 29450-0610 | 20822000 | 3/8          | 9.5  | 7/8-14          | 15/16             | 24 | 1.45        | 36.8 | 2.91       | 73.8  | NS         | Y           |
| SG-JCM-0808   | 29450-0808 | 20758291 | 1/2          | 12.7 | 3/4-16          | 3/4               | 19 | 1.29        | 32.8 | 2.83       | 71.9  | NS         | Y           |
| SG-JCM-0810   | 29450-0810 | 20758296 | 1/2          | 12.7 | 7/8-14          | 15/16             | 24 | 1.45        | 36.8 | 2.99       | 75.8  | NS         | Y           |
| SG-JCM-0812   | 29450-0812 | 20758295 | 1/2          | 12.7 | 1 1/16-12       | 1 1/16            | 27 | 1.54        | 39.1 | 3.07       | 78.1  | NS         | Y           |
| SG-JCM-1010   | 29450-1010 | 20821999 | 5/8          | 15.9 | 7/8-14          | 15/16             | 24 | 1.47        | 37.3 | 3.06       | 77.8  | NS         | Y           |
| SG-JCM-1012   | 29450-1012 | 20821998 | 5/8          | 15.9 | 1 1/16-12       | 1 1/16            | 27 | 1.56        | 39.6 | 3.15       | 80.1  | NS         | Y           |
| SG-JCM-1212   | 29450-1212 | 20821997 | 3/4          | 19.0 | 1 1/16-12       | 1 1/16            | 27 | 1.60        | 40.6 | 3.47       | 88.1  | NS         | Y           |
| SG-JCM-1214   | 29450-1229 | 20821996 | 3/4          | 19.0 | 1 3/16-12       | 1 1/4             | 32 | 1.73        | 43.9 | 3.60       | 91.4  | NS         | Y           |
| SG-JCM-1216   | 29450-1216 | 20821995 | 3/4          | 19.0 | 1 5/16-12       | 1 7/16            | 36 | 1.77        | 45.1 | 3.66       | 93.1  | NS         | Y           |
| SG-JCM-1616   | 29450-1616 | 20821994 | 1            | 25.4 | 1 5/16-12       | 1 7/16            | 36 | 1.83        | 46.6 | 4.12       | 104.6 | NS         | Y           |
| SG-JCM-1620   | 29450-1620 | 20821993 | 1            | 25.4 | 1 5/8-12        | 1 13/16           | 46 | 1.99        | 50.5 | 4.27       | 108.6 | NS         | Y           |

NPTF

Female

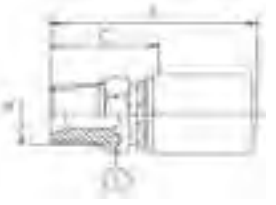


S=Skive  
NS=Non-Skive  
DG=Dual-Grip™

| Descriptive # | Product #  | SAP #    | Hose Size ID |      | Thread Size (A) | Hex-1 Wrench Size |    | Cut-Off (C) |      | Length (L) |      | Skive Type | SR12, ARC12 |
|---------------|------------|----------|--------------|------|-----------------|-------------------|----|-------------|------|------------|------|------------|-------------|
|               |            |          | in.          | mm   |                 | in.               | mm | in.         | mm   | in.        | mm   |            |             |
| SG-NPF-0808   | 29600-0808 | 20821973 | 1/2          | 12.7 | 1/2-14          | 1                 | 25 | 1.48        | 37.6 | 3.02       | 76.6 | NS         | Y           |

NPTF

Male



S=Skive  
NS=Non-Skive  
DG=Dual-Grip™

| Descriptive # | Product #   | SAP #    | Hose Size ID |      | Thread Size (A) | Hex-1 Wrench Size |    | Cut-Off (C) |      | Length (L) |       | Skive Type | SR12, ARC12 |
|---------------|-------------|----------|--------------|------|-----------------|-------------------|----|-------------|------|------------|-------|------------|-------------|
|               |             |          | in.          | mm   |                 | in.               | mm | in.         | mm   | in.        | mm    |            |             |
| S4-NPM-0604   | 28615-0604  | 20242068 | 3/8          | 9.5  | 1/4-18          | 11/16             | 17 | 1.06        | 26.8 | 2.11       | 53.5  | NS         | Y           |
| S4-NPM-0606   | 28615-0606  | 20242070 | 3/8          | 9.5  | 3/8-18          | 3/4               | 19 | 1.09        | 27.8 | 2.15       | 54.5  | NS         | Y           |
| S4-NPM-0608   | 28615-0608  | 20242073 | 3/8          | 9.5  | 1/2-14          | 7/8               | 22 | 1.23        | 31.3 | 2.28       | 58.0  | NS         | Y           |
| S4-NPM-0806   | 28615-0806  | 20242114 | 1/2          | 12.7 | 3/8-18          | 3/4               | 19 | 1.13        | 28.6 | 2.37       | 60.1  | NS         | Y           |
| S4-NPM-0808   | 28615-0808  | 20242100 | 1/2          | 12.7 | 1/2-14          | 7/8               | 22 | 1.26        | 32.1 | 2.50       | 63.6  | NS         | Y           |
| S4-NPM-0812   | 28615-0812  | 20242112 | 1/2          | 12.7 | 3/4-14          | 1 1/16            | 27 | 1.34        | 34.1 | 2.58       | 65.6  | NS         | Y           |
| S4-NPM-1012   | 28615-1012  | 20242072 | 5/8          | 15.9 | 3/4-14          | 1 1/16            | 27 | 1.34        | 34.1 | 2.69       | 68.4  | NS         | Y           |
| S4-NPM-1208   | 28615-1208  | 20242090 | 3/4          | 19.0 | 1/2-14          | 1 1/16            | 27 | 1.32        | 33.6 | 2.88       | 73.1  | NS         | Y           |
| S4-NPM-1212   | 28615-1212  | 20242075 | 3/4          | 19.0 | 3/4-14          | 1 1/16            | 27 | 1.36        | 34.6 | 2.92       | 74.1  | NS         | Y           |
| S4-NPM-1212S  | 28615-1212S | 20424928 | 3/4          | 19.0 | 3/4-14          | 1 1/16            | 27 | 1.36        | 34.6 | 2.92       | 74.1  | NS         | Y           |
| S4-NPM-1216   | 28615-1216  | 20242097 | 3/4          | 19.0 | 1-11 1/2        | 1 7/16            | 36 | 1.72        | 43.6 | 3.27       | 83.1  | NS         | Y           |
| S4-NPM-1612   | 28615-1612  | 20242096 | 1            | 25.4 | 3/4-14          | 1 7/16            | 36 | 1.55        | 39.4 | 3.31       | 84.0  | NS         | Y           |
| S4-NPM-1616   | 28615-1616  | 20242098 | 1            | 25.4 | 1-11 1/2        | 1 7/16            | 36 | 1.75        | 44.4 | 3.50       | 89.0  | NS         | Y           |
| S4-NPM-1616S  | 28615-1616S | 20424929 | 1            | 25.4 | 1-11 1/2        | 1 7/16            | 36 | 1.75        | 44.4 | 3.50       | 89.0  | NS         | Y           |
| S4-NPM-1620   | 28615-1620  | 20242101 | 1            | 25.4 | 1 1/4-11 1/2    | 1 13/16           | 46 | 1.87        | 47.4 | 3.62       | 92.0  | NS         | Y           |
| S4-NPM-2020   | 28615-2020  | 20242094 | 1 1/4        | 31.8 | 1 1/4-11 1/2    | 1 13/16           | 46 | 1.93        | 49.0 | 3.98       | 101.0 | NS         | Y           |
| S4-NPM-2020S  | 28615-2020S | 20424930 | 1 1/4        | 31.8 | 1 1/4-11 1/2    | 1 13/16           | 46 | 1.93        | 49.0 | 3.98       | 101.0 | NS         | Y           |
| S4-NPM-2024   | 28615-2024  | 20242095 | 1 1/4        | 31.8 | 1 1/2-11 1/2    | 2                 | 50 | 1.99        | 50.5 | 4.04       | 102.5 | NS         | Y           |
| S4-NPM-2424   | 28615-2424  | 20242102 | 1 1/2        | 38.1 | 1 1/2-11 1/2    | 2                 | 50 | 1.99        | 50.5 | 4.31       | 109.5 | NS         | Y           |
| S4-NPM-2424S  | 28615-2424S | 20424931 | 1 1/2        | 38.1 | 1 1/2-11 1/2    | 2                 | 50 | 1.99        | 50.5 | 4.31       | 109.5 | NS         | Y           |
| S4-NPM-3232   | 28615-3232  | 20242108 | 2            | 50.8 | 2-11 1/2        | 2 9/16            | 65 | 2.13        | 54.2 | 4.97       | 126.2 | NS         | Y           |

Continued on next page



## NPTF

## Male Continued

| Descriptive # | Product #   | SAP #    | Hose Size ID |      | Thread Size (A) | Hex-1 Wrench Size |    | Cut-Off (C) |      | Length (L) |       | Skive Type | SR12, ARC12 |
|---------------|-------------|----------|--------------|------|-----------------|-------------------|----|-------------|------|------------|-------|------------|-------------|
|               |             |          | in.          | mm   |                 | in.               | mm | in.         | mm   | in.        | mm    |            |             |
| SG-NPM-0604   | 29615-0604  | 20731608 | 3/8          | 9.5  | 1/4-18          | 11/16             | 17 | 1.17        | 29.7 | 2.63       | 66.8  | NS         | Y           |
| SG-NPM-0606   | 29615-0606  | 20731748 | 3/8          | 9.5  | 3/8-18          | 3/4               | 19 | 1.20        | 30.5 | 2.66       | 67.5  | NS         | Y           |
| SG-NPM-0606S  | 29615-0606S | 20821971 | 3/8          | 9.5  | 3/8-18          | 3/4               | 19 | 1.20        | 30.5 | 2.66       | 67.5  | NS         | Y           |
| SG-NPM-0608   | 29615-0608  | 20758280 | 3/8          | 9.5  | 1/2-14          | 7/8               | 22 | 1.37        | 34.9 | 2.83       | 71.9  | NS         | Y           |
| SG-NPM-0806   | 29615-0806  | 20731755 | 1/2          | 12.7 | 3/8-18          | 3/4               | 19 | 1.20        | 30.5 | 2.73       | 69.4  | NS         | Y           |
| SG-NPM-0808   | 29615-0808  | 20753007 | 1/2          | 12.7 | 1/2-14          | 7/8               | 22 | 1.37        | 34.9 | 2.91       | 73.9  | NS         | Y           |
| SG-NPM-0808S  | 29615-0808S | 20821970 | 1/2          | 12.7 | 1/2-14          | 7/8               | 22 | 1.37        | 34.9 | 2.91       | 73.9  | NS         | Y           |
| SG-NPM-0812   | 29615-0812  | 20758303 | 1/2          | 12.7 | 3/4-14          | 1 1/16            | 27 | 1.42        | 36.0 | 2.95       | 75.0  | NS         | Y           |
| SG-NPM-1012   | 29615-1012  | 20821969 | 5/8          | 15.9 | 3/4-14          | 1 1/16            | 27 | 1.44        | 36.5 | 3.03       | 77.0  | NS         | Y           |
| SG-NPM-1208   | 29615-1208  | 20821968 | 3/4          | 19.0 | 1/2-14          | 1 1/16            | 27 | 1.43        | 36.4 | 3.30       | 83.9  | NS         | Y           |
| SG-NPM-1212   | 29615-1212  | 20821967 | 3/4          | 19.0 | 3/4-14          | 1 1/16            | 27 | 1.48        | 37.5 | 3.35       | 85.0  | NS         | Y           |
| SG-NPM-1212S  | 29615-1212S | 20821966 | 3/4          | 19.0 | 3/4-14          | 1 1/16            | 27 | 1.48        | 37.5 | 3.35       | 85.0  | NS         | Y           |
| SG-NPM-1216   | 29615-1216  | 20821965 | 3/4          | 19.0 | 1-11 1/2        | 1 7/16            | 36 | 1.83        | 46.6 | 3.70       | 94.1  | NS         | Y           |
| SG-NPM-1612   | 29615-1612  | 20821964 | 1            | 25.4 | 3/4-14          | 1 7/16            | 36 | 1.70        | 43.2 | 3.99       | 101.2 | NS         | Y           |
| SG-NPM-1616   | 29615-1616  | 20821963 | 1            | 25.4 | 1-11 1/2        | 1 7/16            | 36 | 1.89        | 48.1 | 4.18       | 106.1 | NS         | Y           |
| SG-NPM-1616S  | 29615-1616S | 20821962 | 1            | 25.4 | 1-11 1/2        | 1 7/16            | 36 | 1.89        | 48.1 | 4.18       | 106.1 | NS         | Y           |
| SG-NPM-1620   | 29615-1620  | 20821961 | 1            | 25.4 | 1 1/4-11 1/2    | 1 13/16           | 46 | 2.03        | 51.5 | 4.31       | 109.5 | NS         | Y           |

S: Stainless Steel

## NPTF

## Male | Swivel



S=Skive  
NS=Non-Skive  
DG=Dual-Grip™

| Descriptive # | Product #  | SAP #    | Hose Size ID |      | Thread Size (A) | Hex-1 Wrench Size |    | Cut-Off (C) |      | Length (L) |      | Skive Type | SR12, ARC12 |
|---------------|------------|----------|--------------|------|-----------------|-------------------|----|-------------|------|------------|------|------------|-------------|
|               |            |          | in.          | mm   |                 | in.               | mm | in.         | mm   | in.        | mm   |            |             |
| S4-NPMX-0606  | 28645-0606 | 20242080 | 3/8          | 9.5  | 3/8-18          | 7/8               | 22 | 1.48        | 37.5 | 2.53       | 64.2 | NS         | Y           |
| S4-NPMX-0808  | 28645-0808 | 20242089 | 1/2          | 12.7 | 1/2-14          | 1                 | 25 | 1.67        | 42.3 | 2.91       | 73.8 | NS         | Y           |
| S4-NPMX-1212  | 28645-1212 | 20242084 | 3/4          | 19.0 | 3/4-14          | 1 1/4             | 32 | 1.97        | 50.1 | 3.53       | 89.6 | NS         | Y           |

| Descriptive # | Product #  | SAP #    | Hose Size ID |      | Thread Size (A) | Hex-1 Wrench Size |    | Cut-Off (C) |      | Length (L) |       | Skive Type | SR12, ARC12 |
|---------------|------------|----------|--------------|------|-----------------|-------------------|----|-------------|------|------------|-------|------------|-------------|
|               |            |          | in.          | mm   |                 | in.               | mm | in.         | mm   | in.        | mm    |            |             |
| SG-NPMX-0604  | 29645-0604 | 20821959 | 3/8          | 9.5  | 1/4-18          | 11/16             | 17 | 1.67        | 42.3 | 3.12       | 79.3  | NS         | Y           |
| SG-NPMX-0606  | 29645-0606 | 20821958 | 3/8          | 9.5  | 3/8-18          | 7/8               | 22 | 1.58        | 40.1 | 3.04       | 77.1  | NS         | Y           |
| SG-NPMX-0608  | 29645-0608 | 20821957 | 3/8          | 9.5  | 1/2-14          | 1                 | 25 | 1.73        | 44.0 | 3.19       | 81.0  | NS         | Y           |
| SG-NPMX-0806  | 29645-0806 | 20821956 | 1/2          | 12.7 | 3/8-18          | 7/8               | 22 | 1.58        | 40.1 | 3.12       | 79.1  | NS         | Y           |
| SG-NPMX-0808  | 29645-0808 | 20821955 | 1/2          | 12.7 | 1/2-14          | 1                 | 25 | 1.73        | 44.0 | 3.27       | 83.0  | NS         | Y           |
| SG-NPMX-1212  | 29645-1212 | 20821954 | 3/4          | 19.0 | 3/4-14          | 1 1/4             | 32 | 2.08        | 52.8 | 3.95       | 100.3 | NS         | Y           |
| SG-NPMX-1616  | 29645-1616 | 20821953 | 1            | 25.4 | 1-11 1/2        | 1 3/4             | 41 | 2.40        | 60.9 | 4.68       | 118.9 | NS         | Y           |

NPT

Male API

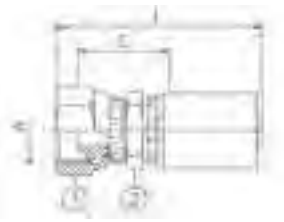


S=Skive  
NS=Non-Skive  
DG=Dual-Grip™

| Descriptive #  | Product #  | SAP #    | Hose Size ID |      | Thread Size (A) | Hex-1 Wrench Size |    | Cut-Off (C) |      | Length (L) |       | Skive Type | SR12, ARC12 |
|----------------|------------|----------|--------------|------|-----------------|-------------------|----|-------------|------|------------|-------|------------|-------------|
|                |            |          | in.          | mm   |                 | in.               | mm | in.         | mm   | in.        | mm    |            |             |
| SG-NPMAP1-1616 | 29617-1616 | 20821960 | 1            | 25.4 | 1-11½           | 17/16             | 36 | 2.72        | 69.0 | 5.00       | 127.0 | NS         | Y           |

NPSM

Female | Swivel



S=Skive  
NS=Non-Skive  
DG=Dual-Grip™

| Descriptive # | Product #  | SAP #    | Hose Size ID |      | Thread Size (A) | Hex-1 Wrench Size |    | Hex-2 Wrench Size |    | Cut-Off (C) |      | Length (L) |       | Skive Type | SR12, ARC12 |
|---------------|------------|----------|--------------|------|-----------------|-------------------|----|-------------------|----|-------------|------|------------|-------|------------|-------------|
|               |            |          | in.          | mm   |                 | in.               | mm | in.               | mm | in.         | mm   | in.        | mm    |            |             |
| S4-NSFX-2020  | 28655-2020 | 20293263 | 1¼           | 31.8 | 1¼-11½          | 2                 | 50 | 1½                | 41 | 1.73        | 52.0 | 3.78       | 104.0 | NS         | Y           |

| Descriptive # | Product #  | SAP #    | Hose Size ID |      | Thread Size (A) | Hex-1 Wrench Size |    | Hex-2 Wrench Size |       | Cut-Off (C) |      | Length (L) |      | Skive Type | SR12, ARC12 |
|---------------|------------|----------|--------------|------|-----------------|-------------------|----|-------------------|-------|-------------|------|------------|------|------------|-------------|
|               |            |          | in.          | mm   |                 | in.               | mm | in.               | mm    | in.         | mm   | in.        | mm   |            |             |
| SG-NSFX-0606  | 29655-0606 | 20821948 | 3/8          | 9.5  | 3/8-18          | 7/8               | 22 | 17                | 11/16 | 1.29        | 32.8 | 2.75       | 69.8 | NS         | Y           |
| SG-NSFX-0808  | 29655-0808 | 20821947 | 1/2          | 12.7 | 1/2-14          | 11/16             | 27 | 7/8               | 22    | 1.41        | 35.8 | 2.95       | 74.8 | NS         | Y           |

## Standpipe

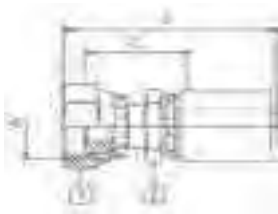


S=Skive  
NS=Non-Skive  
DG=Dual-Grip™

| Descriptive # | Product #  | SAP #    | Hose Size ID |      | Tube O.D.<br>(A) mm | Cut-Off (C) |      | Length (L) |       | Skive Type | SR12,<br>ARC12 |
|---------------|------------|----------|--------------|------|---------------------|-------------|------|------------|-------|------------|----------------|
|               |            |          | in.          | mm   |                     | in.         | mm   | in.        | mm    |            |                |
| SG-SP-1628    | 29825-1628 | 20821784 | 1            | 25.4 | 28                  | 1.73        | 43.9 | 4.01       | 101.9 | NS         | Y              |

## O-Ring Face Seal (SAE J1453 ORS/ORFS)

Female | Swivel



S=Skive  
NS=Non-Skive  
DG=Dual-Grip™

| Descriptive # | Product #  | SAP #    | Hose Size ID |      | Thread<br>Size (A) | Hex-1<br>Wrench Size |    | Hex-2<br>Wrench Size |    | Cut-Off (C) |      | Length (L) |       | Skive<br>Type | SR12,<br>ARC12 |
|---------------|------------|----------|--------------|------|--------------------|----------------------|----|----------------------|----|-------------|------|------------|-------|---------------|----------------|
|               |            |          | in.          | mm   |                    | in.                  | mm | in.                  | mm | in.         | mm   | in.        | mm    |               |                |
| S4-OFFX-0606  | 28700-0606 | 20242197 | 3/8          | 9.5  | 11/16-16           | 7/8                  | 22 | 11/16                | 17 | 1.19        | 30.3 | 2.62       | 66.5  | NS            | Y              |
| S4-OFFX-0608  | 28700-0608 | 20581892 | 3/8          | 9.5  | 13/16-16           | 15/16                | 24 | 7/8                  | 22 | 1.40        | 35.6 | 2.45       | 62.2  | NS            | Y              |
| S4-OFFX-0808  | 28700-0808 | 20242147 | 1/2          | 12.7 | 13/16-16           | 15/16                | 24 | 7/8                  | 22 | 1.42        | 36.1 | 3.09       | 78.6  | NS            | Y              |
| S4-OFFX-0810  | 28700-0810 | 20242145 | 1/2          | 12.7 | 1-14               | 1 3/16               | 30 | 15/16                | 24 | 1.56        | 39.6 | 3.31       | 84.1  | NS            | Y              |
| S4-OFFX-0812  | 28700-0812 | 20242135 | 1/2          | 12.7 | 1 3/16-12          | 1 7/16               | 36 | 1 3/16               | 30 | 1.66        | 42.1 | 3.47       | 88.1  | NS            | Y              |
| S4-OFFX-1010  | 28700-1010 | 20242176 | 5/8          | 15.9 | 1-14               | 1 3/16               | 30 | 15/16                | 24 | 1.56        | 39.6 | 3.39       | 86.1  | NS            | Y              |
| S4-OFFX-1012  | 28700-1012 | 20242200 | 5/8          | 15.9 | 1 3/16-12          | 1 7/16               | 36 | 1 3/16               | 30 | 1.66        | 42.1 | 3.58       | 90.9  | NS            | Y              |
| S4-OFFX-1210  | 28700-1210 | 20242195 | 3/4          | 19.0 | 1-14               | 1 3/16               | 30 | 1 1/16               | 27 | 1.58        | 40.1 | 3.65       | 92.6  | NS            | Y              |
| S4-OFFX-1212  | 28700-1212 | 20242190 | 3/4          | 19.0 | 1 3/16-12          | 1 7/16               | 36 | 1 3/16               | 30 | 1.68        | 42.6 | 3.80       | 96.6  | NS            | Y              |
| S4-OFFX-1216  | 28700-1216 | 20242193 | 3/4          | 19.0 | 1 7/16-12          | 1 5/8                | 41 | 1 7/16               | 36 | 1.91        | 48.6 | 4.05       | 102.9 | NS            | Y              |
| S4-OFFX-1612  | 28700-1612 | 20242146 | 1            | 25.4 | 1 3/16-12          | 1 7/16               | 36 | 1 1/4                | 32 | 1.79        | 45.4 | 4.11       | 104.5 | NS            | Y              |
| S4-OFFX-1616  | 28700-1616 | 20242140 | 1            | 25.4 | 1 7/16-12          | 1 5/8                | 41 | 1 7/16               | 36 | 1.94        | 49.4 | 4.28       | 108.8 | NS            | Y              |
| S4-OFFX-1620  | 28700-1620 | 20242165 | 1            | 25.4 | 1 11/16-12         | 2                    | 50 | 1 5/8                | 41 | 1.98        | 50.4 | 4.32       | 109.8 | NS            | Y              |
| S4-OFFX-2020  | 28700-2020 | 20242137 | 1 1/4        | 31.8 | 1 11/16-12         | 2                    | 50 | 1 5/8                | 41 | 2.05        | 52.0 | 4.68       | 118.8 | NS            | Y              |
| S4-OFFX-2424  | 28700-2424 | 20242138 | 1 1/2        | 38.1 | 2-12               | 2 3/8                | 60 | 2                    | 50 | 2.22        | 56.5 | 5.18       | 131.5 | NS            | Y              |

| Descriptive # | Product #  | SAP #    | Hose Size ID |     | Thread<br>Size (A) | Hex-1<br>Wrench Size |    | Hex-2<br>Wrench Size |    | Cut-Off (C) |      | Length (L) |      | Skive<br>Type | SR12,<br>ARC12 |
|---------------|------------|----------|--------------|-----|--------------------|----------------------|----|----------------------|----|-------------|------|------------|------|---------------|----------------|
|               |            |          | in.          | mm  |                    | in.                  | mm | in.                  | mm | in.         | mm   | in.        | mm   |               |                |
| SG-OFFX-0604  | 29700-0604 | 20821928 | 3/8          | 9.5 | 9/16-18            | 7/8                  | 17 | 11/16                | 17 | 1.29        | 32.8 | 2.75       | 69.9 | NS            | Y              |
| SG-OFFX-0606  | 29700-0606 | 20758282 | 3/8          | 9.5 | 11/16-16           | 7/8                  | 22 | 11/16                | 18 | 1.29        | 32.8 | 2.75       | 69.9 | NS            | Y              |
| SG-OFFX-0608  | 29700-0608 | 20731751 | 3/8          | 9.5 | 13/16-16           | 15/16                | 24 | 7/8                  | 22 | 1.50        | 38.1 | 2.96       | 75.1 | NS            | Y              |

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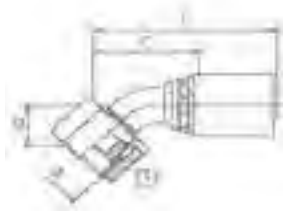
## O-Ring Face Seal (SAE J1453 ORS/ORFS)

Female | Swivel Continued

| Descriptive # | Product #  | SAP #    | Hose Size ID |      | Thread Size (A) | Hex-1 Wrench Size |    | Hex-2 Wrench Size |    | Cut-Off (C) |      | Length (L) |       | Skive Type | SR12, ARC12 |
|---------------|------------|----------|--------------|------|-----------------|-------------------|----|-------------------|----|-------------|------|------------|-------|------------|-------------|
|               |            |          | in.          | mm   |                 | in.               | mm | in.               | mm | in.         | mm   | in.        | mm    |            |             |
| SG-OFFX-0806  | 29700-0806 | 20821927 | 1/2          | 12.7 | 11/16-16        | 7/8               | 22 | 3/4               | 19 | 1.34        | 34.0 | 2.87       | 73.0  | NS         | Y           |
| SG-OFFX-0808  | 29700-0808 | 20731750 | 1/2          | 12.7 | 13/16-16        | 15/16             | 24 | 7/8               | 22 | 1.50        | 38.1 | 3.04       | 77.1  | NS         | Y           |
| SG-OFFX-0810  | 29700-0810 | 20731764 | 1/2          | 12.7 | 1-14            | 1 3/16            | 30 | 15/16             | 24 | 1.63        | 41.5 | 3.17       | 80.5  | NS         | Y           |
| SG-OFFX-0812  | 29700-0812 | 20731759 | 1/2          | 12.7 | 1 3/16-12       | 1 7/16            | 36 | 1 3/16            | 30 | 1.74        | 44.1 | 3.27       | 83.1  | NS         | Y           |
| SG-OFFX-1010  | 29700-1010 | 20821925 | 5/8          | 15.9 | 1-14            | 1 3/16            | 30 | 15/16             | 24 | 1.65        | 42.0 | 3.25       | 82.5  | NS         | Y           |
| SG-OFFX-1012  | 29700-1012 | 20821924 | 5/8          | 15.9 | 1 3/16-12       | 1 7/16            | 36 | 1 3/16            | 30 | 1.75        | 44.5 | 3.35       | 85.0  | NS         | Y           |
| SG-OFFX-1210  | 29700-1210 | 20821923 | 3/4          | 19.0 | 1-14            | 1 3/16            | 30 | 1 1/16            | 27 | 1.69        | 43.0 | 3.56       | 90.4  | NS         | Y           |
| SG-OFFX-1212  | 29700-1212 | 20821922 | 3/4          | 19.0 | 1 3/16-12       | 1 7/16            | 36 | 1 3/16            | 30 | 1.78        | 45.2 | 3.65       | 92.7  | NS         | Y           |
| SG-OFFX-1216  | 29700-1216 | 20821921 | 3/4          | 19.0 | 1 7/16-12       | 1 5/8             | 41 | 1 7/16            | 36 | 2.03        | 51.5 | 3.90       | 99.0  | NS         | Y           |
| SG-OFFX-1612  | 29700-1612 | 20821920 | 1            | 25.4 | 1 3/16-12       | 1 7/16            | 36 | 1 1/4             | 32 | 1.95        | 49.4 | 4.23       | 107.4 | NS         | Y           |
| SG-OFFX-1616  | 29700-1616 | 20821919 | 1            | 25.4 | 1 7/16-12       | 1 5/8             | 41 | 1 7/16            | 36 | 2.10        | 53.4 | 4.39       | 111.4 | NS         | Y           |
| SG-OFFX-1620  | 29700-1620 | 20821918 | 1            | 25.4 | 1 11/16-12      | 2                 | 50 | 1 5/8             | 41 | 1.99        | 50.5 | 4.27       | 108.5 | NS         | Y           |

## O-Ring Face Seal (SAE J1453 ORS/ORFS)

Female | 45° Elbow | Swivel



S=Skive  
NS=Non-Skive  
DG=Dual-Grip™

| Descriptive #               | Product #  | SAP #    | Hose Size ID |      | Thread Size (A) | Hex-1 Wrench Size |    | Drop (D) |      | Cut-Off (C) |       | Length (L) |       | Skive Type | SR12, ARC12 |
|-----------------------------|------------|----------|--------------|------|-----------------|-------------------|----|----------|------|-------------|-------|------------|-------|------------|-------------|
|                             |            |          | in.          | mm   |                 | in.               | mm | in.      | mm   | in.         | mm    | in.        | mm    |            |             |
| S4-OFFX45-0606              | 28710-0606 | 20242205 | 3/8          | 9.5  | 11/16-16        | 7/8               | 22 | 0.47     | 12.0 | 1.85        | 47.0  | 2.91       | 74.0  | NS         | Y           |
| S4-OFFX45-0808 <sup>C</sup> | 28710-0808 | 20242229 | 1/2          | 12.7 | 13/16-16        | 15/16             | 24 | 0.63     | 16.0 | 1.85        | 47.0  | 3.11       | 79.0  | NS         | Y           |
| S4-OFFX45-0810              | 28710-0810 | 20242234 | 1/2          | 12.7 | 1-14            | 1 3/16            | 30 | 0.65     | 16.5 | 1.97        | 50.0  | 3.23       | 82.0  | NS         | Y           |
| S4-OFFX45-1010              | 28710-1010 | 20242209 | 5/8          | 15.9 | 1-14            | 1 3/16            | 30 | 0.67     | 17.0 | 2.28        | 58.0  | 3.62       | 92.0  | NS         | Y           |
| S4-OFFX45-1212              | 28710-1212 | 20242233 | 3/4          | 19.0 | 1 3/16-12       | 1 7/16            | 36 | 0.83     | 21.0 | 2.48        | 63.0  | 4.06       | 103.0 | NS         | Y           |
| S4-OFFX45-1616              | 28710-1616 | 20242220 | 1            | 25.4 | 1 7/16-12       | 1 5/8             | 41 | 1.02     | 26.0 | 3.23        | 82.0  | 5.00       | 127.0 | NS         | Y           |
| S4-OFFX45-1620              | 28710-1620 | 20242218 | 1            | 25.4 | 1 11/16-12      | 2                 | 50 | 1.02     | 26.0 | 3.35        | 85.0  | 5.41       | 137.5 | NS         | Y           |
| S4-OFFX45-2020              | 28710-2020 | 20242223 | 1 1/4        | 31.8 | 1 11/16-12      | 2                 | 50 | 1.02     | 26.0 | 3.82        | 97.0  | 6.16       | 156.5 | NS         | Y           |
| S4-OFFX45-2024              | 28710-2024 | 20242224 | 1 1/4        | 31.8 | 2-12            | 2 5/8             | 60 | 1.10     | 28.0 | 3.98        | 101.0 | 6.34       | 161.0 | NS         | Y           |
| S4-OFFX45-2424              | 28710-2424 | 20242222 | 1 1/2        | 38.1 | 2-12            | 2 5/8             | 60 | 1.10     | 28.0 | 4.13        | 105.0 | 6.77       | 172.0 | NS         | Y           |

| Descriptive #  | Product #  | SAP #    | Hose Size ID |      | Thread Size (A) | Hex-1 Wrench Size |    | Drop (D) |      | Cut-Off (C) |      | Length (L) |      | Skive Type | SR12, ARC12 |
|----------------|------------|----------|--------------|------|-----------------|-------------------|----|----------|------|-------------|------|------------|------|------------|-------------|
|                |            |          | in.          | mm   |                 | in.               | mm | in.      | mm   | in.         | mm   | in.        | mm   |            |             |
| SG-OFFX45-0606 | 29710-0606 | 20758286 | 3/8          | 9.5  | 11/16-16        | 7/8               | 22 | 0.43     | 11.0 | 1.85        | 47.0 | 3.31       | 84.0 | NS         | Y           |
| SG-OFFX45-0608 | 29710-0608 | 20821917 | 3/8          | 9.5  | 13/16-16        | 15/16             | 24 | 0.59     | 15.0 | 2.01        | 51.1 | 3.47       | 88.1 | NS         |             |
| SG-OFFX45-0808 | 29710-0808 | 20731758 | 1/2          | 12.7 | 13/16-16        | 15/16             | 24 | 0.63     | 16.0 | 1.85        | 47.0 | 3.42       | 86.9 | NS         | Y           |
| SG-OFFX45-0810 | 29710-0810 | 20758300 | 1/2          | 12.7 | 1-14            | 1 3/16            | 30 | 0.63     | 16.0 | 1.97        | 50.0 | 3.51       | 89.0 | NS         | Y           |

Continued on next page

## O-Ring Face Seal (SAE J1453 ORS/ORFS)

Female | 45° Elbow | Swivel Continued

| Descriptive #  | Product #  | SAP #    | Hose Size ID |      | Thread Size (A) | Hex-1 Wrench Size |    | Drop (D) |      | Cut-Off (C) |      | Length (L) |       | Skive Type | SR12, ARC12 |
|----------------|------------|----------|--------------|------|-----------------|-------------------|----|----------|------|-------------|------|------------|-------|------------|-------------|
|                |            |          | in.          | mm   |                 | in.               | mm | in.      | mm   | in.         | mm   | in.        | mm    |            |             |
| SG-OFFX45-1010 | 29710-1010 | 20821916 | 5/8          | 15.9 | 1-14            | 13/16             | 30 | 0.63     | 16.0 | 1.65        | 42.0 | 3.86       | 98.0  | NS         | Y           |
| SG-OFFX45-1212 | 29710-1212 | 20821915 | 3/4          | 19.0 | 13/16-12        | 17/16             | 36 | 0.83     | 21.0 | 2.56        | 64.9 | 4.43       | 112.4 | NS         | Y           |
| SG-OFFX45-1216 | 29710-1216 | 20821914 | 3/4          | 19.0 | 13/16-12        | 1%                | 41 | 0.95     | 24.0 | 2.80        | 71.1 | 4.67       | 118.6 | NS         | Y           |
| SG-OFFX45-1616 | 29710-1616 | 20821913 | 1            | 25.4 | 17/16-12        | 1%                | 41 | 1.02     | 26.0 | 3.15        | 80.0 | 5.43       | 137.9 | NS         | Y           |
| SG-OFFX45-1620 | 29710-1620 | 20758286 | 1            | 25.4 | 111/16-12       | 2                 | 50 | 1.26     | 32.0 | 3.35        | 85.1 | 5.63       | 143.1 | NS         | Y           |

C: Crimp Nut (see "Fitting Identification" in Appendix for details)

## O-Ring Face Seal (SAE J1453 ORS/ORFS)

Female | 90° Elbow | Swivel

LT=Long Tube  
ST=Short TubeS=Skive  
NS=Non-Skive  
DG=Dual-Grip™

| Descriptive #                | Product #  | SAP #    | Hose Size ID |      | Thread Size (A) | Hex-1 Wrench Size | Elbow Type | Drop (D) |      | Cut-Off (C) |      | Length (L) |      | Skive Type | SR12, ARC12 |    |
|------------------------------|------------|----------|--------------|------|-----------------|-------------------|------------|----------|------|-------------|------|------------|------|------------|-------------|----|
|                              |            |          | in.          | mm   |                 | in.               |            | mm       | in.  | mm          | in.  | mm         | in.  |            |             | mm |
| S4-OFFX90-0606               | 28715-0606 | 20242240 | 3/8          | 9.5  | 11/16-16        | 7/8               | 22         |          | 1.50 | 38.0        | 1.65 | 42.0       | 2.72 | 69.0       | NS          | Y  |
| S4-OFFX90L-0606              | 28720-0606 | 20241695 | 3/8          | 9.5  | 11/16-16        | 7/8               | 22         | LT       | 2.13 | 54.0        | 1.65 | 42.0       | 2.72 | 69.0       | NS          | Y  |
| S4-OFFX90S-0606              | 28725-0606 | 20242210 | 3/8          | 9.5  | 11/16-16        | 7/8               | 22         | ST       | 0.98 | 25.0        | 1.65 | 42.0       | 2.72 | 69.0       | NS          | Y  |
| S4-OFFX90-0808 <sup>C</sup>  | 28715-0808 | 20241697 | 1/2          | 12.7 | 13/16-16        | 15/16             | 24         |          | 1.65 | 42.0        | 1.38 | 35.0       | 2.60 | 66.0       | NS          | Y  |
| S4-OFFX90L-0808 <sup>C</sup> | 28720-0808 | 20242203 | 1/2          | 12.7 | 13/16-16        | 15/16             | 24         | LT       | 2.52 | 64.0        | 1.50 | 38.0       | 2.76 | 70.0       | NS          | Y  |
| S4-OFFX90S-0808 <sup>C</sup> | 28725-0808 | 20242192 | 1/2          | 12.7 | 13/16-16        | 15/16             | 24         | ST       | 1.14 | 29.0        | 1.57 | 40.0       | 2.80 | 71.0       | NS          | Y  |
| S4-OFFX90L-0810              | 28720-0810 | 20242215 | 1/2          | 12.7 | 1-14            | 13/16             | 30         | LT       | 2.76 | 70.0        | 1.81 | 46.0       | 3.07 | 78.0       | NS          | Y  |
| S4-OFFX90S-0810              | 28725-0810 | 20242241 | 1/2          | 12.7 | 1-14            | 13/16             | 30         | ST       | 1.28 | 32.5        | 1.81 | 46.0       | 3.07 | 78.0       | NS          | Y  |
| S4-OFFX90S-1010              | 28725-1010 | 20242163 | 5/8          | 15.9 | 1-14            | 13/16             | 30         | ST       | 1.73 | 44.0        | 2.17 | 55.0       | 3.54 | 90.0       | NS          | Y  |
| S4-OFFX90S-1210 <sup>C</sup> | 28725-1210 | 20241723 | 3/4          | 19.0 | 1-14            | 13/16             | 30         | ST       | 1.26 | 32.0        | 1.75 | 44.5       | 3.31 | 84.0       | NS          | Y  |
| S4-OFFX90L-1212              | 28720-1212 | 20241693 | 3/4          | 19.0 | 13/16-12        | 17/16             | 36         | LT       | 3.78 | 96.0        | 2.44 | 62.0       | 3.98 | 101.0      | NS          | Y  |
| S4-OFFX90S-1212              | 28725-1212 | 20242154 | 3/4          | 19.0 | 13/16-12        | 17/16             | 36         | ST       | 2.01 | 51.0        | 2.40 | 61.0       | 3.94 | 100.0      | NS          | Y  |
| S4-OFFX90S-1216              | 28725-1216 | 20242156 | 3/4          | 19.0 | 17/16-12        | 1%                | 41         | ST       | 2.80 | 71.0        | 2.60 | 66.0       | 4.13 | 105.0      | NS          | Y  |
| S4-OFFX90-1616               | 28715-1616 | 20241699 | 1            | 25.4 | 17/16-12        | 1%                | 41         |          | 2.60 | 66.0        | 3.27 | 83.0       | 5.00 | 127.0      | NS          | Y  |
| S4-OFFX90L-1616              | 28720-1616 | 20242211 | 1            | 25.4 | 17/16-12        | 1%                | 41         | LT       | 4.49 | 114.0       | 3.27 | 83.0       | 5.00 | 127.0      | NS          | Y  |
| S4-OFFX90S-1616              | 28725-1616 | 20242245 | 1            | 25.4 | 17/16-12        | 1%                | 41         | ST       | 2.28 | 58.0        | 3.27 | 83.0       | 5.00 | 127.0      | NS          | Y  |
| S4-OFFX90-2020               | 28715-2020 | 20241702 | 1 1/4        | 31.8 | 1 11/16-12      | 2                 | 50         |          | 3.07 | 78.0        | 3.82 | 97.0       | 5.87 | 149.0      | NS          | Y  |
| S4-OFFX90L-2020              | 28720-2020 | 20242212 | 1 1/4        | 31.8 | 1 11/16-12      | 2                 | 50         | LT       | 5.08 | 129.0       | 3.82 | 97.0       | 5.87 | 149.0      | NS          | Y  |
| S4-OFFX90S-2020              | 28725-2020 | 20242247 | 1 1/4        | 31.8 | 1 11/16-12      | 2                 | 50         | ST       | 2.68 | 68.0        | 3.74 | 95.0       | 5.79 | 147.0      | NS          | Y  |
| S4-OFFX90L-2024              | 28720-2024 | 20242213 | 1 1/4        | 31.8 | 2-12            | 2%                | 60         | LT       | 5.55 | 141.0       | 4.02 | 102.0      | 6.06 | 154.0      | NS          | Y  |
| S4-OFFX90S-2024              | 28725-2024 | 20242248 | 1 1/4        | 31.8 | 2-12            | 2%                | 60         | ST       | 2.72 | 69.0        | 4.02 | 102.0      | 6.06 | 154.0      | NS          | Y  |
| S4-OFFX90-2424               | 28715-2424 | 20241701 | 1 1/2        | 38.1 | 2-12            | 2%                | 60         |          | 3.43 | 87.0        | 4.25 | 108.0      | 6.57 | 167.0      | NS          | Y  |
| S4-OFFX90L-2424              | 28720-2424 | 20441321 | 1 1/2        | 38.1 | 2-12            | 2%                | 60         | LT       | 5.55 | 141.0       | 4.37 | 111.0      | 6.69 | 170.0      | NS          | Y  |
| S4-OFFX90S-2424              | 28725-2424 | 20242246 | 1 1/2        | 38.1 | 2-12            | 2%                | 60         | ST       | 3.07 | 78.0        | 4.02 | 102.0      | 6.34 | 161.0      | NS          | Y  |

C: Crimp Nut (see "Fitting Identification" in Appendix for details)

Continued on next page

O-Ring Face Seal  
(SAE J1453 ORS/ORFS)

Female | 90° Elbow | Swivel Continued

| Descriptive #   | Product #  | SAP #    | Hose Size ID |      | Thread<br>Size (A) | Hex-1<br>Wrench Size |    | Elbow<br>Type | Drop (D) |       | Cut-Off (C) |      | Length (L) |       | Skive<br>Type | SR12,<br>ARC12 |
|-----------------|------------|----------|--------------|------|--------------------|----------------------|----|---------------|----------|-------|-------------|------|------------|-------|---------------|----------------|
|                 |            |          | in.          | mm   |                    | in.                  | mm |               | in.      | mm    | in.         | mm   | in.        | mm    |               |                |
| SG-OFFX90-0606  | 29715-0606 | 20731757 | 3/8          | 9.5  | 11/16-16           | 7/8                  | 22 |               | 1.50     | 38.0  | 1.65        | 42.0 | 3.11       | 79.0  | NS            | Y              |
| SG-OFFX90L-0606 | 29720-0606 | 20731762 | 3/8          | 9.5  | 11/16-16           | 7/8                  | 22 | LT            | 2.126    | 54.0  | 1.65        | 42.0 | 3.11       | 79.0  | NS            | Y              |
| SG-OFFX90S-0606 | 29725-0606 | 20731760 | 3/8          | 9.5  | 11/16-16           | 7/8                  | 22 | ST            | 0.905    | 23.0  | 1.65        | 42.0 | 3.11       | 79.0  | NS            | Y              |
| SG-OFFX90-0608  | 29715-0608 | 20821911 | 3/8          | 9.5  | 13/16-16           | 15/16                | 24 |               | 1.614    | 41.0  | 1.73        | 44.0 | 3.189      | 81.0  | NS            | Y              |
| SG-OFFX90L-0608 | 29720-0608 | 20821904 | 3/8          | 9.5  | 13/16-16           | 15/16                | 24 | LT            | 2.52     | 64.0  | 1.85        | 47.0 | 3.307      | 84.0  | NS            | Y              |
| SG-OFFX90S-0608 | 29725-0608 | 20821899 | 3/8          | 9.5  | 13/16-16           | 15/16                | 24 | ST            | 1.142    | 29.0  | 1.65        | 42.0 | 3.11       | 79.0  | NS            | Y              |
| SG-OFFX90-0808  | 29715-0808 | 20731753 | 1/2          | 12.7 | 13/16-16           | 15/16                | 24 |               | 1.61     | 41.0  | 1.41        | 35.9 | 2.95       | 74.9  | NS            | Y              |
| SG-OFFX90L-0808 | 29720-0808 | 20821903 | 1/2          | 12.7 | 13/16-16           | 15/16                | 24 | LT            | 2.52     | 64.0  | 1.53        | 38.9 | 3.07       | 77.9  | NS            | Y              |
| SG-OFFX90S-0808 | 29725-0808 | 20731756 | 1/2          | 12.7 | 13/16-16           | 15/16                | 24 | ST            | 1.14     | 29.0  | 1.61        | 40.9 | 3.15       | 79.9  | NS            | Y              |
| SG-OFFX90-0810  |            | 20821910 | 1/2          | 12.7 | 1-14               | 13/16                | 30 |               | 1.85     | 47.0  | 1.89        | 48.0 | 3.43       | 87.0  | NS            | Y              |
| SG-OFFX90L-0810 |            | 20821902 | 1/2          | 12.7 | 1-14               | 13/16                | 30 | LT            | 2.76     | 70.0  | 1.81        | 46.0 | 3.35       | 85.0  | NS            | Y              |
| SG-OFFX90S-0810 |            | 20821898 | 1/2          | 12.7 | 1-14               | 13/16                | 30 | ST            | 1.26     | 32.0  | 1.81        | 46.0 | 3.38       | 85.9  | NS            | Y              |
| SG-OFFX90S-0812 | 29725-0812 | 20821897 | 1/2          | 12.7 | 13/16-12           | 17/16                | 36 | ST            | 1.89     | 48.0  | 2.48        | 62.9 | 4.01       | 101.9 | NS            | Y              |
| SG-OFFX90-1010  |            | 20821909 | 5/8          | 15.9 | 1-14               | 13/16                | 30 |               | 1.85     | 47.0  | 2.17        | 55.0 | 3.76       | 95.5  | NS            | Y              |
| SG-OFFX90S-1010 |            | 20821896 | 5/8          | 15.9 | 1-14               | 13/16                | 30 | ST            | 1.28     | 32.5  | 2.05        | 52.0 | 3.64       | 92.5  | NS            | Y              |
| SG-OFFX90S-1012 | 29725-1012 | 20821895 | 5/8          | 15.9 | 13/16-12           | 17/16                | 36 | ST            | 1.89     | 48.0  | 2.48        | 62.9 | 4.07       | 103.4 | NS            | Y              |
| SG-OFFX90S-1210 | 29725-1210 | 20821894 | 3/4          | 19.0 | 1-14               | 13/16                | 30 | ST            | 1.54     | 39.1  | 1.63        | 41.3 | 3.70       | 93.9  | NS            | Y              |
| SG-OFFX90-1212  | 29715-1212 | 20821908 | 3/4          | 19.0 | 13/16-12           | 17/16                | 36 |               | 2.28     | 58.0  | 2.52        | 63.9 | 4.39       | 111.4 | NS            | Y              |
| SG-OFFX90L-1212 | 29720-1212 | 20821901 | 3/4          | 19.0 | 13/16-12           | 17/16                | 36 | LT            | 3.78     | 96.0  | 2.52        | 63.9 | 4.39       | 111.4 | NS            | Y              |
| SG-OFFX90S-1212 | 29725-1212 | 20821893 | 3/4          | 19.0 | 13/16-12           | 17/16                | 36 | ST            | 1.89     | 48.0  | 2.48        | 62.9 | 4.35       | 110.4 | NS            | Y              |
| SG-OFFX90-1216  | 29715-1216 | 20821907 | 3/4          | 19.0 | 17/16-12           | 1%                   | 41 |               | 2.80     | 71.1  | 2.68        | 68.0 | 4.55       | 115.5 | NS            | Y              |
| SG-OFFX90S-1216 | 29725-1216 | 20821892 | 3/4          | 19.0 | 17/16-12           | 1%                   | 41 | ST            | 2.21     | 56.0  | 2.68        | 68.0 | 4.55       | 115.5 | NS            | Y              |
| SG-OFFX90-1616  | 29715-1616 | 20821906 | 1            | 25.4 | 17/16-12           | 1%                   | 41 |               | 2.80     | 71.0  | 3.13        | 79.6 | 5.42       | 137.5 | NS            | Y              |
| SG-OFFX90L-1616 | 29720-1616 | 20821900 | 1            | 25.4 | 17/16-12           | 1%                   | 41 | LT            | 4.49     | 114.0 | 3.13        | 79.5 | 5.42       | 137.5 | NS            | Y              |
| SG-OFFX90S-1616 | 29725-1616 | 20821891 | 1            | 25.4 | 17/16-12           | 1%                   | 41 | ST            | 2.26     | 57.5  | 3.13        | 79.6 | 5.42       | 137.5 | NS            | Y              |
| SG-OFFX90-1620  |            | 20821905 | 1            | 25.4 | 17/16-12           | 2                    | 50 |               | 3.07     | 78.0  | 3.27        | 83.0 | 5.55       | 141.0 | NS            | Y              |
| SG-OFFX90S-1620 |            | 20821890 | 1            | 25.4 | 17/16-12           | 2                    | 50 | ST            | 2.52     | 64.0  | 3.27        | 83.0 | 5.55       | 141.0 | NS            | Y              |

# O-Ring Face Seal (SAE J1453 ORS/ORFS)

Male



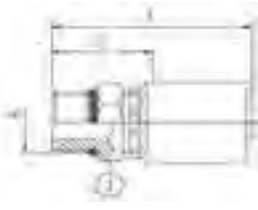
S=Skive  
NS=Non-Skive  
DG=Dual-Grip™

| Descriptive # | Product #  | SAP #    | Hose Size ID |      | Thread Size (A) | Hex-1 Wrench Size |    | Cut-Off (C) |      | Length (L) |      | Skive Type | SR12, ARC12 |
|---------------|------------|----------|--------------|------|-----------------|-------------------|----|-------------|------|------------|------|------------|-------------|
|               |            |          | in.          | mm   |                 | in.               | mm | in.         | mm   | in.        | mm   |            |             |
| S4-OFM-0606   | 28730-0606 | 20242182 | 3/8          | 9.5  | 11/16-16        | 3/4               | 19 | 0.96        | 24.3 | 2.01       | 51.0 | NS         | Y           |
| S4-OFM-0608   | 28730-0608 | 20242184 | 3/8          | 9.5  | 13/16-16        | 7/8               | 22 | 1.04        | 26.3 | 2.09       | 53.0 | NS         | Y           |
| S4-OFM-0808   | 28730-0808 | 20242175 | 1/2          | 12.7 | 13/16-16        | 7/8               | 22 | 1.07        | 27.1 | 2.31       | 58.6 | NS         | Y           |
| S4-OFM-1212   | 28730-1212 | 20242168 | 3/4          | 19.0 | 1 3/16-12       | 1 1/4             | 32 | 1.36        | 34.6 | 2.92       | 74.1 | NS         | Y           |
| S4-OFM-1216   | 28730-1216 | 20242180 | 3/4          | 19.0 | 1 7/16-12       | 1 1/2             | 41 | 1.50        | 38.1 | 3.06       | 77.6 | NS         | Y           |
| S4-OFM-1616   | 28730-1616 | 20242170 | 1            | 25.4 | 1 7/16-12       | 1 1/2             | 38 | 1.49        | 37.9 | 3.25       | 82.5 | NS         | Y           |
| S4-OFM-2020   | 28730-2020 | 20242171 | 1 1/4        | 31.8 | 1 11/16-12      | 1 3/4             | 46 | 1.63        | 41.5 | 3.68       | 93.5 | NS         | Y           |

| Descriptive # | Product #  | SAP #    | Hose Size ID |      | Thread Size (A) | Hex-1 Wrench Size |    | Cut-Off (C) |      | Length (L) |      | Skive Type | SR12, ARC12 |
|---------------|------------|----------|--------------|------|-----------------|-------------------|----|-------------|------|------------|------|------------|-------------|
|               |            |          | in.          | mm   |                 | in.               | mm | in.         | mm   | in.        | mm   |            |             |
| SG-OFM-0606   | 29730-0606 | 20758281 | 3/8          | 9.5  | 11/16-16        | 3/4               | 19 | 1.15        | 29.3 | 2.61       | 66.3 | NS         | Y           |
| SG-OFM-0608   | 29730-0608 | 20821889 | 3/8          | 9.5  | 13/16-16        | 7/8               | 22 | 1.15        | 29.1 | 2.60       | 66.1 | NS         | Y           |
| SG-OFM-0808   | 29730-0808 | 20758297 | 1/2          | 12.7 | 13/16-16        | 7/8               | 22 | 1.27        | 32.3 | 2.81       | 71.3 | NS         | Y           |
| SG-OFM-0810   | 29730-0810 | 20821888 | 1/2          | 12.7 | 13/16-16        | 1 1/16            | 27 | 1.29        | 32.7 | 2.83       | 71.8 | NS         | Y           |
| SG-OFM-0812   | 29730-0812 | 20821887 | 1/2          | 12.7 | 13/16-16        | 1 1/4             | 32 | 1.42        | 36.0 | 2.95       | 75.0 | NS         | Y           |
| SG-OFM-1212   | 29730-1212 | 20821886 | 3/4          | 19.0 | 1 3/16-12       | 1 1/4             | 32 | 1.48        | 37.5 | 3.35       | 85.0 | NS         | Y           |
| SG-OFM-1216   | 29730-1216 | 20821885 | 3/4          | 19.0 | 1 7/16-12       | 1 1/2             | 38 | 1.58        | 40.1 | 3.45       | 87.6 | NS         | Y           |
| SG-OFM-1616   | 29730-1616 | 20821884 | 1            | 25.4 | 1 7/16-12       | 1 1/2             | 38 | 1.64        | 41.6 | 3.92       | 99.6 | NS         | Y           |

# O-Ring Boss Straight Thread (SAE J514)

Male



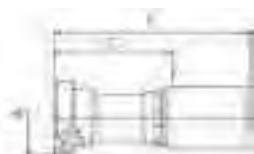
S=Skive  
NS=Non-Skive  
DG=Dual-Grip™

| Descriptive # | Product #  | SAP #    | Hose Size ID |      | Thread Size (A) | Hex-1 Wrench Size |    | Cut-Off (C) |      | Length (L) |      | Skive Type | SR12, ARC12 |
|---------------|------------|----------|--------------|------|-----------------|-------------------|----|-------------|------|------------|------|------------|-------------|
|               |            |          | in.          | mm   |                 | in.               | mm | in.         | mm   | in.        | mm   |            |             |
| S4-OBM-0808   | 28670-0808 | 20242130 | 1/2          | 12.7 | 3/4-16          | 7/8               | 22 | 0.99        | 25.1 | 2.23       | 56.6 | NS         | Y           |
| S4-OBM-1212   | 28670-1212 | 20242124 | 3/4          | 19.0 | 1 1/16-12       | 1 1/4             | 32 | 1.28        | 32.6 | 2.84       | 72.1 | NS         | Y           |
| S4-OBM-1216   | 28670-1216 | 20242119 | 3/4          | 19.0 | 1 5/16-12       | 1 1/2             | 38 | 1.36        | 34.6 | 2.92       | 74.1 | NS         | Y           |
| S4-OBM-1616   | 28670-1616 | 20242125 | 1            | 25.4 | 1 5/16-12       | 1 1/2             | 38 | 1.39        | 35.4 | 3.15       | 80.0 | NS         | Y           |
| S4-OBM-2020   | 28670-2020 | 20293258 | 1 1/4        | 31.8 | 1 5/8-12        | 1 3/4             | 46 | 1.54        | 39.0 | 3.58       | 91.0 | NS         | Y           |
| S4-OBM-2424   | 28670-2424 | 20307206 | 1 1/2        | 38.1 | 2-12            | 1 5/8             | 50 | 1.60        | 24.6 | 3.92       | 60.4 | NS         | Y           |

| Descriptive # | Product #  | SAP #    | Hose Size ID |      | Thread Size (A) | Hex-1 Wrench Size |    | Cut-Off (C) |      | Length (L) |      | Skive Type | SR12, ARC12 |
|---------------|------------|----------|--------------|------|-----------------|-------------------|----|-------------|------|------------|------|------------|-------------|
|               |            |          | in.          | mm   |                 | in.               | mm | in.         | mm   | in.        | mm   |            |             |
| SG-OBM-0606   | 29670-0606 | 20821946 | 3/8          | 9.5  | 9/16-18         | 3/4               | 19 | 1.03        | 26.1 | 2.48       | 63.1 | NS         | Y           |
| SG-OBM-0608   | 29670-0608 | 20821945 | 3/8          | 9.5  | 3/4-16          | 7/8               | 22 | 1.09        | 27.6 | 2.54       | 64.6 | NS         | Y           |
| SG-OBM-0610   | 29670-0610 | 20821944 | 3/8          | 9.5  | 7/8-14          | 1 1/16            | 27 | 1.18        | 29.9 | 2.64       | 67.0 | NS         | Y           |
| SG-OBM-0808   | 29670-0808 | 20821943 | 1/2          | 12.7 | 3/4-16          | 7/8               | 22 | 1.09        | 27.6 | 2.62       | 66.6 | NS         | Y           |
| SG-OBM-0810   | 29670-0810 | 20821942 | 1/2          | 12.7 | 7/8-14          | 1 1/16            | 27 | 1.18        | 29.9 | 2.72       | 69.0 | NS         | Y           |
| SG-OBM-0812   | 29670-0812 | 20821941 | 1/2          | 12.7 | 1 1/16-12       | 1 1/4             | 32 | 1.34        | 34.1 | 2.88       | 73.1 | NS         | Y           |
| SG-OBM-1210   | 29670-1210 | 20821940 | 3/4          | 19.0 | 7/8-14          | 1 1/16            | 27 | 1.24        | 31.4 | 3.11       | 78.9 | NS         | Y           |
| SG-OBM-1212   | 29670-1212 | 20821939 | 3/4          | 19.0 | 1 1/16-12       | 1 1/4             | 32 | 1.40        | 35.6 | 3.27       | 83.1 | NS         | Y           |
| SG-OBM-1216   | 29670-1216 | 20821938 | 3/4          | 19.0 | 1 5/8-12        | 1 1/2             | 38 | 1.48        | 37.6 | 3.35       | 85.1 | NS         | Y           |
| SG-OBM-1616   | 29670-1616 | 20821937 | 1            | 25.4 | 1 5/8-12        | 1 1/2             | 28 | 1.54        | 39.1 | 3.83       | 97.2 | NS         | Y           |



## Code 61 Flange (SAE J518)



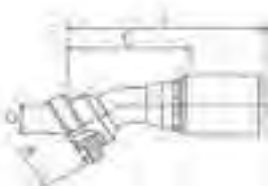
S=Skive  
NS=Non-Skive  
DG=Dual-Grip™

| Descriptive # | Product #  | SAP #    | Hose Size ID |      | Flange Size | Flange Diameter (A) |      | Cut-Off (C) |      | Length (L) |       | Skive Type | SR12, ARC12 |
|---------------|------------|----------|--------------|------|-------------|---------------------|------|-------------|------|------------|-------|------------|-------------|
|               |            |          | in.          | mm   |             | in.                 | mm   | in.         | mm   | in.        | mm    |            |             |
| S4-FL-0808    | 28320-0808 | 20242907 | 1/2          | 12.7 | 1/2         | 1.19                | 30.2 | 1.61        | 41.0 | 2.85       | 72.5  | NS         | Y           |
| S4-FL-0812    | 28320-0812 | 20242905 | 1/2          | 12.7 | 3/4         | 1.50                | 38.1 | 1.65        | 42.0 | 2.89       | 73.5  | NS         | Y           |
| S4-FL-1012    | 28320-1012 | 20242898 | 5/8          | 15.9 | 3/4         | 1.50                | 38.1 | 1.66        | 42.2 | 3.01       | 76.5  | NS         | Y           |
| S4-FL-1212    | 28320-1212 | 20242900 | 3/4          | 19.0 | 3/4         | 1.50                | 38.1 | 1.67        | 42.5 | 3.23       | 82.0  | NS         | Y           |
| S4-FL-1216    | 28320-1216 | 20242912 | 3/4          | 19.0 | 1           | 1.75                | 44.5 | 1.99        | 50.5 | 3.54       | 90.0  | NS         | Y           |
| S4-FL-1220    | 28320-1220 | 20441320 | 3/4          | 19.0 | 1¼          | 2.00                | 50.8 | 2.09        | 53.0 | 3.64       | 92.5  | NS         | Y           |
| S4-FL-1616    | 28320-1616 | 20242878 | 1            | 25.4 | 1           | 1.75                | 44.5 | 2.02        | 51.4 | 3.78       | 96.0  | NS         | Y           |
| S4-FL-1620    | 28320-1620 | 20242904 | 1            | 25.4 | 1¼          | 2.00                | 50.8 | 2.12        | 53.9 | 3.88       | 98.5  | NS         | Y           |
| S4-FL-1624    | 28320-1624 | 20293264 | 1            | 25.4 | 1½          | 2.37                | 60.3 | 2.24        | 57.0 | 4.00       | 101.5 | NS         | Y           |
| S4-FL-2020    | 28320-2020 | 20242909 | 1¼           | 31.8 | 1¼          | 2.00                | 50.8 | 2.19        | 55.5 | 4.23       | 107.5 | NS         | Y           |
| S4-FL-2024    | 28320-2024 | 20242910 | 1¼           | 31.8 | 1½          | 2.37                | 60.3 | 2.30        | 58.5 | 4.35       | 110.5 | NS         | Y           |
| S4-FL-2424    | 28320-2424 | 20242886 | 1½           | 38.1 | 1½          | 2.37                | 60.3 | 2.31        | 58.8 | 4.63       | 117.5 | NS         | Y           |
| S4-FL-2432    | 28320-2432 | 20242911 | 1½           | 38.1 | 2           | 2.81                | 71.4 | 2.76        | 70.0 | 5.08       | 129.0 | NS         | Y           |
| S4-FL-3232    | 28320-3232 | 20242895 | 2            | 50.8 | 2           | 2.81                | 71.4 | 2.76        | 70.0 | 5.59       | 142.0 | NS         | Y           |

| Descriptive # | Product #  | SAP #    | Hose Size ID |      | Flange Size | Flange Diameter (A) |      | Cut-Off (C) |      | Length (L) |       | Skive Type | SR12, ARC12 |
|---------------|------------|----------|--------------|------|-------------|---------------------|------|-------------|------|------------|-------|------------|-------------|
|               |            |          | in.          | mm   |             | in.                 | mm   | in.         | mm   | in.        | mm    |            |             |
| SG-FL-0808    | 29320-0808 | 20822104 | 1/2          | 12.7 | 1/2         | 1.19                | 30.2 | 1.61        | 40.9 | 3.15       | 79.9  |            | Y           |
| SG-FL-0812    | 29320-0812 | 20822131 | 1/2          | 12.7 | 3/4         | 1.50                | 38.1 | 1.65        | 41.9 | 3.19       | 80.9  |            | Y           |
| SG-FL-1012    | 29320-1012 | 20822102 | 5/8          | 15.9 | 3/4         | 1.50                | 38.1 | 1.71        | 43.3 | 3.30       | 83.8  |            | Y           |
| SG-FL-1212    | 29320-1212 | 20822098 | 3/4          | 19.0 | 3/4         | 1.50                | 38.1 | 1.75        | 44.3 | 3.62       | 91.8  |            | Y           |
| SG-FL-1216    | 29320-1216 | 20822097 | 3/4          | 19.0 | 1           | 1.75                | 44.5 | 1.99        | 50.5 | 3.86       | 98.0  |            | Y           |
| SG-FL-1220    | 29320-1220 | 20822096 | 3/4          | 19.0 | 1¼          | 2.00                | 50.8 | 2.09        | 53.0 | 3.96       | 100.6 |            | Y           |
| SG-FL-1616    | 29320-1616 | 20822094 | 1            | 25.4 | 1           | 1.75                | 44.5 | 2.09        | 53.1 | 4.37       | 111.1 |            | Y           |
| SG-FL-1620    | 29320-1620 | 20822093 | 1            | 25.4 | 1¼          | 2.00                | 50.8 | 2.12        | 53.9 | 4.40       | 111.8 |            | Y           |
| SG-FL-1624    | 29320-1624 | 20822092 | 1            | 25.4 | 1½          | 2.37                | 60.3 | 2.32        | 58.9 | 4.60       | 116.8 |            | Y           |

## Code 61 Flange (SAE J518)

22.5° Elbow



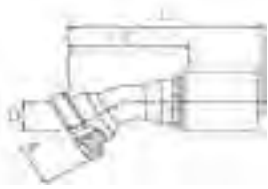
S=Skive  
NS=Non-Skive  
DG=Dual-Grip™

| Descriptive # | Product #  | SAP #    | Hose Size ID |      | Flange Size | Flange Diameter (A) |      | Drop (D) |      | Cut-Off (C) |       | Length (L) |       | Skive Type | SR12, ARC12 |
|---------------|------------|----------|--------------|------|-------------|---------------------|------|----------|------|-------------|-------|------------|-------|------------|-------------|
|               |            |          | in.          | mm   |             | in.                 | mm   | in.      | mm   | in.         | mm    | in.        | mm    |            |             |
| S4-FL22-0808  | 28330-0808 | 20441293 | 1/2          | 12.7 | 1/2         | 1.19                | 30.2 | 0.35     | 9.0  | 2.32        | 59.0  | 3.58       | 91.0  | NS         | Y           |
| S4-FL22-1212  | 28330-1212 | 20441202 | 3/4          | 19.0 | 3/4         | 1.50                | 38.1 | 0.83     | 21.0 | 3.90        | 99.0  | 5.47       | 139.0 | NS         | Y           |
| S4-FL22-1216  | 28330-1216 | 20441276 | 3/4          | 19.0 | 1           | 1.75                | 44.5 | 0.51     | 13.0 | 3.39        | 86.0  | 4.96       | 126.0 | NS         | Y           |
| S4-FL22-1616  | 28330-1616 | 2042929  | 1            | 25.4 | 1           | 1.75                | 44.5 | 0.47     | 12.0 | 3.66        | 93.0  | 5.39       | 137.0 | NS         | Y           |
| S4-FL22-1620  | 28330-1620 | 20293265 | 1            | 25.4 | 1 1/4       | 2.00                | 50.8 | 0.63     | 16.0 | 3.62        | 92.0  | 5.39       | 137.0 | NS         | Y           |
| S4-FL22-2020  | 28330-2020 | 2042928  | 1 1/4        | 31.8 | 1 1/4       | 2.00                | 50.8 | 0.63     | 16.0 | 4.49        | 114.0 | 6.54       | 166.0 | NS         | Y           |
| S4-FL22-2024  | 28330-2024 | 20293266 | 1 1/4        | 31.8 | 1 1/2       | 2.37                | 60.3 | 0.81     | 20.5 | 4.53        | 115.0 | 6.57       | 167.0 | NS         | Y           |
| S4-FL22-2424  | 28330-2424 | 2042923  | 1 1/2        | 38.1 | 1 1/2       | 2.37                | 60.3 | 0.65     | 16.5 | 5.16        | 131.0 | 7.48       | 190.0 | NS         | Y           |
| S4-FL22-3232  | 28330-3232 | 20293267 | 2            | 50.8 | 2           | 2.81                | 71.4 | 0.87     | 22.0 | 6.02        | 153.0 | 8.86       | 225.0 | NS         | Y           |

| Descriptive # | Product #  | SAP #    | Hose Size ID |      | Flange Size | Flange Diameter (A) |      | Drop (D) |      | Cut-Off (C) |       | Length (L) |       | Skive Type | SR12, ARC12 |
|---------------|------------|----------|--------------|------|-------------|---------------------|------|----------|------|-------------|-------|------------|-------|------------|-------------|
|               |            |          | in.          | mm   |             | in.                 | mm   | in.      | mm   | in.         | mm    | in.        | mm    |            |             |
| SG-FL22-0808  | 29330-0808 | 20822091 | 1/2          | 12.7 | 1/2         | 1.19                | 30.2 | 0.35     | 9.0  | 2.32        | 58.9  | 3.86       | 97.9  | NS         | Y           |
| SG-FL22-1212  | 29330-1212 | 20822090 | 3/4          | 19.0 | 3/4         | 1.50                | 38.1 | 0.55     | 14.0 | 3.3         | 84.5  | 5.20       | 132.0 | NS         | Y           |
| SG-FL22-1216  | 29330-1216 | 20822089 | 3/4          | 19.0 | 1           | 1.75                | 44.5 | 0.55     | 14.0 | 3.39        | 86.1  | 5.26       | 133.6 | NS         | Y           |
| SG-FL22-1616  | 29330-1616 | 20822088 | 1            | 25.4 | 1           | 1.75                | 44.5 | 0.55     | 14.0 | 4.22        | 107.1 | 6.50       | 165.1 | NS         | Y           |
| SG-FL22-1620  | 29330-1620 | 20822087 | 1            | 25.4 | 1 1/4       | 2.00                | 50.8 | 0.59     | 15.0 | 3.62        | 91.9  | 5.90       | 149.9 | NS         | Y           |

## Code 61 Flange (SAE J518)

30° Elbow



S=Skive  
NS=Non-Skive  
DG=Dual-Grip™

| Descriptive # | Product #  | SAP #    | Hose Size ID |      | Flange Size | Flange Diameter (A) |      | Drop (D) |      | Cut-Off (C) |       | Length (L) |       | Skive Type | SR12, ARC12 |
|---------------|------------|----------|--------------|------|-------------|---------------------|------|----------|------|-------------|-------|------------|-------|------------|-------------|
|               |            |          | in.          | mm   |             | in.                 | mm   | in.      | mm   | in.         | mm    | in.        | mm    |            |             |
| S4-FL30-1212  | 28335-1212 | 2042920  | 3/4          | 19.0 | 3/4         | 1.50                | 38.1 | 0.75     | 19.0 | 3.19        | 81.0  | 4.72       | 120.0 | NS         | Y           |
| S4-FL30-1216  | 28335-1216 | 2042932  | 3/4          | 19.0 | 1           | 1.75                | 44.5 | 0.75     | 19.0 | 3.31        | 84.0  | 4.84       | 123.0 | NS         | Y           |
| S4-FL30-1616  | 28335-1616 | 2042926  | 1            | 25.4 | 1           | 1.75                | 44.5 | 0.83     | 21.0 | 3.54        | 90.0  | 5.28       | 134.0 | NS         | Y           |
| S4-FL30-1620  | 28335-1620 | 2042925  | 1            | 25.4 | 1 1/4       | 2.00                | 50.8 | 0.87     | 22.0 | 3.54        | 90.0  | 5.31       | 135.0 | NS         | Y           |
| S4-FL30-1624  | 28335-1624 | 20293268 | 1            | 25.4 | 1 1/2       | 2.37                | 60.3 | 1.06     | 27.0 | 4.13        | 105.0 | 5.87       | 149.0 | NS         | Y           |

Continued on next page

## Code 61 Flange (SAE J518)

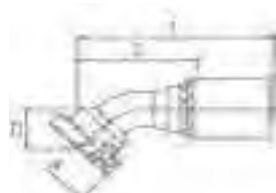
## 30° Elbow Continued

| Descriptive # | Product #  | SAP #    | Hose Size ID |      | Flange Size | Flange Diameter (A) |      | Drop (D) |      | Cut-Off (C) |       | Length (L) |       | Skive Type | SR12, ARC12 |
|---------------|------------|----------|--------------|------|-------------|---------------------|------|----------|------|-------------|-------|------------|-------|------------|-------------|
|               |            |          | in.          | mm   |             | in.                 | mm   | in.      | mm   | in.         | mm    | in.        | mm    |            |             |
| S4-FL30-2020  | 28335-2020 | 20242922 | 1¼           | 31.8 | 1¼          | 2.00                | 50.8 | 0.98     | 25.0 | 4.02        | 102.0 | 6.06       | 154.0 | NS         | Y           |
| S4-FL30-2024  | 28335-2024 | 20242913 | 1¼           | 31.8 | 1½          | 2.37                | 60.3 | 1.06     | 27.0 | 4.41        | 112.0 | 6.46       | 164.0 | NS         | Y           |
| S4-FL30-2424  | 28335-2424 | 20242924 | 1½           | 38.1 | 1½          | 2.37                | 60.3 | 0.91     | 23.0 | 5.35        | 136.0 | 7.68       | 195.0 | NS         | Y           |
| S4-FL30-2432  | 28335-2432 | 20293269 | 1½           | 38.1 | 2           | 2.81                | 71.4 | 1.44     | 36.5 | 5.91        | 150.0 | 8.23       | 209.0 | NS         | Y           |
| S4-FL30-3232  | 28335-3232 | 20293270 | 2            | 50.8 | 2           | 2.81                | 71.4 | 1.18     | 30.0 | 5.87        | 149.0 | 8.70       | 221.0 | NS         | Y           |

| Descriptive # | Product #  | SAP #    | Hose Size ID |      | Flange Size | Flange Diameter (A) |      | Drop (D) |      | Cut-Off (C) |       | Length (L) |       | Skive Type | SR12, ARC12 |
|---------------|------------|----------|--------------|------|-------------|---------------------|------|----------|------|-------------|-------|------------|-------|------------|-------------|
|               |            |          | in.          | mm   |             | in.                 | mm   | in.      | mm   | in.         | mm    | in.        | mm    |            |             |
| SG-FL30-1212  | 29335-1212 | 20822086 | ¾            | 19.0 | ¾           | 1.50                | 38.1 | 0.69     | 17.5 | 3.23        | 81.9  | 5.14       | 130.5 | NS         | Y           |
| SG-FL30-1216  | 29335-1216 | 20822085 | ¾            | 19.0 | 1           | 1.75                | 44.5 | 0.75     | 19.0 | 3.31        | 84.1  | 5.18       | 131.6 | NS         | Y           |
| SG-FL30-1616  | 29335-1616 | 20822084 | 1            | 25.4 | 1           | 1.75                | 44.5 | 0.75     | 19.0 | 4.15        | 105.4 | 6.43       | 163.4 | NS         | Y           |
| SG-FL30-1620  | 29335-1620 | 20822083 | 1            | 25.4 | 1¼          | 2.00                | 50.8 | 0.87     | 22.0 | 3.54        | 89.9  | 5.82       | 147.9 | NS         | Y           |
| SG-FL30-1624  | 29335-1624 | 20822082 | 1            | 25.4 | 1½          | 2.37                | 60.3 | 1.06     | 27.0 | 4.21        | 107.0 | 6.50       | 165.0 | NS         | Y           |

## Code 61 Flange (SAE J518)

## 45° Elbow



S=Skive  
NS=Non-Skive  
DG=Dual-Grip™

| Descriptive # | Product #  | SAP #    | Hose Size ID |      | Flange Size (A) | Flange Diameter (A) |      | Drop (D) |      | Cut-Off (C) |       | Length (L) |       | Skive Type | SR12, ARC12 |
|---------------|------------|----------|--------------|------|-----------------|---------------------|------|----------|------|-------------|-------|------------|-------|------------|-------------|
|               |            |          | in.          | mm   |                 | in.                 | mm   | in.      | mm   | in.         | mm    | in.        | mm    |            |             |
| S4-FL45-0808  | 28340-0808 | 20242950 | 1/2          | 12.7 | 1/2             | 1.19                | 30.2 | 0.87     | 22.0 | 2.09        | 53.0  | 3.31       | 84.0  | NS         | Y           |
| S4-FL45-0812  | 28340-0812 | 20242946 | 1/2          | 12.7 | ¾               | 1.50                | 38.1 | 1.02     | 26.0 | 2.36        | 60.0  | 3.62       | 92.0  | NS         | Y           |
| S4-FL45-1012  | 28340-1012 | 20441203 | 5/8          | 15.9 | ¾               | 1.50                | 38.1 | 1.02     | 26.0 | 2.56        | 65.0  | 3.90       | 99.0  | NS         | Y           |
| S4-FL45-1212  | 28340-1212 | 20242948 | ¾            | 19.0 | ¾               | 1.50                | 38.1 | 1.26     | 32.0 | 2.91        | 74.0  | 4.45       | 113.0 | NS         | Y           |
| S4-FL45-1216  | 28340-1216 | 20242943 | ¾            | 19.0 | 1               | 1.75                | 44.5 | 1.14     | 29.0 | 3.07        | 78.0  | 4.61       | 117.0 | NS         | Y           |
| S4-FL45-1616  | 28340-1616 | 20242918 | 1            | 25.4 | 1               | 1.75                | 44.5 | 1.32     | 33.5 | 3.27        | 83.0  | 5.00       | 127.0 | NS         | Y           |
| S4-FL45-1620  | 28340-1620 | 20242916 | 1            | 25.4 | 1¼              | 2.00                | 50.8 | 1.42     | 36.0 | 3.23        | 82.0  | 5.00       | 127.0 | NS         | Y           |
| S4-FL45-2020  | 28340-2020 | 20242934 | 1¼           | 31.8 | 1¼              | 2.00                | 50.8 | 1.48     | 37.5 | 3.74        | 95.0  | 5.79       | 147.0 | NS         | Y           |
| S4-FL45-2024  | 28340-2024 | 20242921 | 1¼           | 31.8 | 1½              | 2.37                | 60.3 | 1.57     | 40.0 | 4.09        | 104.0 | 6.14       | 156.0 | NS         | Y           |
| S4-FL45-2424  | 28340-2424 | 20242915 | 1½           | 38.1 | 1½              | 2.37                | 60.3 | 1.89     | 48.0 | 4.61        | 117.0 | 6.93       | 176.0 | NS         | Y           |
| S4-FL45-2432  | 28340-2432 | 20242914 | 1½           | 38.1 | 2               | 2.81                | 71.4 | 2.19     | 55.5 | 5.35        | 136.0 | 7.68       | 195.0 | NS         | Y           |
| S4-FL45-3232  | 28340-3232 | 20242945 | 2            | 50.8 | 2               | 2.81                | 71.4 | 1.87     | 47.5 | 5.55        | 141.0 | 8.39       | 213.0 | NS         | Y           |

Continued on next page

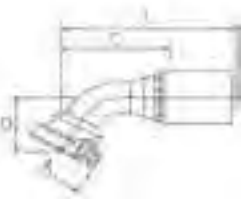
Code 61 Flange (SAE J518)

45° Elbow Continued

| Descriptive # | Product #  | SAP #    | Hose Size ID |      | Flange Size (A) | Flange Diameter (A) |      | Drop (D) |      | Cut-Off (C) |      | Length (L) |       | Skive Type | SR12, ARC12 |
|---------------|------------|----------|--------------|------|-----------------|---------------------|------|----------|------|-------------|------|------------|-------|------------|-------------|
|               |            |          | in.          | mm   |                 | in.                 | mm   | in.      | mm   | in.         | mm   | in.        | mm    |            |             |
| SG-FL45-0808  | 29340-0808 | 20822081 | 1/2          | 12.7 | 1/2             | 1.19                | 30.2 | 0.80     | 20.3 | 2.24        | 56.9 | 3.78       | 95.9  | NS         | Y           |
| SG-FL45-0812  | 29340-0812 | 20822080 | 1/2          | 12.7 | 3/4             | 1.50                | 38.1 | 1.02     | 26.0 | 2.99        | 75.8 | 4.52       | 114.8 | NS         | Y           |
| SG-FL45-1012  | 29340-1012 | 20822079 | 5/8          | 15.9 | 3/4             | 1.50                | 38.1 | 1.02     | 26.0 | 2.56        | 65.0 | 4.15       | 105.5 | NS         | Y           |
| SG-FL45-1212  | 29340-1212 | 20822078 | 3/4          | 19.0 | 3/4             | 1.50                | 38.1 | 1.02     | 26.0 | 2.99        | 75.8 | 4.86       | 123.3 | NS         | Y           |
| SG-FL45-1216  | 29340-1216 | 20822077 | 3/4          | 19.0 | 1               | 1.75                | 44.5 | 1.26     | 32.0 | 3.07        | 78.0 | 4.94       | 125.5 | NS         | Y           |
| SG-FL45-1616  | 29340-1616 | 20822076 | 1            | 25.4 | 1               | 1.75                | 44.5 | 1.26     | 32.0 | 3.84        | 97.6 | 6.13       | 155.6 | NS         | Y           |
| SG-FL45-1620  | 29340-1620 | 20822075 | 1            | 25.4 | 1¼              | 2.00                | 50.8 | 1.50     | 38.0 | 3.23        | 82.0 | 5.51       | 140.0 | NS         | Y           |

Code 61 Flange (SAE J518)

60° Elbow



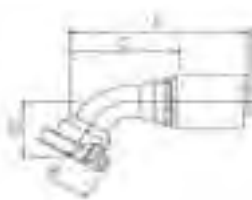
S=Skive  
NS=Non-Skive  
DG=Dual-Grip™

| Descriptive # | Product #  | SAP #    | Hose Size ID |      | Flange Size | Flange Diameter (A) |      | Drop (D) |      | Cut-Off (C) |       | Length (L) |       | Skive Type | SR12, ARC12 |
|---------------|------------|----------|--------------|------|-------------|---------------------|------|----------|------|-------------|-------|------------|-------|------------|-------------|
|               |            |          | in.          | mm   |             | in.                 | mm   | in.      | mm   | in.         | mm    | in.        | mm    |            |             |
| S4-FL60-1212  | 28345-1212 | 20242935 | 3/4          | 19.0 | 3/4         | 1.50                | 38.1 | 1.46     | 37.0 | 3.39        | 86.0  | 4.92       | 125.0 | NS         | Y           |
| S4-FL60-1216  | 28345-1216 | 20242940 | 3/4          | 19.0 | 1           | 1.75                | 44.5 | 1.73     | 44.0 | 4.02        | 102.0 | 5.57       | 141.5 | NS         | Y           |
| S4-FL60-1616  | 28345-1616 | 20242941 | 1            | 25.4 | 1           | 1.75                | 44.5 | 1.85     | 47.0 | 3.98        | 101.0 | 5.73       | 145.6 | NS         | Y           |
| S4-FL60-1620  | 28345-1620 | 20242933 | 1            | 25.4 | 1¼          | 2.00                | 50.8 | 1.71     | 43.5 | 4.20        | 106.6 | 5.95       | 151.2 | NS         | Y           |
| S4-FL60-2020  | 28345-2020 | 20242937 | 1¼           | 31.8 | 1¼          | 2.00                | 50.8 | 2.22     | 56.5 | 5.10        | 129.5 | 7.15       | 181.5 | NS         | Y           |
| S4-FL60-2024  | 28345-2024 | 20293271 | 1¼           | 31.8 | 1½          | 2.37                | 60.3 | 2.28     | 58.0 | 5.31        | 135.0 | 7.36       | 187.0 | NS         | Y           |
| S4-FL60-2424  | 28345-2424 | 20293272 | 1½           | 38.1 | 1½          | 2.37                | 60.3 | 2.24     | 57.0 | 5.98        | 152.0 | 8.31       | 211.0 | NS         | Y           |
| S4-FL60-2432  | 28345-2432 | 20293273 | 1½           | 38.1 | 2           | 2.81                | 71.4 | 3.05     | 77.5 | 6.52        | 165.5 | 8.84       | 224.5 | NS         | Y           |
| S4-FL60-3232  | 28345-3232 | 20293274 | 2            | 50.8 | 2           | 2.81                | 71.4 | 3.62     | 92.0 | 6.81        | 173.0 | 9.65       | 245.0 | NS         | Y           |

| Descriptive # | Product #  | SAP #    | Hose Size ID |      | Flange Size | Flange Diameter (A) |      | Drop (D) |      | Cut-Off (C) |       | Length (L) |       | Skive Type | SR12, ARC12 |
|---------------|------------|----------|--------------|------|-------------|---------------------|------|----------|------|-------------|-------|------------|-------|------------|-------------|
|               |            |          | in.          | mm   |             | in.                 | mm   | in.      | mm   | in.         | mm    | in.        | mm    |            |             |
| SG-FL60-1212  | 29345-1212 | 20822074 | 3/4          | 19.0 | 3/4         | 1.50                | 38.1 | 1.46     | 37.1 | 3.47        | 88.0  | 5.34       | 135.5 | NS         | Y           |
| SG-FL60-1216  | 29345-1216 | 20822073 | 3/4          | 19.0 | 1           | 1.75                | 44.5 | 1.73     | 44.0 | 3.46        | 87.9  | 5.33       | 135.4 | NS         | Y           |
| SG-FL60-1616  | 29345-1616 | 20822072 | 1            | 25.4 | 1           | 1.75                | 44.5 | 1.73     | 44.0 | 4.15        | 105.4 | 6.43       | 163.4 | NS         | Y           |
| SG-FL60-1620  | 29345-1620 | 20822071 | 1            | 25.4 | 1¼          | 2.00                | 50.8 | 2.17     | 55.0 | 4.20        | 106.7 | 6.48       | 164.7 | NS         | Y           |

## Code 61 Flange (SAE J518)

67° Elbow



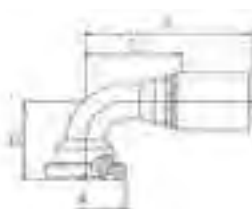
S=Skive  
NS=Non-Skive  
DG=Dual-Grip™

| Descriptive # | Product #  | SAP #    | Hose Size ID |      | Flange Size | Flange Diameter (A) |      | Drop (D) |      | Cut-Off (C) |       | Length (L) |       | Skive Type | SR12, ARC12 |
|---------------|------------|----------|--------------|------|-------------|---------------------|------|----------|------|-------------|-------|------------|-------|------------|-------------|
|               |            |          | in.          | mm   |             | in.                 | mm   | in.      | mm   | in.         | mm    | in.        | mm    |            |             |
| S4-FL67-1212  | 28347-1212 | 20293275 | 3/4          | 19.0 | 3/4         | 1.50                | 38.1 | 1.79     | 45.5 | 3.09        | 78.5  | 4.65       | 118.0 | NS         | Y           |
| S4-FL67-1216  | 28347-1216 | 20441294 | 3/4          | 19.0 | 1           | 1.75                | 44.4 | 2.01     | 51.0 | 3.46        | 88.0  | 5.00       | 127.0 | NS         | Y           |
| S4-FL67-1616  | 28347-1616 | 20293276 | 1            | 25.4 | 1           | 1.75                | 44.4 | 1.95     | 49.5 | 3.68        | 93.4  | 5.43       | 138.0 | NS         | Y           |
| S4-FL67-1620  | 28347-1620 | 20293277 | 1            | 25.4 | 1¼          | 2.00                | 50.8 | 2.11     | 53.5 | 3.88        | 98.5  | 5.63       | 143.0 | NS         | Y           |
| S4-FL67-2020  | 28347-2020 | 20293278 | 1¼           | 31.8 | 1¼          | 2.00                | 50.8 | 2.46     | 62.5 | 4.72        | 120.0 | 6.77       | 172.0 | NS         | Y           |
| S4-FL67-2024  | 28347-2024 | 20293279 | 1¼           | 31.8 | 1½          | 2.37                | 60.3 | 2.58     | 65.5 | 4.78        | 121.4 | 6.83       | 173.5 | NS         | Y           |
| S4-FL67-2424  | 28347-2424 | 20293280 | 1½           | 38.1 | 1½          | 2.37                | 60.3 | 2.58     | 65.5 | 5.33        | 135.5 | 7.66       | 194.5 | NS         | Y           |
| S4-FL67-2432  | 28347-2432 | 20293281 | 1½           | 38.1 | 2           | 2.81                | 71.4 | 3.46     | 88.0 | 5.55        | 141.0 | 7.87       | 200.0 | NS         | Y           |
| S4-FL67-3232  | 28347-3232 | 20293282 | 2            | 50.8 | 2           | 2.81                | 71.4 | 3.76     | 95.5 | 7.05        | 179.0 | 9.88       | 251.0 | NS         | Y           |

| Descriptive # | Product #  | SAP #    | Hose Size ID |      | Flange Size | Flange Diameter (A) |      | Drop (D) |      | Cut-Off (C) |      | Length (L) |       | Skive Type | SR12, ARC12 |
|---------------|------------|----------|--------------|------|-------------|---------------------|------|----------|------|-------------|------|------------|-------|------------|-------------|
|               |            |          | in.          | mm   |             | in.                 | mm   | in.      | mm   | in.         | mm   | in.        | mm    |            |             |
| SG-FL67-1212  | 29347-1212 | 20822070 | 3/4          | 19.0 | 3/4         | 1.50                | 38.1 | 1.65     | 42.0 | 3.17        | 80.4 | 5.04       | 127.9 | NS         | Y           |
| SG-FL67-1216  | 29347-1216 | 20822069 | 3/4          | 19.0 | 1           | 1.75                | 44.4 | 2.01     | 51.0 | 3.46        | 87.9 | 5.33       | 135.4 | NS         | Y           |
| SG-FL67-1616  | 29347-1616 | 20822068 | 1            | 25.4 | 1           | 1.75                | 44.4 | 2.40     | 61.0 | 3.84        | 97.6 | 6.13       | 155.6 | NS         | Y           |
| SG-FL67-1620  | 29347-1620 | 20822067 | 1            | 25.4 | 1¼          | 2.00                | 50.8 | 2.52     | 64.0 | 3.88        | 98.6 | 6.16       | 156.5 | NS         | Y           |

## Code 61 Flange (SAE J518)

90° Elbow



| Descriptive #  | Product #  | SAP #    | Hose Size ID |      | Flange Size | Flange Diameter (A) |      | Drop (D) |      | Cut-Off (C) |      | Length (L) |       | Skive Type | SR12, ARC12 |
|----------------|------------|----------|--------------|------|-------------|---------------------|------|----------|------|-------------|------|------------|-------|------------|-------------|
|                |            |          | in.          | mm   |             | in.                 | mm   | in.      | mm   | in.         | mm   | in.        | mm    |            |             |
| S4-FL90-0808   | 28350-0808 | 20242887 | 1/2          | 12.7 | 1/2         | 1.19                | 30.2 | 1.65     | 42.0 | 1.81        | 46.0 | 3.03       | 77.0  | NS         | Y           |
| S4-FL90-0812   | 28350-0812 | 20242885 | 1/2          | 12.7 | 3/4         | 1.50                | 38.1 | 2.01     | 51.0 | 1.77        | 45.0 | 3.03       | 77.0  | NS         | Y           |
| S4-FL90-1212   | 28350-1212 | 20242880 | 3/4          | 19.0 | 3/4         | 1.50                | 38.1 | 2.36     | 60.0 | 2.28        | 58.0 | 3.82       | 97.0  | NS         | Y           |
| S4-FL90-1216   | 28350-1216 | 20242882 | 3/4          | 19.0 | 1           | 1.75                | 44.5 | 2.54     | 64.5 | 2.60        | 66.0 | 4.17       | 106.0 | NS         | Y           |
| S4-FL90L-1216* | 28352-1216 | 20293284 | 3/4          | 19.0 | 1           | 1.75                | 44.5 | 3.15     | 80.0 | 2.60        | 66.0 | 4.17       | 106.0 | NS         | Y           |

\*Drop Length does not meet SAE long drop dimensions

Continued on next page

Code 61 Flange (SAE J518)

90° Elbow Continued

| Descriptive # | Product #  | SAP #    | Hose Size ID |      | Flange Size | Flange Diameter (A) |      | Drop (D) |       | Cut-Off (C) |       | Length (L) |       | Skive Type | SR12, ARC12 |
|---------------|------------|----------|--------------|------|-------------|---------------------|------|----------|-------|-------------|-------|------------|-------|------------|-------------|
|               |            |          | in.          | mm   |             | in.                 | mm   | in.      | mm    | in.         | mm    | in.        | mm    |            |             |
| S4-FL90-1612  | 28350-1612 | 20293285 | 1            | 25.4 | 3/4         | 1.50                | 38.1 | 2.17     | 55.0  | 2.64        | 67.0  | 4.41       | 112.0 | NS         | Y           |
| S4-FL90-1616  | 28350-1616 | 20242896 | 1            | 25.4 | 1           | 1.75                | 44.5 | 2.64     | 67.0  | 2.80        | 71.0  | 4.53       | 115.0 | NS         | Y           |
| S4-FL90L-1616 | 28352-1616 | 20293286 | 1            | 25.4 | 1           | 1.75                | 44.5 | 4.92     | 125.0 | 2.95        | 75.0  | 4.69       | 119.0 | NS         | Y           |
| S4-FL90-1620  | 28350-1620 | 20242892 | 1            | 25.4 | 1¼          | 2.00                | 50.8 | 2.80     | 71.0  | 2.91        | 74.0  | 4.65       | 118.0 | NS         | Y           |
| S4-FL90-1624  | 28350-1624 | 20293287 | 1            | 25.4 | 1½          | 2.37                | 60.3 | 2.95     | 75.0  | 3.66        | 93.0  | 5.43       | 138.0 | NS         | Y           |
| S4-FL90-2016  | 28350-2016 | 20242897 | 1¼           | 31.8 | 1           | 1.75                | 44.5 | 2.56     | 65.0  | 3.70        | 94.0  | 5.75       | 146.0 | NS         | Y           |
| S4-FL90-2020  | 28350-2020 | 20242931 | 1¼           | 31.8 | 1¼          | 2.00                | 50.8 | 3.31     | 84.0  | 3.46        | 88.0  | 5.51       | 140.0 | NS         | Y           |
| S4-FL90-2024  | 28350-2024 | 20242889 | 1¼           | 31.8 | 1½          | 2.37                | 60.3 | 3.44     | 87.5  | 3.58        | 91.0  | 5.63       | 143.0 | NS         | Y           |
| S4-FL90-2424  | 28350-2424 | 20242891 | 1½           | 38.1 | 1½          | 2.37                | 60.3 | 3.58     | 91.0  | 4.13        | 105.0 | 6.46       | 164.0 | NS         | Y           |
| S4-FL90-2432  | 28350-2432 | 20242890 | 1½           | 38.1 | 2           | 2.81                | 71.4 | 4.53     | 115.0 | 4.13        | 105.0 | 6.46       | 164.0 | NS         | Y           |
| S4-FL90-3232  | 28350-3232 | 20242894 | 2            | 50.8 | 2           | 2.81                | 71.4 | 5.12     | 130.0 | 5.08        | 129.0 | 7.91       | 201.0 | NS         | Y           |

| Descriptive # | Product #  | SAP #    | Hose Size ID |      | Flange Size | Flange Diameter (A) |      | Drop (D) |       | Cut-Off (C) |       | Length (L) |       | Skive Type | SR12, ARC12 |
|---------------|------------|----------|--------------|------|-------------|---------------------|------|----------|-------|-------------|-------|------------|-------|------------|-------------|
|               |            |          | in.          | mm   |             | in.                 | mm   | in.      | mm    | in.         | mm    | in.        | mm    |            |             |
| SG-FL90-0808  | 29350-0808 | 20758301 | 1/2          | 12.7 | 1/2         | 1.19                | 30.2 | 1.63     | 41.5  | 1.89        | 48.0  | 3.43       | 87.0  | NS         | Y           |
| SG-FL90-0812  | 29350-0812 | 20822066 | 1/2          | 12.7 | 3/4         | 1.50                | 38.1 | 2.28     | 58.0  | 1.89        | 48.0  | 3.43       | 87.0  | NS         | Y           |
| SG-FL90-1212  | 29350-1212 | 20822065 | 3/4          | 19.0 | 3/4         | 1.50                | 38.1 | 2.28     | 58.0  | 2.36        | 59.8  | 4.23       | 107.3 | NS         | Y           |
| SG-FL90-1216  | 29350-1216 | 20822064 | 3/4          | 19.0 | 1           | 1.75                | 44.5 | 2.76     | 70.0  | 2.60        | 66.0  | 4.47       | 113.5 | NS         | Y           |
| SG-FL90L-1216 | 29352-1216 | 20822059 | 3/4          | 19.0 | 1           | 1.75                | 44.5 | 6.06     | 154.0 | 2.60        | 66.0  | 4.47       | 113.5 | NS         | Y           |
| SG-FL90-1612  | 29350-1612 | 20822063 | 1            | 25.4 | 3/4         | 1.50                | 38.1 | 2.28     | 58.0  | 2.63        | 66.7  | 4.91       | 124.7 | NS         | Y           |
| SG-FL90-1616  | 29350-1616 | 20822062 | 1            | 25.4 | 1           | 1.75                | 44.5 | 2.76     | 70.1  | 2.97        | 75.4  | 5.25       | 133.4 | NS         | Y           |
| SG-FL90L-1616 | 29352-1616 | 20822058 | 1            | 25.4 | 1           | 1.75                | 44.5 | 6.06     | 154.0 | 3.97        | 100.8 | 6.25       | 158.8 | NS         | Y           |
| SG-FL90-1620  | 29350-1620 | 20822061 | 1            | 25.4 | 1¼          | 2.00                | 50.8 | 3.54     | 90.0  | 3.07        | 78.0  | 5.35       | 136.0 | NS         | Y           |
| SG-FL90-1624  | 29350-1624 | 20822060 | 1            | 25.4 | 1½          | 2.37                | 60.3 | 2.95     | 75.0  | 3.74        | 95.0  | 6.02       | 153.0 | NS         | Y           |

Code 61 Flange (SAE J518)

110° Elbow



S=Skive  
NS=Non-Skive  
DG=Dual-Grip™

| Descriptive # | Product #  | SAP #    | Hose Size ID |      | Flange Size (A) | Flange Diameter (A) |      | Drop (D) |       | Cut-Off (C) |      | Length (L) |       | Skive Type | SR12, ARC12 |
|---------------|------------|----------|--------------|------|-----------------|---------------------|------|----------|-------|-------------|------|------------|-------|------------|-------------|
|               |            |          | in.          | mm   |                 | in.                 | mm   | in.      | mm    | in.         | mm   | in.        | mm    |            |             |
| S4-FL110-1212 | 28354-1212 | 20441316 | 3/4          | 19.0 | 3/4             | 1.50                | 38.1 | 2.76     | 70.0  | 2.44        | 62.0 | 4.02       | 102.0 | NS         | Y           |
| S4-FL110-1216 | 28354-1216 | 20441317 | 3/4          | 19.0 | 1               | 1.75                | 44.5 | 2.91     | 74.0  | 2.24        | 57.0 | 3.82       | 97.0  | NS         | Y           |
| S4-FL110-1616 | 28354-1616 | 20441318 | 1            | 25.4 | 1               | 1.75                | 44.5 | 3.11     | 79.0  | 3.74        | 95.0 | 5.51       | 140.0 | NS         | Y           |
| S4-FL110-2424 | 28354-2424 | 20441319 | 1½           | 38.1 | 1½              | 2.37                | 60.3 | 4.33     | 110.0 | 3.74        | 95.0 | 6.06       | 154.0 | NS         | Y           |

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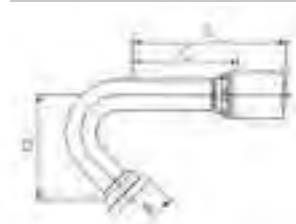
## Code 61 Flange (SAE J518)

## 110° Elbow Continued

| Descriptive # | Product #  | SAP #    | Hose Size ID |      | Flange Size | Flange Diameter (A) |      | Drop (D) |      | Cut-Off (C) |      | Length (L) |       | Skive Type | SR12, ARC12 |
|---------------|------------|----------|--------------|------|-------------|---------------------|------|----------|------|-------------|------|------------|-------|------------|-------------|
|               |            |          | in.          | mm   |             | in.                 | mm   | in.      | mm   | in.         | mm   | in.        | mm    |            |             |
| SG-FL110-1212 | 29354-1212 | 20822101 | 3/4          | 19.0 | 3/4         | 1.50                | 38.1 | 2.76     | 70.1 | 2.52        | 63.9 | 4.39       | 111.4 | NS         | Y           |
| SG-FL110-1216 | 29354-1216 | 20822100 | 3/4          | 19.0 | 1           | 1.75                | 44.5 | 2.91     | 73.9 | 2.25        | 57.2 | 4.12       | 104.6 | NS         | Y           |
| SG-FL110-1616 | 29354-1616 | 20822099 | 1            | 25.4 | 1           | 1.75                | 44.5 | 3.11     | 79.0 | 3.81        | 96.8 | 6.09       | 154.8 | NS         | Y           |

## Code 61 Flange (SAE J518)

## 135° Elbow

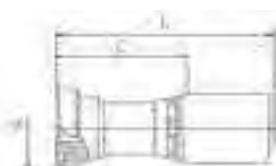


S=Skive  
NS=Non-Skive  
DG=Dual-Grip™

| Descriptive # | Product #  | SAP #    | Hose Size ID |      | Flange Size | Flange Diameter (A) |      | Drop (D) |      | Cut-Off (C) |      | Length (L) |       | Skive Type | SR12, ARC12 |
|---------------|------------|----------|--------------|------|-------------|---------------------|------|----------|------|-------------|------|------------|-------|------------|-------------|
|               |            |          | in.          | mm   |             | in.                 | mm   | in.      | mm   | in.         | mm   | in.        | mm    |            |             |
| S4-FL135-1212 | 28355-1212 | 20477377 | 3/4          | 19.0 | 3/4         | 1.50                | 38.1 | 3.15     | 80.0 | 2.95        | 75.0 | 4.49       | 114.0 | NS         | Y           |

| Descriptive # | Product #  | SAP #    | Hose Size ID |      | Flange Size | Flange Diameter (A) |      | Drop (D) |      | Cut-Off (C) |      | Length (L) |       | Skive Type | SR12, ARC12 |
|---------------|------------|----------|--------------|------|-------------|---------------------|------|----------|------|-------------|------|------------|-------|------------|-------------|
|               |            |          | in.          | mm   |             | in.                 | mm   | in.      | mm   | in.         | mm   | in.        | mm    |            |             |
| SG-FL135-1212 | 29355-1212 | 20822095 | 3/4          | 19.0 | 3/4         | 1.50                | 38.1 | 3.15     | 80.0 | 2.83        | 71.8 | 4.70       | 119.3 | NS         | Y           |

## Code 62 Flange (SAE J518)



S=Skive  
NS=Non-Skive  
DG=Dual-Grip™

| Descriptive # | Product #  | SAP #    | Hose Size ID |      | Flange Size | Flange Diameter (A) |      | Cut-Off (C) |      | Length (L) |       | Skive Type | SR12, ARC12 |
|---------------|------------|----------|--------------|------|-------------|---------------------|------|-------------|------|------------|-------|------------|-------------|
|               |            |          | in.          | mm   |             | in.                 | mm   | in.         | mm   | in.        | mm    |            |             |
| S4-FH-0808    | 28300-0808 | 20241741 | 1/2          | 12.7 | 1/2         | 1.25                | 31.8 | 1.85        | 47.0 | 3.09       | 78.5  | NS         | Y           |
| S4-FH-0812    | 28300-0812 | 20241750 | 1/2          | 12.7 | 3/4         | 1.63                | 41.3 | 2.05        | 52.0 | 3.29       | 83.5  | NS         | Y           |
| S4-FH-1212    | 28300-1212 | 20241753 | 3/4          | 19.0 | 3/4         | 1.63                | 41.3 | 2.07        | 52.5 | 3.62       | 92.0  | NS         | Y           |
| S4-FH-1216    | 28300-1216 | 20241747 | 3/4          | 19.0 | 1           | 1.87                | 47.6 | 2.19        | 55.5 | 3.74       | 95.0  | NS         | Y           |
| S4-FH-1612    | 28300-1612 | 20293288 | 1            | 25.4 | 3/4         | 1.63                | 41.3 | 2.22        | 56.4 | 3.98       | 101.0 | NS         | Y           |
| S4-FH-1616    | 28300-1616 | 20241730 | 1            | 25.4 | 1           | 1.87                | 47.6 | 2.22        | 56.4 | 3.98       | 101.0 | NS         | Y           |
| S4-FH-1620    | 28300-1620 | 20241218 | 1            | 25.4 | 1 1/4       | 2.13                | 54.0 | 2.50        | 63.4 | 4.25       | 108.0 | NS         | Y           |

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Code 62 Flange (SAE J518)

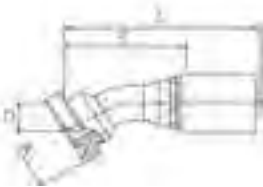
Continued

| Descriptive # | Product #  | SAP #    | Hose Size ID |      | Flange Size | Flange Diameter (A) |      | Cut-Off (C) |      | Length (L) |       | Skive Type | SR12, ARC12 |
|---------------|------------|----------|--------------|------|-------------|---------------------|------|-------------|------|------------|-------|------------|-------------|
|               |            |          | in.          | mm   |             | in.                 | mm   | in.         | mm   | in.        | mm    |            |             |
| S4-FH-2016    | 28300-2016 | 20441292 | 1¼           | 31.8 | 1           | 1.87                | 47.6 | 3.27        | 83.0 | 5.31       | 135.0 | NS         | Y           |
| S4-FH-2020    | 28300-2020 | 20241752 | 1¼           | 31.8 | 1¼          | 2.13                | 54.0 | 3.27        | 83.0 | 5.31       | 135.0 | NS         | Y           |
| S4-FH-2024    | 28300-2024 | 20241754 | 1¼           | 31.8 | 1½          | 2.50                | 63.5 | 2.80        | 71.0 | 4.84       | 123.0 | NS         | Y           |
| S4-FH-2424    | 28300-2424 | 20241751 | 1½           | 38.1 | 1½          | 2.50                | 63.5 | 3.74        | 95.0 | 6.06       | 154.0 | NS         | Y           |
| S4-FH-2432    | 28300-2432 | 20241757 | 1½           | 38.1 | 2           | 3.13                | 79.4 | 2.99        | 76.0 | 5.31       | 135.0 | NS         | Y           |
| S4-FH-3232    | 28300-3232 | 20241759 | 2            | 50.8 | 2           | 3.13                | 79.4 | 2.99        | 76.0 | 5.83       | 148.0 | NS         | Y           |

| Descriptive # | Product #  | SAP #    | Hose Size ID |      | Flange Size | Flange Diameter (A) |      | Cut-Off (C) |      | Length (L) |       | Skive Type | SR12, ARC12 |
|---------------|------------|----------|--------------|------|-------------|---------------------|------|-------------|------|------------|-------|------------|-------------|
|               |            |          | in.          | mm   |             | in.                 | mm   | in.         | mm   | in.        | mm    |            |             |
| SG-FH-0808    | 29300-0808 | 20822132 | 1/2          | 12.7 | 1/2         | 1.25                | 31.8 | 1.88        | 47.7 | 3.41       | 86.7  | NS         | Y           |
| SG-FH-0812    | 29300-0812 | 20822131 | 1/2          | 12.7 | 3/4         | 1.63                | 41.3 | 2.08        | 52.8 | 3.62       | 91.8  | NS         | Y           |
| SG-FH-1212    | 29300-1212 | 20822130 | 3/4          | 19.0 | 3/4         | 1.63                | 41.3 | 2.15        | 54.5 | 4.02       | 102.0 | NS         | Y           |
| SG-FH-1216    | 29300-1216 | 20822129 | 3/4          | 19.0 | 1           | 1.87                | 47.6 | 2.24        | 56.8 | 4.11       | 104.3 | NS         | Y           |
| SG-FH-1612    | 29300-1612 | 20822128 | 1            | 25.4 | 3/4         | 1.63                | 41.3 | 2.30        | 58.4 | 4.58       | 116.4 | NS         | Y           |
| SG-FH-1616    | 29300-1616 | 20822127 | 1            | 25.4 | 1           | 1.87                | 47.6 | 2.28        | 58.0 | 4.57       | 116.0 | NS         | Y           |
| SG-FH-1620    | 29300-1620 | 20822126 | 1            | 25.4 | 1¼          | 2.13                | 54.0 | 2.58        | 65.5 | 4.86       | 123.5 | NS         | Y           |

Code 62 Flange (SAE J518)

22.5° Elbow



S=Skive  
NS=Non-Skive  
DG=Dual-Grip™

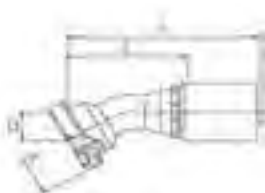
| Descriptive # | Product #  | SAP #    | Hose Size ID |      | Flange Size | Flange Diameter (A) |      | Drop (D) |      | Cut-Off (C) |       | Length (L) |       | Skive Type | SR12, ARC12 |
|---------------|------------|----------|--------------|------|-------------|---------------------|------|----------|------|-------------|-------|------------|-------|------------|-------------|
|               |            |          | in.          | mm   |             | in.                 | mm   | in.      | mm   | in.         | mm    | in.        | mm    |            |             |
| S4-FH22-1212  | 28303-1212 | 20293289 | 3/4          | 19.0 | 3/4         | 1.63                | 41.3 | 0.55     | 14.0 | 3.66        | 93.0  | 5.22       | 132.5 | NS         | Y           |
| S4-FH22-1616  | 28303-1616 | 20293290 | 1            | 25.4 | 1           | 1.87                | 47.6 | 0.63     | 16.0 | 4.19        | 106.5 | 5.94       | 151.0 | NS         | Y           |
| S4-FH22-2020  | 28303-2020 | 20293291 | 1¼           | 31.8 | 1¼          | 2.13                | 54.0 | 0.69     | 17.5 | 4.72        | 120.0 | 6.77       | 172.0 | NS         | Y           |
| S4-FH22-2024  | 28303-2024 | 20293292 | 1¼           | 31.8 | 1½          | 2.50                | 63.5 | 0.81     | 20.5 | 5.04        | 128.0 | 7.09       | 180.0 | NS         | Y           |

| Descriptive # | Product #  | SAP #    | Hose Size ID |      | Flange Size | Flange Diameter (A) |      | Drop (D) |      | Cut-Off (C) |       | Length (L) |       | Skive Type | SR12, ARC12 |
|---------------|------------|----------|--------------|------|-------------|---------------------|------|----------|------|-------------|-------|------------|-------|------------|-------------|
|               |            |          | in.          | mm   |             | in.                 | mm   | in.      | mm   | in.         | mm    | in.        | mm    |            |             |
| SG-FH22-1212  | 29303-1212 | 20822125 | 3/4          | 19.0 | 3/4         | 1.63                | 41.3 | 0.55     | 14.0 | 3.33        | 84.5  | 5.20       | 132.0 | NS         | Y           |
| SG-FH22-1216  | 29303-1216 | 20822124 | 3/4          | 19.0 | 1           | 1.87                | 47.6 | 0.59     | 15.0 | 3.39        | 86.1  | 5.26       | 133.6 | NS         | Y           |
| SG-FH22-1616  | 29303-1616 | 20822123 | 1            | 25.4 | 1           | 1.87                | 47.6 | 0.55     | 14.0 | 4.22        | 107.1 | 6.50       | 165.1 | NS         | Y           |



## Code 62 Flange (SAE J518)

30° Elbow



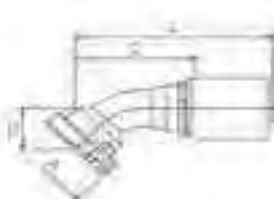
S=Skive  
NS=Non-Skive  
DG=Dual-Grip™

| Descriptive # | Product #  | SAP #    | Hose Size ID |      | Flange Size | Flange Diameter (A) |      | Drop (D) |      | Cut-Off (C) |       | Length (L) |       | Skive Type | SR12, ARC12 |
|---------------|------------|----------|--------------|------|-------------|---------------------|------|----------|------|-------------|-------|------------|-------|------------|-------------|
|               |            |          | in.          | mm   |             | in.                 | mm   | in.      | mm   | in.         | mm    | in.        | mm    |            |             |
| S4-FH30-1212  | 28305-1212 | 20293293 | 3/4          | 19.0 | 3/4         | 1.63                | 41.3 | 0.77     | 19.5 | 3.48        | 88.5  | 5.04       | 128.0 | NS         | Y           |
| S4-FH30-1616  | 28305-1616 | 20293294 | 1            | 25.4 | 1           | 1.87                | 47.6 | 0.89     | 22.5 | 4.11        | 104.5 | 5.87       | 149.0 | NS         | Y           |
| S4-FH30-2020  | 28305-2020 | 20293295 | 1¼           | 31.8 | 1¼          | 2.13                | 54.0 | 0.96     | 24.5 | 4.61        | 117.0 | 6.65       | 169.0 | NS         | Y           |
| S4-FH30-2024  | 28305-2024 | 20293296 | 1¼           | 31.8 | 1½          | 2.50                | 63.5 | 1.12     | 28.5 | 4.90        | 124.5 | 6.95       | 176.5 | NS         | Y           |
| S4-FH30-2424  | 28305-2424 | 20293297 | 1½           | 38.1 | 1½          | 2.50                | 63.5 | 1.08     | 27.5 | 5.22        | 132.5 | 7.54       | 191.5 | NS         | Y           |
| S4-FH30-3232  | 28305-3232 | 20293298 | 2            | 50.8 | 2           | 3.13                | 79.4 | 1.44     | 36.5 | 6.65        | 169.0 | 9.49       | 241.0 | NS         | Y           |

| Descriptive # | Product #  | SAP #    | Hose Size ID |      | Flange Size | Flange Diameter (A) |      | Drop (D) |      | Cut-Off (C) |       | Length (L) |       | Skive Type | SR12, ARC12 |
|---------------|------------|----------|--------------|------|-------------|---------------------|------|----------|------|-------------|-------|------------|-------|------------|-------------|
|               |            |          | in.          | mm   |             | in.                 | mm   | in.      | mm   | in.         | mm    | in.        | mm    |            |             |
| SG-FH30-1212  | 29305-1212 | 20822122 | 3/4          | 19.0 | 3/4         | 1.63                | 41.3 | 0.73     | 18.5 | 3.27        | 83.0  | 5.14       | 130.5 | NS         | Y           |
| SG-FH30-1616  | 29305-1616 | 20822121 | 1            | 25.4 | 1           | 1.87                | 47.6 | 0.75     | 19.0 | 4.15        | 105.4 | 6.43       | 163.4 | NS         | Y           |

## Code 62 Flange (SAE J518)

45° Elbow



S=Skive  
NS=Non-Skive  
DG=Dual-Grip™

| Descriptive # | Product #  | SAP #    | Hose Size ID |      | Flange Size | Flange Diameter (A) |      | Drop (D) |      | Cut-Off (C) |       | Length (L) |       | Skive Type | SR12, ARC12 |
|---------------|------------|----------|--------------|------|-------------|---------------------|------|----------|------|-------------|-------|------------|-------|------------|-------------|
|               |            |          | in.          | mm   |             | in.                 | mm   | in.      | mm   | in.         | mm    | in.        | mm    |            |             |
| S4-FH45-0808  | 28310-0808 | 20241762 | 1/2          | 12.7 | 1/2         | 1.25                | 31.8 | 0.91     | 23.0 | 2.24        | 57.0  | 3.46       | 88.0  | NS         | Y           |
| S4-FH45-0812  | 28310-0812 | 20241761 | 1/2          | 12.7 | 3/4         | 1.63                | 41.3 | 1.20     | 30.5 | 3.15        | 80.0  | 4.37       | 111.0 | NS         | Y           |
| S4-FH45-1212  | 28310-1212 | 20241790 | 3/4          | 19.0 | 3/4         | 1.63                | 41.3 | 1.22     | 31.0 | 3.31        | 84.0  | 4.88       | 124.0 | NS         | Y           |
| S4-FH45-1216  | 28310-1216 | 20241794 | 3/4          | 19.0 | 1           | 1.87                | 47.6 | 1.32     | 33.5 | 3.15        | 80.0  | 4.72       | 120.0 | NS         | Y           |
| S4-FH45-1616  | 28310-1616 | 20241774 | 1            | 25.4 | 1           | 1.87                | 47.6 | 1.42     | 36.0 | 3.82        | 97.0  | 5.55       | 141.0 | NS         | Y           |
| S4-FH45-1620  | 28310-1620 | 20241778 | 1            | 25.4 | 1¼          | 2.13                | 54.0 | 1.54     | 39.0 | 3.78        | 96.0  | 5.55       | 141.0 | NS         | Y           |
| S4-FH45-2020  | 28310-2020 | 20241764 | 1¼           | 31.8 | 1¼          | 2.13                | 54.0 | 1.57     | 40.0 | 4.29        | 109.0 | 6.34       | 161.0 | NS         | Y           |
| S4-FH45-2024  | 28310-2024 | 20241765 | 1¼           | 31.8 | 1½          | 2.50                | 63.5 | 1.79     | 45.5 | 4.53        | 115.0 | 6.57       | 167.0 | NS         | Y           |
| S4-FH45-2424  | 28310-2424 | 20241769 | 1½           | 38.1 | 1½          | 2.50                | 63.5 | 1.77     | 45.0 | 4.84        | 123.0 | 7.17       | 182.0 | NS         | Y           |
| S4-FH45-2432  | 28310-2432 | 20241776 | 1½           | 38.1 | 2           | 3.13                | 79.4 | 2.26     | 57.5 | 5.24        | 133.0 | 7.56       | 192.0 | NS         | Y           |
| S4-FH45-3232  | 28310-3232 | 20241767 | 2            | 50.8 | 2           | 3.13                | 79.4 | 2.36     | 60.0 | 6.18        | 157.0 | 9.02       | 229.0 | NS         | Y           |

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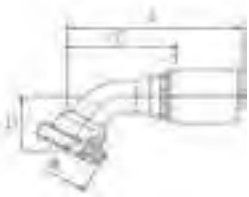
## Code 62 Flange (SAE J518)

45° Elbow Continued

| Descriptive # | Product #  | SAP #    | Hose Size ID |      | Flange Size | Flange Diameter (A) |      | Drop (D) |      | Cut-Off (C) |      | Length (L) |       | Skive Type | SR12, ARC12 |
|---------------|------------|----------|--------------|------|-------------|---------------------|------|----------|------|-------------|------|------------|-------|------------|-------------|
|               |            |          | in.          | mm   |             | in.                 | mm   | in.      | mm   | in.         | mm   | in.        | mm    |            |             |
| SG-FH45-0808  | 29310-0808 | 20822120 | 1/2          | 12.7 | 1/2         | 1.25                | 31.8 | 0.86     | 21.8 | 2.24        | 56.9 | 3.78       | 95.9  | NS         | Y           |
| SG-FH45-0812  | 29310-0812 | 20822119 | 1/2          | 12.7 | 3/4         | 1.63                | 41.3 | 1.08     | 27.5 | 2.99        | 75.8 | 4.52       | 114.8 | NS         | Y           |
| SG-FH45-1212  | 29310-1212 | 20822118 | 3/4          | 19.0 | 3/4         | 1.63                | 41.3 | 1.12     | 28.5 | 2.99        | 75.8 | 4.86       | 123.3 | NS         | Y           |
| SG-FH45-1216  | 29310-1216 | 20822117 | 3/4          | 19.0 | 1           | 1.87                | 47.6 | 1.26     | 32.0 | 3.07        | 78.0 | 4.94       | 125.5 | NS         | Y           |
| SG-FH45-1616  | 29310-1616 | 20822116 | 1            | 25.4 | 1           | 1.87                | 47.6 | 1.26     | 32.0 | 3.84        | 97.6 | 6.13       | 155.6 | NS         | Y           |
| SG-FH45-1620  | 29310-1620 | 20822115 | 1            | 25.4 | 1 1/4       | 2.13                | 54.0 | 1.50     | 38.0 | 3.78        | 96.0 | 6.06       | 154.0 | NS         | Y           |

## Code 62 Flange (SAE J518)

60° Elbow



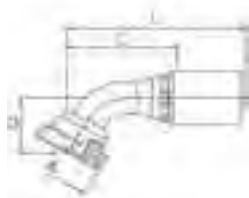
S=Skive  
NS=Non-Skive  
DG=Dual-Grip™

| Descriptive # | Product #  | SAP #    | Hose Size ID |      | Flange Size | Flange Diameter (A) |      | Drop (D) |      | Cut-Off (C) |       | Length (L) |       | Skive Type | SR12, ARC12 |
|---------------|------------|----------|--------------|------|-------------|---------------------|------|----------|------|-------------|-------|------------|-------|------------|-------------|
|               |            |          | in.          | mm   |             | in.                 | mm   | in.      | mm   | in.         | mm    | in.        | mm    |            |             |
| S4-FH60-1212  | 28312-1212 | 20293299 | 3/4          | 19.0 | 3/4         | 1.63                | 41.3 | 1.61     | 41.0 | 3.56        | 90.5  | 5.12       | 130.0 | NS         | Y           |
| S4-FH60-1616  | 28312-1616 | 20293300 | 1            | 25.4 | 1           | 1.87                | 47.6 | 1.99     | 50.5 | 4.21        | 107.0 | 5.96       | 151.5 | NS         | Y           |
| S4-FH60-2020  | 28312-2020 | 20293301 | 1 1/4        | 31.8 | 1 1/4       | 2.13                | 54.0 | 2.32     | 59.0 | 5.26        | 133.5 | 7.30       | 185.5 | NS         | Y           |
| S4-FH60-2024  | 28312-2024 | 20293302 | 1 1/4        | 31.8 | 1 1/2       | 2.50                | 63.5 | 2.48     | 63.0 | 5.49        | 139.5 | 7.54       | 191.5 | NS         | Y           |

| Descriptive # | Product #  | SAP #    | Hose Size ID |      | Flange Size | Flange Diameter (A) |      | Drop (D) |      | Cut-Off (C) |       | Length (L) |       | Skive Type | SR12, ARC12 |
|---------------|------------|----------|--------------|------|-------------|---------------------|------|----------|------|-------------|-------|------------|-------|------------|-------------|
|               |            |          | in.          | mm   |             | in.                 | mm   | in.      | mm   | in.         | mm    | in.        | mm    |            |             |
| SG-FH60-1212  | 29312-1212 | 20822114 | 3/4          | 19.0 | 3/4         | 1.63                | 41.3 | 1.55     | 39.4 | 3.47        | 88.0  | 5.34       | 135.5 | NS         | Y           |
| SG-FH60-1616  | 29312-1616 | 20822113 | 1            | 25.4 | 1           | 1.87                | 47.6 | 1.73     | 44.0 | 4.15        | 105.4 | 6.43       | 163.4 | NS         | Y           |

## Code 62 Flange (SAE J518)

67° Elbow



S=Skive  
NS=Non-Skive  
DG=Dual-Grip™

| Descriptive # | Product #  | SAP #    | Hose Size ID |      | Flange Size | Flange Diameter (A) |      | Drop (D) |      | Cut-Off (C) |       | Length (L) |       | Skive Type | SR12, ARC12 |
|---------------|------------|----------|--------------|------|-------------|---------------------|------|----------|------|-------------|-------|------------|-------|------------|-------------|
|               |            |          | in.          | mm   |             | in.                 | mm   | in.      | mm   | in.         | mm    | in.        | mm    |            |             |
| S4-FH67-1616  | 28313-1616 | 20293304 | 1            | 25.4 | 1           | 1.87                | 47.6 | 2.24     | 57.0 | 3.94        | 100.0 | 5.68       | 144.2 | NS         | Y           |

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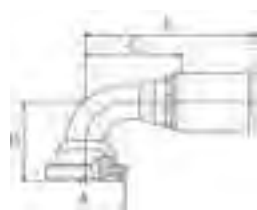
## Code 62 Flange (SAE J518)

67° Elbow Continued

| Descriptive # | Product #  | SAP #    | Hose Size ID |      | Flange Size | Flange Diameter (A) |      | Drop (D) |      | Cut-Off (C) |      | Length (L) |       | Skive Type | SR12, ARC12 |
|---------------|------------|----------|--------------|------|-------------|---------------------|------|----------|------|-------------|------|------------|-------|------------|-------------|
|               |            |          | in.          | mm   |             | in.                 | mm   | in.      | mm   | in.         | mm   | in.        | mm    |            |             |
| SG-FH67-1616  | 29313-1616 | 20822112 | 1            | 25.4 | 1           | 1.87                | 47.6 | 2.40     | 61.0 | 3.84        | 97.6 | 6.13       | 155.6 | NS         | Y           |

## Code 62 Flange (SAE J518)

90° Elbow



S=Skive  
NS=Non-Skive  
DG=Dual-Grip™

| Descriptive # | Product #  | SAP #    | Hose Size ID |      | Flange Size | Flange Diameter (A) |      | Drop (D) |       | Cut-Off (C) |       | Length (L) |       | Skive Type | SR12, ARC12 |
|---------------|------------|----------|--------------|------|-------------|---------------------|------|----------|-------|-------------|-------|------------|-------|------------|-------------|
|               |            |          | in.          | mm   |             | in.                 | mm   | in.      | mm    | in.         | mm    | in.        | mm    |            |             |
| S4-FH90-0808  | 28315-0808 | 20241739 | 1/2          | 12.7 | 1/2         | 1.25                | 31.8 | 1.81     | 46.0  | 1.89        | 48.0  | 3.11       | 79.0  | NS         | Y           |
| S4-FH90-0812  | 28315-0812 | 20241737 | 1/2          | 12.7 | 3/4         | 1.63                | 41.3 | 2.13     | 54.0  | 1.89        | 48.0  | 3.11       | 79.0  | NS         | Y           |
| S4-FH90-1012  | 28315-1012 | 20242953 | 5/8          | 15.9 | 3/4         | 1.63                | 41.3 | 2.17     | 55.0  | 1.97        | 50.0  | 3.31       | 84.0  | NS         | Y           |
| S4-FH90-1212  | 28315-1212 | 20241731 | 3/4          | 19.0 | 3/4         | 1.63                | 41.3 | 2.40     | 61.0  | 2.48        | 63.0  | 4.06       | 103.0 | NS         | Y           |
| S4-FH90-1216  | 28315-1216 | 20241734 | 3/4          | 19.0 | 1           | 1.87                | 47.6 | 2.60     | 66.0  | 2.48        | 63.0  | 4.06       | 103.0 | NS         | Y           |
| S4-FH90-1612  | 28315-1612 | 20293303 | 1            | 25.4 | 3/4         | 1.63                | 41.3 | 2.40     | 61.0  | 2.87        | 73.0  | 4.61       | 117.0 | NS         | Y           |
| S4-FH90-1616  | 28315-1616 | 20241787 | 1            | 25.4 | 1           | 1.87                | 47.6 | 2.95     | 75.0  | 2.91        | 74.0  | 4.65       | 118.0 | NS         | Y           |
| S4-FH90-1620  | 28315-1620 | 20241743 | 1            | 25.4 | 1 1/4       | 2.13                | 54.0 | 3.07     | 78.0  | 3.07        | 78.0  | 4.80       | 122.0 | NS         | Y           |
| S4-FH90-2016  | 28315-2016 | 20441315 | 1 1/4        | 31.8 | 1           | 1.87                | 47.6 | 2.83     | 72.0  | 3.35        | 85.0  | 5.39       | 137.0 | NS         | Y           |
| S4-FH90-2020  | 28315-2020 | 20241780 | 1 1/4        | 31.8 | 1 1/4       | 2.13                | 54.0 | 3.50     | 89.0  | 3.70        | 94.0  | 5.75       | 146.0 | NS         | Y           |
| S4-FH90-2024  | 28315-2024 | 20241781 | 1 1/4        | 31.8 | 1 1/2       | 2.50                | 63.5 | 3.70     | 94.0  | 3.86        | 98.0  | 5.91       | 150.0 | NS         | Y           |
| S4-FH90-2424  | 28315-2424 | 20241771 | 1 1/2        | 38.1 | 1 1/2       | 2.50                | 63.5 | 4.13     | 105.0 | 3.94        | 100.0 | 6.26       | 159.0 | NS         | Y           |
| S4-FH90-2432  | 28315-2432 | 20241777 | 1 1/2        | 38.1 | 2           | 3.13                | 79.4 | 4.84     | 123.0 | 4.53        | 115.0 | 6.85       | 174.0 | NS         | Y           |
| S4-FH90-3232  | 28315-3232 | 20241740 | 2            | 50.8 | 2           | 3.13                | 79.4 | 5.20     | 132.0 | 5.63        | 143.0 | 8.46       | 215.0 | NS         | Y           |

| Descriptive #    | Product #   | SAP #    | Hose Size ID |      | Flange Size | Flange Diameter (A) |      | Drop (D) |       | Cut-Off (C) |      | Length (L) |       | Skive Type | SR12, ARC12 |
|------------------|-------------|----------|--------------|------|-------------|---------------------|------|----------|-------|-------------|------|------------|-------|------------|-------------|
|                  |             |          | in.          | mm   |             | in.                 | mm   | in.      | mm    | in.         | mm   | in.        | mm    |            |             |
| SG-FH90-0808     | 29315-0808  | 20731761 | 1/2          | 12.7 | 1/2         | 1.25                | 31.8 | 1.67     | 42.4  | 1.89        | 48.0 | 3.43       | 87.0  | NS         | Y           |
| SG-FH90-080-0808 | 29317A-0808 | 20833294 | 1/2          | 12.7 | 1/2         | 1.25                | 31.8 | 3.15     | 80.0  | 1.99        | 50.5 | 3.53       | 89.7  | NS         | Y           |
| SG-FH90-0812     | 29315-0812  | 20822111 | 1/2          | 12.7 | 3/4         | 1.63                | 41.3 | 2.28     | 58.0  | 1.89        | 48.0 | 3.43       | 87.0  | NS         | Y           |
| SG-FH90-1012     | 29315-1012  | 20822110 | 5/8          | 15.9 | 3/4         | 1.63                | 41.3 | 2.28     | 58.0  | 1.97        | 50.0 | 3.56       | 90.5  | NS         | Y           |
| SG-FH90-1212     | 29315-1212  | 20822109 | 3/4          | 19.0 | 3/4         | 1.63                | 41.3 | 2.28     | 58.0  | 2.36        | 59.8 | 4.23       | 107.3 | NS         | Y           |
| SG-FH90-100-1212 | 29317A-1212 | 20833293 | 3/4          | 19.0 | 3/4         | 1.63                | 41.3 | 3.94     | 100.1 | 2.40        | 61.0 | 4.27       | 108.5 | NS         | Y           |
| SG-FH90-122-1212 | 29317B-1212 | 20833292 | 3/4          | 19.0 | 3/4         | 1.63                | 41.3 | 4.80     | 121.9 | 2.80        | 71.1 | 4.67       | 118.6 | NS         | Y           |
| SG-FH90-1216     | 29315-1216  | 20822108 | 3/4          | 19.0 | 1           | 1.87                | 47.6 | 2.76     | 70.0  | 2.60        | 66.0 | 4.47       | 113.5 | NS         | Y           |
| SG-FH90-140-1216 | 29317A-1216 | 20833291 | 3/4          | 19.0 | 1           | 1.87                | 47.6 | 5.51     | 140.0 | 2.56        | 65.0 | 4.43       | 112.5 | NS         | Y           |

Continued on next page

Code 62 Flange (SAE J518)

90° Elbow Continued

| Descriptive #    | Product #   | SAP #    | Hose Size ID |      | Flange Size | Flange Diameter (A) |      | Drop (D) |       | Cut-Off (C) |      | Length (L) |       | Skive Type | SR12, ARC12 |
|------------------|-------------|----------|--------------|------|-------------|---------------------|------|----------|-------|-------------|------|------------|-------|------------|-------------|
|                  |             |          | in.          | mm   |             | in.                 | mm   | in.      | mm    | in.         | mm   | in.        | mm    |            |             |
| SG-FH90-1612     | 29315-1612  | 20822107 | 1            | 25.4 | 3/4         | 1.63                | 41.3 | 2.28     | 58.0  | 2.87        | 72.9 | 5.15       | 130.9 | NS         | Y           |
| SG-FH90-1616     | 29315-1616  | 20822106 | 1            | 25.4 | 1           | 1.87                | 47.6 | 2.76     | 70.1  | 2.97        | 75.4 | 5.25       | 133.4 | NS         | Y           |
| SG-FH90-090-1616 | 29317A-1616 | 20833290 | 1            | 25.4 | 1           | 1.87                | 47.6 | 3.54     | 89.9  | 3.28        | 83.3 | 5.56       | 141.2 | NS         | Y           |
| SG-FH90-120-1616 | 29317B-1616 | 20833229 | 1            | 25.4 | 1           | 1.87                | 47.6 | 4.72     | 119.9 | 3.04        | 77.2 | 5.32       | 135.1 | NS         | Y           |
| SG-FH90-1620     | 29315-1620  | 20822105 | 1            | 25.4 | 1¼          | 2.13                | 54.0 | 3.54     | 90.0  | 3.07        | 78.0 | 5.35       | 136.0 | NS         | Y           |

Caterpillar® Flange



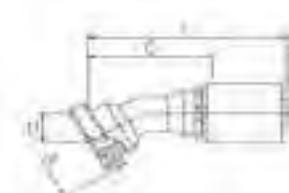
S=Skive  
NS=Non-Skive  
DG=Dual-Grip™

| Descriptive # | Product #  | SAP #    | Hose Size ID |      | Flange Size | Flange Diameter (A) |      | Cut-Off (C) |       | Length (L) |       | Skive Type | SR12, ARC12 |
|---------------|------------|----------|--------------|------|-------------|---------------------|------|-------------|-------|------------|-------|------------|-------------|
|               |            |          | in.          | mm   |             | in.                 | mm   | in.         | mm    | in.        | mm    |            |             |
| S4-CF-1212    | 28185-1212 | 20293305 | 3/4          | 19.0 | 3/4         | 1.63                | 41.3 | 3.46        | 88.0  | 5.02       | 127.5 | NS         | Y           |
| S4-CF-1216    | 28185-1216 | 20441277 | 3/4          | 19.0 | 1           | 1.87                | 47.6 | 3.52        | 89.5  | 5.08       | 129.0 | NS         | Y           |
| S4-CF-1612    | 28185-1612 | 20441322 | 1            | 25.4 | 3/4         | 1.63                | 41.3 | 3.48        | 88.4  | 5.24       | 133.0 | NS         | Y           |
| S4-CF-1616    | 28185-1616 | 20293306 | 1            | 25.4 | 1           | 1.87                | 47.6 | 3.54        | 90.0  | 5.30       | 134.6 | NS         | Y           |
| S4-CF-1620    | 28185-1620 | 20441278 | 1            | 25.4 | 1¼          | 2.13                | 54.0 | 3.66        | 93.0  | 5.42       | 137.6 | NS         | Y           |
| S4-CF-2020    | 28185-2020 | 20441206 | 1¼           | 31.8 | 1¼          | 2.13                | 54.0 | 3.43        | 87.0  | 5.47       | 139.0 | NS         | Y           |
| S4-CF-2024    | 28185-2024 | 20441279 | 1¼           | 31.8 | 1½          | 2.50                | 63.5 | 3.58        | 91.0  | 5.63       | 143.0 | NS         | Y           |
| S4-CF-2424    | 28185-2424 | 20293307 | 1½           | 38.1 | 1½          | 2.50                | 63.5 | 3.31        | 84.0  | 5.63       | 143.0 | NS         | Y           |
| S4-CF-2432    | 28185-2432 | 20441323 | 1½           | 38.1 | 2           | 3.13                | 79.4 | 3.86        | 98.0  | 6.18       | 157.0 | NS         | Y           |
| S4-CF-3232    | 28185-3232 | 20293308 | 2            | 50.8 | 2           | 3.13                | 79.4 | 4.33        | 110.0 | 7.17       | 182.0 | NS         | Y           |

| Descriptive # | Product #  | SAP #    | Hose Size ID |      | Flange Size | Flange Diameter (A) |      | Cut-Off (C) |      | Length (L) |       | Skive Type | SR12, ARC12 |
|---------------|------------|----------|--------------|------|-------------|---------------------|------|-------------|------|------------|-------|------------|-------------|
|               |            |          | in.          | mm   |             | in.                 | mm   | in.         | mm   | in.        | mm    |            |             |
| SG-CF-1212    | 29185-1212 | 20822200 | 3/4          | 19.0 | 3/4         | 1.63                | 41.3 | 3.38        | 85.8 | 5.25       | 133.2 | NS         | Y           |
| SG-CF-1216    | 29185-1216 | 20822199 | 3/4          | 19.0 | 1           | 1.87                | 47.6 | 3.50        | 88.9 | 5.37       | 136.4 | NS         | Y           |
| SG-CF-1612    | 29185-1612 | 20822198 | 1            | 25.4 | 3/4         | 1.63                | 41.3 | 3.47        | 88.0 | 5.75       | 146.0 | NS         | Y           |
| SG-CF-1616    | 29185-1616 | 20822197 | 1            | 25.4 | 1           | 1.87                | 47.6 | 3.69        | 93.8 | 6.00       | 152.3 | NS         | Y           |
| SG-CF-1620    | 29185-1620 | 20822196 | 1            | 25.4 | 1¼          | 2.13                | 54.0 | 3.62        | 92.0 | 5.91       | 150.0 | NS         | Y           |

## Caterpillar® Flange

22.5° Elbow



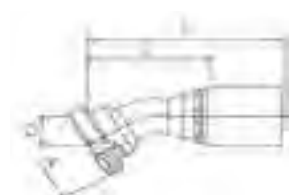
S=Skive  
NS=Non-Skive  
DG=Dual-Grip™

| Descriptive # | Product #  | SAP #    | Hose Size ID |      | Flange Size | Flange Diameter (A) |      | Drop (D) |      | Cut-Off (C) |       | Length (L) |       | Skive Type | SR12, ARC12 |
|---------------|------------|----------|--------------|------|-------------|---------------------|------|----------|------|-------------|-------|------------|-------|------------|-------------|
|               |            |          | in.          | mm   |             | in.                 | mm   | in.      | mm   | in.         | mm    | in.        | mm    |            |             |
| S4-CF22-1212  | 28187-1212 | 20441272 | 3/4          | 19.0 | 3/4         | 1.63                | 41.3 | 0.63     | 16.0 | 3.78        | 96.0  | 5.35       | 136.0 | NS         | Y           |
| S4-CF22-1616  | 28187-1616 | 20441280 | 1            | 25.4 | 1           | 1.87                | 47.6 | 0.71     | 18.0 | 4.33        | 110.0 | 6.10       | 155.0 | NS         | Y           |
| S4-CF22-1620  | 28187-1620 | 20441306 | 1            | 25.4 | 1 1/4       | 2.13                | 54.0 | 0.71     | 18.0 | 4.29        | 109.0 | 6.06       | 154.0 | NS         | Y           |
| S4-CF22-2020  | 28187-2020 | 20441307 | 1 1/4        | 31.8 | 1 1/4       | 2.13                | 54.0 | 0.77     | 19.5 | 4.80        | 122.0 | 6.85       | 174.0 | NS         | Y           |
| S4-CF22-2024  | 28187-2024 | 20441281 | 1 1/4        | 31.8 | 1 1/2       | 2.50                | 63.5 | 0.91     | 23.0 | 5.12        | 130.0 | 7.17       | 182.0 | NS         | Y           |

| Descriptive # | Product #  | SAP #    | Hose Size ID |      | Flange Size | Flange Diameter (A) |      | Drop (D) |      | Cut-Off (C) |       | Length (L) |       | Skive Type | SR12, ARC12 |
|---------------|------------|----------|--------------|------|-------------|---------------------|------|----------|------|-------------|-------|------------|-------|------------|-------------|
|               |            |          | in.          | mm   |             | in.                 | mm   | in.      | mm   | in.         | mm    | in.        | mm    |            |             |
| SG-CF22-1212  | 29187-1212 | 20822195 | 3/4          | 19.0 | 3/4         | 1.63                | 41.3 | 0.63     | 16.0 | 3.25        | 82.6  | 5.20       | 132.0 | NS         | Y           |
| SG-CF22-1616  | 29187-1616 | 20822194 | 1            | 25.4 | 1           | 1.87                | 47.6 | 0.71     | 18.0 | 4.22        | 107.1 | 6.50       | 165.1 | NS         | Y           |
| SG-CF22-1620  | 29187-1620 | 20822193 | 1            | 25.4 | 1 1/4       | 2.13                | 54.0 | 0.71     | 18.0 | 4.29        | 109.0 | 6.57       | 167.0 | NS         | Y           |

## Caterpillar® Flange

30° Elbow



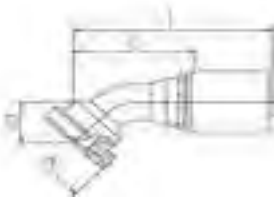
S=Skive  
NS=Non-Skive  
DG=Dual-Grip™

| Descriptive # | Product #  | SAP #    | Hose Size ID |      | Flange Size | Flange Diameter (A) |      | Drop (D) |      | Cut-Off (C) |      | Length (L) |       | Skive Type | SR12, ARC12 |
|---------------|------------|----------|--------------|------|-------------|---------------------|------|----------|------|-------------|------|------------|-------|------------|-------------|
|               |            |          | in.          | mm   |             | in.                 | mm   | in.      | mm   | in.         | mm   | in.        | mm    |            |             |
| S4-CF30-1216  | 28188-1216 | 20441324 | 3/4          | 19.0 | 1           | 1.87                | 47.6 | 0.87     | 22.0 | 3.82        | 97.0 | 5.39       | 137.0 | NS         | Y           |

| Descriptive # | Product #  | SAP #    | Hose Size ID |      | Flange Size | Flange Diameter (A) |      | Drop (D) |      | Cut-Off (C) |      | Length (L) |       | Skive Type | SR12, ARC12 |
|---------------|------------|----------|--------------|------|-------------|---------------------|------|----------|------|-------------|------|------------|-------|------------|-------------|
|               |            |          | in.          | mm   |             | in.                 | mm   | in.      | mm   | in.         | mm   | in.        | mm    |            |             |
| SG-CF30-1216  | 29188-1216 | 20822192 | 3/4          | 19.0 | 1           | 1.87                | 47.6 | 0.88     | 22.2 | 3.82        | 97.0 | 5.69       | 144.5 | NS         | Y           |

## Caterpillar® Flange

45° Elbow



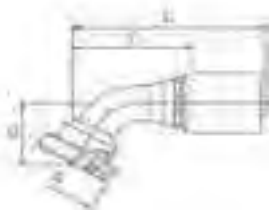
S=Skive  
NS=Non-Skive  
DG=Dual-Grip™

| Descriptive # | Product #  | SAP #    | Hose Size ID |      | Flange Size | Flange Diameter (A) |      | Drop (D) |      | Cut-Off (C) |       | Length (L) |       | Skive Type | SR12, ARC12 |
|---------------|------------|----------|--------------|------|-------------|---------------------|------|----------|------|-------------|-------|------------|-------|------------|-------------|
|               |            |          | in.          | mm   |             | in.                 | mm   | in.      | mm   | in.         | mm    | in.        | mm    |            |             |
| S4-CF45-1212  | 28190-1212 | 20441282 | 3/4          | 19.0 | 3/4         | 1.63                | 41.3 | 1.34     | 34.0 | 3.39        | 86.0  | 4.96       | 126.0 | NS         | Y           |
| S4-CF45-1216  | 28190-1216 | 20441308 | 3/4          | 19.0 | 1           | 1.87                | 47.6 | 1.34     | 34.0 | 3.54        | 90.0  | 5.08       | 129.0 | NS         | Y           |
| S4-CF45-1616  | 28190-1616 | 20441283 | 1            | 25.4 | 1           | 1.87                | 47.6 | 1.57     | 40.0 | 3.90        | 99.0  | 5.63       | 143.0 | NS         | Y           |
| S4-CF45-1620  | 28190-1620 | 20441284 | 1            | 25.4 | 1¼          | 2.13                | 54.0 | 1.57     | 40.0 | 3.86        | 98.0  | 5.59       | 142.0 | NS         | Y           |
| S4-CF45-2020  | 28190-2020 | 20441285 | 1¼           | 31.8 | 1¼          | 2.13                | 54.0 | 1.69     | 43.0 | 4.33        | 110.0 | 6.38       | 162.0 | NS         | Y           |
| S4-CF45-2024  | 28190-2024 | 20441286 | 1¼           | 31.8 | 1½          | 2.50                | 63.5 | 1.95     | 49.5 | 4.57        | 116.0 | 6.61       | 168.0 | NS         | Y           |
| S4-CF45-2424  | 28190-2424 | 20441325 | 1½           | 38.1 | 1½          | 2.50                | 63.5 | 1.89     | 48.0 | 7.01        | 178.0 | 9.33       | 237.0 | NS         | Y           |

| Descriptive # | Product #  | SAP #    | Hose Size ID |      | Flange Size | Flange Diameter (A) |      | Drop (D) |      | Cut-Off (C) |      | Length (L) |       | Skive Type | SR12, ARC12 |
|---------------|------------|----------|--------------|------|-------------|---------------------|------|----------|------|-------------|------|------------|-------|------------|-------------|
|               |            |          | in.          | mm   |             | in.                 | mm   | in.      | mm   | in.         | mm   | in.        | mm    |            |             |
| SG-CF45-1212  | 29190-1212 | 20822191 | 3/4          | 19.0 | 3/4         | 1.63                | 41.3 | 1.34     | 34.0 | 2.99        | 75.8 | 4.86       | 123.3 | NS         | Y           |
| SG-CF45-1216  | 29190-1216 | 20822190 | 3/4          | 19.0 | 1           | 1.87                | 47.6 | 1.34     | 34.0 | 3.50        | 88.9 | 5.37       | 136.4 | NS         | Y           |
| SG-CF45-1616  | 29190-1616 | 20822189 | 1            | 25.4 | 1           | 1.87                | 47.6 | 1.57     | 39.9 | 3.84        | 97.6 | 6.13       | 155.6 | NS         | Y           |
| SG-CF45-1620  | 29190-1620 | 20822188 | 1            | 25.4 | 1¼          | 2.13                | 54.0 | 1.50     | 38.0 | 3.86        | 98.0 | 6.14       | 156.0 | NS         | Y           |

## Caterpillar® Flange

60° Elbow



S=Skive  
NS=Non-Skive  
DG=Dual-Grip™

| Descriptive # | Product #  | SAP #    | Hose Size ID |      | Flange Size | Flange Diameter (A) |      | Drop (D) |      | Cut-Off (C) |       | Length (L) |       | Skive Type | SR12, ARC12 |
|---------------|------------|----------|--------------|------|-------------|---------------------|------|----------|------|-------------|-------|------------|-------|------------|-------------|
|               |            |          | in.          | mm   |             | in.                 | mm   | in.      | mm   | in.         | mm    | in.        | mm    |            |             |
| S4-CF60-1616  | 28192-1616 | 20441287 | 1            | 25.4 | 1           | 1.87                | 47.6 | 2.09     | 53.0 | 4.61        | 117.0 | 6.34       | 161.0 | NS         | Y           |
| S4-CF60-1620  | 28192-1620 | 20441288 | 1            | 25.4 | 1¼          | 2.13                | 54.0 | 2.24     | 57.0 | 4.45        | 113.0 | 6.18       | 157.0 | NS         | Y           |
| S4-CF60-2020  | 28192-2020 | 20441289 | 1¼           | 31.8 | 1¼          | 2.13                | 54.0 | 2.52     | 64.0 | 5.2         | 132.0 | 7.24       | 184.0 | NS         | Y           |
| S4-CF60-2024  | 28192-2024 | 20441290 | 1¼           | 31.8 | 1½          | 2.50                | 63.5 | 2.76     | 70.0 | 5.35        | 136.0 | 7.40       | 188.0 | NS         | Y           |
| S4-CF60-2432  | 28192-2432 | 20441326 | 1½           | 38.1 | 2           | 3.13                | 79.4 | 3.35     | 85.0 | 5.47        | 139.0 | 7.80       | 198.0 | NS         | Y           |

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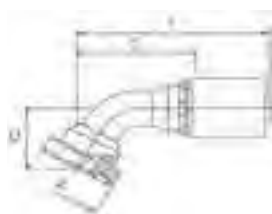
## Caterpillar® Flange

## 60° Elbow Continued

| Descriptive # | Product #  | SAP #    | Hose Size ID |      | Flange Size (A) | Flange Diameter (A) |      | Drop (D) |      | Cut-Off (C) |       | Length (L) |       | Skive Type | SR12, ARC12 |
|---------------|------------|----------|--------------|------|-----------------|---------------------|------|----------|------|-------------|-------|------------|-------|------------|-------------|
|               |            |          | in.          | mm   |                 | in.                 | mm   | in.      | mm   | in.         | mm    | in.        | mm    |            |             |
| SG-CF60-1616  | 29192-1616 | 20822187 | 1            | 25.4 | 1               | 1.88                | 47.6 | 2.09     | 53.1 | 4.15        | 105.4 | 6.43       | 163.4 | NS         | Y           |
| SG-CF60-1620  | 29192-1620 | 20822186 | 1            | 25.4 | 1½              | 2.13                | 54.0 | 2.17     | 55.0 | 4.45        | 113.0 | 6.73       | 171.0 | NS         | Y           |

## Caterpillar® Flange

## 67° Elbow

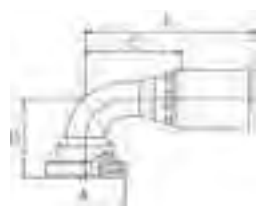


S=Skive  
NS=Non-Skive  
DG=Dual-Grip™

| Descriptive # | Product #  | SAP #    | Hose Size ID |      | Flange Size | Flange Diameter (A) |      | Drop (D) |      | Cut-Off (C) |       | Length (L) |       | Skive Type | SR12, ARC12 |
|---------------|------------|----------|--------------|------|-------------|---------------------|------|----------|------|-------------|-------|------------|-------|------------|-------------|
|               |            |          | in.          | mm   |             | in.                 | mm   | in.      | mm   | in.         | mm    | in.        | mm    |            |             |
| S4-CF67-2020  | 28194-2020 | 20441327 | 1¼           | 31.8 | 1¼          | 2.13                | 54.0 | 2.76     | 70.0 | 4.92        | 125.0 | 6.97       | 177.0 | NS         | Y           |
| S4-CF67-2024  | 28194-2024 | 20441328 | 1¼           | 31.8 | 1½          | 2.50                | 63.5 | 3.07     | 78.0 | 5.04        | 128.0 | 7.09       | 180.0 | NS         | Y           |

## Caterpillar® Flange

## 90° Elbow



S=Skive  
NS=Non-Skive  
DG=Dual-Grip™

| Descriptive # | Product #  | SAP #    | Hose Size ID |      | Flange Size | Flange Diameter (A) |      | Drop (D) |       | Cut-Off (C) |       | Length (L) |       | Skive Type | SR12, ARC12 |
|---------------|------------|----------|--------------|------|-------------|---------------------|------|----------|-------|-------------|-------|------------|-------|------------|-------------|
|               |            |          | in.          | mm   |             | in.                 | mm   | in.      | mm    | in.         | mm    | in.        | mm    |            |             |
| S4-CF90-1212  | 28195-1212 | 20293309 | ¾            | 19.0 | ¾           | 1.63                | 41.3 | 2.64     | 67.0  | 2.60        | 66.0  | 4.17       | 106.0 | NS         | Y           |
| S4-CF90-1216  | 28195-1216 | 20441291 | ¾            | 19.0 | 1           | 1.87                | 47.6 | 2.76     | 70.0  | 2.68        | 68.0  | 4.21       | 107.0 | NS         | Y           |
| S4-CF90-1616  | 28195-1616 | 20293310 | 1            | 25.4 | 1           | 1.87                | 47.6 | 3.11     | 79.0  | 3.27        | 83.0  | 5.00       | 127.0 | NS         | Y           |
| S4-CF90-1620  | 28195-1620 | 20441273 | 1            | 25.4 | 1¼          | 2.13                | 54.0 | 3.25     | 82.5  | 3.07        | 78.0  | 4.80       | 122.0 | NS         | Y           |
| S4-CF90-2020  | 28195-2020 | 20441274 | 1¼           | 31.8 | 1¼          | 2.13                | 54.0 | 3.66     | 93.0  | 3.62        | 92.0  | 5.67       | 144.0 | NS         | Y           |
| S4-CF90-2024  | 28195-2024 | 20441275 | 1¼           | 31.8 | 1½          | 2.50                | 63.5 | 3.98     | 101.0 | 3.70        | 94.0  | 5.75       | 146.0 | NS         | Y           |
| S4-CF90-2424  | 28195-2424 | 20441332 | 1½           | 38.1 | 1½          | 2.50                | 63.5 | 4.29     | 109.0 | 4.41        | 112.0 | 6.73       | 171.0 | NS         | Y           |

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Caterpillar® Flange

90° Elbow Continued

| Descriptive # | Product #   | SAP #    | Hose Size ID |      | Flange Size | Flange Diameter (A) |      | Drop (D) |       | Cut-Off (C) |      | Length (L) |       | Skive Type | SR12, ARC12 |
|---------------|-------------|----------|--------------|------|-------------|---------------------|------|----------|-------|-------------|------|------------|-------|------------|-------------|
|               |             |          | in.          | mm   |             | in.                 | mm   | in.      | mm    | in.         | mm   | in.        | mm    |            |             |
| SG-CF90-1212  | 29195-1212  | 20822185 | 3/4          | 19.0 | 3/4         | 1.63                | 41.3 | 2.60     | 66.0  | 2.36        | 59.8 | 4.23       | 107.3 | NS         | Y           |
| SG-CF90-1216  | 29195-1216  | 20822184 | 3/4          | 19.0 | 1           | 1.87                | 47.6 | 2.76     | 70.1  | 2.65        | 67.3 | 4.52       | 114.8 | NS         | Y           |
| SG-CF90-1616  | 29195-1616  | 20822183 | 1            | 25.4 | 1           | 1.87                | 47.6 | 3.11     | 79.0  | 2.97        | 75.4 | 5.25       | 133.4 | NS         | Y           |
| SG-CF90L-1616 | 29195-1616L | 20822181 | 1            | 25.4 | 1           | 1.87                | 47.6 | 5.20     | 132.1 | 3.35        | 85.1 | 5.63       | 143.1 | NS         | Y           |
| SG-CF90-1620  | 29195-1620  | 20822182 | 1            | 25.4 | 1¼          | 2.13                | 54.0 | 3.54     | 90.0  | 3.07        | 78.0 | 5.35       | 136.0 | NS         | Y           |

Komatsu® Flange



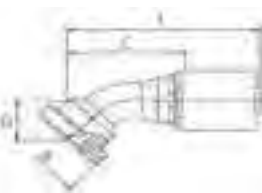
S=Skive  
NS=Non-Skive  
DG=Dual-Grip™

| Descriptive # | Product #  | SAP #    | Hose Size ID |      | Flange Size | Flange Diameter (A) |      | Cut-Off (C) |      | Length (L) |      | Skive Type | SR12, ARC12 |
|---------------|------------|----------|--------------|------|-------------|---------------------|------|-------------|------|------------|------|------------|-------------|
|               |            |          | in.          | mm   |             | in.                 | mm   | in.         | mm   | in.        | mm   |            |             |
| S4-KF-0810    | 28530-0810 | 20441211 | 1/2          | 12.7 | 5/8         | 1.34                | 34.0 | 1.84        | 46.7 | 3.08       | 78.2 | NS         | Y           |
| S4-KF-1010    | 28530-1010 | 20441212 | 5/8          | 15.9 | 5/8         | 1.34                | 34.0 | 1.84        | 46.7 | 3.19       | 81.0 | NS         | Y           |
| S4-KF-1210    | 28530-1210 | 20441295 | 3/4          | 19.0 | 5/8         | 1.34                | 34.0 | 1.99        | 50.5 | 3.54       | 90.0 | NS         | Y           |

| Descriptive # | Product #  | SAP #    | Hose Size ID |      | Flange Size | Flange Diameter (A) |      | Cut-Off (C) |      | Length (L) |      | Skive Type | SR12, ARC12 |
|---------------|------------|----------|--------------|------|-------------|---------------------|------|-------------|------|------------|------|------------|-------------|
|               |            |          | in.          | mm   |             | in.                 | mm   | in.         | mm   | in.        | mm   |            |             |
| SG-KF-0810    | 29530-0810 | 20821988 | 1/2          | 12.7 | 5/8         | 1.34                | 34.0 | 1.83        | 46.6 | 3.39       | 86.1 | NS         | Y           |
| SG-KF-1010    | 29530-1010 | 20821987 | 5/8          | 15.9 | 5/8         | 1.34                | 34.0 | 1.84        | 46.8 | 3.44       | 87.3 | NS         | Y           |
| SG-KF-1210    | 29530-1210 | 20821986 | 3/4          | 19.0 | 5/8         | 1.34                | 34.0 | 1.99        | 50.5 | 3.86       | 98.0 | NS         | Y           |

Komatsu® Flange

45° Elbow



S=Skive  
NS=Non-Skive  
DG=Dual-Grip™

| Descriptive # | Product #  | SAP #    | Hose Size ID |      | Flange Size | Flange Diameter (A) |      | Drop (D) |      | Cut-Off (C) |      | Length (L) |      | Skive Type | SR12, ARC12 |
|---------------|------------|----------|--------------|------|-------------|---------------------|------|----------|------|-------------|------|------------|------|------------|-------------|
|               |            |          | in.          | mm   |             | in.                 | mm   | in.      | mm   | in.         | mm   | in.        | mm   |            |             |
| S4-KF45-1010  | 28535-1010 | 20441204 | 5/8          | 15.9 | 5/8         | 1.34                | 34.0 | 0.98     | 25.0 | 2.32        | 59.0 | 3.66       | 93.0 | NS         | Y           |

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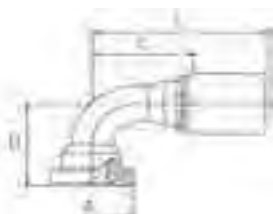
## Komatsu® Flange

## 45° Elbow Continued

| Descriptive # | Product #  | SAP #    | Hose Size ID |      | Flange Size | Flange Diameter (A) |      | Drop (D) |      | Cut-Off (C) |      | Length (L) |      | Skive Type | SR12, ARC12 |
|---------------|------------|----------|--------------|------|-------------|---------------------|------|----------|------|-------------|------|------------|------|------------|-------------|
|               |            |          | in.          | mm   |             | in.                 | mm   | in.      | mm   | in.         | mm   | in.        | mm   |            |             |
| SG-KF45-1010  | 29535-1010 | 20821985 | 5/8          | 15.9 | 5/8         | 1.34                | 34.0 | 0.98     | 24.9 | 2.32        | 58.9 | 3.91       | 99.4 | NS         | Y           |

## Komatsu® Flange

## 90° Elbow



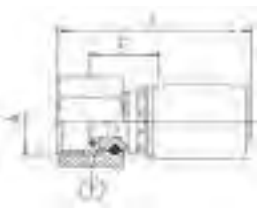
S=Skive  
NS=Non-Skive  
DG=Dual-Grip™

| Descriptive # | Product #  | SAP #    | Hose Size ID |      | Flange Size | Flange Diameter (A) |      | Drop (D) |      | Cut-Off (C) |      | Length (L) |      | Skive Type | SR12, ARC12 |
|---------------|------------|----------|--------------|------|-------------|---------------------|------|----------|------|-------------|------|------------|------|------------|-------------|
|               |            |          | in.          | mm   |             | in.                 | mm   | in.      | mm   | in.         | mm   | in.        | mm   |            |             |
| S4-KF90-1010  | 28540-1010 | 20441205 | 5/8          | 15.9 | 5/8         | 1.34                | 34.0 | 2.01     | 51.0 | 1.97        | 50.0 | 3.35       | 85.0 | NS         | Y           |
| S4-KF90-1210  | 28540-1210 | 20441296 | 3/4          | 19.0 | 5/8         | 1.34                | 34.0 | 2.01     | 51.0 | 2.17        | 55.0 | 3.74       | 95.0 | NS         | Y           |

| Descriptive # | Product #  | SAP #    | Hose Size ID |      | Flange Size | Flange Diameter (A) |      | Drop (D) |      | Cut-Off (C) |      | Length (L) |       | Skive Type | SR12, ARC12 |
|---------------|------------|----------|--------------|------|-------------|---------------------|------|----------|------|-------------|------|------------|-------|------------|-------------|
|               |            |          | in.          | mm   |             | in.                 | mm   | in.      | mm   | in.         | mm   | in.        | mm    |            |             |
| SG-KF90-1010  | 29540-1010 | 20821984 | 5/8          | 15.9 | 5/8         | 1.34                | 34.0 | 2.01     | 51.1 | 1.97        | 50.0 | 3.56       | 90.5  | NS         | Y           |
| SG-KF90-1210  | 29540-1210 | 20821983 | 3/4          | 19.0 | 5/8         | 1.34                | 34.0 | 2.01     | 51.1 | 2.17        | 55.1 | 4.04       | 102.6 | NS         | Y           |

## BSPP (British Standard Pipe Parallel)

## Female | Swivel



S=Skive  
NS=Non-Skive  
DG=Dual-Grip™

| Descriptive #             | Product #  | SAP #    | Hose Size ID |      | Thread Size (A) | Hex-1 Wrench Size |    | Cut-Off (C) |      | Length (L) |      | Skive Type | SR12, ARC12 |
|---------------------------|------------|----------|--------------|------|-----------------|-------------------|----|-------------|------|------------|------|------------|-------------|
|                           |            |          | in.          | mm   |                 | in.               | mm | in.         | mm   | in.        | mm   |            |             |
| S4-BPFX-0606 <sup>S</sup> | 28105-0606 | 20242857 | 3/8          | 9.5  | 3/8-19          | 7/8               | 22 | 0.92        | 23.3 | 2.19       | 55.5 | NS         | Y           |
| S4-BPFX-0808 <sup>S</sup> | 28105-0808 | 20242825 | 1/2          | 12.7 | 1/2-14          | 1 1/16            | 27 | 0.99        | 25.1 | 2.46       | 62.5 | NS         | Y           |
| S4-BPFX-1212 <sup>C</sup> | 28105-1212 | 20242817 | 3/4          | 19.0 | 3/4-14          | 1 1/4             | 32 | 0.81        | 20.6 | 2.72       | 69.1 | NS         | Y           |
| S4-BPFX-1616 <sup>C</sup> | 28105-1616 | 20242861 | 1            | 25.4 | 1-11            | 1 1/2             | 38 | 0.94        | 23.9 | 3.11       | 79.0 | NS         | Y           |
| S4-BPFX-2020              | 28105-2020 | 20242842 | 1 1/4        | 31.8 | 1 1/4-11        | 2                 | 50 | 1.26        | 32.0 | 3.70       | 94.0 | NS         | Y           |

C: Crimp Nut S: Slip Nut (see "Fitting Identification" in Appendix for details)

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BSPP (British Standard Pipe Parallel)

Female | Swivel Continued

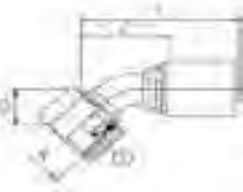
| Descriptive # | Product #  | SAP #    | Hose Size ID |      | Thread Size (A) | Hex-1 Wrench Size |    | Cut-Off (C) |      | Length (L) |       | Skive Type | SR12, ARC12 |
|---------------|------------|----------|--------------|------|-----------------|-------------------|----|-------------|------|------------|-------|------------|-------------|
|               |            |          | in.          | mm   |                 | in.               | mm | in.         | mm   | in.        | mm    |            |             |
| S4-BPFX-2424  | 28105-2424 | 20242860 | 1½           | 38.1 | 1½-11           | 2¾ <sub>16</sub>  | 55 | 1.33        | 33.8 | 4.13       | 105.0 | NS         | Y           |
| S4-BPFX-3232  | 28105-3232 | 20242819 | 2            | 50.8 | 2-11            | 2¾                | 70 | 1.34        | 34.0 | 4.80       | 122.0 | NS         | Y           |

| Descriptive #             | Product #  | SAP #    | Hose Size ID |      | Thread Size (A) | Hex-1 Wrench Size |    | Cut-Off (C) |      | Length (L) |      | Skive Type | SR12, ARC12 |
|---------------------------|------------|----------|--------------|------|-----------------|-------------------|----|-------------|------|------------|------|------------|-------------|
|                           |            |          | in.          | mm   |                 | in.               | mm | in.         | mm   | in.        | mm   |            |             |
| SG-BPFX-0608              | 29105-0608 | 20822223 | 3/8          | 9.5  | 1/2-14          | 1¼ <sub>16</sub>  | 27 | 1.04        | 26.3 | 2.49       | 63.3 | NS         | Y           |
| SG-BPFX-0808              | 29105-0608 | 20731754 | 1/2          | 12.7 | 1/2-14          | 1¼ <sub>16</sub>  | 27 | 1.22        | 31.0 | 2.54       | 64.4 | NS         | Y           |
| SG-BPFX-0810              | 29105-0810 | 20822222 | 1/2          | 12.7 | 5/8-14          | 1¼ <sub>16</sub>  | 27 | 1.15        | 29.2 | 2.38       | 60.5 | NS         | Y           |
| SG-BPFX-1212 <sup>T</sup> | 29105-1212 | 20822221 | 3/4          | 19.0 | 3/4-14          | 1¾                | 32 | 1.39        | 35.2 | 3.26       | 82.7 | NS         | Y           |
| SG-BPFX-1616 <sup>T</sup> | 29105-1616 | 20822220 | 1            | 25.4 | 1-11            | 1½                | 38 | 1.63        | 41.4 | 3.91       | 99.3 | NS         | Y           |

T: Thrust-Wire Nut (see "Fitting Identification" in Appendix for details)

BSPP (British Standard Pipe Parallel)

Female | 45° Elbow | Swivel



S=Skive  
NS=Non-Skive  
DG=Dual-Grip™

| Descriptive #               | Product #  | SAP #    | Hose Size ID |      | Thread Size (A) | Hex-1 Wrench Size |    | Drop (D) |      | Cut-Off (C) |       | Length (L) |       | Skive Type | SR12, ARC12 |
|-----------------------------|------------|----------|--------------|------|-----------------|-------------------|----|----------|------|-------------|-------|------------|-------|------------|-------------|
|                             |            |          | in.          | mm   |                 | in.               | mm | in.      | mm   | in.         | mm    | in.        | mm    |            |             |
| S4-BPFX45-0808 <sup>S</sup> | 28115-0808 | 20242852 | 1/2          | 12.7 | 1/2-14          | 1¼ <sub>16</sub>  | 27 | 0.83     | 21.0 | 2.17        | 55.0  | 3.43       | 87.0  | NS         | Y           |
| S4-BPFX45-1212 <sup>C</sup> | 28115-1212 | 20242858 | 3/4          | 19.0 | 3/4-14          | 1¾                | 32 | 1.10     | 28.0 | 2.76        | 70.0  | 4.33       | 110.0 | NS         | Y           |
| S4-BPFX45-1616 <sup>C</sup> | 28115-1616 | 20242856 | 1            | 25.4 | 1-11            | 1½                | 38 | 1.34     | 34.0 | 3.31        | 84.0  | 5.04       | 128.0 | NS         | Y           |
| S4-BPFX45-2020              | 28115-2020 | 20242854 | 1¼           | 31.8 | 1¼-11           | 2                 | 50 | 1.57     | 40.0 | 3.98        | 101.0 | 6.22       | 158.0 | NS         | Y           |
| S4-BPFX45-2424              | 28115-2424 | 20242855 | 1½           | 38.1 | 1½-11           | 2¾ <sub>16</sub>  | 55 | 1.81     | 46.0 | 4.57        | 116.0 | 7.13       | 181.0 | NS         | Y           |
| S4-BPFX45-3232              | 28115-3232 | 20242841 | 2            | 50.8 | 2-11            | 2¾                | 70 | 2.36     | 60.0 | 5.98        | 152.0 | 9.13       | 232.0 | NS         | Y           |

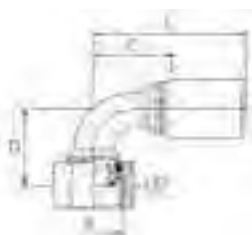
C: Crimp Nut S: Slip Nut (see "Fitting Identification" in Appendix for details)

| Descriptive #               | Product #  | SAP #    | Hose Size ID |      | Thread Size (A) | Hex-1 Wrench Size |    | Drop (D) |      | Cut-Off (C) |      | Length (L) |       | Skive Type | SR12, ARC12 |
|-----------------------------|------------|----------|--------------|------|-----------------|-------------------|----|----------|------|-------------|------|------------|-------|------------|-------------|
|                             |            |          | in.          | mm   |                 | in.               | mm | in.      | mm   | in.         | mm   | in.        | mm    |            |             |
| SG-BPFX45-0808              | 29115-0808 | 20822218 | 1/2          | 12.7 | 1/2-14          | 1¼ <sub>16</sub>  | 27 | 0.83     | 21.1 | 2.17        | 55.1 | 3.71       | 94.1  | NS         | Y           |
| SG-BPFX45-1212 <sup>T</sup> | 29115-1212 | 20822217 | 3/4          | 19.0 | 3/4-14          | 1¾                | 32 | 1.08     | 27.4 | 2.79        | 70.8 | 4.91       | 124.8 | NS         | Y           |
| SG-BPFX45-1616 <sup>T</sup> | 29115-1616 | 20822216 | 1            | 25.4 | 1-11            | 1½                | 38 | 1.34     | 34.0 | 3.31        | 84.1 | 5.59       | 142.1 | NS         | Y           |

T: Thrust-Wire Nut (see "Fitting Identification" in Appendix for details)

# BSPP (British Standard Pipe Parallel)

Female | 90° Elbow | Swivel



S=Skive  
NS=Non-Skive  
DG=Dual-Grip™

| Descriptive #               | Product #  | SAP #    | Hose Size ID |      | Thread Size (A) | Hex-1 Wrench Size |    | Drop (D) |       | Cut-Off (C) |       | Length (L) |       | Skive Type | SR12, ARC12 |
|-----------------------------|------------|----------|--------------|------|-----------------|-------------------|----|----------|-------|-------------|-------|------------|-------|------------|-------------|
|                             |            |          | in.          | mm   |                 | in.               | mm | in.      | mm    | in.         | mm    | in.        | mm    |            |             |
| S4-BPFX90-0808 <sup>S</sup> | 28120-0808 | 20242869 | 1/2          | 12.7 | 1/2-14          | 1 1/16            | 27 | 1.61     | 41.0  | 1.42        | 36.0  | 2.64       | 67.0  | NS         | Y           |
| S4-BPFX90-1212 <sup>C</sup> | 28120-1212 | 20242865 | 3/4          | 19.0 | 3/4-14          | 1 1/4             | 32 | 2.09     | 53.0  | 1.93        | 49.0  | 3.50       | 89.0  | NS         | Y           |
| S4-BPFX90-1616 <sup>C</sup> | 28120-1616 | 20242844 | 1            | 25.4 | 1-11            | 1 1/2             | 38 | 2.72     | 69.0  | 2.95        | 75.0  | 4.72       | 120.0 | NS         | Y           |
| S4-BPFX90-2020              | 28120-2020 | 20242848 | 1 1/4        | 31.8 | 1 1/4-11        | 2                 | 50 | 3.27     | 83.0  | 3.23        | 82.0  | 5.28       | 134.0 | NS         | Y           |
| S4-BPFX90-2424              | 28120-2424 | 20242843 | 1 1/2        | 38.1 | 1 1/2-11        | 2 3/16            | 55 | 3.78     | 96.0  | 3.78        | 96.0  | 6.10       | 155.0 | NS         | Y           |
| S4-BPFX90-3232              | 28120-3232 | 20242867 | 2            | 50.8 | 2-11            | 2 3/4             | 70 | 5.35     | 136.0 | 5.04        | 128.0 | 7.87       | 200.0 | NS         | Y           |

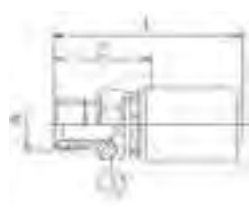
C: Crimp Nut S: Slip Nut (see "Fitting Identification" in Appendix for details)

| Descriptive #               | Product #  | SAP #    | Hose Size ID |      | Thread Size (A) | Hex-1 Wrench Size |    | Drop (D) |      | Cut-Off (C) |      | Length (L) |       | Skive Type | SR12, ARC12 |
|-----------------------------|------------|----------|--------------|------|-----------------|-------------------|----|----------|------|-------------|------|------------|-------|------------|-------------|
|                             |            |          | in.          | mm   |                 | in.               | mm | in.      | mm   | in.         | mm   | in.        | mm    |            |             |
| SG-BPFX90-0608              | 29120-0608 | 20822214 | 3/8          | 9.5  | 1/2-14          | 1 1/16            | 27 | 1.40     | 35.6 | 1.3         | 34.0 | 2.8        | 71.0  | NS         | Y           |
| SG-BPFX90-0808              | 29120-0808 | 20731763 | 1/2          | 12.7 | 1/2-14          | 1 1/16            | 27 | 1.6      | 40.9 | 1.4         | 36.1 | 3.0        | 75.1  | NS         | Y           |
| SG-BPFX90-1212 <sup>T</sup> | 29120-1212 | 20822213 | 3/4          | 19.0 | 3/4-14          | 1 1/4             | 32 | 2.2      | 56.9 | 2.3         | 59.7 | 4.2        | 107.2 | NS         | Y           |
| SG-BPFX90-1616 <sup>T</sup> | 29120-1616 | 20822212 | 1            | 25.4 | 1-11            | 1 1/2             | 38 | 2.8      | 71.1 | 3.0         | 77.3 | 5.3        | 135.3 | NS         | Y           |

T: Thrust-Wire Nut (see "Fitting Identification" in Appendix for details)

# BSPP (British Standard Pipe Parallel)

Male



S=Skive  
NS=Non-Skive  
DG=Dual-Grip™

| Descriptive # | Product #  | SAP #    | Hose Size ID |      | Thread Size (A) | Hex-1 Wrench Size |    | Cut-Off (C) |      | Length (L) |       | Skive Type | SR12, ARC12 |
|---------------|------------|----------|--------------|------|-----------------|-------------------|----|-------------|------|------------|-------|------------|-------------|
|               |            |          | in.          | mm   |                 | in.               | mm | in.         | mm   | in.        | mm    |            |             |
| S4-BPM-1212   | 28130-1212 | 20242831 | 3/4          | 19.0 | 3/4-14          | 1 1/4             | 32 | 1.44        | 36.6 | 3.00       | 76.1  | NS         | Y           |
| S4-BPM-2020   | 28130-2020 | 20242836 | 1 1/4        | 31.8 | 1 1/4-11        | 2                 | 50 | 1.89        | 48.0 | 3.94       | 100.0 | NS         | Y           |
| S4-BPM-2424   | 28130-2424 | 20242837 | 1 1/2        | 38.1 | 1 1/2-11        | 2 3/16            | 55 | 2.01        | 51.0 | 4.33       | 110.0 | NS         | Y           |
| S4-BPM-3232   | 28130-3232 | 20242833 | 2            | 50.8 | 2-11            | 2 3/4             | 70 | 2.22        | 56.5 | 5.06       | 128.5 | NS         | Y           |

Continued on next page

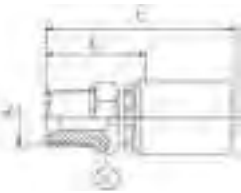
BSPP (British Standard Pipe Parallel)

Male Continued

| Descriptive # | Product #  | SAP #    | Hose Size ID |      | Thread Size (A) | Hex-1 Wrench Size |    | Cut-Off (C) |      | Length (L) |       | Skive Type | SR12, ARC12 |
|---------------|------------|----------|--------------|------|-----------------|-------------------|----|-------------|------|------------|-------|------------|-------------|
|               |            |          | in.          | mm   |                 | in.               | mm | in.         | mm   | in.        | mm    |            |             |
| SG-BPM-0606   | 29130-0606 | 20822211 | 3/8          | 9.5  | 3/8-19          | 7/8               | 22 | 1.20        | 30.5 | 2.66       | 67.5  | NS         | Y           |
| SG-BPM-0608   | 29130-0608 | 20822210 | 3/8          | 9.5  | 1/2-14          | 1 1/16            | 27 | 1.34        | 34.0 | 2.80       | 71.0  | NS         | Y           |
| SG-BPM-0806   | 29130-0806 | 20822209 | 1/2          | 12.7 | 3/8-19          | 7/8               | 22 | 1.20        | 30.5 | 2.74       | 69.5  | NS         | Y           |
| SG-BPM-0808   | 29130-0808 | 20822208 | 1/2          | 12.7 | 1/2-14          | 1 1/16            | 27 | 1.34        | 34.0 | 2.88       | 73.1  | NS         | Y           |
| SG-BPM-1212   | 29130-1212 | 20822207 | 3/4          | 19.0 | 3/4-14          | 1 1/4             | 32 | 1.56        | 39.6 | 3.43       | 87.1  | NS         | Y           |
| SG-BPM-1616   | 29130-1616 | 20822206 | 1            | 25.4 | 1-11            |                   |    | 1.86        | 47.1 | 4.14       | 105.1 | NS         | Y           |

BSPT (British Standard Pipe Tapered)

Male



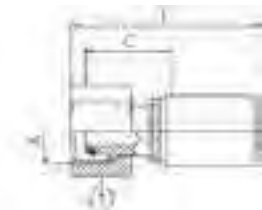
S=Skive  
NS=Non-Skive  
DG=Dual-Grip™

| Descriptive # | Product #  | SAP #    | Hose Size ID |      | Thread Size (A) | Hex-1 Wrench Size |    | Cut-Off (C) |      | Length (L) |      | Skive Type | SR12, ARC12 |
|---------------|------------|----------|--------------|------|-----------------|-------------------|----|-------------|------|------------|------|------------|-------------|
|               |            |          | in.          | mm   |                 | in.               | mm | in.         | mm   | in.        | mm   |            |             |
| S4-BTM-1616   | 28170-1616 | 20242875 | 1            | 25.4 | 1-11            | 1 7/16            | 36 | 1.75        | 44.4 | 3.50       | 89.0 | NS         | Y           |

| Descriptive # | Product #  | SAP #    | Hose Size ID |      | Thread Size (A) | Hex-1 Wrench Size |    | Cut-Off (C) |      | Length (L) |       | Skive Type | SR12, ARC12 |
|---------------|------------|----------|--------------|------|-----------------|-------------------|----|-------------|------|------------|-------|------------|-------------|
|               |            |          | in.          | mm   |                 | in.               | mm | in.         | mm   | in.        | mm    |            |             |
| SG-BTM-0606   | 29170-0606 | 20822205 | 3/8          | 9.5  | 3/8-19          |                   |    | 1.20        | 30.5 | 2.66       | 67.5  | NS         | Y           |
| SG-BTM-0808   | 29170-0808 | 20822204 | 1/2          | 12.7 | 1/2-14          |                   |    | 1.37        | 34.9 | 2.91       | 73.9  | NS         | Y           |
| SG-BTM-1212   | 29170-1212 | 20822203 | 3/4          | 19.1 | 3/4-14          |                   |    | 1.48        | 37.5 | 3.35       | 85.0  | NS         | Y           |
| SG-BTM-1616   | 29170-1616 | 20822202 | 1            | 25.4 | 1-11            | 1 7/16            | 36 | 1.89        | 48.1 | 4.18       | 106.1 | NS         | Y           |

BSP Flat Seat (British Standard Pipe)

Female | Swivel



S=Skive  
NS=Non-Skive  
DG=Dual-Grip™

| Descriptive # | Product #  | SAP #    | Hose Size ID |      | Thread Size (A) | Hex-1 Wrench Size |    | Cut-Off (C) |      | Length (L) |      | Skive Type | SR12, ARC12 |
|---------------|------------|----------|--------------|------|-----------------|-------------------|----|-------------|------|------------|------|------------|-------------|
|               |            |          | in.          | mm   |                 | in.               | mm | in.         | mm   | in.        | mm   |            |             |
| SG-BFFX-0608  | 29100-0608 | 20822227 | 3/8          | 9.5  | 1/2-14          |                   | 27 | 0.80        | 20.3 | 2.26       | 57.3 | NS         |             |
| SG-BFFX-0808  | 29100-0808 | 20822226 | 1/2          | 12.7 | 1/2-14          |                   | 27 | 0.82        | 20.9 | 2.36       | 59.8 | NS         |             |
| SG-BFFX-0812  | 29100-0812 | 20822225 | 1/2          | 12.7 | 3/4-14          |                   | 32 | 1.00        | 25.4 | 2.54       | 64.4 | NS         |             |

## DIN 24° Light

Female | Swivel



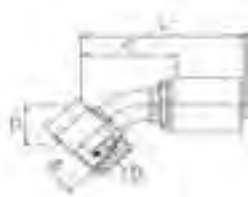
S=Skive  
NS=Non-Skive  
DG=Dual-Grip™

| Descriptive # | Product #  | SAP #    | Hose Size ID |      | Thread Size (A) | Hex-1 Wrench Size | Cut-Off (C) |      | Length (L) |       | Skive Type | SR12, ARC12 |
|---------------|------------|----------|--------------|------|-----------------|-------------------|-------------|------|------------|-------|------------|-------------|
|               |            |          | in.          | mm   |                 |                   | in.         | mm   | in.        | mm    |            |             |
| S4-DLFX-0618  | 28240-0618 | 20441313 | 3/8          | 9.5  | 18x1.5          | 22                | 1.00        | 25.4 | 2.10       | 53.3  | NS         | Y           |
| S4-DLFX-0822  | 28240-0822 | 20441207 | 1/2          | 12.7 | 22x1.5          | 27                | 1.11        | 28.2 | 2.43       | 61.8  | NS         | Y           |
| S4-DLFX-1026  | 28240-1026 | 20441200 | 5/8          | 15.9 | 26x1.5          | 32                | 1.15        | 29.2 | 2.58       | 65.6  | NS         | Y           |
| S4-DLFX-1230  | 28240-1230 | 20241841 | 3/4          | 19.0 | 30x2.0          | 36                | 1.25        | 31.7 | 2.93       | 74.5  | NS         | Y           |
| S4-DLFX-1236  | 28240-1236 | 20441208 | 3/4          | 19.0 | 36x2.0          | 41                | 1.29        | 32.8 | 3.02       | 76.6  | NS         | Y           |
| S4-DLFX-1636  | 28240-1636 | 20441209 | 1            | 25.4 | 36x2.0          | 41                | 1.32        | 33.6 | 3.25       | 82.5  | NS         | Y           |
| S4-DLFX-2045  | 28240-2045 | 20241857 | 1¼           | 31.8 | 45x2.0          | 50                | 1.58        | 40.1 | 3.78       | 95.9  | NS         | Y           |
| S4-DLFX-2452  | 28240-2452 | 20441314 | 1½           | 38.1 | 52x2.0          | 60                | 1.59        | 40.5 | 4.05       | 102.8 | NS         | Y           |

| Descriptive # | Product #  | SAP #    | Hose Size ID |      | Thread Size (A) | Hex-1 Wrench Size | Cut-Off (C) |      | Length (L) |         | Skive Type | SR12, ARC12 |
|---------------|------------|----------|--------------|------|-----------------|-------------------|-------------|------|------------|---------|------------|-------------|
|               |            |          | in.          | mm   |                 |                   | in.         | mm   | in.        | mm      |            |             |
| SG-DLFX-0618  | 29240-0618 | 20758288 | 3/8          | 9.5  | 18x1.5          |                   |             |      |            |         | NS         | Y           |
| SG-DLFX-0822  | 29240-0822 | 20758302 | 1/2          | 12.7 | 22x1.5          | 27                | 1.21        | 30.7 | 2.46       | 62.4    | NS         | Y           |
| SG-DLFX-1230  | 29240-1230 | 20822154 | 3/4          | 19.1 | 30x2.0          | 36                | 1.42        | 36.0 | 3.29       | 83.5    | NS         | Y           |
| SG-DLFX-1236  | 29240-1236 | 20822153 | 3/4          | 19.0 | 36x2.0          | 41                | 1.60        | 40.7 | 3.47       | 88.2    | NS         | Y           |
| SG-DLFX-1636  | 29240-1636 | 20822152 | 1            | 25.4 | 36x2.0          | 41                | 1.49        | 37.9 | 3.60       | 91.5162 | NS         | Y           |

## DIN 24° Light

Female | 45° Elbow | Swivel



S=Skive  
NS=Non-Skive  
DG=Dual-Grip™

| Descriptive #  | Product #  | SAP #    | Hose Size ID |      | Thread Size (A) | Hex-1 Wrench Size | Drop (D) |      | Cut-Off (C) |       | Length (L) |       | Skive Type | SR12, ARC12 |
|----------------|------------|----------|--------------|------|-----------------|-------------------|----------|------|-------------|-------|------------|-------|------------|-------------|
|                |            |          | in.          | mm   |                 |                   | in.      | mm   | in.         | mm    | in.        | mm    |            |             |
| S4-DLFX45-2452 | 28245-2452 | 20588801 | 1½           | 38.1 | 52x2.0          | 60                | 1.85     | 47.0 | 4.49        | 114.0 | 6.82       | 173.1 | NS         | Y           |

| Descriptive #  | Product #  | SAP #    | Hose Size ID |      | Thread   | Hex-1       | Drop (D) |      | Length (L) |      | Skive | SR12, ARC12 |    |   |
|----------------|------------|----------|--------------|------|----------|-------------|----------|------|------------|------|-------|-------------|----|---|
|                |            |          |              |      | Size (A) | Wrench Size |          |      |            |      |       |             |    |   |
|                |            |          | in.          | mm   |          | mm          | in.      | mm   | in.        | mm   |       |             |    |   |
| SG-DLFX45-0822 | 29245-0822 | 20822150 | 1/2          | 12.7 | 22x1.5   | 27          | 0.83     | 21.1 | 2.17       | 55.1 | 3.71  | 94.1        | NS | Y |
| SG-DLFX45-1230 | 29245-1230 | 20822149 | 3/4          | 19.1 | 30x2.0   | 36          | 1.26     | 32.0 | 2.72       | 69.1 | 4.59  | 116.6       | NS | Y |
| SG-DLFX45-1636 | 29245-1636 | 20822148 | 1            | 25.4 | 36x2.0   | 41          | 1.26     | 32.0 | 3.58       | 90.9 | 5.86  | 148.9       | NS | Y |

DIN 24° Light

Female | 90° Elbow | Swivel



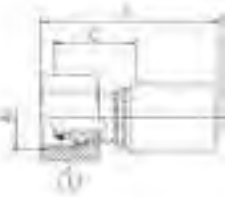
S=Skive  
NS=Non-Skive  
DG=Dual-Grip™

| Descriptive #    | Product #    | SAP #    | Hose Size ID |      | Thread Size (A) | Hex-1 Wrench Size | Drop (D)                             |       | Cut-Off (C) |       | Length (L) |       | Skive Type | SR12, ARC12 |
|------------------|--------------|----------|--------------|------|-----------------|-------------------|--------------------------------------|-------|-------------|-------|------------|-------|------------|-------------|
|                  |              |          | in.          | mm   |                 |                   | in.                                  | mm    | in.         | mm    | in.        | mm    |            |             |
| S4-DLFX90-0618   | 28250-0618   | 20813981 | 3/8          | 9.5  | 18x1.5          | 22                | 1.54                                 | 39.1  | 1.30        | 33.0  | 2.35       | 59.7  | NS         | Y           |
| S4-DLFX90-0822   | 28250-0822   | 20813982 | 1/2          | 12.7 | 22x1.5          | 27                | 1.59                                 | 40.4  | 1.57        | 39.9  | 2.82       | 71.6  | NS         | Y           |
| S4-DLFX90-1222   | 28250-1222   | 20477378 | 3/4          | 19.0 | 22x1.5          | 36                | Dimensions not available at printing |       |             |       |            |       | NS         | Y           |
| S4-DLFX90-1230   | 28250-1230   | 20441210 | 3/4          | 19.0 | 30x2.0          | 36                | 2.32                                 | 59.0  | 2.05        | 52.0  | 3.62       | 92.0  | NS         | Y           |
| S4-DLFX90-1636   | 28250-1636   | 20441201 | 1            | 25.4 | 36x2.0          | 41                | 2.68                                 | 68.0  | 3.07        | 78.0  | 4.80       | 122.0 | NS         | Y           |
| S4-DLFX90-2045   | 28250-2045   | 20241872 | 1¼           | 31.8 | 45x2.0          | 50                | 3.50                                 | 89.0  | 3.54        | 90.0  | 5.59       | 142.0 | NS         | Y           |
| S4-DLFX90-2452   | 28250-2452   | 20588800 | 1½           | 38.1 | 52x2.0          | 60                | 3.84                                 | 97.49 | 4.21        | 107.0 | 6.54       | 166.1 | NS         | Y           |
| S4-DLFX90XL-2452 | 28250-2452XL | 20793531 | 1½           | 38.1 | 52x2.0          | 60                | 8.50                                 | 215.9 | 4.11        | 104.4 | 6.60       | 167.7 | NS         | Y           |

| Descriptive #  | Product #  | SAP #    | Hose Size ID |      | Thread Size (A) | Hex-1 Wrench Size | Drop (D) |      | Cut-Off (C) |      | Length (L) |       | Skive Type | SR12, ARC12 |
|----------------|------------|----------|--------------|------|-----------------|-------------------|----------|------|-------------|------|------------|-------|------------|-------------|
|                |            |          | in.          | mm   |                 |                   | in.      | mm   | in.         | mm   | in.        | mm    |            |             |
| SG-DLFX90-0822 | 29250-0822 | 20822146 | 1/2          | 12.7 | 22x1.5          | 27                | 1.59     | 40.4 | 1.57        | 39.9 | 3.11       | 78.9  | NS         | Y           |
| SG-DLFX90-1230 | 29250-1230 | 20822144 | 3/4          | 19.1 | 30x2.0          | 36                | 2.32     | 58.9 | 2.05        | 52.1 | 3.92       | 99.6  | NS         | Y           |
| SG-DLFX90-1636 | 29250-1636 | 20822143 | 1            | 25.4 | 36x2.0          | 41                | 2.68     | 68.0 | 3.07        | 78.0 | 5.35       | 136.0 | NS         | Y           |

DIN 24° Light

Female | Swivel



S=Skive  
NS=Non-Skive  
DG=Dual-Grip™

| Descriptive # | Product #  | SAP #    | Hose Size ID |      | Thread Size (A) | Hex-1 Wrench Size | Cut-Off (C) |      | Length (L) |       | Skive Type | SR12, ARC12 |
|---------------|------------|----------|--------------|------|-----------------|-------------------|-------------|------|------------|-------|------------|-------------|
|               |            |          | in.          | mm   |                 |                   | in.         | mm   | in.        | mm    |            |             |
| S4-DHFX-0620  | 28210-0620 | 20241795 | 3/8          | 9.5  | 20x1.5          | 24                | 1.09        | 27.6 | 2.25       | 57.1  | NS         | Y           |
| S4-DHFX-0622  | 28210-0622 | 20241806 | 3/8          | 9.5  | 22x1.5          | 27                | 1.22        | 31.1 | 2.44       | 62.1  | NS         | Y           |
| S4-DHFX-0824  | 28210-0824 | 20241802 | 1/2          | 12.7 | 24x1.5          | 30                | 1.25        | 31.7 | 2.67       | 67.7  | NS         | Y           |
| S4-DHFX-1030  | 28210-1030 | 20441177 | 5/8          | 15.9 | 30x2.0          | 36                | 1.44        | 36.5 | 2.93       | 74.3  | NS         | Y           |
| S4-DHFX-1230  | 28210-1230 | 20441178 | 3/4          | 19.0 | 30x2.0          | 36                | 1.46        | 37.0 | 3.13       | 79.5  | NS         | Y           |
| S4-DHFX-1236  | 28210-1236 | 20241798 | 3/4          | 19.0 | 36x2.0          | 46                | 1.58        | 40.2 | 3.39       | 86.2  | NS         | Y           |
| S4-DHFX-1636  | 28210-1636 | 20441309 | 1            | 25.4 | 36x2.0          | 46                | 1.61        | 41.0 | 3.63       | 92.1  | NS         | Y           |
| S4-DHFX-1642  | 28210-1642 | 20241827 | 1            | 25.4 | 42x2.0          | 50                | 1.70        | 43.1 | 3.65       | 92.7  | NS         | Y           |
| S4-DHFX-2042  | 28210-2042 | 20241721 | 1¼           | 31.8 | 42x2.0          | 50                | 1.76        | 44.7 | 4.00       | 101.7 | NS         | Y           |
| S4-DHFX-2052  | 28210-2052 | 20241818 | 1¼           | 31.8 | 52x2.0          | 60                | 1.89        | 48.1 | 4.18       | 106.1 | NS         | Y           |

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## DIN 24° Light

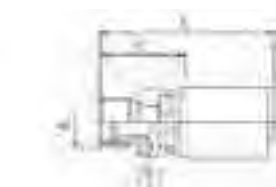
## Female | Swivel Continued

| Descriptive # | Product #   | SAP #    | Hose Size ID |      | Thread Size (A) | Hex-1 Wrench Size | Cut-Off (C) |      | Length (L) |       | Skive Type | SR12, ARC12 |
|---------------|-------------|----------|--------------|------|-----------------|-------------------|-------------|------|------------|-------|------------|-------------|
|               |             |          | in.          | mm   |                 |                   | in.         | mm   | in.        | mm    |            |             |
| SG-DHFX-0620  | 29210-0620  | 20774066 | 3/8          | 9.5  | 20x1.5          | 24                | 1.21        | 30.8 | 2.67       | 67.8  | NS         | Y           |
| SG-DHFX-0622  | 29210-0622  | 20822180 | 3/8          | 9.5  | 22x1.5          | 27                | 1.42        | 36.2 | 2.88       | 73.2  | NS         | Y           |
| SG-DHFX-0824  | 29210-0824  | 20731609 | 1/2          | 12.7 | 24x1.5          | 30                | 1.44        | 36.5 | 2.79       | 70.7  | NS         | Y           |
| SG-DHFX-1030  | 29210-1030  | 20822179 | 5/8          | 15.9 | 30x2.0          | 36                | 1.64        | 41.7 | 3.23       | 82.1  | NS         | Y           |
| SG-DHFX-1230  | 29210-1230  | 20822178 | 3/4          | 19.0 | 30x2.0          | 36                | 1.6         | 40.7 | 3.33       | 84.5  | NS         | Y           |
| SG-DHFX-1236  | 29210-1236  | 20774357 | 3/4          | 19.0 | 36x2.0          | 46                | 1.89        | 47.9 | 3.76       | 95.4  | NS         | Y           |
| SG-DHFX-1236S | 29210-1236S | 20822177 | 3/4          | 19.0 | 36x2.0          | 46                | 1.89        | 47.9 | 3.76       | 95.4  | NS         | Y           |
| SG-DHFX-1642  | 29210-1642  | 20822175 | 1            | 25.4 | 42x2.0          | 50                | 1.88        | 47.9 | 4.17       | 105.8 | NS         | Y           |

S: Stainless Steel

## DIN 24° Light

## MALE



S=Skive  
NS=Non-Skive  
DG=Dual-Grip™

| Descriptive # | Product #  | SAP #    | Hose Size ID |      | Thread Size (A) | Hex-1 Wrench Size | Cut-Off (C) |      | Length (L) |      | Skive Type | SR12, ARC12 |
|---------------|------------|----------|--------------|------|-----------------|-------------------|-------------|------|------------|------|------------|-------------|
|               |            |          | in.          | mm   |                 |                   | in.         | mm   | in.        | mm   |            |             |
| SG-DLM-0822   | 29255-0822 | 20822140 | 1/2          | 12.7 | 22x1.5          | 22                | 1.10        | 28.0 | 2.64       | 67.0 | NS         |             |
| SG-DLM-1230   | 29255-1230 | 20822139 | 3/4          | 19.1 | 30x2.0          | 32                | 1.35        | 34.3 | 3.22       | 81.8 | NS         | Y           |
| SG-DLM-1636   | 29255-1636 | 20822138 | 1            | 25.4 | 36x2.0          | 36                | 1.50        | 38.2 | 3.79       | 96.2 | NS         | Y           |

## DIN 24° Heavy

## Female | 45° Elbow | Swivel



S=Skive  
NS=Non-Skive  
DG=Dual-Grip™

| Descriptive #  | Product #  | SAP #    | Hose Size ID |      | Thread Size (A) | Hex-1 Wrench Size | Drop (D) |      | Cut-Off (C) |      | Length (L) |       | Skive Type | SR12, ARC12 |
|----------------|------------|----------|--------------|------|-----------------|-------------------|----------|------|-------------|------|------------|-------|------------|-------------|
|                |            |          | in.          | mm   |                 |                   | in.      | mm   | in.         | mm   | in.        | mm    |            |             |
| S4-DHFX45-1236 | 28215-1236 | 20441179 | 3/4          | 19.0 | 36x2.0          | 46                | 1.30     | 33.0 | 2.72        | 69.0 | 4.29       | 109.0 | NS         | Y           |

| Descriptive #  | Product #  | SAP #    | Hose Size ID |      | Thread Size (A) | Hex-1 Wrench Size | Drop (D) |      | Cut-Off (C) |       | Length (L) |       | Skive Type | SR12, ARC12 |
|----------------|------------|----------|--------------|------|-----------------|-------------------|----------|------|-------------|-------|------------|-------|------------|-------------|
|                |            |          | in.          | mm   |                 |                   | in.      | mm   | in.         | mm    | in.        | mm    |            |             |
| SG-DHFX45-0620 | 29215-0620 | 20822174 | 3/8          | 9.5  | 20x1.5          | 24                | 0.79     | 20.1 | 2.01        | 51.1  | 3.47       | 88.1  | NS         | Y           |
| SG-DHFX45-0622 | 29215-0622 | 20822173 | 3/8          | 9.5  | 22x1.5          | 27                | 0.83     | 21.1 | 2.09        | 53.1  | 3.55       | 90.1  | NS         | Y           |
| SG-DHFX45-0824 | 29215-0824 | 20822172 | 1/2          | 12.7 | 24x1.5          | 30                | 0.85     | 21.6 | 2.20        | 55.9  | 3.74       | 94.9  | NS         | Y           |
| SG-DHFX45-1236 | 29215-1236 | 20822171 | 3/4          | 19.0 | 36x2.0          | 46                | 1.30     | 33.0 | 2.72        | 69.1  | 4.59       | 116.6 | NS         | Y           |
| SG-DHFX45-1642 | 29215-1642 | 20822170 | 1            | 25.4 | 42x2.0          | 50                | 1.59     | 40.4 | 4.33        | 110.0 | 6.61       | 168.0 | NS         | Y           |

DIN 24° Heavy

Female | 90° Elbow | Swivel



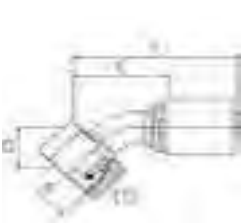
S=Skive  
NS=Non-Skive  
DG=Dual-Grip™

| Descriptive #  | Product #  | SAP #    | Hose Size ID |      | Thread Size (A) | Hex-1 Wrench Size | Drop (D) |      | Cut-Off (C) |      | Length (L) |       | Skive Type | SR12, ARC12 |
|----------------|------------|----------|--------------|------|-----------------|-------------------|----------|------|-------------|------|------------|-------|------------|-------------|
|                |            |          | in.          | mm   |                 |                   | in.      | mm   | in.         | mm   | in.        | mm    |            |             |
| S4-DHFX90-0620 | 28220-0620 | 20241834 | 3/8          | 9.5  | 20x1.5          | 24                | 1.52     | 38.5 | 1.34        | 34.0 | 2.40       | 61.0  | NS         | Y           |
| S4-DHFX90-0622 | 28220-0622 | 20241833 | 3/8          | 9.5  | 22x1.5          | 27                | 1.59     | 40.5 | 1.34        | 34.0 | 2.40       | 61.0  | NS         | Y           |
| S4-DHFX90-0824 | 28220-0824 | 20241826 | 1/2          | 12.7 | 24x1.5          | 30                | 1.63     | 41.5 | 1.57        | 40.0 | 2.80       | 71.0  | NS         | Y           |
| S4-DHFX90-1030 | 28220-1030 | 20241831 | 5/8          | 15.9 | 30x2.0          | 36                | 2.17     | 55.0 | 1.89        | 48.0 | 3.23       | 82.0  | NS         | Y           |
| S4-DHFX90-1230 | 28220-1230 | 20441310 | 3/4          | 19.0 | 30x2.0          | 36                | 2.28     | 58.0 | 2.01        | 51.0 | 3.54       | 90.0  | NS         | Y           |
| S4-DHFX90-1236 | 28220-1236 | 20441311 | 3/4          | 19.0 | 36x2.0          | 46                | 2.34     | 59.5 | 2.01        | 51.0 | 3.54       | 90.0  | NS         | Y           |
| S4-DHFX90-1642 | 28220-1642 | 20441312 | 1            | 25.4 | 42x2.0          | 50                | 3.11     | 79.0 | 2.99        | 76.0 | 4.72       | 120.0 | NS         | Y           |
| S4-DHFX90-2052 | 28220-2052 | 20265706 | 1 1/4        | 31.8 | 52x2.0          | 60                | 3.62     | 92.0 | 3.70        | 94.0 | 5.75       | 146.0 | NS         | Y           |

| Descriptive #  | Product #  | SAP #    | Hose Size ID |      | Thread Size (A) | Hex-1 Wrench Size | Drop (D) |      | Cut-Off (C) |      | Length (L) |       | Skive Type | SR12, ARC12 |
|----------------|------------|----------|--------------|------|-----------------|-------------------|----------|------|-------------|------|------------|-------|------------|-------------|
|                |            |          | in.          | mm   |                 |                   | in.      | mm   | in.         | mm   | in.        | mm    |            |             |
| SG-DHFX90-0620 | 29220-0620 | 20822169 | 3/8          | 9.5  | 20x1.5          | 24                | 1.52     | 38.6 | 1.34        | 34.0 | 2.80       | 71.0  | NS         | Y           |
| SG-DHFX90-0622 | 29220-0622 | 20822168 | 3/8          | 9.5  | 22x1.5          | 27                | 1.59     | 40.4 | 1.34        | 34.0 | 2.80       | 71.0  | NS         | Y           |
| SG-DHFX90-0824 | 29220-0824 | 20731752 | 1/2          | 12.7 | 24x1.5          | 30                | 1.63     | 41.4 | 1.57        | 39.9 | 3.11       | 78.9  | NS         | Y           |
| SG-DHFX90-1030 | 29220-1030 | 20822167 | 5/8          | 15.9 | 30x2.0          | 36                | 2.17     | 55.1 | 1.97        | 50.0 | 3.56       | 90.5  | NS         | Y           |
| SG-DHFX90-1230 | 29220-1230 | 20822166 | 3/4          | 19.0 | 30x2.0          | 36                | 2.28     | 57.9 | 2.01        | 51.1 | 3.88       | 98.6  | NS         | Y           |
| SG-DHFX90-1236 | 29220-1236 | 20822165 | 3/4          | 19.0 | 36x2.0          | 46                | 2.34     | 59.4 | 2.01        | 51.1 | 3.88       | 98.6  | NS         | Y           |
| SG-DHFX90-1642 | 29220-1642 | 20822163 | 1            | 25.4 | 42x2.0          | 50                | 3.11     | 79.0 | 2.99        | 75.9 | 5.27       | 133.9 | NS         | Y           |

DIN 24° Heavy

Male | Swivel



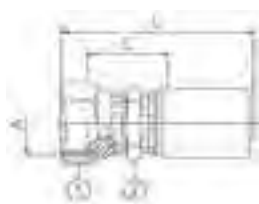
S=Skive  
NS=Non-Skive  
DG=Dual-Grip™

| Descriptive # | Product #  | SAP #    | Hose Size ID |      | Thread Size (A) | Hex-1 Wrench Size | Cut-Off (C) |      | Length (L) |       | Skive Type | SR12, ARC12 |
|---------------|------------|----------|--------------|------|-----------------|-------------------|-------------|------|------------|-------|------------|-------------|
|               |            |          | in.          | mm   |                 |                   | in.         | mm   | in.        | mm    |            |             |
| SG-DHM-0824   | 29225-0824 | 20822160 | 1/2          | 12.7 | 24x1.5          | 24                | 1.22        | 31.0 | 2.76       | 70.0  | NS         | Y           |
| SG-DHM-1230   | 29225-1230 | 20822159 | 3/4          | 19.1 | 30x2.0          | 32                | 1.44        | 36.5 | 3.31       | 84.0  | NS         | Y           |
| SG-DHM-1236   | 29225-1236 | 20822158 | 1            | 25.4 | 26x2.0          | 36                | 1.60        | 40.6 | 3.47       | 88.1  | NS         | Y           |
| SG-DHM-1642   | 29225-1642 | 20822157 | 1 1/4        | 31.8 | 42x2.0          | 46                | 1.82        | 46.2 | 4.10       | 104.2 | NS         | Y           |



## Japanese Komatsu® 30° Flare with Metric Threads

Female | Swivel



S=Skive  
NS=Non-Skive  
DG=Dual-Grip™

| Descriptive # | Product #  | SAP #    | Hose Size ID |      | Thread Size (A) | Hex-1 Wrench Size | Hex-2 Wrench Size | Cut-Off (C) |      | Length (L) |       | Skive Type | SR12, ARC12 |
|---------------|------------|----------|--------------|------|-----------------|-------------------|-------------------|-------------|------|------------|-------|------------|-------------|
|               |            |          | in.          | mm   |                 | mm                | mm                | in.         | mm   | in.        | mm    |            |             |
| S4-KMFX-0822  | 28545-0822 | 20241885 | 1/2          | 12.7 | 22X1.5          | 27                | 22                | 0.93        | 23.6 | 2.62       | 66.6  | NS         | Y           |
| S4-KMFX-1024  | 28545-1024 | 20441213 | 5/8          | 15.9 | 24x1.5          | 32                | 30                | 1.07        | 27.1 | 3.01       | 76.4  | NS         | Y           |
| S4-KMFX-1230  | 28545-1230 | 20241887 | 3/4          | 19.0 | 30X1.5          | 36                | 30                | 1.09        | 27.6 | 3.35       | 85.1  | NS         | Y           |
| S4-KMFX-1633  | 28545-1633 | 20241892 | 1            | 25.4 | 33X1.5          | 41                | 36                | 1.41        | 35.7 | 4.03       | 102.3 | NS         | Y           |
| S4-KMFX-2036  | 28545-2036 | 20241889 | 1¼           | 31.8 | 36X1.5          | 46                | 46                | 1.71        | 43.5 | 4.63       | 117.5 | NS         | Y           |
| S4-KMFX-2442  | 28545-2442 | 20241890 | 1½           | 38.1 | 42X1.5          | 55                | 55                | 1.73        | 44.0 | 5.04       | 128.0 | NS         | Y           |

| Descriptive # | Product #  | SAP #    | Hose Size ID |      | Thread Size (A) | Hex-1 Wrench Size | Hex-2 Wrench Size | Cut-Off (C) |      | Length (L) |       | Skive Type | SR12, ARC12 |
|---------------|------------|----------|--------------|------|-----------------|-------------------|-------------------|-------------|------|------------|-------|------------|-------------|
|               |            |          | in.          | mm   |                 | mm                | mm                | in.         | mm   | in.        | mm    |            |             |
| SG-KMFX-0618  | 29545-0618 | 20821982 | 3/8          | 9.5  | 18x1.5          | 22                |                   | 1.36        | 34.6 | 2.82       | 71.6  | NS         | Y           |
| SG-KMFX-0822  | 29545-0822 | 20758298 | 1/2          | 12.7 | 22X1.5          | 27                | 22                | 1.47        | 37.3 | 3.00       | 76.3  | NS         | Y           |
| SG-KMFX-1024  | 29545-1024 | 20821981 | 5/8          | 15.9 | 24x1.5          | 32                | 30                | 1.75        | 44.5 | 3.35       | 85.0  | NS         | Y           |
| SG-KMFX-1230  | 29545-1230 | 20821980 | 3/4          | 19.0 | 30X1.5          | 36                | 30                | 1.95        | 49.5 | 3.82       | 97.0  | NS         | Y           |
| SG-KMFX-1633  | 29545-1633 | 20821979 | 1            | 25.4 | 33X1.5          | 41                | 36                | 2.43        | 61.8 | 4.72       | 119.8 | NS         | Y           |

## Japanese Komatsu® 30° Flare with Metric Threads

Female | 45° Elbow | Swivel



S=Skive  
NS=Non-Skive  
DG=Dual-Grip™

| Descriptive #  | Product #  | SAP #    | Hose Size ID |      | Thread Size (A) | Hex-1 Wrench Size | Drop (D) |       | Cut-Off (C) |      | Length (L) |      | Skive Type | SR12, ARC12 |
|----------------|------------|----------|--------------|------|-----------------|-------------------|----------|-------|-------------|------|------------|------|------------|-------------|
|                |            |          | in.          | mm   |                 | mm                | in.      | mm    | in.         | mm   | in.        | mm   |            |             |
| SG-KMFX45-0618 | 29548-0618 | 20821978 | 3/8          | 9.5  | 18x1.5          | 22                | 0.71     | 18.0  | 1.73        | 43.9 | 3.19       | 80.9 | NS         | Y           |
| SG-KMFX45-0822 | 29548-0822 | 20821977 | 1/2          | 12.7 | 22X1.5          | 27                | 1.16     | 29.46 | 2.20        | 55.9 | 3.74       | 94.9 | NS         | Y           |

Japanese Komatsu® 30° Flare  
with Metric Threads

Female | 90° Elbow | Swivel

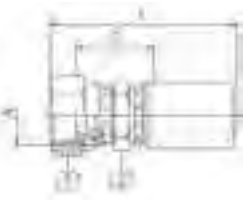


S=Skive  
NS=Non-Skive  
DG=Dual-Grip™

| Descriptive #  | Product #  | SAP #    | Hose Size ID |      | Thread Size (A) | Hex-1 Wrench Size | Drop (D) |      | Cut-Off (C) |      | Length (L) |      | Skive Type | SR12, ARC12 |
|----------------|------------|----------|--------------|------|-----------------|-------------------|----------|------|-------------|------|------------|------|------------|-------------|
|                |            |          | in.          | mm   |                 | mm                | in.      | mm   | in.         | mm   | in.        | mm   |            |             |
| SG-KMFX90-0618 | 29550-0618 | 20821976 | 3/8          | 9.5  | 18X1.5          | 22                | 1.40     | 35.6 | 1.42        | 36.1 | 2.88       | 73.1 | NS         | Y           |
| SG-KMFX90-0822 | 29550-0822 | 20821975 | 1/2          | 12.7 | 22X1.5          | 27                | 2.09     | 53.1 | 1.74        | 44.1 | 3.27       | 83.1 | NS         | Y           |

JIS 30° (Parallel Pipe Threads)

Female | Swivel



S=Skive  
NS=Non-Skive  
DG=Dual-Grip™

| Descriptive # | Product #  | SAP #    | Hose Size ID |      | Thread Size (A) | Hex-1 Wrench Size | Hex-2 Wrench Size | Cut-Off (C) |      | Length (L) |       | Skive Type | SR12, ARC12 |
|---------------|------------|----------|--------------|------|-----------------|-------------------|-------------------|-------------|------|------------|-------|------------|-------------|
|               |            |          | in.          | mm   |                 | mm                | mm                | in.         | mm   | in.        | mm    |            |             |
| S4-JSFX-0808  | 28520-0808 | 20242056 | 1/2          | 12.7 | 1/2-14          | 27                | 22                | 0.93        | 23.6 | 2.62       | 66.6  | NS         | Y           |
| S4-JSFX-1212  | 28520-1212 | 20242053 | 3/4          | 19.0 | 3/4-14          | 36                | 30                | 1.07        | 27.1 | 3.13       | 79.6  | NS         | Y           |
| S4-JSFX-1616  | 28520-1616 | 20242059 | 1            | 25.4 | 1-11            | 41                | 36                | 1.30        | 32.9 | 3.64       | 92.5  | NS         | Y           |
| S4-JSFX-2020T | 28520-2020 | 20241722 | 1¼           | 31.8 | 1¼-11           | 50                | 46                | 1.56        | 39.5 | 4.21       | 107.0 | NS         | Y           |

T: Thrust-Wire Nut (see "Fitting Identification" in Appendix for details)

| Descriptive # | Product #  | SAP #    | Hose Size ID |      | Thread Size (A) | Hex-1 Wrench Size | Hex-2 Wrench Size | Cut-Off (C) |      | Length (L) |       | Skive Type | SR12, ARC12 |
|---------------|------------|----------|--------------|------|-----------------|-------------------|-------------------|-------------|------|------------|-------|------------|-------------|
|               |            |          | in.          | mm   |                 | mm                | mm                | in.         | mm   | in.        | mm    |            |             |
| SG-JSFX-0606  | 29520-0606 | 20821992 | 3/8          | 9.5  | 3/8-19          | 22                | 19                | 1.36        | 34.6 | 2.82       | 71.6  | NS         | Y           |
| SG-JSFX-0808  | 29520-0808 | 20821991 | 1/2          | 12.7 | 1/2-14          | 27                | 22                | 1.47        | 37.2 | 3.00       | 76.3  | NS         | Y           |
| SG-JSFX-1212  | 29520-1212 | 20821990 | 3/4          | 19.0 | 3/4-14          | 36                | 30                | 1.70        | 43.1 | 3.57       | 90.6  | NS         | Y           |
| SG-JSFX-1616  | 29520-1616 | 20821989 | 1            | 25.4 | 1-11            | 41                | 36                | 2.05        | 52.1 | 4.33       | 110.1 | NS         | Y           |

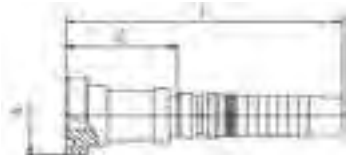
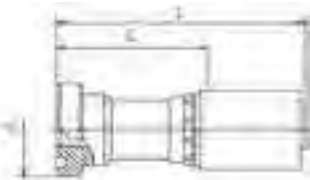
# How to Use the Fitting Tables

This section lists ALL fittings that are compatible with the following hoses:

| Hose Family | Hose Description                       |
|-------------|----------------------------------------|
| SR13        | SAE 100R13/EN 856 R13                  |
| ARC13       | SAE 100R13/EN 856 R13 (Abrasion Cover) |
| SR15        | SAE 100R15                             |
| ARC15       | SAE 100R15 (Abrasion Cover)            |
| S4SP        | EN 856 4SP                             |
| S4SH        | EN 856 4SH                             |

## Fitting Description

Fitting Type



S=Skive  
NS=Non-Skive  
DG=Dual-Grip™

| Descriptive #    | Product #  | SAP #    | Hose Size ID |      | Thread Size (A) |      | Hex-1 Wrench Size |      | Cut-Off (C) |      | Length (L) |    | Skive Type | SR13, ARC13          | SR15, ARC15 | S4SP    | S4SH    |
|------------------|------------|----------|--------------|------|-----------------|------|-------------------|------|-------------|------|------------|----|------------|----------------------|-------------|---------|---------|
|                  |            |          | in.          | mm   | in.             | mm   | in.               | mm   | in.         | mm   | in.        | mm |            |                      |             |         |         |
| Ultra-Crimp, PN1 | 16300-1212 | 20254304 | 3/4          | 19.0 | 3/4             | 1.63 | 41.3              | 1.73 | 44.0        | 4.49 | 114.0      |    | DG         | DGF1-12              | DGF1-12     | DGF1-12 | DGF1-12 |
| Ultra-Crimp, PN2 | 30300-1212 | 20241742 | 3/4          | 19.0 | 3/4             | 1.63 | 41.3              | 2.11 | 53.5        | 4.27 | 108.5      |    | NS         | Y                    |             |         | Y       |
| Dual-Grip, PN3   | 36300-1212 | 20242607 | 3/4          | 19.0 | 3/4             | 1.63 | 41.3              | 2.07 | 52.5        | 3.62 | 92.0       |    | S          | Dual-Grip Ferrule PN |             | UCF2-12 |         |

Choose fittings carefully considering the working pressure of both hose and fitting. The maximum working pressure of the hose assembly is the lesser of the rated working pressure of the hose and the fitting. See page 313 for working pressure.

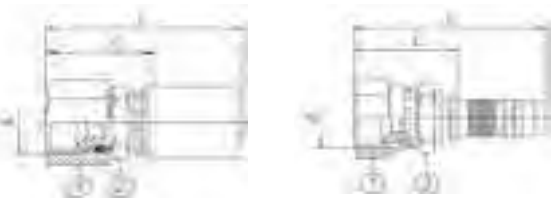
A “Y” in the hose compatibility columns indicates that the fitting is an **Ultra-Crimp™** style fitting and that it works for that particular hose.

A **blank space** in the hose compatibility columns indicates that the fitting **DOES NOT** work for that particular hose.

A **Part Number (Ferrule)** in the hose compatibility columns indicates that the fitting is a **Uni-Crimp™** style. The fitting, along with the ferrule shown, work together as a unit for that particular hose.

JIC 37° Flare (SAE J514)

Female | Swivel



S=Skive  
NS=Non-Skive  
DG=Dual-Grip™

| Descriptive #              | Product #    | SAP #    | Hose Size ID |      | Thread Size (A) | Hex-1 Wrench Size |    | Hex-2 Wrench Size |    | Cut-Off (C) |      | Length (L) |       | Skive Type | SR13, ARC13 | SR15, ARC15 | S4SP    | S4SH    |
|----------------------------|--------------|----------|--------------|------|-----------------|-------------------|----|-------------------|----|-------------|------|------------|-------|------------|-------------|-------------|---------|---------|
|                            |              |          | in.          | mm   |                 | in.               | mm | in.               | mm | in.         | mm   | in.        | mm    |            |             |             |         |         |
| DG-JCFX-1212 <sup>T1</sup> | 16400-1212   | 20254271 | 3/4          | 19.0 | 1 1/16-12       | 1 1/4             | 32 |                   |    | 0.74        | 18.7 | 3.82       | 97.0  | DG         | DGF1-12     | DGF1-12     | DGF1-12 | DGF1-12 |
| S6-JCFX-1212               | 30400-1212   | 20242042 | 3/4          | 19.0 | 1 1/16-12       | 1 1/4             | 32 | 1 1/16            | 27 | 1.19        | 30.2 | 3.92       | 99.5  | NS         | Y           |             |         | Y       |
| DG-JCFX-1616 <sup>T1</sup> | 16400-1616   | 20242491 | 1            | 25.4 | 1 5/16-12       | 1 1/2             | 38 |                   |    | 0.89        | 22.5 | 4.49       | 114.0 | DG         | DGF1-16     | DGF1-16     | DGF1-16 | DGF1-16 |
| S6-JCFX-1616               | 30400-1616   | 20241918 | 1            | 25.4 | 1 5/16-12       | 1 1/2             | 38 | 1 7/16            | 36 | 1.50        | 38.0 | 4.61       | 117.0 | NS         | Y           |             |         | Y       |
| S6-JCFX-1616S              | 30400-1616S  | 20672345 | 1            | 25.4 | 1 5/16-12       | 1 1/2             | 38 | 1 7/16            | 36 | 1.50        | 38.0 | 4.61       | 117.0 | NS         | Y           |             |         | Y       |
| DG-JCFX-2020 <sup>T1</sup> | 16400-2020   | 20242398 | 1 1/4        | 31.8 | 1 5/8-12        | 2                 | 50 |                   |    | 1.01        | 25.7 | 5.06       | 128.5 | DG         | DGF2-20     | DGF2-20     |         | DGF1-20 |
| S6-JCFX-2020               | 30400-2020   | 20577099 | 1 1/4        | 31.8 | 1 5/8-12        | 2                 | 50 | 1 5/8             | 41 | 1.70        | 43.1 | 6.08       | 154.5 | NS         | Y           |             |         | Y       |
| S6X-JCFX-2020S             | 30400-2020XS | 20672346 | 1 1/4        | 31.8 | 1 5/8-12        | 2                 | 50 | 1 5/8             | 41 | 1.70        | 43.1 | 6.08       | 154.5 | NS         | Y           |             |         | Y       |
| DG-JCFX-2424 <sup>T1</sup> | 16400-2424   | 20242432 | 1 1/2        | 38.1 | 1 7/8-12        | 2 3/16            | 55 |                   |    | 1.14        | 29.0 | 5.47       | 139.0 | DG         | DGF2-24     | DGF2-24     |         | DGF1-24 |
| S6-JCFX-2424               | 30400-2424   | 20241922 | 1 1/2        | 38.1 | 1 7/8-12        | 2 3/16            | 55 | 2                 | 50 | 1.94        | 49.4 | 5.94       | 151.0 | NS         | Y           |             |         |         |
| DG-JCFX-3232 <sup>T1</sup> | 16400-3232   | 20254272 | 2            | 50.8 | 2 1/2-12        | 2 13/16           | 70 |                   |    | 1.34        | 34.0 | 6.10       | 155.0 | DG         | DGF2-32     |             |         | DGF1-32 |
| S6-JCFX-3232               | 30400-3232   | 20242040 | 2            | 50.8 | 2 1/2-12        | 2 13/16           | 70 | 2 13/16           | 70 | 2.58        | 65.5 | 6.508      | 165.4 | NS         | Y           |             |         |         |

| Descriptive #              | Product #   | SAP #                         | Hose Size ID |      | Thread Size (A) | Hex-1 Wrench Size |    | Hex-2 Wrench Size |    | Cut-Off (C) |      | Length (L) |       | Skive Type | SR13, ARC13 | SR15, ARC15 | S4SP | S4SH |
|----------------------------|-------------|-------------------------------|--------------|------|-----------------|-------------------|----|-------------------|----|-------------|------|------------|-------|------------|-------------|-------------|------|------|
|                            |             |                               | in.          | mm   |                 | in.               | mm | in.               | mm | in.         | mm   | in.        | mm    |            |             |             |      |      |
| SG-JCFX-0604               | 29400-0604  | 20822056                      | 3/8          | 9.5  | 7/16-20         | 5/8               | 16 | 11/16             | 17 | 1.27        | 32.2 | 2.73       | 69.2  | NS         |             |             |      |      |
| SG-JCFX-0606               | 29400-0606  | 20758248                      | 3/8          | 9.5  | 9/16-18         | 3/4               | 19 | 11/16             | 17 | 1.32        | 33.6 | 2.78       | 70.6  | NS         |             |             |      |      |
| SG-JCFX-0606S              | 29400-0606S | 20822055                      | 3/8          | 9.5  | 9/16-18         | 3/4               | 19 | 11/16             | 17 | 1.32        | 33.6 | 2.78       | 70.6  | NS         |             |             | Y    |      |
| SG-JCFX-0608               | 29400-0608  | 20758284                      | 3/8          | 9.5  | 3/4-16          | 1                 | 25 | 3/4               | 19 | 1.09        | 27.7 | 2.55       | 64.7  | NS         |             |             | Y    |      |
| SG-JCFX-0610               | 29400-0610  | 20822054                      | 3/8          | 9.5  | 7/8-14          | 1 1/16            | 27 | 7/8               | 22 | 1.63        | 41.4 | 3.09       | 78.5  | NS         |             |             | Y    |      |
| SG-JCFX-0806               | 29400-0806  | 20822053                      | 1/2          | 12.7 | 9/16-18         | 3/4               | 19 | 3/4               | 19 | 1.36        | 34.6 | 2.90       | 73.6  | NS         |             |             | Y    |      |
| SG-JCFX-0808               | 29400-0808  | 20753008                      | 1/2          | 12.7 | 3/4-16          | 1                 | 25 | 3/4               | 19 | 1.09        | 27.7 | 2.63       | 66.7  | NS         |             |             | Y    |      |
| SG-JCFX-0808S              | 29400-0808S | 20822052                      | 1/2          | 12.7 | 3/4-16          | 1                 | 25 | 3/4               | 19 | 1.09        | 27.7 | 2.63       | 66.7  | NS         |             |             | Y    |      |
| SG-JCFX-0810               | 29400-0810  | 20758294                      | 1/2          | 12.7 | 7/8-14          | 2 5/32            | 27 | 7/8               | 22 | 1.64        | 41.6 | 3.17       | 80.6  | NS         |             |             | Y    |      |
| SG-JCFX-0812 <sup>T</sup>  | 29400-0812  | 20758299                      | 1/2          | 12.7 | 1 1/16-12       | 2 5/32            | 32 | 1                 | 25 | 1.74        | 44.2 | 3.28       | 83.2  | NS         |             |             | Y    |      |
| SG-JCFX-1008               | 29400-1008  | 20822051                      | 5/8          | 15.9 | 3/4-16          | 1                 | 25 | 15/16             | 24 | 1.65        | 41.9 | 3.24       | 82.3  | NS         |             |             | Y    |      |
| SG-JCFX-1010               | 29400-1010  | 20822050                      | 5/8          | 15.9 | 7/8-14          | 1 1/16            | 27 | 15/16             | 24 | 1.76        | 44.8 | 3.36       | 85.3  | NS         |             |             | Y    |      |
| SG-JCFX-1010S              | 29400-1010S | 20822049                      | 5/8          | 15.9 | 7/8-14          | 1 1/16            | 27 | 15/16             | 24 | 1.76        | 44.8 | 3.36       | 85.3  | NS         |             |             | Y    |      |
| SG-JCFX-1012 <sup>T</sup>  | 29400-1012  | 20822048                      | 5/8          | 15.9 | 1 1/16-12       | 1 1/4             | 32 | 1                 | 25 | 1.76        | 44.7 | 3.35       | 85.2  | NS         |             |             | Y    |      |
| SG-JCFX-1210               | 29400-1210  | 20822047                      | 3/4          | 19.0 | 7/8-14          | 1 1/16            | 27 | 1 1/16            | 27 | 1.74        | 44.2 | 3.61       | 91.7  | NS         | Y           | Y           | Y    | Y    |
| SG-JCFX-1212 <sup>T</sup>  | 29400-1212  | 20822046                      | 3/4          | 19.0 | 1 1/16-12       | 1 1/4             | 32 | 1 1/16            | 27 | 1.80        | 45.7 | 3.67       | 93.2  | NS         | Y           | Y           | Y    | Y    |
| SG-JCFX-1212S <sup>T</sup> | 29400-1212S | 20822045                      | 3/4          | 19.0 | 1 1/16-12       | 1 1/4             | 32 | 1 1/16            | 27 | 1.80        | 45.7 | 3.67       | 93.2  | NS         | Y           | Y           | Y    | Y    |
| SG-JCFX-1214               | 29400-1214  | 20822044                      | 3/4          | 19.0 | 1 3/16-12       | 1 1/16            | 36 | 1 1/4             | 32 | 1.87        | 47.5 | 3.74       | 95.0  | NS         | Y           | Y           | Y    | Y    |
| SG-JCFX-1216 <sup>T</sup>  | 29400-1216  | 20822043                      | 3/4          | 19.0 | 1 5/16-12       | 1 1/2             | 38 | 1 1/4             | 32 | 1.46        | 37.1 | 3.33       | 84.6  | NS         | Y           | Y           | Y    | Y    |
| SG-JCFX-1612 <sup>T</sup>  | 29400-1612  | 20822042                      | 1            | 25.4 | 1 1/16-12       | 1 1/4             | 32 | 1 1/4             | 32 | 1.42        | 36.1 | 3.71       | 94.1  | NS         | Y           | Y           | Y    | Y    |
| SG-JCFX-1616 <sup>T</sup>  | 29400-1616  | 20822041                      | 1            | 25.4 | 1 5/16-12       | 1 1/2             | 38 | 1 1/4             | 32 | 2.12        | 53.7 | 4.40       | 111.7 | NS         | Y           | Y           | Y    | Y    |
| SG-JCFX-1616S <sup>T</sup> | 29400-1616S | 20822040                      | 1            | 25.4 | 1 5/16-12       | 1 1/2             | 38 | 1 1/4             | 32 | 2.12        | 53.7 | 4.40       | 111.7 | NS         | Y           | Y           | Y    | Y    |
| SG-JCFX-1620 <sup>T</sup>  | 29400-1620  | 20822039                      | 1            | 25.4 | 1 5/8-12        | 2                 | 50 | 1 5/8             | 41 | 1.62        | 41.1 | 3.90       | 99.1  | NS         | Y           | Y           | Y    | Y    |
| SG-JCFX-2424               | 29400-2424  | 20757741                      | 1 1/2        | 38.1 | 1 7/8-12        | 2 3/16            | 55 |                   |    | 2.88        | 73.1 | 6.34       | 161.1 | NS         |             |             |      | Y    |
| SG-JCFX-3232               | 29400-3232  | 20833298                      | 2            | 50.8 | 2 1/2-12        | 2 13/16           | 70 |                   |    | 3.41        | 86.5 | 6.95       | 176.5 | NS         |             |             |      | Y    |
| SG-JCFX-3232S              | 29400-3232S | Contact Continental ContiTech | 2            | 50.8 | 2 1/2-12        | 2 13/16           | 70 |                   |    | 3.406       | 86.5 | 6.95       | 176.5 | NS         |             |             |      | Y    |

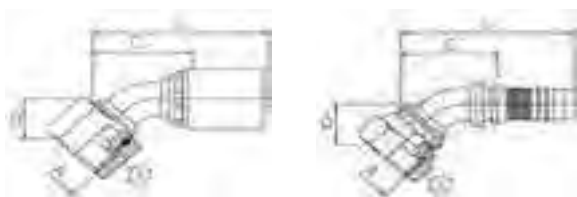
T: Thrust-Wire Nut (See "Fitting Identification" in Appendix for details)

S: Stainless Steel

1: Single Hex

## JIC 37° Flare (SAE J514)

Female | 45° Elbow | Swivel



S=Skive  
NS=Non-Skive  
DG=Dual-Grip™

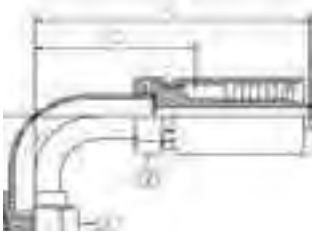
| Descriptive #  | Product #  | SAP #    | Hose Size ID |      | Thread Size (A) |     | Hex-1 Wrench Size |      | Drop (D) |      | Cut-Off (C) |      | Length (L) |     | Skive Type | SR13, ARC13 | SR15, ARC15 | S4SP    | S4SH |
|----------------|------------|----------|--------------|------|-----------------|-----|-------------------|------|----------|------|-------------|------|------------|-----|------------|-------------|-------------|---------|------|
|                |            |          | in.          | mm   |                 | in. | mm                | in.  | mm       | in.  | mm          | in.  | mm         | in. | mm         |             |             |         |      |
| DG-JCFX45-1212 | 16420-1212 | 20254273 | 3/4          | 19.0 | 3/4-16          | 1¼  | 32                | 1.08 | 27.5     | 2.60 | 66.0        | 5.40 | 137.2      | DG  | DGF1-12    | DGF1-12     | DGF1-12     | DGF1-12 |      |
| S6-JCFX45-1212 | 30420-1212 | 20241952 | 3/4          | 19.0 | 1½-12           | 1¼  | 32                | 1.08 | 27.5     | 2.76 | 70.0        | 5.20 | 132.2      | NS  | Y          |             |             | Y       |      |
| DG-JCFX45-1616 | 16420-1616 | 20254274 | 1            | 25.4 | 1½-12           | 1½  | 38                | 1.22 | 31.0     | 3.15 | 80.0        | 6.46 | 164.0      | DG  | DGF1-16    | DGF1-16     | DGF1-16     | DGF1-16 |      |
| S6-JCFX45-1616 | 30420-1616 | 20241959 | 1            | 25.4 | 1½-12           | 1½  | 38                | 1.22 | 31.0     | 3.35 | 85.0        | 6.16 | 156.5      | NS  | Y          |             |             | Y       |      |
| DG-JCFX45-2020 | 16420-2020 | 20254275 | 1¼           | 31.8 | 1⅝-12           | 2   | 50                | 1.46 | 37.0     | 3.66 | 93.0        | 7.39 | 187.8      | DG  | DGF2-20    | DGF2-20     |             | DGF1-20 |      |
| S6-JCFX45-2020 | 30420-2020 | 20577100 | 1¼           | 31.8 | 1⅝-12           | 2   | 50                | 1.46 | 37.0     | 3.90 | 99.0        | 7.99 | 203.0      | NS  | Y          |             |             | Y       |      |
| S6-JCFX45-2424 | 30420-2424 | 20424976 | 1½           | 38.1 | 1⅞-12           | 2⅜  | 55                | 1.71 | 43.5     | 4.65 | 118.0       | 8.64 | 219.5      | NS  | Y          |             |             |         |      |
| S6-JCFX45-3232 | 30420-3232 | 20788106 | 2            | 50.8 | 2½-12           | 2⅞  | 70                | 2.76 | 70.1     | 6.54 | 166.1       | 10.5 | 266.7      | NS  | Y          |             |             |         |      |

| Descriptive #                | Product #   | SAP #    | Hose Size ID |      | Thread Size (A) | Hex-1 Wrench Size             |    | Drop (D) |      | Cut-Off (C) |      | Length (L) |       | Skive Type | SR13, ARC13 | SR15, ARC15 | S4SP | S4SH |
|------------------------------|-------------|----------|--------------|------|-----------------|-------------------------------|----|----------|------|-------------|------|------------|-------|------------|-------------|-------------|------|------|
|                              |             |          | in.          | mm   |                 | in.                           | mm | in.      | mm   | in.         | mm   | in.        | mm    |            |             |             |      |      |
| SG-JCFX45-0606               | 29240-0606  | 20758293 | 3/8          | 9.5  | 9/16-18         | 3/4                           | 19 | 0.43     | 11.0 | 1.81        | 46.0 | 3.27       | 83.0  | NS         |             |             | Y    |      |
| SG-JCFX45-0608               | 29240-0608  | 20822038 | 3/8          | 9.5  | 3/4-16          | 1                             | 25 | 0.59     | 15.0 | 1.85        | 47.0 | 3.31       | 84.0  | NS         |             |             | Y    |      |
| SG-JCFX45-0808               | 29240-0808  | 20758293 | 1/2          | 12.7 | 3/4-16          | 1                             | 25 | 0.59     | 15.0 | 2.08        | 52.9 | 3.62       | 91.9  | NS         |             |             | Y    |      |
| SG-JCFX45-0810               | 29240-0810  | 20822037 | 1/2          | 12.7 | 7/8-14          | 1 1/8                         | 27 | 0.63     | 16.0 | 2.01        | 51.0 | 3.54       | 90.0  | NS         |             |             | Y    |      |
| SG-JCFX45-1010               | 29240-1010  | 20822036 | 5/8          | 15.9 | 7/8-14          | 1 1/8                         | 27 | 0.63     | 16.0 | 1.76        | 44.8 | 4.15       | 105.5 | NS         |             |             | Y    |      |
| SG-JCFX45-1012 <sup>T</sup>  | 29240-1012  | 20822035 | 5/8          | 15.9 | 7/8-14          | 1 1/4                         | 32 | 0.90     | 22.9 | 2.56        | 65.0 | 4.15       | 105.5 | NS         |             |             | Y    |      |
| SG-JCFX45-1212 <sup>T</sup>  | 29420-1212  | 20822034 | 3/4          | 19.0 | 1 1/8-12        | 1 1/4                         | 32 | 1.08     | 27.4 | 2.79        | 70.8 | 4.91       | 124.8 | NS         | Y           | Y           | Y    | Y    |
| SG-JCFX45-1216               | 29420-1216  | 20822033 | 3/4          | 19.0 | 1 1/8-12        | 1 1/2                         | 38 | 1.02     | 26.0 | 2.80        | 71.0 | 4.67       | 118.5 | NS         | Y           | Y           | Y    | Y    |
| SG-JCFX45-1616 <sup>T</sup>  | 29420-1616  | 20822032 | 1            | 25.4 | 1 1/8-12        | 1 1/2                         | 38 | 1.19     | 30.1 | 3.30        | 83.7 | 5.58       | 141.7 | NS         | Y           | Y           | Y    | Y    |
| SG-JCFX45-1616S <sup>T</sup> | 29420-1616S | 20822031 | 1            | 25.4 | 1 1/8-12        | 1 1/2                         | 38 | 1.19     | 30.1 | 3.30        | 83.7 | 5.58       | 141.7 | NS         | Y           | Y           | Y    | Y    |
| SG-JCFX45-1620 <sup>T</sup>  | 29420-1620  | 20822030 | 1            | 25.4 | 1 3/8-12        | 2                             | 50 | 1.25     | 31.8 | 3.37        | 85.6 | 5.65       | 143.6 | NS         | Y           | Y           | Y    | Y    |
| SG-JCFX45-2424               | 29420-2424  | 20757727 | 1 1/2        | 38.1 | 1 7/8-12        | Contact Continental ContiTech |    |          |      |             |      | NS         |       |            |             | Y           |      |      |

T: Thrust-Wire Nut (see "Fitting Identification" in Appendix for details)

JIC 37° Flare (SAE J514)

Female | 90° Elbow | Swivel



Elbow Type  
LT=Long Tube  
ST=Short Tube

S=Skive  
NS=Non-Skive  
DG=Dual-Grip™

| Descriptive #                  | Product #  | SAP #    | Hose Size ID |      | Thread Size (A) |    | Hex-1 Wrench Size |    | Elbow Type | Drop (D) |       | Cut-Off (C) |       | Length (L) |       | Skive Type | SR13, ARC13 | SR15, ARC15 | S4SP    | S4SH    |
|--------------------------------|------------|----------|--------------|------|-----------------|----|-------------------|----|------------|----------|-------|-------------|-------|------------|-------|------------|-------------|-------------|---------|---------|
|                                |            |          | in.          | mm   | in.             | mm | in.               | mm |            | in.      | mm    | in.         | mm    | in.        | mm    |            |             |             |         |         |
| DG-JCFX90-1212                 | 16425-1212 | 20254276 | 3/4          | 19.0 | 1½-12           | 1¼ | 32                |    |            | 2.24     | 57.0  | 1.77        | 45.0  | 4.29       | 109.0 | DG         | DGF1-12     | DGF1-12     | DGF1-12 | DGF1-12 |
| S6-JCFX90-1212                 | 30425-1212 | 20241899 | 3/4          | 19.0 | 1½-12           | 1¼ | 32                |    |            | 2.24     | 57.0  | 2.32        | 59.0  | 4.49       | 114.0 | NS         | Y           |             |         | Y       |
| DG-JCFX90-1616 <sup>T</sup> DG | 16425-1616 | 20242347 | 1            | 25.4 | 1½-12           | 1½ | 38                |    |            | 2.64     | 67.0  | 2.80        | 71.0  | 5.83       | 148.0 | DG         | DGF1-16     | DGF1-16     | DGF1-16 | DGF1-16 |
| S6-JCFX90-1616                 | 30425-1616 | 20241927 | 1            | 25.4 | 1½-12           | 1½ | 38                |    |            | 2.64     | 67.0  | 2.99        | 76.0  | 5.51       | 140.0 | NS         | Y           |             |         | Y       |
| DG-JCFX90-2020 <sup>T</sup> DG | 16425-2020 | 20242348 | 1¼           | 31.8 | 1½-12           | 2  | 50                |    |            | 3.07     | 78.0  | 3.11        | 79.0  | 6.50       | 165.0 | DG         | DGF2-20     | DGF2-20     |         | DGF1-20 |
| S6-JCFX90-2020                 | 30425-2020 | 20577101 | 1¼           | 31.8 | 1½-12           | 2  | 50                |    |            | 3.07     | 78.0  | 3.31        | 84.0  | 7.09       | 180.0 | NS         | Y           |             |         | Y       |
| DG-JCFX90-2424 <sup>T</sup> DG | 16425-2424 | 20254277 | 1½           | 38.1 | 1½-12           | 2¾ | 55                |    |            | 3.62     | 92.0  | 3.70        | 94.0  | 7.28       | 185.0 | DG         | DGF2-24     | DGF2-24     |         | DGF1-24 |
| S6-JCFX90-2424                 | 30425-2424 | 20241905 | 1½           | 38.1 | 1½-12           | 2¾ | 55                |    |            | 3.62     | 92.0  | 4.13        | 105.0 | 7.40       | 188.0 | NS         | Y           |             |         |         |
| S6-JCFX90-3232                 | 30425-3232 | 20788107 | 2            | 50.8 | 2½-12           | 2¾ | 70                |    |            | 5.51     | 140.2 | 5.71        | 145.0 | 9.64       | 244.9 | NS         | Y           |             |         |         |

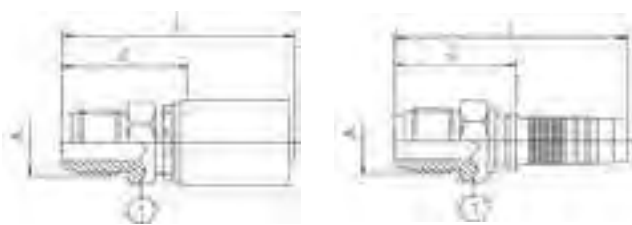
| Descriptive #                | Product #  | SAP #    | Hose Size ID |       | Thread Size (A) |     | Hex-1 Wrench Size |    | Elbow Type                    | Drop (D) |       | Cut-Off (C) |      | Length (L) |       | Skive Type | SR13, ARC13 | SR15, ARC15 | S4SP | S4SH |
|------------------------------|------------|----------|--------------|-------|-----------------|-----|-------------------|----|-------------------------------|----------|-------|-------------|------|------------|-------|------------|-------------|-------------|------|------|
|                              |            |          | in.          | mm    | in.             | mm  | in.               | mm |                               | in.      | mm    | in.         | mm   | in.        | mm    |            |             |             |      |      |
| SG-JCFX90-0604               | 29425-0604 | 20822029 | 3/8          | 9.525 | 7/16-29         | 5/8 | 16                |    |                               | 1.26     | 32.0  | 1.38        | 35.0 | 2.84       | 72.0  | NS         |             |             | Y    |      |
| SG-JCFX90L-0604              | 29440-0604 | 20822018 | 3/8          | 9.525 | 7/16-29         | 5/8 | 16                | LT |                               | 1.81     | 46.0  | 1.22        | 31.0 | 2.68       | 68.0  | NS         |             |             | Y    |      |
| SG-JCFX90-0606               | 29425-0606 | 20758283 | 3/8          | 9.525 | 9/16-18         | 3/4 | 19                |    |                               | 1.50     | 38.0  | 1.22        | 31.0 | 2.67       | 67.7  | NS         |             |             | Y    |      |
| SG-JCFX90L-0606              | 29440-0606 | 20822017 | 3/8          | 9.525 | 9/16-18         | 3/4 | 19                | LT |                               | 2.13     | 54.0  | 1.69        | 43.0 | 3.15       | 80.0  | NS         |             |             | Y    |      |
| SG-JCFX90S-0606              | 29445-0606 | 20822008 | 3/8          | 9.525 | 9/16-18         | 3/4 | 19                | ST |                               | 0.91     | 23.0  | 1.69        | 42.0 | 3.11       | 79.0  | NS         |             |             | Y    |      |
| SG-JCFX90-0608               | 29425-0608 | 20822028 | 3/8          | 9.525 | 3/4-16          | 1   | 25                |    |                               | 1.61     | 41.0  | 1.54        | 39.0 | 2.99       | 76.0  | NS         |             |             | Y    |      |
| SG-JCFX90L-0608              | 29440-0608 | 20822016 | 3/8          | 9.525 | 3/4-16          | 1   | 25                | LT |                               | 2.52     | 64.0  | 1.85        | 47.0 | 3.31       | 84.0  | NS         |             |             | Y    |      |
| SG-JCFX90S-0608              | 29445-0608 | 20822007 | 3/8          | 9.525 | 3/4-16          | 1   | 25                | ST |                               | 1.85     | 47.0  | 1.93        | 49.0 | 3.39       | 86.0  | NS         |             |             | Y    |      |
| SG-JCFX90-0808               | 29425-0808 | 20758292 | 1/2          | 12.7  | 3/4-16          | 1   | 25                |    |                               | 1.58     | 40.0  | 1.49        | 37.9 | 3.03       | 76.9  | NS         |             |             | Y    |      |
| SG-JCFX90L-0808              | 29440-0808 | 20822015 | 1/2          | 12.7  | 3/4-16          | 1   | 25                | LT |                               | 2.52     | 64.0  | 2.01        | 50.9 | 3.54       | 89.9  | NS         |             |             | Y    |      |
| SG-JCFX90S-0808              | 29445-0808 | 20822006 | 1/2          | 12.7  | 3/4-16          | 1   | 25                | ST |                               | 1.14     | 29.0  | 1.81        | 46.0 | 3.38       | 85.9  | NS         |             |             | Y    |      |
| SG-JCFX90-0810               | 29425-0810 | 20822027 | 1/2          | 12.7  | 7/8-14          | 1½  | 27                |    |                               | 1.85     | 47.0  | 1.69        | 43.0 | 3.23       | 82.0  | NS         |             |             | Y    |      |
| SG-JCFX90L-0810              | 29440-0810 | 20822014 | 1/2          | 12.7  | 7/8-14          | 1½  | 27                | LT |                               | 2.76     | 70.0  | 1.46        | 37.0 | 2.99       | 76.0  | NS         |             |             | Y    |      |
| SG-JCFX90S-0810              | 29445-0810 | 20822005 | 1/2          | 12.7  | 7/8-14          | 1½  | 27                | ST |                               | 1.26     | 32.0  | 1.81        | 46.0 | 3.38       | 85.9  | NS         |             |             | Y    |      |
| SG-JCFX90-0812               | 29445-0812 | 20822026 | 1/2          | 12.7  | 1½-12           | 1¼  | 32                |    |                               | 1.81     | 46.0  | 1.49        | 37.9 | 3.03       | 76.9  | NS         |             |             | Y    |      |
| SG-JCFX90-1010               | 29425-1010 | 20822025 | 5/8          | 15.9  | 7/8-14          | 1½  | 27                |    |                               | 1.85     | 47.0  | 1.76        | 44.8 | 3.52       | 89.5  | NS         |             |             | Y    |      |
| SG-JCFX90L-1010              | 29440-1010 | 20822013 | 5/8          | 15.9  | 7/8-14          | 1½  | 27                | LT |                               | 2.76     | 70.0  | 1.76        | 44.8 | 3.56       | 90.5  | NS         |             |             | Y    |      |
| SG-JCFX90S-1010              | 29445-1010 | 20822004 | 5/8          | 15.9  | 7/8-14          | 1½  | 27                | ST |                               | 1.26     | 32.0  | 1.76        | 44.8 | 3.52       | 89.5  | NS         |             |             | Y    |      |
| SG-JCFX90-1012 <sup>T</sup>  | 29425-1012 | 20822024 | 5/8          | 15.9  | 1½-12           | 1¼  | 32                |    |                               | 2.28     | 58.0  | 2.35        | 59.7 | 3.94       | 100.2 | NS         |             |             | Y    |      |
| SG-JCFX90L-1012 <sup>T</sup> | 29440-1012 | 20822012 | 5/8          | 15.9  | 1½-12           | 1¼  | 32                | LT |                               | 3.78     | 96.0  | 2.35        | 59.7 | 3.94       | 100.2 | NS         |             |             | Y    |      |
| SG-JCFX90-1210               | 29425-1210 | 20822023 | 3/4          | 19.0  | 7/8-14          | 1½  | 27                |    |                               | 1.85     | 47.0  | 1.97        | 50.0 | 3.84       | 97.5  | NS         | Y           | Y           | Y    | Y    |
| SG-JCFX90L-1210              | 29440-1210 | 20822011 | 3/4          | 19.0  | 7/8-14          | 1½  | 27                | LT |                               | 2.76     | 70.0  | 1.97        | 50.0 | 3.84       | 97.5  | NS         | Y           | Y           | Y    | Y    |
| SG-JCFX90S-1210              | 29445-1210 | 20822003 | 3/4          | 19.0  | 7/8-14          | 1½  | 27                | ST |                               | 1.26     | 32.0  | 1.97        | 50.0 | 3.84       | 97.5  | NS         | Y           | Y           | Y    | Y    |
| SG-JCFX90-1212 <sup>T</sup>  | 29425-1212 | 20822022 | 3/4          | 19.0  | 1½-12           | 1¼  | 32                |    |                               | 2.24     | 56.9  | 2.35        | 59.7 | 4.22       | 107.2 | NS         | Y           | Y           | Y    | Y    |
| SG-JCFX90L-1212 <sup>T</sup> | 29440-1212 | 20822010 | 3/4          | 19.0  | 1½-12           | 1¼  | 32                | LT |                               | 3.78     | 96.0  | 2.35        | 59.7 | 4.22       | 107.2 | NS         | Y           | Y           | Y    | Y    |
| SG-JCFX90S-1212 <sup>T</sup> | 29445-1212 | 20822002 | 3/4          | 19.0  | 1½-12           | 1¼  | 32                | ST |                               | 1.89     | 48.0  | 2.35        | 59.7 | 4.22       | 107.2 | NS         | Y           | Y           | Y    | Y    |
| SG-JCFX90-1216 <sup>T</sup>  | 29425-1216 | 20822021 | 3/4          | 19.0  | 1½-12           | 1½  | 38                |    |                               | 2.80     | 71.0  | 2.35        | 59.7 | 4.22       | 107.2 | NS         | Y           | Y           | Y    | Y    |
| SG-JCFX90-1616 <sup>T</sup>  | 29425-1616 | 20822020 | 1            | 25.4  | 1½-12           | 1½  | 38                |    |                               | 2.80     | 71.0  | 2.97        | 75.5 | 5.25       | 133.5 | NS         | Y           | Y           | Y    | Y    |
| SG-JCFX90L-1616 <sup>T</sup> | 29440-1616 | 20822009 | 1            | 25.4  | 1½-12           | 1½  | 38                | LT |                               | 4.49     | 114.0 | 3.10        | 78.7 | 5.38       | 136.7 | NS         | Y           | Y           | Y    | Y    |
| SG-JCFX90S-1616 <sup>T</sup> | 29445-1616 | 20822001 | 1            | 25.4  | 1½-12           | 1½  | 38                | ST |                               | 2.44     | 61.9  | 2.55        | 64.8 | 4.83       | 122.8 | NS         | Y           | Y           | Y    | Y    |
| SG-JCFX90-1620 <sup>T</sup>  | 29425-1620 | 20822019 | 1            | 25.4  | 1½-12           | 2   | 50                |    |                               | 3.07     | 78.0  | 2.87        | 72.9 | 5.15       | 130.9 | NS         | Y           | Y           | Y    | Y    |
| SG-JCFX90-2424               | 29425-2424 | 20757723 | 1½           | 38.1  | 1½-12           |     |                   |    | Contact Continental ContiTech |          |       |             |      |            |       | NS         |             |             | Y    |      |

T: Thrust-Wire Nut (see "Fitting Identification" in Appendix for details)

DG: Part listed is Dual-Grip™ style (image is Uni-Crimp™ style)

## JIC 37° Flare (SAE J514)

Male



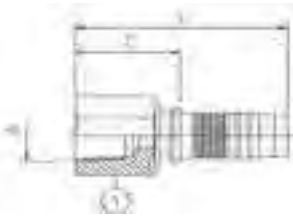
S=Skive  
NS=Non-Skive  
DG=Dual-Grip™

| Descriptive # | Product #  | SAP #    | Hose Size ID |      | Thread Size (A) |         | Hex-1 Wrench Size |      | Cut-Off (C) |      | Length (L) |    | Skive Type | SR13, ARC13 | SR15, ARC15 | S4SP    | S4SH    |
|---------------|------------|----------|--------------|------|-----------------|---------|-------------------|------|-------------|------|------------|----|------------|-------------|-------------|---------|---------|
|               |            |          | in.          | mm   |                 |         | in.               | mm   | in.         | mm   | in.        | mm |            |             |             |         |         |
| S6-JCM-1212   | 30450-1212 |          | 3/4          | 19.0 | 1 1/16-12       | 1 1/16  | 27                | 1.52 | 38.5        | 3.68 | 93.5       |    | NS         | Y           |             |         | Y       |
| DG-JCM-1616   | 16450-1616 |          | 1            | 25.4 | 1 5/16-12       | 1 7/16  | 36                | 1.30 | 33.0        | 4.63 | 117.5      |    | DG         | DGF1-16     | DGF1-16     | DGF1-16 | DGF1-16 |
| S6-JCM-1616   | 30450-1616 | 20424979 | 1            | 25.4 | 1 5/16-12       | 1 7/16  | 36                | 1.79 | 45.5        | 4.31 | 109.5      |    | NS         | Y           |             |         | Y       |
| DG-JCM-2020   | 16450-2020 | 2042353  | 1 1/4        | 31.8 | 1 1/2-12        | 1 3/16  | 46                | 1.39 | 35.3        | 5.22 | 132.5      |    | DG         | DGF2-20     | DGF2-20     |         | DGF1-20 |
| S6-JCM-2020   | 30450-2020 | 20563020 | 1 1/4        | 31.8 | 1 1/2-12        | 1 3/16  | 46                | 2.03 | 51.5        | 5.79 | 147.0      |    | NS         | Y           |             |         | Y       |
| DG-JCM-2424   | 16450-2424 | 2042352  | 1 1/2        | 38.1 | 1 1/2-12        | 2       | 50                | 1.54 | 39.0        | 5.57 | 141.5      |    | DG         | DGF2-24     | DGF2-24     |         | DGF1-24 |
| S6-JCM-2424   | 30450-2424 | 20424981 | 1 1/2        | 38.1 | 1 1/2-12        | 2       | 50                | 2.26 | 57.5        | 5.53 | 140.5      |    | NS         | Y           |             |         |         |
| S6-JCM-3232   | 30450-3232 | 20788108 | 2            | 50.8 | 2 1/2-12        | 2 13/16 | 70                | 2.83 | 71.8        | 6.76 | 171.6      |    | NS         | Y           |             |         |         |

| Descriptive # | Product #  | SAP #    | Hose Size ID |      | Thread Size (A) |        | Hex-1 Wrench Size |       | Cut-Off (C) |      | Length (L) |    | Skive Type | SR13, ARC13 | SR15, ARC15 | S4SP | S4SH |
|---------------|------------|----------|--------------|------|-----------------|--------|-------------------|-------|-------------|------|------------|----|------------|-------------|-------------|------|------|
|               |            |          | in.          | mm   |                 |        | in.               | mm    | in.         | mm   | in.        | mm |            |             |             |      |      |
|               |            |          |              |      |                 |        |                   |       |             |      |            |    |            |             |             | Y    |      |
| SG-JCM-0606   | 29450-0606 | 20758249 | 3/8          | 9.5  | 9/16-18         | 11/16  | 17                | 1.15  | 29.1        | 2.60 | 66.1       |    | NS         |             |             | Y    |      |
| SG-JCM-0608   | 29450-0608 | 20758285 | 3/8          | 9.5  | 3/4-16          | 3/4    | 19                | 1.29  | 32.8        | 2.75 | 69.9       |    | NS         |             |             | Y    |      |
| SG-JCM-0610   | 29450-0610 | 20822000 | 3/8          | 9.5  | 7/8-14          | 15/16  | 24                | 1.45  | 36.8        | 2.91 | 73.8       |    | NS         |             |             | Y    |      |
| SG-JCM-0808   | 29450-0808 | 20758291 | 1/2          | 12.7 | 3/4-16          | 3/4    | 19                | 1.29  | 32.8        | 2.83 | 71.9       |    | NS         |             |             | Y    |      |
| SG-JCM-0810   | 29450-0810 | 20758296 | 1/2          | 12.7 | 7/8-14          | 15/16  | 24                | 1.45  | 36.8        | 2.99 | 75.8       |    | NS         |             |             | Y    |      |
| SG-JCM-0812   | 29450-0812 | 20758295 | 1/2          | 12.7 | 1 1/16-12       | 1 1/16 | 27                | 1.54  | 39.1        | 3.07 | 78.1       |    | NS         |             |             | Y    |      |
| SG-JCM-1010   | 29450-1010 | 20821999 | 5/8          | 15.9 | 7/8-14          | 15/16  | 24                | 1.47  | 37.3        | 3.06 | 77.8       |    | NS         |             |             | Y    |      |
| SG-JCM-1012   | 29450-1012 | 20821998 | 5/8          | 15.9 | 7/8-14          | 1 1/16 | 27                | 1.56  | 39.6        | 3.15 | 80.1       |    | NS         | Y           | Y           | Y    | Y    |
| SG-JCM-1212   | 29450-1212 | 20821997 | 3/4          | 19.0 | 1 1/16-12       | 1 1/16 | 27                | 1.60  | 40.6        | 3.47 | 88.1       |    | NS         | Y           | Y           | Y    | Y    |
| SG-JCM-1214   | 29450-1229 | 20821996 | 3/4          | 19.0 | 1 3/16-12       | 1 1/4  | 32                | 1.73  | 43.9        | 3.60 | 91.4       |    | NS         | Y           | Y           | Y    | Y    |
| SG-JCM-1216   | 29450-1216 | 20821995 | 3/4          | 19.0 | 1 5/16-12       | 1 7/16 | 36                | 1.77  | 45.1        | 3.66 | 93.1       |    | NS         | Y           | Y           | Y    | Y    |
| SG-JCM-1616   | 29450-1616 | 20821994 | 1            | 25.4 | 1 5/16-12       | 1 7/16 | 36                | 1.83  | 46.6        | 4.12 | 104.6      |    | NS         | Y           | Y           |      | Y    |
| SG-JCM-1620   | 29450-1620 | 20821993 | 1            | 25.4 | 1 1/2-12        | 1 3/16 | 46                | 1.99  | 50.5        | 4.27 | 108.6      |    | NS         |             |             |      | Y    |
| SG-JCM-2424   | 29450-2424 | 20757728 | 1 1/2        | 38.1 | 1 1/2-12        | 2      | 50                | 2.54  | 64.6        | 6.01 | 152.6      |    | NS         |             |             |      | Y    |
| SG-JCM-3232   | 29450-3232 | 20833302 | 2            | 50.8 | 2 1/2-12        | 2 7/8  | 70                | 2.974 | 75.5        | 6.52 | 165.6      |    | NS         |             |             |      | Y    |

## NPTF

Female

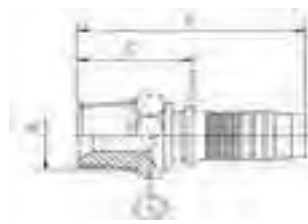
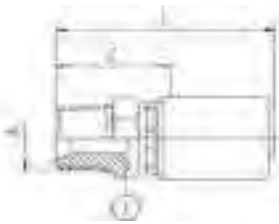


S=Skive  
NS=Non-Skive  
DG=Dual-Grip™

| Descriptive # | Product #  | SAP #    | Hose Size ID |      | Thread Size (A) |  | Hex-1 Wrench Size |    | Cut-Off (C) |      | Length (L) |      | Skive Type | SR13, ARC13 | SR15, ARC15 | S4SP | S4SH |
|---------------|------------|----------|--------------|------|-----------------|--|-------------------|----|-------------|------|------------|------|------------|-------------|-------------|------|------|
|               |            |          | in.          | mm   |                 |  | in.               | mm | in.         | mm   | in.        | mm   |            |             |             |      |      |
| SG-NPF-0808   | 29600-0808 | 20821973 | 1/2          | 12.7 | 1/2-14          |  | 1                 | 25 | 1.48        | 37.6 | 3.02       | 76.6 | NS         |             |             | Y    |      |

## NPTF

Male



S=Skive  
NS=Non-Skive  
DG=Dual-Grip™

| Descriptive # | Product #  | SAP #    | Hose Size ID |      | Thread Size (A) |  | Hex-1 Wrench Size |    | Cut-Off (C) |      | Length (L) |       | Skive Type | SR13, ARC13 | SR15, ARC15 | S4SP    | S4SH    |
|---------------|------------|----------|--------------|------|-----------------|--|-------------------|----|-------------|------|------------|-------|------------|-------------|-------------|---------|---------|
|               |            |          | in.          | mm   |                 |  | in.               | mm | in.         | mm   | in.        | mm    |            |             |             |         |         |
| DG-NPM-1212   | 16615-1212 | 20242574 | 3/4          | 19.0 | 3/4-14          |  | 1 1/16            | 27 | 1.02        | 26.0 | 3.78       | 96.0  | DG         | DGF1-12     | DGF1-12     | DGF1-12 | DGF1-12 |
| S6-NPM-1212   | 30615-1212 | 20385938 | 3/4          | 19.0 | 3/4-14          |  | 1 1/16            | 27 | 1.40        | 35.5 | 3.56       | 90.5  | NS         | Y           |             |         | Y       |
| DG-NPM-1616   | 16615-1616 | 20242518 | 1            | 25.4 | 1-11 1/2        |  | 1 7/16            | 36 | 1.34        | 34.0 | 4.67       | 118.5 | DG         | DGF1-16     | DGF1-16     | DGF1-16 | DGF1-16 |
| S6-NPM-1616   | 30615-1616 | 20293311 | 1            | 25.4 | 1-11 1/2        |  | 1 7/16            | 36 | 1.83        | 46.5 | 4.35       | 110.5 | NS         | Y           |             |         | Y       |
| DG-NPM-2020   | 16615-2020 | 20242437 | 1 1/4        | 31.8 | 1 1/4-11 1/2    |  | 1 3/8             | 46 | 1.41        | 35.8 | 5.24       | 133.0 | DG         | DGF2-20     | DGF2-20     |         | DGF1-20 |
| S6-NPM-2020   | 30615-2020 | 20577103 | 1 1/4        | 31.8 | 1 1/4-11 1/2    |  | 1 3/8             | 46 | 2.05        | 52.0 | 5.81       | 147.5 | NS         | Y           |             |         | Y       |
| DG-NPM-2424   | 16615-2424 | 20242354 | 1 1/2        | 38.1 | 1 1/2-11 1/2    |  | 2                 | 50 | 1.56        | 39.5 | 5.49       | 139.5 | DG         | DGF2-24     | DGF2-24     |         | DGF1-24 |
| S6-NPM-2424   | 30615-2424 | 20293313 | 1 1/2        | 38.1 | 1 1/2-11 1/2    |  | 2                 | 50 | 2.19        | 55.5 | 5.45       | 138.5 | NS         | Y           |             |         |         |
| DG-NPM-3232   | 16615-3232 | 20242401 | 2            | 50.8 | 2-11 1/2        |  | 2 9/16            | 65 | 1.54        | 39.2 | 5.91       | 150.2 | DG         | DGF2-32     |             |         | DGF1-32 |
| S6-NPM-3232   | 30615-3232 | 20293314 | 2            | 50.8 | 2-11 1/2        |  | 2 13/16           | 70 | 2.53        | 64.1 | 6.45       | 163.9 | NS         | Y           |             |         |         |

| Descriptive # | Product #   | SAP #    | Hose Size ID |     | Thread Size (A) |  | Hex-1 Wrench Size |    | Cut-Off (C) |      | Length (L) |      | Skive Type | SR13, ARC13 | SR15, ARC15 | S4SP | S4SH |
|---------------|-------------|----------|--------------|-----|-----------------|--|-------------------|----|-------------|------|------------|------|------------|-------------|-------------|------|------|
|               |             |          | in.          | mm  |                 |  | in.               | mm | in.         | mm   | in.        | mm   |            |             |             |      |      |
| SG-NPM-0604   | 29615-1608  | 20731608 | 3/8          | 9.5 | 1/4-18          |  | 11/16             | 17 | 1.17        | 29.7 | 2.63       | 66.8 | NS         |             |             | Y    |      |
| SG-NPM-0606   | 29615-0606  | 20731748 | 3/8          | 9.5 | 3/8-18          |  | 3/4               | 19 | 1.20        | 30.5 | 2.66       | 67.5 | NS         |             |             | Y    |      |
| SG-NPM-0606S  | 29615-0606S | 20821971 | 3/8          | 9.5 | 3/8-18          |  | 3/4               | 19 | 1.20        | 30.5 | 2.66       | 67.5 | NS         |             |             | Y    |      |
| SG-NPM-0608   | 29615-0608  | 20758280 | 3/8          | 9.5 | 1/2-14          |  | 7/8               | 22 | 1.37        | 34.9 | 2.83       | 71.9 | NS         |             |             | Y    |      |

S: Stainless Steel

Continued on next page



## NPTF

## Male Continued

| Descriptive # | Product #   | SAP #    | Hose Size ID |      | Thread Size (A) |         | Hex-1 Wrench Size |      | Cut-Off (C) |      | Length (L) |    | Skive Type | SR13, ARC13 | SR15, ARC15 | S4SP | S4SH |
|---------------|-------------|----------|--------------|------|-----------------|---------|-------------------|------|-------------|------|------------|----|------------|-------------|-------------|------|------|
|               |             |          | in.          | mm   |                 |         | in.               | mm   | in.         | mm   | in.        | mm |            |             |             |      |      |
| SG-NPM-0806   | 29615-0806  | 20731755 | 1/2          | 12.7 | 3/8-18          | 3/4     | 19                | 1.20 | 30.5        | 2.73 | 69.4       | NS |            |             |             | Y    |      |
| SG-NPM-0808   | 29615-0808  | 20753007 | 1/2          | 12.7 | 1/2-14          | 7/8     | 22                | 1.37 | 34.9        | 2.91 | 73.9       | NS |            |             |             | Y    |      |
| SG-NPM-0808S  | 29615-0808S | 20821970 | 1/2          | 12.7 | 1/2-14          | 7/8     | 22                | 1.37 | 34.9        | 2.91 | 73.9       | NS |            |             |             | Y    |      |
| SG-NPM-0812   | 29615-0812  | 20758303 | 1/2          | 12.7 | 3/4-14          | 1 1/16  | 27                | 1.42 | 36.0        | 2.95 | 75.0       | NS |            |             |             | Y    |      |
| SG-NPM-1012   | 29615-1012  | 20821969 | 5/8          | 15.9 | 3/4-14          | 1 1/16  | 27                | 1.44 | 36.5        | 3.03 | 77.0       | NS |            |             |             | Y    |      |
| SG-NPM-1208   | 29615-1208  | 20821968 | 3/4          | 19.0 | 1/2-14          | 1 1/16  | 27                | 1.43 | 36.4        | 3.30 | 83.9       | NS | Y          | Y           | Y           | Y    | Y    |
| SG-NPM-1212   | 29615-1212  | 20821967 | 3/4          | 19.0 | 3/4-14          | 1 1/16  | 27                | 1.48 | 37.5        | 3.35 | 85.0       | NS | Y          | Y           | Y           | Y    | Y    |
| SG-NPM-1212S  | 29615-1212S | 20821966 | 3/4          | 19.0 | 3/4-14          | 1 1/16  | 27                | 1.48 | 37.5        | 3.35 | 85.0       | NS | Y          | Y           | Y           | Y    | Y    |
| SG-NPM-1216   | 29615-1216  | 20821965 | 3/4          | 19.0 | 1-11 1/2        | 1 7/16  | 36                | 1.83 | 46.6        | 3.70 | 94.1       | NS | Y          | Y           | Y           | Y    | Y    |
| SG-NPM-1612   | 29615-1612  | 20821964 | 1            | 25.4 | 3/4-14          | 1 7/16  | 36                | 1.70 | 43.2        | 3.99 | 101.2      | NS | Y          | Y           | Y           | Y    | Y    |
| SG-NPM-1616   | 29615-1616  | 20821963 | 1            | 25.4 | 1-11 1/2        | 1 7/16  | 36                | 1.89 | 48.1        | 4.18 | 106.1      | NS | Y          | Y           | Y           | Y    | Y    |
| SG-NPM-1616S  | 29615-1616S | 20821962 | 1            | 25.4 | 1-11 1/2        | 1 7/16  | 36                | 1.89 | 48.1        | 4.18 | 106.1      | NS | Y          | Y           | Y           | Y    | Y    |
| SG-NPM-1620   | 29615-1620  | 20821961 | 1            | 25.4 | 1 1/4-11 1/2    | 1 13/16 | 46                | 2.03 | 51.5        | 4.31 | 109.5      | NS | Y          | Y           | Y           | Y    | Y    |
| SG-NPM-2424   | 29615-2424  | 20757742 | 1 1/2        | 38.1 | 1 1/2-11 1/2    | 2       | 50                | 2.46 | 62.4        | 5.92 | 150.4      | NS |            |             |             |      | Y    |
| SG-NPM-3232   | 29615-3232  | 20833301 | 2            | 50.8 | 2-11 1/2        | 2 13/16 | 70                | 2.67 | 67.9        | 6.22 | 157.9      | NS |            |             |             |      | Y    |

S: Stainless Steel

## NPTF

## Male | Swivel

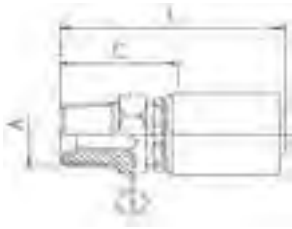


S=Skive  
NS=Non-Skive  
DG=Dual-Grip™

| Descriptive # | Product #  | SAP #    | Hose Size ID |      | Thread Size (A) |       | Hex-1 Wrench Size |      | Cut-Off (C) |       | Length (L) |    | Skive Type | SR13, ARC13 | SR15, ARC15 | S4SP | S4SH |
|---------------|------------|----------|--------------|------|-----------------|-------|-------------------|------|-------------|-------|------------|----|------------|-------------|-------------|------|------|
|               |            |          | in.          | mm   |                 |       | in.               | mm   | in.         | mm    | in.        | mm |            |             |             |      |      |
| SG-NPMX-0604  | 29645-0604 | 20821959 | 3/8          | 9.5  | 1/4-18          | 11/16 | 17                | 1.67 | 42.3        | 3.123 | 79.3       | NS |            |             |             | Y    |      |
| SG-NPMX-0606  | 29645-0606 | 20821958 | 3/8          | 9.5  | 3/8-18          | 7/8   | 22                | 1.58 | 40.1        | 3.037 | 77.1       | NS |            |             |             | Y    |      |
| SG-NPMX-0608  | 29645-0608 | 20821957 | 3/8          | 9.5  | 1/2-14          | 1     | 25                | 1.73 | 44.0        | 3.188 | 81.0       | NS |            |             |             | Y    |      |
| SG-NPMX-0806  | 29645-0806 | 20821956 | 1/2          | 12.7 | 3/8-18          | 7/8   | 22                | 1.58 | 40.1        | 3.116 | 79.1       | NS |            |             |             | Y    |      |
| SG-NPMX-0808  | 29645-0808 | 20821955 | 1/2          | 12.7 | 1/2-14          | 1     | 25                | 1.73 | 44.0        | 3.267 | 83.0       | NS |            |             |             | Y    |      |
| SG-NPMX-1212  | 29645-1212 | 20821954 | 3/4          | 19.1 | 3/4-14          | 1 1/4 | 32                | 2.08 | 52.8        | 3.95  | 100.3      | NS | Y          | Y           | Y           | Y    | Y    |
| SG-NPMX-1616  | 29645-1616 | 20821953 | 1            | 25.4 | 1-11 1/2        | 1 1/2 | 41                | 2.40 | 60.9        | 4.681 | 118.9      | NS | Y          | Y           | Y           | Y    | Y    |

NPT

Male API



S=Skive  
NS=Non-Skive  
DG=Dual-Grip™

| Descriptive #  | Product #  | SAP #    | Hose Size ID |      | Thread Size (A) | Hex-1 Wrench Size |    | Cut-Off (C) |       | Length (L) |       | Skive Type | SR13, ARC13 | SR15, ARC15 | S4SP | S4SH    |
|----------------|------------|----------|--------------|------|-----------------|-------------------|----|-------------|-------|------------|-------|------------|-------------|-------------|------|---------|
|                |            |          | in.          | mm   |                 | in.               | mm | in.         | mm    | in.        | mm    |            |             |             |      |         |
| S6-NPMAPI-1616 | 30617-1616 | 20466169 | 1            | 25.4 | 1-11½           | 17⁄₁₆             | 36 | 2.66        | 67.5  | 5.18       | 131.5 | NS         | Y           |             |      | Y       |
| S6-NPMAPI-2020 | 30617-2020 | 20466171 | 1¼           | 31.8 | 1¼-11½          | 113⁄₁₆            | 46 | 2.94        | 74.6  | 6.70       | 170.1 | NS         | Y           |             |      | Y       |
| S6-NPMAPI-2424 | 30617-2424 | 20466174 | 1½           | 38.1 | 1½-11½          | 2                 | 50 | 3.27        | 83.0  | 6.54       | 166.0 | NS         | Y           |             |      |         |
| S6-NPMAPI-3232 | 30618-3232 | 20679658 | 2            | 50.8 | 2-11½           | 213⁄₁₆            | 70 | 4.20        | 106.8 | 8.13       | 206.6 | NS         | Y           |             |      |         |
| DG-NPMAPI-3232 | 16630-3232 | 20466175 | 2            | 50.8 | 2-11½           | 29⁄₁₆             | 65 | 3.76        | 95.5  | 7.58       | 192.5 | DG         | DGF2-32     |             |      | DGF2-32 |

| Descriptive #  | Product #  | SAP #    | Hose Size ID |      | Thread Size (A) | Hex-1 Wrench Size |    | Cut-Off (C) |       | Length (L) |       | Skive Type | SR13, ARC13 | SR15, ARC15 | S4SP | S4SH |
|----------------|------------|----------|--------------|------|-----------------|-------------------|----|-------------|-------|------------|-------|------------|-------------|-------------|------|------|
|                |            |          | in.          | mm   |                 | in.               | mm | in.         | mm    | in.        | mm    |            |             |             |      |      |
| SG-NPMAPI-1616 | 29617-1616 | 20821960 | 1            | 25.4 | 1-11½ API API5B | 17⁄₁₆             | 36 | 2.72        | 69.0  | 5.00       | 127.0 | NS         | Y           | Y           | Y    | Y    |
| SG-NPMAPI-3232 | 29617-2424 | 20833300 | 2            | 50.8 | 2-11½ API API5B | 213⁄₁₆            | 70 | 4.35        | 110.5 | 7.90       | 200.5 | NS         |             |             |      | Y    |

NPSM

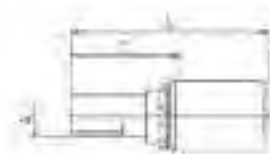
Female | Swivel



S=Skive  
NS=Non-Skive  
DG=Dual-Grip™

| Descriptive # | Product #  | SAP #    | Hose Size ID |      | Thread Size (A) | Hex-1 Wrench Size |    | Hex-2 Wrench Size |       | Cut-Off (C) |      | Length (L) |      | Skive Type | SR13, ARC13 | SR15, ARC15 | S4SP | S4SH |
|---------------|------------|----------|--------------|------|-----------------|-------------------|----|-------------------|-------|-------------|------|------------|------|------------|-------------|-------------|------|------|
|               |            |          | in.          | mm   |                 | in.               | mm | in.               | mm    | in.         | mm   | in.        | mm   |            |             |             |      |      |
| SG-NSFX-0606  | 29655-0606 | 20821948 | 3/8          | 9.5  | 3/8-18          | 7/8               | 22 | 17                | 11/16 | 1.29        | 32.8 | 2.75       | 69.8 | NS         |             |             | Y    |      |
| SG-NSFX-0808  | 29655-0808 | 20821947 | 1/2          | 12.7 | 1/2-14          | 11⁄₁₆             | 27 | 22                | 7/8   | 1.41        | 35.8 | 2.95       | 74.8 | NS         |             |             | Y    |      |

## Standpipe

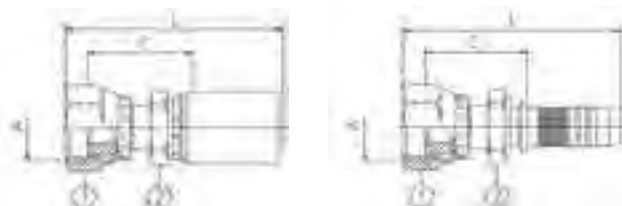


S=Skive  
NS=Non-Skive  
DG=Dual-Grip™

| Descriptive # | Product #  | SAP #    | Hose Size ID |      | Tube OD (A) | Cut-Off (C) |      | Length (L) |       | Skive Type | SR13, ARC13 | SR15, ARC15 | S4SP | S4SH |
|---------------|------------|----------|--------------|------|-------------|-------------|------|------------|-------|------------|-------------|-------------|------|------|
|               |            |          | in.          | mm   | mm          | in.         | mm   | in.        | mm    |            |             |             |      |      |
| SG-SP-1628    | 29825-1628 | 20821784 | 1            | 25.4 | 28          | 1.73        | 43.9 | 4.01       | 101.9 | NS         | Y           | Y           | Y    | Y    |

## O-Ring Face Seal (SAE J1453 ORS/ORFS)

Female | Swivel



S=Skive  
NS=Non-Skive  
DG=Dual-Grip™

| Descriptive # | Product #  | SAP #    | Hose Size ID |      | Thread Size (A) | Hex-1 Wrench Size |    | Hex-2 Wrench Size |    | Cut-Off (C) |      | Length (L) |       | Skive Type | SR13, ARC13 | SR15, ARC15 | S4SP    | S4SH    |
|---------------|------------|----------|--------------|------|-----------------|-------------------|----|-------------------|----|-------------|------|------------|-------|------------|-------------|-------------|---------|---------|
|               |            |          | in.          | mm   |                 | in.               | mm | in.               | mm | in.         | mm   | in.        | mm    |            |             |             |         |         |
| DG-OFFX-1212  | 16700-1212 | 20254278 | 3/4          | 19.0 | 1 1/16-12       | 1 1/16            | 36 | 1 3/16            | 30 | 1.57        | 40.0 | 4.67       | 118.5 | DG         | DGF1-12     | DGF1-12     | DGF1-12 | DGF1-12 |
| S6-OFFX-1212  | 30700-1212 | 20242191 | 3/4          | 19.0 | 1 3/16-12       | 1 7/16            | 36 | 1 3/16            | 30 | 1.75        | 44.5 | 4.49       | 114.0 | NS         | Y           |             |         | Y       |
| DG-OFFX-1216  | 16700-1216 | 20254279 | 3/4          | 19.0 | 1 7/16-12       | 1 5/8             | 41 | 1 7/16            | 36 | 1.69        | 43.0 | 4.80       | 121.8 | DG         | DGF1-12     | DGF1-12     | DGF1-12 | DGF1-12 |
| S6-OFFX-1216  | 30700-1216 | 20242150 | 3/4          | 19.0 | 1 7/16-12       | 1 5/8             | 41 | 1 7/16            | 36 | 1.79        | 45.5 | 4.54       | 115.3 | NS         | Y           |             |         | Y       |
| DG-OFFX-1616  | 16700-1616 | 20242458 | 1            | 25.4 | 1 7/16-12       | 1 5/8             | 41 | 1 7/16            | 36 | 1.85        | 47.0 | 5.44       | 138.3 | DG         | DGF1-16     | DGF1-16     | DGF1-16 | DGF1-16 |
| S6-OFFX-1616  | 30700-1616 | 20242139 | 1            | 25.4 | 1 7/16-12       | 1 5/8             | 41 | 1 7/16            | 36 | 1.95        | 49.5 | 5.05       | 128.3 | NS         | Y           |             |         | Y       |
| DG-OFFX-1620  | 16700-1620 | 20242366 | 1            | 25.4 | 1 11/16-12      | 2                 | 50 | 1 13/16           | 46 | 1.93        | 49.0 | 5.52       | 140.3 | DG         | DGF1-16     | DGF1-16     | DGF1-16 | DGF1-16 |
| S6-OFFX-1620  | 30700-1620 | 20242166 | 1            | 25.4 | 1 11/16-12      | 2                 | 50 | 1 5/8             | 41 | 1.91        | 48.4 | 5.01       | 127.2 | NS         | Y           |             |         | Y       |
| DG-OFFX-2020  | 16700-2020 | 20242534 | 1 1/4        | 31.8 | 1 11/16-12      | 2                 | 50 | 1 13/16           | 46 | 1.86        | 47.2 | 5.86       | 148.9 | DG         | DGF2-20     | DGF2-20     |         | DGF1-20 |
| S6-OFFX-2020  | 30700-2020 | 20577104 | 1 1/4        | 31.8 | 1 11/16-12      | 2                 | 50 | 1 5/8             | 41 | 2.20        | 56.0 | 6.55       | 166.3 | NS         | Y           |             |         | Y       |
| DG-OFFX-2424  | 16700-2424 | 20297682 | 1 1/2        | 38.1 | 1 7/8-12        | 2 3/8             | 60 | 2                 | 50 | 2.05        | 52.0 | 6.28       | 159.5 | DG         | DGF2-24     | DGF2-24     |         | DGF1-24 |
| S6-OFFX-2424  | 30700-2424 | 20297684 | 1 1/2        | 38.1 | 1 7/8-12        | 2 3/8             | 60 | 2                 | 50 | 2.46        | 62.5 | 6.36       | 161.5 | NS         | Y           |             |         |         |

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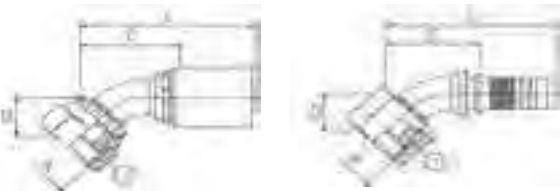
O-Ring Face Seal (SAE J1453) ORS/ORFS

Female | Swivel Continued

| Descriptive # | Product #  | SAP #    | Hose Size ID |      | Thread Size (A) | Hex-1 Wrench Size |    | Hex-2 Wrench Size |    | Cut-Off (C) |      | Length (L) |       | Skive Type | SR13, ARC13 | SR15, ARC15 | S4SP | S4SH |
|---------------|------------|----------|--------------|------|-----------------|-------------------|----|-------------------|----|-------------|------|------------|-------|------------|-------------|-------------|------|------|
|               |            |          | in.          | mm   |                 | in.               | mm | in.               | mm | in.         | mm   | in.        | mm    |            |             |             |      |      |
| SG-OFFX-0604  | 29700-0604 | 20821928 | 3/8          | 9.5  | 9/16-18         | 7/8               | 17 | 11/16             | 17 | 1.29        | 32.8 | 2.75       | 69.9  | NS         |             |             | Y    |      |
| SG-OFFX-0606  | 29700-0606 | 20758282 | 3/8          | 9.5  | 11/16-16        | 7/8               | 22 | 11/16             | 18 | 1.29        | 32.8 | 2.75       | 69.9  | NS         |             |             | Y    |      |
| SG-OFFX-0608  | 29700-0608 | 20731751 | 3/8          | 9.5  | 13/16-16        | 15/16             | 24 | 7/8               | 22 | 1.50        | 38.1 | 2.96       | 75.1  | NS         |             |             | Y    |      |
| SG-OFFX-0806  | 29700-0806 | 20821927 | 1/2          | 12.7 | 11/16-16        | 7/8               | 22 | 3/4               | 19 | 1.34        | 34.0 | 2.87       | 73.0  | NS         |             |             | Y    |      |
| SG-OFFX-0808  | 29700-0808 | 20731750 | 1/2          | 12.7 | 13/16-16        | 15/16             | 24 | 7/8               | 22 | 1.50        | 38.1 | 3.04       | 77.1  | NS         |             |             | Y    |      |
| SG-OFFX-0810  | 29700-0810 | 20731764 | 1/2          | 12.7 | 1-14            | 13/16             | 30 | 15/16             | 24 | 1.63        | 41.5 | 3.17       | 80.5  | NS         |             |             | Y    |      |
| SG-OFFX-0812  | 29700-0812 | 20731759 | 1/2          | 12.7 | 13/16-12        | 17/16             | 36 | 13/16             | 30 | 1.74        | 44.1 | 3.27       | 83.1  | NS         |             |             | Y    |      |
| SG-OFFX-1010  | 29700-1010 | 20821925 | 5/8          | 15.9 | 1-14            | 13/16             | 30 | 15/16             | 24 | 1.65        | 42.0 | 3.25       | 82.5  | NS         |             |             | Y    |      |
| SG-OFFX-1012  | 29700-1012 | 20821924 | 5/8          | 15.9 | 13/16-12        | 17/16             | 36 | 13/16             | 30 | 1.75        | 44.5 | 3.35       | 85.0  | NS         |             |             | Y    |      |
| SG-OFFX-1210  | 29700-1210 | 20821923 | 3/4          | 19.0 | 1-14            | 13/16             | 30 | 11/16             | 27 | 1.69        | 43.0 | 3.56       | 90.4  | NS         | Y           | Y           | Y    | Y    |
| SG-OFFX-1212  | 29700-1212 | 20821922 | 3/4          | 19.0 | 13/16-12        | 17/16             | 36 | 13/16             | 30 | 1.78        | 45.2 | 3.65       | 92.7  | NS         | Y           | Y           | Y    | Y    |
| SG-OFFX-1216  | 29700-1216 | 20821921 | 3/4          | 19.0 | 17/16-12        | 15/8              | 41 | 17/16             | 36 | 2.03        | 51.5 | 3.90       | 99.0  | NS         | Y           | Y           | Y    | Y    |
| SG-OFFX-1612  | 29700-1612 | 20821920 | 1            | 25.4 | 13/16-12        | 17/16             | 36 | 11/4              | 32 | 1.95        | 49.4 | 4.23       | 107.4 | NS         | Y           | Y           | Y    | Y    |
| SG-OFFX-1616  | 29700-1616 | 20821919 | 1            | 25.4 | 17/16-12        | 15/8              | 41 | 17/16             | 36 | 2.10        | 53.4 | 4.39       | 111.4 | NS         | Y           | Y           | Y    | Y    |
| SG-OFFX-1620  | 29700-1620 | 20821918 | 1            | 25.4 | 111/16-12       | 2                 | 50 | 15/8              | 41 | 1.99        | 50.5 | 4.27       | 108.5 | NS         | Y           | Y           | Y    | Y    |
| SG-OFFX-2424  | 29700-2424 | 20757721 | 11/2         | 38.1 | 17/8-12         | 23/8              | 60 | 2                 | 50 | 2.69        | 68.4 | 6.16       | 156.3 | NS         |             |             | Y    |      |

O-Ring Face Seal (SAE J1453 ORS/ORFS)

Female | 45° Elbow | Swivel



S=Skive  
NS=Non-Skive  
DG=Dual-Grip™

| Descriptive #   | Product #  | SAP #    | Hose Size ID |      | Thread Size (A) | Hex-1 Wrench Size |    | Drop (D) |      | Cut-Off (C) |       | Length (L) |       | Skive Type | SR13, ARC13 | SR15, ARC15 | S4SP    | S4SH    |
|-----------------|------------|----------|--------------|------|-----------------|-------------------|----|----------|------|-------------|-------|------------|-------|------------|-------------|-------------|---------|---------|
|                 |            |          | in.          | mm   |                 | in.               | mm | in.      | mm   | in.         | mm    | in.        | mm    |            |             |             |         |         |
| DG-OFFX45-1212  | 16710-1212 | 20254300 | 3/4          | 19.0 | 13/16-12        | 17/16             | 36 | 1.02     | 26.0 | 3.07        | 78.0  | 5.89       | 149.5 | DG         | DGF1-12     | DGF1-12     | DGF1-12 | DGF1-12 |
| S6-OFFX45-1212  | 30710-1212 | 20242251 | 3/4          | 19.0 | 13/16-12        | 17/16             | 36 | 1.02     | 26.0 | 3.19        | 81.0  | 5.73       | 145.5 | NS         | Y           |             |         | Y       |
| DG-OFFX45-1216  | 16710-1216 | 20254301 | 3/4          | 19.0 | 17/16-12        | 1%                | 41 | 1.10     | 28.0 | 2.68        | 68.0  | 5.49       | 139.5 | DG         | DGF1-12     | DGF1-12     | DGF1-12 | DGF1-12 |
| S6-OFFX45-1216  | 30710-1216 | 20242227 | 3/4          | 19.0 | 17/16-12        | 1%                | 41 | 1.10     | 28.0 | 3.19        | 81.0  | 5.65       | 143.5 | NS         | Y           |             |         | Y       |
| DG-OFFX45-1616C | 16710-1616 | 20242356 | 1            | 25.4 | 17/16-12        | 1%                | 41 | 1.10     | 28.0 | 4.49        | 114.0 | 7.80       | 198.0 | DG         | DGF1-16     | DGF1-16     | DGF1-16 | DGF1-16 |
| S6-OFFX45-1616  | 30710-1616 | 20242221 | 1            | 25.4 | 17/16-12        | 1%                | 41 | 1.10     | 28.0 | 3.70        | 94.0  | 6.52       | 165.5 | NS         | Y           |             |         | Y       |
| DG-OFFX45-2020C | 16710-2020 | 20242358 | 11/4         | 31.8 | 111/16-12       | 2                 | 50 | 1.30     | 33.0 | 3.98        | 101.0 | 7.70       | 195.5 | DG         | DGF2-20     | DGF2-20     |         | DGF1-20 |
| S6-OFFX45-2020  | 30710-2020 | 20577105 | 11/4         | 31.8 | 111/16-12       | 2                 | 50 | 1.44     | 36.5 | 4.33        | 110.0 | 8.37       | 212.5 | NS         | Y           |             |         | Y       |
| S6-OFFX45-2424  | 30710-2424 | 20424986 | 11/2         | 38.1 | 17/8-12         | 23/8              | 60 | 1.46     | 37.0 | 4.57        | 116.0 | 8.15       | 207.0 | NS         | Y           |             |         |         |

C: Crimp Nut (see "Fitting Identification" in Appendix for details)  
DG: Part listed is Dual-Grip™ style (image is Uni-Crimp™ style)

Continued on next page

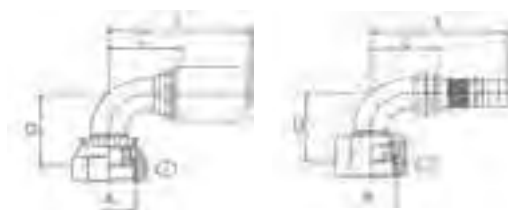
## O-Ring Face Seal (SAE J1453 ORS/ORFS)

Female | 45° Elbow | Swivel Continued

| Descriptive #  | Product #  | SAP #    | Hose Size ID |      | Thread Size (A) |        | Hex-1 Wrench Size |      | Drop (D) |      | Cut-Off (C) |      | Length (L) |    | Skive Type | SR13, ARC13 | SR15, ARC15 | S4SP | S4SH |
|----------------|------------|----------|--------------|------|-----------------|--------|-------------------|------|----------|------|-------------|------|------------|----|------------|-------------|-------------|------|------|
|                |            |          | in.          | mm   | in.             | mm     | in.               | mm   | in.      | mm   | in.         | mm   |            |    |            |             |             |      |      |
| SG-OFFX45-0606 | 29710-0606 | 20758286 | 3/8          | 9.5  | 11/16-16        | 7/8    | 22                | 0.43 | 11.0     | 1.85 | 47.0        | 3.31 | 84.0       | NS |            |             | Y           |      |      |
| SG-OFFX45-0608 | 29710-0608 | 20821917 | 3/8          | 9.5  | 13/16-16        | 15/16  | 24                | 0.59 | 15.0     | 2.01 | 51.1        | 3.47 | 88.1       | NS |            |             | Y           |      |      |
| SG-OFFX45-0808 | 29710-0808 | 20731758 | 1/2          | 12.7 | 13/16-16        | 15/16  | 24                | 0.63 | 16.0     | 1.85 | 47.0        | 3.42 | 86.9       | NS |            |             | Y           |      |      |
| SG-OFFX45-0810 | 29710-0810 | 20758300 | 1/2          | 12.7 | 1-14            | 1 3/16 | 30                | 0.63 | 16.0     | 1.97 | 50.0        | 3.51 | 89.0       | NS |            |             | Y           |      |      |
| SG-OFFX45-1010 | 29710-1010 | 20821916 | 5/8          | 15.9 | 1-14            | 1 3/16 | 30                | 0.63 | 16.0     | 1.65 | 42.0        | 3.86 | 98.0       | NS |            |             | Y           |      |      |
| SG-OFFX45-1212 | 29710-1212 | 20821915 | 3/4          | 19.0 | 1 3/16-12       | 1 7/8  | 36                | 0.83 | 21.0     | 2.56 | 64.9        | 4.43 | 112.4      | NS | Y          | Y           | Y           | Y    |      |
| SG-OFFX45-1216 | 29710-1216 | 20821914 | 3/4          | 19.0 | 1 3/16-12       | 1 5/8  | 41                | 0.95 | 24.0     | 2.80 | 71.1        | 4.67 | 118.6      | NS | Y          | Y           | Y           | Y    |      |
| SG-OFFX45-1616 | 29710-1616 | 20821913 | 1            | 25.4 | 1 7/8-12        | 1 5/8  | 41                | 1.02 | 26.0     | 3.15 | 80.0        | 5.43 | 137.9      | NS | Y          | Y           | Y           | Y    |      |
| SG-OFFX45-1620 | 29710-1620 | 20758286 | 1            | 25.4 | 1 11/16-12      | 2      | 50                | 1.26 | 32.0     | 3.35 | 85.1        | 5.63 | 143.1      | NS | Y          | Y           | Y           | Y    |      |

## O-Ring Face Seal (SAE J1453 ORS/ORFS)

Female | 90° Elbow | Swivel



Elbow Type  
LT=Long Tube  
ST=Short Tube

S=Skive  
NS=Non-Skive  
DG=Dual-Grip™

| Descriptive #               | Product #  | SAP #    | Hose Size ID |      | Thread Size (A) |       | Hex-1 Wrench Size | Elbow Type | Drop (D) |      | Cut-Off (C) |       | Length (L) |       | Skive Type | SR13, ARC13 | SR15, ARC15 | S4SP    | S4SH    |
|-----------------------------|------------|----------|--------------|------|-----------------|-------|-------------------|------------|----------|------|-------------|-------|------------|-------|------------|-------------|-------------|---------|---------|
|                             |            |          | in.          | mm   | in.             | mm    |                   |            | in.      | mm   | in.         | mm    | in.        | mm    |            |             |             |         |         |
| DG-OFFX90-1212              | 16715-1212 | 20254302 | 3/4          | 19.0 | 1 3/16-12       | 1 7/8 | 36                |            | 2.28     | 58.0 | 2.52        | 64.0  | 5.04       | 128.0 | DG         | DGF1-12     | DGF1-12     | DGF1-12 | DGF1-12 |
| S6-OFFX90-1212              | 30715-1212 | 20242238 | 3/4          | 19.0 | 1 3/16-12       | 1 7/8 | 36                |            | 2.28     | 58.0 | 2.68        | 68.0  | 4.84       | 123.0 | NS         | Y           |             |         | Y       |
| DG-OFFX90-1216              | 16715-1216 | 20254303 | 3/4          | 19.0 | 1 7/8-12        | 1 5/8 | 41                |            | 2.28     | 58.0 | 2.60        | 66.0  | 5.12       | 130.0 | DG         | DGF1-12     | DGF1-12     | DGF1-12 | DGF1-12 |
| S6-OFFX90S-1216             | 30725-1216 | 20242157 | 3/4          | 19.0 | 1 7/8-12        | 1 5/8 | 41                | ST         | 2.28     | 58.0 | 2.76        | 70.0  | 4.92       | 125.0 | NS         | Y           |             |         | Y       |
| DG-OFFX90-1616 <sup>C</sup> | 16715-1616 | 20242361 | 1            | 25.4 | 1 7/8-12        | 1 5/8 | 41                |            | 2.60     | 66.0 | 2.95        | 75.0  | 5.98       | 152.0 | DG         | DGF1-16     | DGF1-16     | DGF1-16 | DGF1-16 |
| S6-OFFX90-1616              | 30715-1616 | 20241700 | 1            | 25.4 | 1 7/8-12        | 1 5/8 | 41                |            | 2.60     | 66.0 | 3.15        | 80.0  | 5.67       | 144.0 | NS         | Y           |             |         | Y       |
| DG-OFFX90-2020 <sup>C</sup> | 16715-2020 | 20242362 | 1 1/4        | 31.8 | 1 11/16-12      | 2     | 50                |            | 3.19     | 81.0 | 3.62        | 92.0  | 7.01       | 178.0 | DG         | DGF2-20     | DGF2-20     |         | DGF1-20 |
| S6-OFFX90-2020              | 30715-2020 | 20577106 | 1 1/4        | 31.8 | 1 11/16-12      | 2     | 50                |            | 3.19     | 81.0 | 4.02        | 102.0 | 7.80       | 198.0 | NS         | Y           |             |         | Y       |
| DG-OFFX90-2424 <sup>C</sup> | 16715-2424 | 20297683 | 1 1/2        | 38.1 | 1 7/8-12        | 2 3/8 | 60                |            | 3.31     | 84.0 | 3.90        | 99.0  | 7.52       | 191.0 | DG         | DGF2-24     | DGF2-24     |         | DGF1-24 |
| S6-OFFX90-2424              | 30715-2424 | 20297685 | 1 1/2        | 38.1 | 1 7/8-12        | 2 3/8 | 60                |            | 3.80     | 96.5 | 5.12        | 130.0 | 8.39       | 213.0 | NS         | Y           |             |         |         |

C: Crimp Nut (see "Fitting Identification" in Appendix for details)

DG: Part listed is Dual-Grip™ style (image is Uni-Crimp™ style)

Continued on next page

O-Ring Face Seal  
(SAE J1453 ORS/ORFS)

Female | 90° Elbow | Swivel Continued

| Descriptive #   | Product #  | SAP #    | Hose Size ID |      | Thread Size (A) | Hex-1 Wrench Size |    | Elbow Type | Drop (D) |       | Cut-Off (C) |      | Length (L) |       | Skive Type | SR13, ARC13 | SR15, ARC15 | S4SP | S4SH |
|-----------------|------------|----------|--------------|------|-----------------|-------------------|----|------------|----------|-------|-------------|------|------------|-------|------------|-------------|-------------|------|------|
|                 |            |          | in.          | mm   |                 | in.               | mm |            | in.      | mm    | in.         | mm   | in.        | mm    |            |             |             |      |      |
| SG-OFFX90-0606  | 29715-0606 | 20731757 | 3/8          | 9.5  | 11/16-16        | 7/8               | 22 |            | 1.50     | 38.0  | 1.65        | 42.0 | 3.11       | 79.0  | NS         |             |             | Y    |      |
| SG-OFFX90L-0606 | 29720-0606 | 20731762 | 3/8          | 9.5  | 11/16-16        | 7/8               | 22 | LT         | 2.126    | 54.0  | 1.65        | 42.0 | 3.11       | 79.0  | NS         |             |             | Y    |      |
| SG-OFFX90S-0606 | 29725-0606 | 20731760 | 3/8          | 9.5  | 11/16-16        | 7/8               | 22 | ST         | 0.905    | 23.0  | 1.65        | 42.0 | 3.11       | 79.0  | NS         |             |             | Y    |      |
| SG-OFFX90-0608  | 29715-0608 | 20821911 | 3/8          | 9.5  | 13/16-16        | 15/16             | 24 |            | 1.614    | 41.0  | 1.73        | 44.0 | 3.189      | 81.0  | NS         |             |             | Y    |      |
| SG-OFFX90L-0608 | 29720-0608 | 20821904 | 3/8          | 9.5  | 13/16-16        | 15/16             | 24 | LT         | 2.52     | 64.0  | 1.85        | 47.0 |            | 84.0  | NS         |             |             | Y    |      |
| SG-OFFX90S-0608 | 29725-0608 | 20821899 | 3/8          | 9.5  | 13/16-16        | 15/16             | 24 | ST         | 1.142    | 29.0  | 1.65        | 42.0 | 3.11       | 79.0  | NS         |             |             | Y    |      |
| SG-OFFX90-0808  | 29715-0808 | 20731753 | 1/2          | 12.7 | 13/16-16        | 15/16             | 24 |            | 1.61     | 41.0  | 1.41        | 35.9 | 2.95       | 74.9  | NS         |             |             | Y    |      |
| SG-OFFX90L-0808 | 29720-0808 | 20821903 | 1/2          | 12.7 | 13/16-16        | 15/16             | 24 | LT         | 2.52     | 64.0  | 1.53        | 38.9 | 3.07       | 77.9  | NS         |             |             | Y    |      |
| SG-OFFX90S-0808 | 29725-0808 | 20731756 | 1/2          | 12.7 | 13/16-16        | 15/16             | 24 | ST         | 1.14     | 29.0  | 1.61        | 40.9 | 3.15       | 79.9  | NS         |             |             | Y    |      |
| SG-OFFX90-0810  | 29715-0810 | 20821910 | 1/2          | 12.7 | 1-14            | 13/16             | 30 |            | 1.85     | 47.0  | 1.89        | 48.0 | 3.43       | 87.0  | NS         |             |             | Y    |      |
| SG-OFFX90L-0810 | 29720-0810 | 20821902 | 1/2          | 12.7 | 1-14            | 13/16             | 30 | LT         | 2.76     | 70.0  | 1.81        | 46.0 | 3.35       | 85.0  | NS         |             |             | Y    |      |
| SG-OFFX90S-0810 | 29725-0810 | 20821898 | 1/2          | 12.7 | 1-14            | 13/16             | 30 | ST         | 1.26     | 32.0  | 1.81        | 46.0 | 3.38       | 85.9  | NS         |             |             | Y    |      |
| SG-OFFX90S-0812 | 29725-0812 | 20821897 | 1/2          | 12.7 | 13/16-12        | 17/16             | 36 | ST         | 1.89     | 48.0  | 2.48        | 62.9 | 4.01       | 101.9 | NS         |             |             | Y    |      |
| SG-OFFX90-1010  | 29715-1010 | 20821909 | 5/8          | 15.9 | 1-14            | 13/16             | 30 |            | 1.85     | 47.0  | 2.17        | 55.0 | 3.76       | 95.5  | NS         |             |             | Y    |      |
| SG-OFFX90S-1010 | 29725-1010 | 20821896 | 5/8          | 15.9 | 1-14            | 13/16             | 30 | ST         | 1.28     | 32.5  | 2.05        | 52.0 | 3.64       | 92.5  | NS         |             |             | Y    |      |
| SG-OFFX90S-1012 | 29725-1012 | 20821895 | 5/8          | 15.9 | 13/16-12        | 17/16             | 36 | ST         | 1.89     | 48.0  | 2.48        | 62.9 | 4.07       | 103.4 | NS         |             |             | Y    |      |
| SG-OFFX90S-1210 | 29725-1210 | 20821894 | 3/4          | 19.0 | 1-14            | 13/16             | 30 | ST         | 1.54     | 39.1  | 1.63        | 41.3 | 3.70       | 93.9  | NS         | Y           | Y           | Y    | Y    |
| SG-OFFX90-1212  | 29715-1212 | 20821908 | 3/4          | 19.0 | 13/16-12        | 17/16             | 36 |            | 2.28     | 58.0  | 2.52        | 63.9 | 4.39       | 111.4 | NS         | Y           | Y           | Y    | Y    |
| SG-OFFX90L-1212 | 29720-1212 | 20821901 | 3/4          | 19.0 | 13/16-12        | 17/16             | 36 | LT         | 3.78     | 96.0  | 2.52        | 63.9 | 4.39       | 111.4 | NS         | Y           | Y           | Y    | Y    |
| SG-OFFX90S-1212 | 29725-1212 | 20821893 | 3/4          | 19.0 | 13/16-12        | 17/16             | 36 | ST         | 1.89     | 48.0  | 2.48        | 62.9 | 4.35       | 110.4 | NS         | Y           | Y           | Y    | Y    |
| SG-OFFX90-1216  | 29715-1216 | 20821907 | 3/4          | 19.0 | 17/16-12        | 15/8              | 41 |            | 2.80     | 71.1  | 2.68        | 68.0 | 4.55       | 115.5 | NS         | Y           | Y           | Y    | Y    |
| SG-OFFX90S-1216 | 29725-1216 | 20821892 | 3/4          | 19.0 | 17/16-12        | 15/8              | 41 | ST         | 2.21     | 56.0  | 2.68        | 68.0 | 4.55       | 115.5 | NS         | Y           | Y           | Y    | Y    |
| SG-OFFX90-1616  | 29715-1616 | 20821906 | 1            | 25.4 | 17/16-12        | 15/8              | 41 |            | 2.80     | 71.0  | 3.13        | 79.6 | 5.42       | 137.5 | NS         | Y           | Y           | Y    | Y    |
| SG-OFFX90L-1616 | 29720-1616 | 20821900 | 1            | 25.4 | 17/16-12        | 15/8              | 41 | LT         | 4.49     | 114.0 | 3.13        | 79.5 | 5.42       | 137.5 | NS         | Y           | Y           | Y    | Y    |
| SG-OFFX90S-1616 | 29725-1616 | 20821891 | 1            | 25.4 | 17/16-12        | 15/8              | 41 | ST         | 2.26     | 57.5  | 3.13        | 79.6 | 5.42       | 137.5 | NS         | Y           | Y           | Y    | Y    |
| SG-OFFX90-1620  | 29715-1620 | 20821905 | 1            | 25.4 | 17/16-12        | 2                 | 50 |            | 3.07     | 78.0  | 3.27        | 83.0 | 5.55       | 141.0 | NS         | Y           | Y           | Y    | Y    |
| SG-OFFX90S-1620 | 29725-1620 | 20821890 | 1            | 25.4 | 17/16-12        | 2                 | 50 | ST         | 2.52     | 64.0  | 3.27        | 83.0 | 5.55       | 141.0 | NS         | Y           | Y           | Y    | Y    |

O-Ring Face Seal (SAE J1453 ORS/ORFS)

Male



S=Skive  
NS=Non-Skive  
DG=Dual-Grip™

| Descriptive # | Product #  | SAP #    | Hose Size ID |      | Thread Size (A) | Hex-1 Wrench Size |    | Cut-Off (C) |      | Length (L) |       | Skive Type | SR13, ARC13 | SR15, ARC15 | S4SP | S4SH |
|---------------|------------|----------|--------------|------|-----------------|-------------------|----|-------------|------|------------|-------|------------|-------------|-------------|------|------|
|               |            |          | in.          | mm   |                 | in.               | mm | in.         | mm   | in.        | mm    |            |             |             |      |      |
| S6-OFM-1212   | 30730-1212 | 20424990 | 3/4          | 19.0 | 13/16-12        | 11/4              | 32 | 1.42        | 36.0 | 3.62       | 92.0  | NS         | Y           |             |      | Y    |
| S6-OFM-1616   | 30730-1616 | 20424991 | 1            | 25.4 | 17/16-12        | 11/2              | 38 | 1.57        | 40.0 | 4.09       | 104.0 | NS         | Y           |             |      | Y    |
| S6-OFM-2020   | 30730-2020 | 20424992 | 11/4         | 31.8 | 111/16-12       | 113/16            | 46 | 1.75        | 44.5 | 5.51       | 140.0 | NS         | Y           |             |      | Y    |
| S6-OFM-2424   | 30730-2424 | 20424993 | 11/2         | 38.1 | 2-12            | 23/16             | 55 | 1.91        | 48.5 | 5.18       | 131.5 | NS         | Y           |             |      |      |

Continued on next page

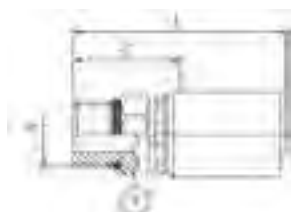
## O-Ring Face Seal (SAE J1453 ORS/ORFS)

Male Continued

| Descriptive # | Product #  | SAP #    | Hose Size ID |      | Thread Size (A) | Hex-1 Wrench Size |    | Cut-Off (C) |      | Length (L) |      | Skive Type | SR13, ARC13 | SR15, ARC15 | S4SP | S4SH |
|---------------|------------|----------|--------------|------|-----------------|-------------------|----|-------------|------|------------|------|------------|-------------|-------------|------|------|
|               |            |          | in.          | mm   |                 | in.               | mm | in.         | mm   | in.        | mm   |            |             |             |      |      |
| SG-OFM-0606   | 29730-0606 | 20758281 | 3/8          | 9.5  | 11/16-16        | 3/4               | 19 | 1.15        | 29.3 | 2.61       | 66.3 | NS         |             |             | Y    |      |
| SG-OFM-0608   | 29730-0608 | 20821889 | 3/8          | 9.5  | 13/16-16        | 7/8               | 22 | 1.15        | 29.1 | 2.60       | 66.1 | NS         |             |             | Y    |      |
| SG-OFM-0808   | 29730-0808 | 20758297 | 1/2          | 12.7 | 13/16-16        | 7/8               | 22 | 1.27        | 32.3 | 2.81       | 71.3 | NS         |             |             | Y    |      |
| SG-OFM-0810   | 29730-0810 | 20821888 | 1/2          | 12.7 | 13/16-16        | 1 1/16            | 27 | 1.29        | 32.7 | 2.83       | 71.8 | NS         |             |             | Y    |      |
| SG-OFM-0812   | 29730-0812 | 20821887 | 1/2          | 12.7 | 13/16-16        | 1 1/4             | 32 | 1.42        | 36.0 | 2.95       | 75.0 | NS         |             |             | Y    |      |
| SG-OFM-1212   | 29730-1212 | 20821886 | 3/4          | 19.0 | 1 3/16-12       | 1 1/4             | 32 | 1.48        | 37.5 | 3.35       | 85.0 | NS         | Y           | Y           | Y    | Y    |
| SG-OFM-1216   | 29730-1216 | 20821885 | 3/4          | 19.0 | 1 7/16-12       | 1 1/2             | 38 | 1.58        | 40.1 | 3.45       | 87.6 | NS         | Y           | Y           | Y    | Y    |
| SG-OFM-1616   | 29730-1616 | 20821884 | 1            | 25.4 | 1 7/16-12       | 1 1/2             | 38 | 1.64        | 41.6 | 3.92       | 99.6 | NS         | Y           | Y           | Y    | Y    |

## O-Ring Boss Straight Thread (SAE J514)

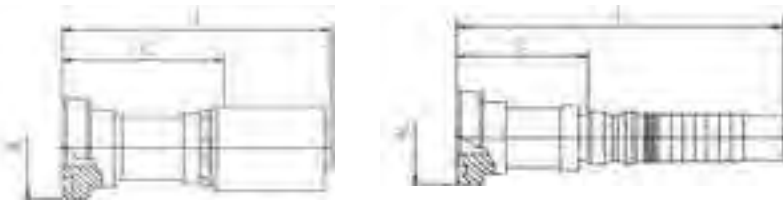
Male



S=Skive  
NS=Non-Skive  
DG=Dual-Grip™

| Descriptive # | Product #  | SAP #    | Hose Size ID |      | Thread Size (A) | Hex-1 Wrench Size |    | Cut-Off (C) |      | Length (L) |      | Skive Type | SR13, ARC13 | SR15, ARC15 | S4SP | S4SH |
|---------------|------------|----------|--------------|------|-----------------|-------------------|----|-------------|------|------------|------|------------|-------------|-------------|------|------|
|               |            |          | in.          | mm   |                 | in.               | mm | in.         | mm   | in.        | mm   |            |             |             |      |      |
| SG-OBM-0606   | 29670-0606 | 20821946 | 3/8          | 9.5  | 9/16-18         | 3/4               | 19 | 1.03        | 26.1 | 2.48       | 63.1 | NS         |             |             | Y    |      |
| SG-OBM-0608   | 29670-0608 | 20821945 | 3/8          | 9.5  | 3/4-16          | 7/8               | 22 | 1.09        | 27.6 | 2.54       | 64.6 | NS         |             |             | Y    |      |
| SG-OBM-0610   | 29670-0610 | 20821944 | 3/8          | 9.5  | 7/8-14          | 1 1/16            | 27 | 1.18        | 29.9 | 2.64       | 67.0 | NS         |             |             | Y    |      |
| SG-OBM-0808   | 29670-0808 | 20821943 | 1/2          | 12.7 | 3/4-16          | 7/8               | 22 | 1.09        | 27.6 | 2.62       | 66.6 | NS         |             |             | Y    |      |
| SG-OBM-0810   | 29670-0810 | 20821942 | 1/2          | 12.7 | 3/4-16          | 1 1/16            | 27 | 1.18        | 29.9 | 2.72       | 69.0 | NS         |             |             | Y    |      |
| SG-OBM-0812   | 29670-0812 | 20821941 | 1/2          | 12.7 | 7/8-14          | 1 1/4             | 32 | 1.34        | 34.1 | 2.88       | 73.1 | NS         |             |             | Y    |      |
| SG-OBM-1210   | 29670-1210 | 20821940 | 3/4          | 19.1 | 1 1/16-12       | 1 1/16            | 27 | 1.24        | 31.4 | 3.11       | 78.9 | NS         | Y           | Y           | Y    | Y    |
| SG-OBM-1212   | 29670-1212 | 20821939 | 3/4          | 19.1 | 3/4-16          | 1 1/4             | 32 | 1.40        | 35.6 | 3.27       | 83.1 | NS         | Y           | Y           | Y    | Y    |
| SG-OBM-1216   | 29670-1216 | 20821938 | 3/4          | 19.1 | 7/8-14          | 1 1/2             | 38 | 1.48        | 37.6 | 3.35       | 85.1 | NS         | Y           | Y           | Y    | Y    |
| SG-OBM-1616   | 29670-1616 | 20821937 | 1            | 25.4 | 1 1/16-12       | 1 1/2             | 38 | 1.54        | 39.1 | 3.83       | 97.2 | NS         | Y           | Y           | Y    | Y    |

## Code 61 Flange (SAE J518)



S=Skive  
NS=Non-Skive  
DG=Dual-Grip™

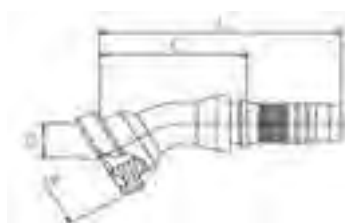
| Descriptive # | Product #  | SAP #    | Hose Size ID |      | Flange Size | Flange Diameter (A) |      | Cut-Off (C) |      | Length (L) |       | Skive Type | SR13, ARC13 | SR15, ARC15 | S4SP    | S4SH    |
|---------------|------------|----------|--------------|------|-------------|---------------------|------|-------------|------|------------|-------|------------|-------------|-------------|---------|---------|
|               |            |          | in.          | mm   |             | in.                 | mm   | in.         | mm   | in.        | mm    |            |             |             |         |         |
| DG-FL-1212    | 16320-1212 | 20242452 | 3/4          | 19.0 | 3/4         | 1.50                | 38.1 | 1.34        | 34.0 | 4.09       | 104.0 | DG         | DGF1-12     | DGF1-12     | DGF1-12 | DGF1-12 |
| S6-FL-1212    | 30320-1212 | 20307981 | 3/4          | 19.0 | 3/4         | 1.50                | 38.1 | 1.71        | 43.5 | 3.88       | 98.5  | NS         | Y           |             |         | Y       |
| DG-FL-1216    | 16320-1216 | 20242382 | 3/4          | 19.0 | 1           | 1.75                | 44.5 | 1.65        | 42.0 | 4.41       | 112.0 | DG         | DGF1-12     | DGF1-12     | DGF1-12 | DGF1-12 |
| DG-FL-1616    | 16320-1616 | 20242619 | 1            | 25.4 | 1           | 1.75                | 44.5 | 1.61        | 41.0 | 4.94       | 125.5 | DG         | DGF1-16     | DGF1-16     | DGF1-16 | DGF1-16 |
| S6-FL-1616    | 30320-1616 | 20307982 | 1            | 25.4 | 1           | 1.75                | 44.5 | 2.11        | 53.5 | 4.63       | 117.5 | NS         | Y           |             |         | Y       |
| DG-FL-1620    | 16320-1620 | 20242416 | 1            | 25.4 | 1 1/4       | 2.00                | 50.8 | 1.71        | 43.5 | 5.04       | 128.0 | DG         | DGF1-16     | DGF1-16     | DGF1-16 | DGF1-16 |
| S6-FL-1624    | 30320-1624 | 20293317 | 1            | 25.4 | 1 1/2       | 2.37                | 60.3 | 2.32        | 59.0 | 4.84       | 123.0 | NS         | Y           |             |         | Y       |
| DG-FL-2020    | 16320-2020 | 20242451 | 1 1/4        | 31.8 | 1 1/4       | 2.00                | 50.8 | 1.67        | 42.3 | 5.49       | 139.5 | DG         | DGF2-20     | DGF2-20     |         | DGF1-20 |
| S6-FL-2020    | 30320-2020 | 20577095 | 1 1/4        | 31.8 | 1 1/4       | 2.00                | 50.8 | 2.30        | 58.5 | 6.06       | 154.0 | NS         | Y           |             |         | Y       |
| DG-FL-2024    | 16320-2024 | 20242299 | 1 1/4        | 31.8 | 1 1/2       | 2.37                | 60.3 | 1.78        | 45.3 | 5.61       | 142.5 | DG         | DGF2-20     | DGF2-20     |         | DGF1-20 |
| DG-FL-2424    | 16320-2424 | 20242554 | 1 1/2        | 38.1 | 1 1/2       | 2.37                | 60.3 | 1.77        | 45.0 | 5.81       | 147.5 | DG         | DGF2-24     | DGF2-24     |         | DGF1-24 |
| S6-FL-2424    | 30320-2424 | 20307984 | 1 1/2        | 38.1 | 1 1/2       | 2.37                | 60.3 | 2.50        | 63.5 | 5.77       | 146.5 | NS         | Y           |             |         |         |
| DG-FL-2432    | 16320-2432 | 20242298 | 1 1/2        | 38.1 | 2           | 2.81                | 71.4 | 2.22        | 56.5 | 6.26       | 159.0 | DG         | DGF2-24     | DGF2-24     |         | DGF1-24 |
| S6-FL-3224    | 30320-3224 | 20788102 | 2            | 50.8 | 1 1/2       | 2.37                | 60.3 | 2.992       | 76.0 | 6.92       | 175.8 | NS         | Y           |             |         |         |
| DG-FL-3232    | 16320-3232 | 20242526 | 2            | 50.8 | 2           | 2.81                | 71.4 | 2.17        | 55.0 | 6.54       | 166.0 | DG         | DGF2-32     |             |         | DGF1-32 |
| S6-FL-3232    | 30320-3232 | 20307985 | 2            | 50.8 | 2           | 2.81                | 71.4 | 2.76        | 70.1 |            | 169.9 | NS         | Y           |             |         |         |
| S6-FL-3240    | 30320-3240 | 20788103 | 2            | 50.8 | 2 1/2       | 3.31                | 84.1 | 2.612       | 66.3 | 6.54       | 166.1 | NS         | Y           |             |         |         |

| Descriptive # | Product #  | SAP #    | Hose Size ID |      | Flange Size | Flange Diameter (A) |      | Cut-Off (C) |      | Length (L) |       | Skive Type | SR13, ARC13 | SR15, ARC15 | S4SP | S4SH |
|---------------|------------|----------|--------------|------|-------------|---------------------|------|-------------|------|------------|-------|------------|-------------|-------------|------|------|
|               |            |          | in.          | mm   |             | in.                 | mm   | in.         | mm   | in.        | mm    |            |             |             |      |      |
| SG-FL-0808    | 29320-0808 | 20822104 | 1/2          | 12.7 | 1/2         | 1.19                | 30.2 | 1.61        | 40.9 | 3.15       | 79.9  | NS         |             | Y           | Y    |      |
| SG-FL-0812    | 29320-0812 | 20822131 | 1/2          | 12.7 | 3/4         | 1.50                | 38.1 | 1.65        | 41.9 | 3.19       | 80.9  | NS         |             | Y           | Y    |      |
| SG-FL-1012    | 29320-1012 | 20822102 | 5/8          | 15.9 | 3/4         | 1.50                | 38.1 | 1.71        | 43.3 | 3.30       | 83.8  | NS         |             |             | Y    |      |
| SG-FL-1212    | 29320-1212 | 20822098 | 3/4          | 19.0 | 3/4         | 1.50                | 38.1 | 1.75        | 44.3 | 3.62       | 91.8  | NS         | Y           | Y           | Y    | Y    |
| SG-FL-1216    | 29320-1216 | 20822097 | 3/4          | 19.0 | 1           | 1.75                | 44.5 | 1.99        | 50.5 | 3.86       | 98.0  | NS         | Y           | Y           | Y    | Y    |
| SG-FL-1220    | 29320-1220 | 20822096 | 3/4          | 19.0 | 1 1/4       | 2.00                | 50.8 | 2.09        | 53.0 | 3.96       | 100.6 | NS         | Y           | Y           | Y    | Y    |
| SG-FL-1616    | 29320-1616 | 20822094 | 1            | 25.4 | 1           | 1.75                | 44.5 | 2.09        | 53.1 | 4.37       | 111.1 | NS         | Y           | Y           | Y    | Y    |
| SG-FL-1620    | 29320-1620 | 20822093 | 1            | 25.4 | 1 1/4       | 2.00                | 50.8 | 2.12        | 53.9 | 4.40       | 111.8 | NS         | Y           | Y           | Y    | Y    |
| SG-FL-1624    | 29320-1624 | 20822092 | 1            | 25.4 | 1 1/2       | 2.37                | 60.3 | 2.32        | 58.9 | 4.60       | 116.8 | NS         | Y           | Y           | Y    | Y    |
| SG-FL-2424    | 29320-2424 | 20757499 | 1 1/2        | 38.1 | 1 1/2       | 2.38                | 60.3 | 2.91        | 73.8 | 6.45       | 163.9 | NS         |             |             |      | Y    |
| SG-FL-3232    | 29320-3232 | 20833306 | 2            | 50.8 | 2           | 2.81                | 71.4 | 2.907       | 73.8 | 6.451      | 163.9 | NS         |             |             |      | Y    |



## Code 61 Flange (SAE J518)

22.5° Elbow



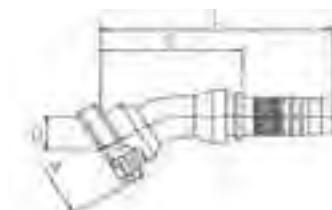
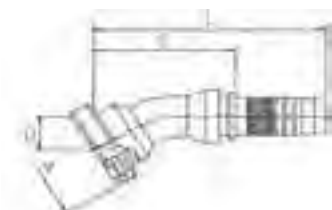
S=Skive  
NS=Non-Skive  
DG=Dual-Grip™

| Descriptive # | Product #  | SAP #    | Hose Size ID |      | Flange Size | Flange Diameter (A) |      | Drop (D) |      | Cut-Off (C) |       | Length (L) |       | Skive Type | SR13, ARC13 | SR15, ARC15 | S4SP | S4SH |
|---------------|------------|----------|--------------|------|-------------|---------------------|------|----------|------|-------------|-------|------------|-------|------------|-------------|-------------|------|------|
|               |            |          | in.          | mm   |             | in.                 | mm   | in.      | mm   | in.         | mm    | in.        | mm    |            |             |             |      |      |
| S6-FL22-3232  | 30330-3232 | 20788100 | 2            | 50.8 | 2           | 2.81                | 71.4 |          | 22.0 |             | 145.0 | 9.637      | 244.8 | NS         | Y           |             |      |      |

| Descriptive # | Product #  | SAP #    | Hose Size ID |      | Flange Size | Flange Diameter (A) |      | Drop (D) |      | Cut-Off (C) |       | Length (L) |       | Skive Type | SR13, ARC13 | SR15, ARC15 | S4SP | S4SH |
|---------------|------------|----------|--------------|------|-------------|---------------------|------|----------|------|-------------|-------|------------|-------|------------|-------------|-------------|------|------|
|               |            |          | in.          | mm   |             | in.                 | mm   | in.      | mm   | in.         | mm    | in.        | mm    |            |             |             |      |      |
| SG-FL22-0808  | 29330-0808 | 20822091 | 1/2          | 12.7 | 1/2         | 1.19                | 30.2 | 0.35     | 9.0  | 2.32        | 58.9  | 3.86       | 97.9  | NS         |             |             | Y    |      |
| SG-FL22-1212  | 29330-1212 | 20822090 | 3/4          | 19.0 | 3/4         | 1.50                | 38.1 | 0.55     | 14.0 | 3.33        | 84.5  | 5.20       | 132.0 | NS         | Y           | Y           | Y    | Y    |
| SG-FL22-1216  | 29330-1216 | 20822089 | 3/4          | 19.0 | 1           | 1.75                | 44.5 | 0.55     | 14.0 | 3.39        | 86.1  | 5.26       | 133.6 | NS         | Y           | Y           | Y    | Y    |
| SG-FL22-1616  | 29330-1616 | 20822088 | 1            | 25.4 | 1           | 1.75                | 44.5 | 0.55     | 14.0 | 4.22        | 107.1 | 6.50       | 165.1 | NS         | Y           | Y           | Y    | Y    |
| SG-FL22-1620  | 29330-1620 | 20822087 | 1            | 25.4 | 1 1/4       | 2.00                | 50.8 | 0.59     | 15.0 | 3.62        | 91.9  | 5.90       | 149.9 | NS         | Y           | Y           | Y    | Y    |

## Code 61 Flange (SAE J518)

30° Elbow



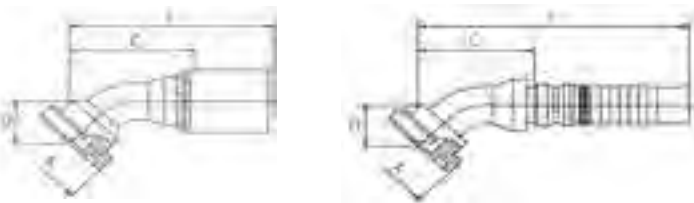
S=Skive  
NS=Non-Skive  
DG=Dual-Grip™

| Descriptive # | Product #  | SAP #    | Hose Size ID |      | Flange Size | Flange Diameter (A) |      | Drop (D) |      | Cut-Off (C) |       | Length (L) |       | Skive Type | SR13, ARC13 | SR15, ARC15 | S4SP | S4SH    |
|---------------|------------|----------|--------------|------|-------------|---------------------|------|----------|------|-------------|-------|------------|-------|------------|-------------|-------------|------|---------|
|               |            |          | in.          | mm   |             | in.                 | mm   | in.      | mm   | in.         | mm    | in.        | mm    |            |             |             |      |         |
| S6-FL30-1624  | 30335-1624 | 20293318 | 1            | 25.4 | 1 1/2       | 2.37                | 60.3 | 1.06     | 27.0 | 4.21        | 107.0 | 6.73       | 171.0 | NS         | Y           |             |      | Y       |
| DG-FL30-3232  | 16335-3232 | 20297539 | 2            | 50.8 | 2           | 2.81                | 71.4 | 1.28     | 32.5 | 5.87        | 149.0 | 9.69       | 246.0 | DG         | DGF2-32     |             |      | DGF1-32 |
| S6-FL30-3232  | 30335-3232 | 20788101 | 2            | 50.8 | 2           | 2.81                | 71.4 | 1.26     | 32.0 | 5.71        | 145.0 | 9.64       | 244.8 | NS         | Y           |             |      |         |

| Descriptive # | Product #  | SAP #    | Hose Size ID |      | Flange Size | Flange Diameter (A) |      | Drop (D) |      | Cut-Off (C) |       | Length (L) |       | Skive Type | SR13, ARC13 | SR15, ARC15 | S4SP | S4SH |
|---------------|------------|----------|--------------|------|-------------|---------------------|------|----------|------|-------------|-------|------------|-------|------------|-------------|-------------|------|------|
|               |            |          | in.          | mm   |             | in.                 | mm   | in.      | mm   | in.         | mm    | in.        | mm    |            |             |             |      |      |
| SG-FL30-1212  | 29335-1212 | 20822086 | 3/4          | 19.0 | 3/4         | 2.37                | 60.3 | 0.69     | 17.5 | 3.23        | 81.9  | 5.14       | 130.5 | NS         | Y           | Y           | Y    | Y    |
| SG-FL30-1216  | 29335-1216 | 20822085 | 3/4          | 19.0 | 1           | 1.75                | 44.5 | 0.75     | 19.0 | 3.31        | 84.1  | 5.18       | 131.6 | NS         | Y           | Y           | Y    | Y    |
| SG-FL30-1616  | 29335-1616 | 20822084 | 1            | 25.4 | 1           | 1.75                | 44.5 | 0.75     | 19.0 | 4.15        | 105.4 | 6.43       | 163.4 | NS         | Y           | Y           | Y    | Y    |
| SG-FL30-1620  | 29335-1620 | 20822083 | 1            | 25.4 | 1 1/4       | 1.25                | 2.0  | 0.87     | 22.0 | 3.54        | 89.9  | 5.82       | 147.9 | NS         | Y           | Y           | Y    | Y    |
| SG-FL30-1624  | 29335-1624 | 20822082 | 1            | 25.4 | 1 1/2       | 2.37                | 60.3 | 1.06     | 27.0 | 4.21        | 107.0 | 6.50       | 165.0 | NS         | Y           | Y           | Y    | Y    |

Code 61 Flange (SAE J518)

45° Elbow



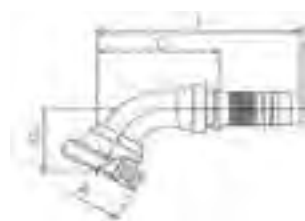
S=Skive  
NS=Non-Skive  
DG=Dual-Grip™

| Descriptive # | Product #  | SAP #    | Hose Size ID |      | Flange Size | Flange Diameter (A) |      | Drop (D) |      | Cut-Off (C) |       | Length (L) |       | Skive Type | SR13, ARC13 | SR15, ARC15 | S4SP    | S4SH    |
|---------------|------------|----------|--------------|------|-------------|---------------------|------|----------|------|-------------|-------|------------|-------|------------|-------------|-------------|---------|---------|
|               |            |          | in.          | mm   |             | in.                 | mm   | in.      | mm   | in.         | mm    | in.        | mm    |            |             |             |         |         |
| DG-FL45-1212  | 16340-1212 | 20242450 | 3/4          | 19.0 | 3/4         | 1.50                | 38.1 | 0.98     | 25.0 | 2.72        | 69.0  | 5.24       | 133.0 | DG         | DGF1-12     | DGF1-12     | DGF1-12 | DGF1-12 |
| S6-FL45-1212  | 30340-1212 | 20424972 | 3/4          | 19.0 | 3/4         | 1.50                | 38.1 | 1.10     | 28.0 | 2.80        | 71.0  | 4.96       | 126.0 | NS         | Y           |             |         | Y       |
| DG-FL45-1616  | 16340-1616 | 20242558 | 1            | 25.4 | 1           | 1.75                | 44.5 | 1.38     | 35.0 | 3.27        | 83.0  | 6.30       | 160.0 | DG         | DGF1-16     | DGF1-16     | DGF1-16 | DGF1-16 |
| S6-FL45-1616  | 30340-1616 | 20307986 | 1            | 25.4 | 1           | 1.75                | 44.5 | 1.38     | 35.0 | 3.46        | 88.0  | 5.98       | 152.0 | NS         | Y           |             |         | Y       |
| DG-FL45-1620  | 16340-1620 | 20242291 | 1            | 25.4 | 1¼          | 2.00                | 50.8 | 1.18     | 30.0 | 3.78        | 96.0  | 6.77       | 172.0 | DG         | DGF1-16     | DGF1-16     | DGF1-16 | DGF1-16 |
| DG-FL45-2020  | 16340-2020 | 20242414 | 1¼           | 31.8 | 1¼          | 2.00                | 50.8 | 1.28     | 32.5 | 3.98        | 101.0 | 7.40       | 188.0 | DG         | DGF2-20     | DGF2-20     |         | DGF1-20 |
| S6-FL45-2020  | 30340-2020 | 20568985 | 1¼           | 31.8 | 1¼          | 2.00                | 50.8 | 1.52     | 38.5 | 4.09        | 104.0 | 7.87       | 200.0 | NS         | Y           |             |         | Y       |
| DG-FL45-2024  | 16340-2024 | 20242292 | 1¼           | 31.8 | 1½          | 2.37                | 60.3 | 1.57     | 40.0 | 3.66        | 93.0  | 7.09       | 180.0 | DG         | DGF2-20     | DGF2-20     |         | DGF1-20 |
| DG-FL45-2424  | 16340-2424 | 20242449 | 1½           | 38.1 | 1½          | 2.37                | 60.3 | 1.69     | 43.0 | 4.09        | 104.0 | 7.68       | 195.0 | DG         | DGF2-24     | DGF2-24     |         | DGF1-24 |
| S6-FL45-2424  | 30340-2424 | 20307988 | 1½           | 38.1 | 1½          | 2.37                | 60.3 | 1.69     | 43.0 | 4.37        | 111.0 | 7.64       | 194.0 | NS         | Y           |             |         | Y       |
| DG-FL45-3232  | 16340-3232 | 20242294 | 2            | 50.8 | 2           | 2.81                | 71.4 | 2.13     | 54.0 | 5.43        | 138.0 | 9.25       | 235.0 | DG         | DGF2-32     |             |         | DGF1-32 |
| S6-FL45-3232  | 30340-3232 | 20788104 | 2            | 50.8 | 2           | 2.81                | 71.4 | 2.21     | 56.0 | 6.10        | 155.0 | 10.03      | 254.8 | NS         | Y           |             |         |         |

| Descriptive # | Product #  | SAP #    | Hose Size ID |      | Flange Size | Flange Diameter (A) |      | Drop (D)                      |      | Cut-Off (C) |       | Length (L) |       | Skive Type | SR13, ARC13 | SR15, ARC15 | S4SP | S4SH |
|---------------|------------|----------|--------------|------|-------------|---------------------|------|-------------------------------|------|-------------|-------|------------|-------|------------|-------------|-------------|------|------|
|               |            |          | in.          | mm   |             | in.                 | mm   | in.                           | mm   | in.         | mm    | in.        | mm    |            |             |             |      |      |
| SG-FL45-0808  | 29340-0808 | 20822081 | 3/4          | 19.0 | 3/4         | 1.50                | 38.1 | 0.98                          | 25.0 | 2.72        | 69.0  | 5.24       | 133.0 | NS         |             |             | Y    |      |
| SG-FL45-0812  | 29340-0812 | 20822080 | 3/4          | 19.0 | 3/4         | 1.50                | 38.1 | 1.10                          | 28.0 | 2.80        | 71.0  | 4.96       | 126.0 | NS         |             |             | Y    |      |
| SG-FL45-1012  | 29340-1012 | 20822079 | 1            | 25.4 | 1           | 1.75                | 44.5 | 1.38                          | 35.0 | 3.27        | 83.0  | 6.30       | 160.0 | NS         |             |             | Y    |      |
| SG-FL45-1212  | 29340-1212 | 20822078 | 1            | 25.4 | 1           | 1.75                | 44.5 | 1.38                          | 35.0 | 3.46        | 88.0  | 5.98       | 152.0 | NS         | Y           | Y           | Y    | Y    |
| SG-FL45-1216  | 29340-1216 | 20822077 | 1            | 25.4 | 1¼          | 2.00                | 50.8 | 1.18                          | 30.0 | 3.78        | 96.0  | 6.77       | 172.0 | NS         | Y           | Y           | Y    | Y    |
| SG-FL45-1616  | 29340-1616 | 20822076 | 1¼           | 31.8 | 1¼          | 2.00                | 50.8 | 1.28                          | 32.5 | 3.98        | 101.0 | 7.40       | 188.0 | NS         | Y           | Y           | Y    | Y    |
| SG-FL45-1620  | 29340-1620 | 20822075 | 1¼           | 31.8 | 1¼          | 2.00                | 50.8 | 1.52                          | 38.5 | 4.09        | 104.0 | 7.87       | 200.0 | NS         | Y           | Y           | Y    | Y    |
| SG-FL45-2424  | 29340-2424 | 20757724 | 1½           | 38.1 | 1½          | 2.38                | 60.3 | Contact Continental ContiTech |      |             |       |            |       | NS         |             |             |      | Y    |

## Code 61 Flange (SAE J518)

60° Elbow



S=Skive  
NS=Non-Skive  
DG=Dual-Grip™

| Descriptive # | Product #  | SAP #    | Hose Size ID |      | Flange Size | Flange Diameter (A) |      | Drop (D) |      | Cut-Off (C) |       | Length (L) |       | Skive Type | SR13, ARC13 | SR15, ARC15 | S4SP | S4SH |
|---------------|------------|----------|--------------|------|-------------|---------------------|------|----------|------|-------------|-------|------------|-------|------------|-------------|-------------|------|------|
|               |            |          | in.          | mm   |             | in.                 | mm   | in.      | mm   | in.         | mm    | in.        | mm    |            |             |             |      |      |
| S6-FL60-3232  | 30345-3232 | 20788105 | 2            | 50.8 | 2           | 2.81                | 71.4 | 3.268    | 83.0 |             | 145.0 | 9.637      | 244.8 | NS         | Y           |             |      |      |

| Descriptive # | Product #  | SAP #    | Hose Size ID |      | Flange Size | Flange Diameter (A) |      | Drop (D) |      | Cut-Off (C) |       | Length (L) |       | Skive Type | SR13, ARC13 | SR15, ARC15 | S4SP | S4SH |
|---------------|------------|----------|--------------|------|-------------|---------------------|------|----------|------|-------------|-------|------------|-------|------------|-------------|-------------|------|------|
|               |            |          | in.          | mm   |             | in.                 | mm   | in.      | mm   | in.         | mm    | in.        | mm    |            |             |             |      |      |
| SG-FL60-1212  | 29345-1212 | 20822074 | 3/4          | 19.0 | 3/4         | 1.50                | 38.1 | 1.46     | 37.1 | 3.47        | 88.0  | 5.34       | 135.5 | NS         | Y           | Y           | Y    | Y    |
| SG-FL60-1216  | 29345-1216 | 20822073 | 3/4          | 19.0 | 1           | 1.75                | 44.5 | 1.73     | 44.0 | 3.46        | 87.9  | 5.33       | 135.4 | NS         | Y           | Y           | Y    | Y    |
| SG-FL60-1616  | 29345-1616 | 20822072 | 1            | 25.4 | 1           | 1.75                | 44.5 | 1.73     | 44.0 | 4.15        | 105.4 | 6.43       | 163.4 | NS         | Y           | Y           | Y    | Y    |
| SG-FL60-1620  | 29345-1620 | 20822071 | 1            | 25.4 | 1¼          | 2.00                | 50.8 | 2.17     | 55.0 | 4.20        | 106.7 | 6.48       | 164.7 | NS         | Y           | Y           | Y    | Y    |

## Code 61 Flange (SAE J518)

67° Elbow



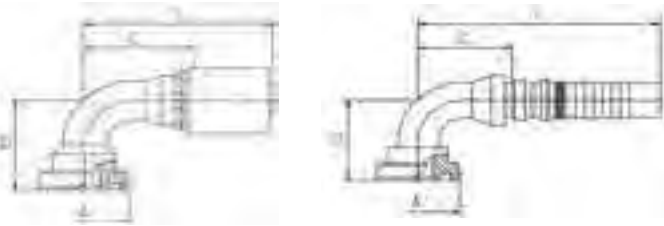
S=Skive  
NS=Non-Skive  
DG=Dual-Grip™

| Descriptive # | Product #  | SAP #    | Hose Size ID |      | Flange Size | Flange Diameter (A) |      | Drop (D) |      | Cut-Off (C) |       | Length (L) |       | Skive Type | SR13, ARC13 | SR15, ARC15 | S4SP | S4SH |
|---------------|------------|----------|--------------|------|-------------|---------------------|------|----------|------|-------------|-------|------------|-------|------------|-------------|-------------|------|------|
|               |            |          | in.          | mm   |             | in.                 | mm   | in.      | mm   | in.         | mm    | in.        | mm    |            |             |             |      |      |
| S6-FL67-1212  | 30347-1212 | 20293319 | 3/4          | 19.0 | 3/4         | 1.50                | 38.1 | 1.79     | 45.5 | 3.19        | 81.0  | 5.35       | 136.0 | NS         | Y           |             |      | Y    |
| S6-FL67-1616  | 30347-1616 | 20293320 | 1            | 25.4 | 1           | 1.75                | 44.5 | 1.89     | 48.0 | 3.56        | 90.5  | 6.08       | 154.5 | NS         | Y           |             |      | Y    |
| S6-FL67-2020  | 30347-2020 | 20577097 | 1¼           | 31.8 | 1¼          | 2.00                | 50.8 | 2.34     | 59.5 | 5.12        | 130.0 | 8.11       | 206.0 | NS         | Y           |             |      | Y    |
| S6-FL67-3232  | 30347-3232 | 20293322 | 2            | 50.8 | 2           | 2.81                | 71.4 | 3.819    | 97.0 | 6.30        | 160.0 | 10.23      | 259.8 | NS         | Y           |             |      |      |

| Descriptive # | Product #  | SAP #    | Hose<br>Size ID | Flange<br>Size | Flange<br>Diameter (A) | Drop (D) | Cut-Off (C) | Length (L) | Skive<br>Type | SR13,<br>ARC13 | SR15,<br>ARC15 | S4SP | S4SH  |    |   |   |   |   |
|---------------|------------|----------|-----------------|----------------|------------------------|----------|-------------|------------|---------------|----------------|----------------|------|-------|----|---|---|---|---|
|               |            |          | in.             | mm             | in.                    | mm       | in.         | mm         | in.           | mm             | in.            | mm   |       |    |   |   |   |   |
| SG-FL67-1212  | 29347-1212 | 20822070 | 3/4             | 19.0           | 3/4                    | 1.50     | 38.1        | 1.65       | 42.0          | 3.17           | 80.4           | 5.04 | 127.9 | NS | Y | Y | Y | Y |
| SG-FL67-1216  | 29347-1216 | 20822069 | 3/4             | 19.0           | 1                      | 1.75     | 44.5        | 2.01       | 51.0          | 3.46           | 87.9           | 5.33 | 135.4 | NS | Y | Y | Y | Y |
| SG-FL67-1616  | 29347-1616 | 20822068 | 1               | 25.4           | 1                      | 1.75     | 44.5        | 2.40       | 61.0          | 3.84           | 97.6           | 6.13 | 155.6 | NS | Y | Y | Y | Y |
| SG-FL67-1620  | 29347-1620 | 20822067 | 1               | 25.4           | 1¼                     | 2.00     | 50.8        | 2.52       | 64.0          | 3.88           | 98.6           | 6.16 | 156.5 | NS | Y | Y | Y | Y |

Code 61 Flange (SAE J518)

90° Elbow



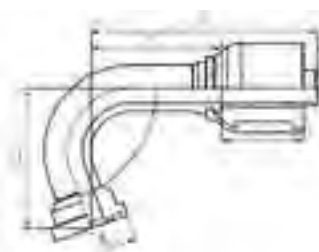
S=Skive  
NS=Non-Skive  
DG=Dual-Grip™

| Descriptive # | Product #  | SAP #    | Hose Size ID |      | Flange Size | Flange Diameter (A) |      | Drop (D) |       | Cut-Off (C) |       | Length (L) |       | Skive Type | SR13, ARC13 | SR15, ARC15 | S4SP    | S4SH    |
|---------------|------------|----------|--------------|------|-------------|---------------------|------|----------|-------|-------------|-------|------------|-------|------------|-------------|-------------|---------|---------|
|               |            |          | in.          | mm   |             | in.                 | mm   | in.      | mm    | in.         | mm    | in.        | mm    |            |             |             |         |         |
| DG-FL90-1212  | 16350-1212 | 20242486 | 3/4          | 19.0 | 3/4         | 1.50                | 38.1 | 2.17     | 55.0  | 2.48        | 63.0  | 5.00       | 127.0 | DG         | DGF1-12     | DGF1-12     | DGF1-12 | DGF1-12 |
| S6-FL90-1212  | 30350-1212 | 20307989 | 3/4          | 19.0 | 3/4         | 1.50                | 38.1 | 2.28     | 58.0  | 2.56        | 65.0  | 4.72       | 120.0 | NS         | Y           |             |         | Y       |
| DG-FL90-1216  | 16350-1216 | 20242297 | 3/4          | 19.0 | 1           | 1.75                | 44.5 | 2.32     | 59.0  | 2.52        | 64.0  | 5.04       | 128.0 | DG         | DGF1-12     | DGF1-12     | DGF1-12 | DGF1-12 |
| S6-FL90-1612  | 30350-1612 | 20293323 | 1            | 25.4 | 3/4         | 1.50                | 38.1 | 2.17     | 55.0  | 2.72        | 69.0  | 5.24       | 133.0 | NS         | Y           |             |         | Y       |
| DG-FL90-1616  | 16350-1616 | 20242603 | 1            | 25.4 | 1           | 1.75                | 44.5 | 2.52     | 64.0  | 2.83        | 72.0  | 5.87       | 149.0 | DG         | DGF1-16     | DGF1-16     | DGF1-16 | DGF1-16 |
| S6-FL90-1616  | 30350-1616 | 20308020 | 1            | 25.4 | 1           | 1.75                | 44.5 | 2.52     | 64.0  | 3.07        | 78.0  | 5.59       | 142.0 | NS         | Y           |             |         | Y       |
| DG-FL90-1620  | 16350-1620 | 20242295 | 1            | 25.4 | 1¼          | 2.00                | 50.8 | 2.72     | 69.0  | 2.76        | 70.0  | 5.79       | 147.0 | DG         | DGF1-16     | DGF1-16     | DGF1-16 | DGF1-16 |
| S6-FL90-1624  | 30350-1624 | 20293324 | 1            | 25.4 | 1½          | 2.37                | 60.3 | 2.95     | 75.0  | 3.74        | 95.0  | 6.26       | 159.0 | NS         | Y           |             |         | Y       |
| DG-FL90-2020  | 16350-2020 | 20242415 | 1¼           | 31.8 | 1¼          | 2.00                | 50.8 | 3.19     | 81.0  | 3.39        | 86.0  | 6.81       | 173.0 | DG         | DGF2-20     | DGF2-20     |         | DGF1-20 |
| S6-FL90-2020  | 30350-2020 | 20577098 | 1¼           | 31.8 | 1¼          | 2.00                | 50.8 | 3.19     | 81.0  | 3.62        | 92.0  | 7.36       | 187.0 | NS         | Y           |             |         | Y       |
| DG-FL90-2024  | 16350-2024 | 20242296 | 1¼           | 31.8 | 1½          | 2.37                | 60.3 | 3.35     | 85.0  | 3.19        | 81.0  | 6.61       | 168.0 | DG         | DGF2-20     | DGF2-20     |         | DGF1-20 |
| DG-FL90-2424  | 16350-2424 | 20242524 | 1½           | 38.1 | 1½          | 2.37                | 60.3 | 3.66     | 93.0  | 3.78        | 96.0  | 7.36       | 187.0 | DG         | DGF2-24     | DGF2-24     |         | DGF1-24 |
| S6-FL90-2424  | 30350-2424 | 20308022 | 1½           | 38.1 | 1½          | 2.37                | 60.3 | 3.66     | 93.0  | 4.06        | 103.0 | 7.32       | 186.0 | NS         | Y           |             |         |         |
| DG-FL90-3232  | 16350-3232 | 20242525 | 2            | 50.8 | 2           | 2.81                | 71.4 | 5.12     | 130.0 | 5.28        | 134.0 | 9.09       | 231.0 | DG         | DGF2-32     |             |         | DGF1-32 |
| S6-FL90-3232  | 30350-3232 | 20308023 | 2            | 50.8 | 2           | 2.81                | 71.4 | 5.433    | 138.0 | 5.71        | 145.0 | 9.639      | 168.6 | NS         | Y           |             |         |         |

| Descriptive # | Product #  | SAP #    | Hose Size ID |      | Flange Size | Flange Diameter (A) |      | Drop (D)                      |      | Cut-Off (C) |      | Length (L) |       | Skive Type | SR13, ARC13 | SR15, ARC15 | S4SP | S4SH |
|---------------|------------|----------|--------------|------|-------------|---------------------|------|-------------------------------|------|-------------|------|------------|-------|------------|-------------|-------------|------|------|
|               |            |          | in.          | mm   |             | in.                 | mm   | in.                           | mm   | in.         | mm   | in.        | mm    |            |             |             |      |      |
| SG-FL90-0808  | 29350-0808 | 20758301 | 1/2          | 12.7 | 1/2         | 1.19                | 30.2 | 1.634                         | 41.5 | 1.89        | 48.0 | 3.43       | 87.0  | NS         |             |             | Y    |      |
| SG-FL90-0812  | 29350-0812 | 20822066 | 1/2          | 12.7 | 3/4         | 1.50                | 38.1 | 2.284                         | 55.0 | 1.89        | 63.0 | 3.43       | 127.0 | NS         |             |             | Y    |      |
| SG-FL90-1212  | 29350-1212 | 20822065 | 3/4          | 19.0 | 3/4         | 1.50                | 38.1 | 2.284                         | 58.0 | 2.36        | 65.0 | 4.23       | 112.5 | NS         | Y           | Y           | Y    | Y    |
| SG-FL90-1216  | 29350-1216 | 20822064 | 3/4          | 19.0 | 1           | 1.75                | 44.5 | 2.756                         | 59.0 | 2.60        | 64.0 | 2.60       | 128.0 | NS         | Y           | Y           | Y    | Y    |
| SG-FL90L-1216 | 29352-1216 | 20822059 | 3/4          | 19.0 | 1           | 1.75                | 38.1 | 6.063                         | 55.0 | 2.60        | 69.0 | 4.47       | 133.0 | NS         | Y           | Y           | Y    | Y    |
| SG-FL90-1612  | 29350-1612 | 20822063 | 1            | 25.4 | 3/4         | 1.50                | 38.1 | 2.284                         | 58.0 | 2.63        | 66.7 | 4.908      | 124.7 | NS         | Y           | Y           | Y    | Y    |
| SG-FL90-1616  | 29350-1616 | 20822062 | 1            | 25.4 | 1           | 1.75                | 44.5 | 2.76                          | 64.0 | 2.97        | 72.0 | 5.25       | 149.0 | NS         | Y           | Y           | Y    | Y    |
| SG-FL90L-1616 | 29352-1616 | 20822058 | 1            | 25.4 | 1           | 1.75                | 44.5 | 6.063                         | 64.0 | 3.97        | 78.0 | 6.25       | 142.0 | NS         | Y           | Y           | Y    | Y    |
| SG-FL90-1620  | 29350-1620 | 20822061 | 1            | 25.4 | 1¼          | 2.00                | 50.8 | 3.543                         | 90.0 | 3.07        | 78.0 | 5.353      | 136.0 | NS         | Y           | Y           | Y    | Y    |
| SG-FL90-1624  | 29350-1624 | 20822060 | 1            | 25.4 | 1½          | 2.38                | 44.5 | 2.953                         | 64.0 | 3.74        | 78.0 | 6.023      | 142.0 | NS         | Y           | Y           | Y    | Y    |
| SG-FL90-2424  | 29350-2424 | 20757723 | 1½           | 38.1 | 1½          | 2.38                | 44.5 | Contact Continental ContiTech |      |             |      |            |       | NS         |             |             |      | Y    |

## Code 61 Flange (SAE J518)

110° Elbow



S=Skive  
NS=Non-Skive  
DG=Dual-Grip™

| Descriptive # | Product #  | SAP #    | Hose Size ID |      | Flange Size | Flange Diameter (A) |      | Drop (D) |      | Cut-Off (C) |      | Length (L) |       | Skive Type | SR13, ARC13 | SR15, ARC15 | S4SP | S4SH |
|---------------|------------|----------|--------------|------|-------------|---------------------|------|----------|------|-------------|------|------------|-------|------------|-------------|-------------|------|------|
|               |            |          | in.          | mm   |             | in.                 | mm   | in.      | mm   | in.         | mm   | in.        | mm    |            |             |             |      |      |
| SG-FL110-1212 | 29354-1212 | 20822101 | 3/4          | 19.0 | 3/4         | 1.50                | 38.1 | 2.76     | 70.1 | 2.52        | 63.9 | 4.39       | 111.4 | NS         | Y           | Y           | Y    | Y    |
| SG-FL110-1216 | 29354-1216 | 20822100 | 3/4          | 19.0 | 1           | 1.75                | 44.5 | 2.91     | 73.9 | 2.25        | 57.2 | 4.12       | 104.6 | NS         | Y           | Y           | Y    | Y    |
| SG-FL110-1616 | 29354-1616 | 20822099 | 1            | 25.4 | 1           | 1.75                | 44.5 | 3.11     | 79.0 | 3.81        | 96.8 | 6.09       | 154.8 | NS         | Y           | Y           | Y    | Y    |

## Code 61 Flange (SAE J518)

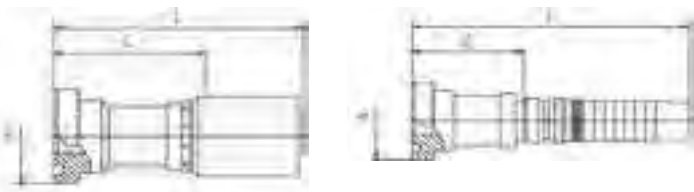
135° Elbow



S=Skive  
NS=Non-Skive  
DG=Dual-Grip™

| Descriptive # | Product #  | SAP #    | Hose Size ID |      | Flange Size | Flange Diameter (A) |      | Drop (D) |      | Cut-Off (C) |      | Length (L) |       | Skive Type | SR13, ARC13 | SR15, ARC15 | S4SP | S4SH |
|---------------|------------|----------|--------------|------|-------------|---------------------|------|----------|------|-------------|------|------------|-------|------------|-------------|-------------|------|------|
|               |            |          | in.          | mm   |             | in.                 | mm   | in.      | mm   | in.         | mm   | in.        | mm    |            |             |             |      |      |
| SG-FL135-1212 | 29355-1212 | 20822095 | 3/4          | 19.0 | 3/4         | 1.50                | 38.1 | 3.15     | 80.0 | 2.83        | 71.8 | 4.70       | 119.3 | NS         | Y           | Y           | Y    | Y    |

Code 62 Flange (SAE J518)



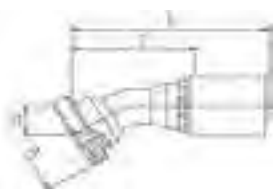
S=Skive  
NS=Non-Skive  
DG=Dual-Grip™

| Descriptive # | Product #  | SAP #    | Hose Size ID |      | Flange Size | Flange Diameter (A) |      | Cut-Off (C) |      | Length (L) |       | Skive Type | SR13, ARC13 | SR15, ARC15 | S4SP    | S4SH    |
|---------------|------------|----------|--------------|------|-------------|---------------------|------|-------------|------|------------|-------|------------|-------------|-------------|---------|---------|
|               |            |          | in.          | mm   |             | in.                 | mm   | in.         | mm   | in.        | mm    |            |             |             |         |         |
| DG-FH-1212    | 16300-1212 | 20254304 | 3/4          | 19.0 | 3/4         | 1.63                | 41.3 | 1.73        | 44.0 | 4.49       | 114.0 | DG         | DGF1-12     | DGF1-12     | DGF1-12 | DGF1-12 |
| S6-FH-1212    | 30300-1212 | 20241742 | 3/4          | 19.0 | 3/4         | 1.63                | 41.3 | 2.11        | 53.5 | 4.27       | 108.5 | NS         | Y           |             |         | Y       |
| DG-FH-1216    | 16300-1216 | 20254305 | 3/4          | 19.0 | 1           | 1.87                | 47.6 | 1.85        | 47.0 | 4.61       | 117.0 | DG         | DGF1-12     | DGF1-12     | DGF1-12 | DGF1-12 |
| S6-FH-1216    | 30300-1216 | 20241746 | 3/4          | 19.0 | 1           | 1.87                | 47.6 | 2.22        | 56.5 | 4.39       | 111.5 | NS         | Y           |             |         | Y       |
| S6-FH-1612    | 30300-1612 | 20293325 | 1            | 25.4 | 3/4         | 1.63                | 41.3 | 2.30        | 58.5 | 4.82       | 122.5 | NS         | Y           |             |         | Y       |
| DG-FH-1616    | 16300-1616 | 20242528 | 1            | 25.4 | 1           | 1.87                | 47.6 | 1.81        | 46.0 | 5.14       | 130.5 | DG         | DGF1-16     | DGF1-16     | DGF1-16 | DGF1-16 |
| S6-FH-1616    | 30300-1616 | 20241219 | 1            | 25.4 | 1           | 1.87                | 47.6 | 2.30        | 58.5 | 4.82       | 122.5 | NS         | Y           |             |         | Y       |
| DG-FH-1620    | 16300-1620 | 20242307 | 1            | 25.4 | 1 1/4       | 2.13                | 54.0 | 2.09        | 53.0 | 5.41       | 137.5 | DG         | DGF1-16     | DGF1-16     | DGF1-16 | DGF1-16 |
| S6-FH-1620    | 30300-1620 | 20241736 | 1            | 25.4 | 1 1/4       | 2.13                | 54.0 | 2.58        | 65.5 | 5.10       | 129.5 | NS         | Y           |             |         | Y       |
| DG-FH-2016    | 16300-2016 | 20242797 | 1 1/4        | 31.8 | 1           | 1.87                | 47.6 | 2.75        | 69.8 | 6.57       | 167.0 | DG         | DGF2-20     | DGF2-20     |         | DGF1-20 |
| DG-FH-2020    | 16300-2020 | 20242309 | 1 1/4        | 31.8 | 1 1/4       | 2.13                | 54.0 | 2.04        | 51.8 | 5.87       | 149.0 | DG         | DGF2-20     | DGF2-20     |         | DGF1-20 |
| S6-FH-2020    | 30300-2020 | 20577082 | 1 1/4        | 31.8 | 1 1/4       | 2.13                | 54.0 | 2.52        | 64.0 | 6.28       | 159.5 | NS         | Y           |             |         | Y       |
| DG-FH-2024    | 16300-2024 | 20254306 | 1 1/4        | 31.8 | 1 1/2       | 2.50                | 63.5 | 2.28        | 57.8 | 6.10       | 155.0 | DG         | DGF2-20     | DGF2-20     |         | DGF1-20 |
| S6-FH-2024    | 30300-2024 | 20577083 | 1 1/4        | 31.8 | 1 1/2       | 2.50                | 63.5 | 2.91        | 74.0 | 6.67       | 169.5 | NS         | Y           |             |         | Y       |
| DG-FH-2424    | 16300-2424 | 20242308 | 1 1/2        | 38.1 | 1 1/2       | 2.50                | 63.5 | 2.26        | 57.5 | 6.30       | 160.0 | DG         | DGF2-24     | DGF2-24     |         | DGF1-24 |
| S6-FH-2424    | 30300-2424 | 20241758 | 1 1/2        | 38.1 | 1 1/2       | 2.50                | 63.5 | 2.99        | 76.0 | 6.26       | 159.0 | NS         | Y           |             |         |         |
| DG-FH-2432    | 16300-2432 | 20242796 | 1 1/2        | 38.1 | 2           | 3.13                | 79.4 | 2.74        | 69.5 | 6.77       | 172.0 | DG         | DGF2-24     | DGF2-24     |         | DGF1-24 |
| S6-FH-2432    | 30300-2432 | 20241756 | 1 1/2        | 38.1 | 2           | 3.13                | 79.4 | 3.46        | 88.0 | 6.73       | 171.0 | NS         | Y           |             |         |         |
| S6-FH-3224    | 30300-3224 | 20788098 | 2            | 50.8 | 1 1/2       | 2.50                | 63.5 | 2.99        | 76.0 | 6.92       | 175.8 | NS         | Y           |             |         |         |
| DG-FH-3232    | 16300-3232 | 20254307 | 2            | 50.8 | 2           | 3.13                | 79.4 | 2.87        | 73.0 | 7.24       | 184.0 | DG         | DGF2-32     |             |         | DGF1-32 |
| S6-FH-3232    | 30300-3232 | 20241748 | 2            | 50.8 | 2           | 3.13                | 79.4 | 2.87        | 73.0 | 7.24       | 184.0 | DG         | Y           |             |         |         |

| Descriptive # | Product #  | SAP #    | Hose Size ID |      | Flange Size | Flange Diameter (A) |      | Cut-Off (C)                   |       | Length (L) |       | Skive Type | SR13, ARC13 | SR15, ARC15 | S4SP | S4SH |
|---------------|------------|----------|--------------|------|-------------|---------------------|------|-------------------------------|-------|------------|-------|------------|-------------|-------------|------|------|
|               |            |          | in.          | mm   |             | in.                 | mm   | in.                           | mm    | in.        | mm    |            |             |             |      |      |
| SG-FH-0808    | 29300-0808 | 20822132 | 1/2          | 12.7 | 1/2         | 1.25                | 31.8 | 1.88                          | 47.7  | 3.41       | 86.7  | NS         |             |             | Y    |      |
| SG-FH-0812    | 29300-0812 | 20822131 | 1/2          | 12.7 | 3/4         | 1.63                | 41.3 | 2.08                          | 52.8  | 3.62       | 91.8  | NS         |             |             | Y    |      |
| SG-FH-1212    | 29300-1212 | 20822130 | 3/4          | 19.0 | 3/4         | 1.63                | 41.3 | 2.15                          | 54.5  | 4.02       | 102.0 | NS         | Y           | Y           | Y    | Y    |
| SG-FH-1216    | 29300-1216 | 20822129 | 3/4          | 19.0 | 1           | 1.88                | 47.6 | 2.24                          | 56.8  | 4.11       | 104.3 | NS         | Y           | Y           | Y    | Y    |
| SG-FH-1612    | 29300-1612 | 20822128 | 1            | 25.4 | 3/4         | 1.63                | 41.3 | 2.30                          | 58.4  | 4.58       | 116.4 | NS         | Y           | Y           | Y    | Y    |
| SG-FH-1616    | 29300-1616 | 20822127 | 1            | 25.4 | 1           | 1.88                | 47.6 | 2.28                          | 58.0  | 4.57       | 116.0 | NS         | Y           | Y           | Y    | Y    |
| SG-FH-1620    | 29300-1620 | 20822126 | 1            | 25.4 | 1 1/4       | 2.13                | 54.0 | 2.58                          | 65.5  | 4.86       | 123.5 | NS         | Y           | Y           | Y    | Y    |
| SG-FH-2424    | 29300-2424 | 20757743 | 1 1/2        | 38.1 | 1 1/2       | 2.50                | 63.5 | 2.99                          | 76.0  | 6.46       | 164.0 | NS         |             |             |      | Y    |
| SG-FH-2432    | 29320-2432 | 20757726 | 1 1/2        | 38.1 | 2           | 3.13                | 79.4 | Contact Continental ContiTech |       |            |       | NS         |             |             |      | Y    |
| SG-FH-3232    | 29300-3232 | 20833307 | 1            | 25.4 | 2           | 3.13                | 79.4 | 5.19                          | 131.9 | 8.74       | 221.9 | NS         |             |             |      | Y    |

## Code 62 Flange (SAE J518)

22.5° Elbow



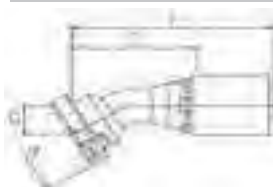
S=Skive  
NS=Non-Skive  
DG=Dual-Grip™

| Descriptive # | Product #  | SAP #    | Hose Size ID |      | Flange Size | Flange Diameter (A) |      | Drop (D) |      | Cut-Off (C) |       | Length (L) |       | Skive Type | SR13, ARC13 | SR15, ARC15 | S4SP | S4SH |
|---------------|------------|----------|--------------|------|-------------|---------------------|------|----------|------|-------------|-------|------------|-------|------------|-------------|-------------|------|------|
|               |            |          | in.          | mm   |             | in.                 | mm   | in.      | mm   | in.         | mm    | in.        | mm    |            |             |             |      |      |
| S6-FH22-1216  | 30303-1216 | 20293326 | 3/4          | 19.0 | 1           | 1.87                | 47.6 | 0.59     | 15.0 | 3.52        | 89.5  | 5.69       | 144.5 | NS         | Y           |             |      | Y    |
| S6-FH22-1616  | 30303-1616 | 20293327 | 1            | 25.4 | 1           | 1.87                | 47.6 | 0.61     | 15.5 | 4.29        | 109.0 | 6.81       | 173.0 | NS         | Y           |             |      | Y    |
| S6-FH22-2020  | 30303-2020 | 20577084 | 1¼           | 31.8 | 1¼          | 2.13                | 54.0 | 0.73     | 18.5 | 4.57        | 116.0 | 7.56       | 192.0 | NS         | Y           |             |      | Y    |
| S6-FH22-2024  | 30303-2024 | 20577085 | 1¼           | 31.8 | 1½          | 2.50                | 63.5 | 0.85     | 21.5 | 5.18        | 131.5 | 8.17       | 207.5 | NS         | Y           |             |      | Y    |
| S6-FH22-3232  | 30303-3232 | 20788097 | 2            | 50.2 | 2           | 3.13                | 79.4 | 0.98     | 25.0 | 5.71        | 145.0 | 9.39       | 238.4 | NS         | Y           |             |      |      |

| Descriptive # | Product #  | SAP #    | Hose Size ID |      | Flange Size | Flange Diameter (A) |      | Drop (D) |      | Cut-Off (C) |      | Length (L) |      | Skive Type | SR13, ARC13 | SR15, ARC15 | S4SP | S4SH |
|---------------|------------|----------|--------------|------|-------------|---------------------|------|----------|------|-------------|------|------------|------|------------|-------------|-------------|------|------|
|               |            |          | in.          | mm   |             | in.                 | mm   | in.      | mm   | in.         | mm   | in.        | mm   |            |             |             |      |      |
| SG-FH22-1212  | 29303-1212 | 20822125 | 3/4          | 19.0 | 3/4         | 1.63                | 41.3 | 0.55     | 41.3 | 3.33        | 41.3 | 5.20       | 41.3 | NS         | Y           | Y           | Y    | Y    |
| SG-FH22-1216  | 29303-1216 | 20822124 | 3/4          | 19.0 | 1           | 1.88                | 41.3 | 0.59     | 41.3 | 3.39        | 41.3 | 5.26       | 41.3 | NS         | Y           | Y           | Y    | Y    |
| SG-FH22-1616  | 29303-1616 | 20822123 | 1            | 25.4 | 1           | 1.88                | 41.3 | 0.55     | 41.3 | 4.22        | 41.3 | 6.50       | 41.3 | NS         | Y           | Y           | Y    | Y    |

## Code 62 Flange (SAE J518)

30° Elbow



S=Skive  
NS=Non-Skive  
DG=Dual-Grip™

| Descriptive # | Product #  | SAP #    | Hose Size ID |      | Flange Size | Flange Diameter (A) |      | Drop (D) |      | Cut-Off (C) |       | Length (L) |       | Skive Type | SR13, ARC13 | SR15, ARC15 | S4SP | S4SH |
|---------------|------------|----------|--------------|------|-------------|---------------------|------|----------|------|-------------|-------|------------|-------|------------|-------------|-------------|------|------|
|               |            |          | in.          | mm   |             | in.                 | mm   | in.      | mm   | in.         | mm    | in.        | mm    |            |             |             |      |      |
| S6-FH30-1212  | 30305-1212 | 20293330 | 3/4          | 19.0 | 3/4         | 1.63                | 41.3 | 0.75     | 19.0 | 3.23        | 82.0  | 5.39       | 137.0 | NS         | Y           |             |      | Y    |
| S6-FH30-1616  | 30305-1616 | 20293331 | 1            | 25.4 | 1           | 1.87                | 47.6 | 0.96     | 24.5 | 4.17        | 106.0 | 6.69       | 170.0 | NS         | Y           |             |      | Y    |
| S6-FH30-2020  | 30305-2020 | 20577086 | 1¼           | 31.8 | 1¼          | 2.13                | 54.0 | 1.00     | 25.5 | 4.43        | 112.5 | 7.42       | 188.5 | NS         | Y           |             |      | Y    |
| S6-FH30-2024  | 30305-2024 | 20577087 | 1¼           | 31.8 | 1½          | 2.50                | 63.5 | 1.18     | 30.0 | 5.04        | 128.0 | 8.03       | 204.0 | NS         | Y           |             |      | Y    |
| S6-FH30-2424  | 30305-2424 | 20293334 | 1½           | 38.1 | 1½          | 2.50                | 63.5 | 1.16     | 29.5 | 6.06        | 154.0 | 9.33       | 237.0 | NS         | Y           |             |      |      |
| S6-FH30-3232  | 30305-3232 | 20293335 | 2            | 50.8 | 2           | 3.13                | 79.4 | 1.32     | 33.5 | 5.71        | 145.0 | 9.36       | 237.6 | NS         | Y           |             |      |      |

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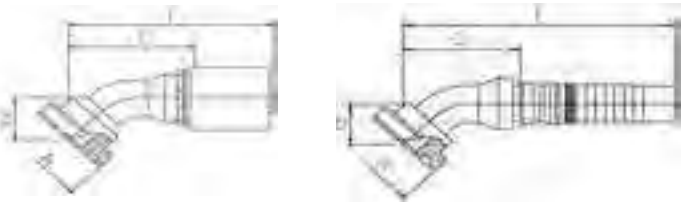
Code 62 Flange (SAE J518)

30° Elbow Continued

| Descriptive # | Product #  | SAP #    | Hose Size ID |      | Flange Size | Flange Diameter (A) |      | Drop (D)                      |      | Cut-Off (C) |       | Length (L) |       | Skive Type | SR13, ARC13 | SR15, ARC15 | S4SP | S4SH |
|---------------|------------|----------|--------------|------|-------------|---------------------|------|-------------------------------|------|-------------|-------|------------|-------|------------|-------------|-------------|------|------|
|               |            |          | in.          | mm   |             | in.                 | mm   | in.                           | mm   | in.         | mm    | in.        | mm    |            |             |             |      |      |
| SG-FH30-1212  | 29305-1212 | 20822122 | 3/4          | 19.0 | 3/4         | 1.63                | 41.3 | 0.73                          | 18.5 | 3.27        | 83.0  | 5.14       | 130.5 | NS         | Y           | Y           | Y    | Y    |
| SG-FH30-1616  | 29305-1616 | 20822121 | 1            | 25.4 | 1           | 1.87                | 47.6 | 0.75                          | 19.0 | 4.15        | 105.4 | 6.43       | 163.4 | NS         | Y           | Y           | Y    | Y    |
| SG-FH30-2424  | 29305-2424 | 20757730 | 1½           | 38.1 | 1½          | 2.50                | 63.5 | Contact Continental ContiTech |      |             |       |            |       | NS         |             |             | Y    |      |

Code 62 Flange (SAE J518)

45° Elbow



S=Skive  
NS=Non-Skive  
DG=Dual-Grip™

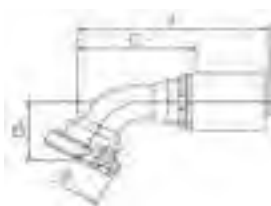
| Descriptive # | Product #  | SAP #    | Hose Size ID |      | Flange Size | Flange Diameter (A) |      | Drop (D) |      | Cut-Off (C) |       | Length (L) |       | Skive Type | SR13, ARC13 | SR15, ARC15 | S4SP    | S4SH    |
|---------------|------------|----------|--------------|------|-------------|---------------------|------|----------|------|-------------|-------|------------|-------|------------|-------------|-------------|---------|---------|
|               |            |          | in.          | mm   |             | in.                 | mm   | in.      | mm   | in.         | mm    | in.        | mm    |            |             |             |         |         |
| DG-FH45-1212  | 16310-1212 | 20254308 | 3/4          | 19.0 | 3/4         | 1.63                | 41.3 | 1.18     | 30.0 | 2.83        | 72.0  | 5.35       | 136.0 | DG         | DGF1-12     | DGF1-12     | DGF1-12 | DGF1-12 |
| S6-FH45-1212  | 30310-1212 | 20241789 | 3/4          | 19.0 | 3/4         | 1.63                | 41.3 | 1.18     | 30.0 | 2.95        | 75.0  | 5.12       | 130.0 | NS         | Y           |             |         | Y       |
| DG-FH45-1216  | 16310-1216 | 20254309 | 3/4          | 19.0 | 1           | 1.87                | 47.6 | 1.30     | 33.0 | 3.03        | 77.0  | 5.55       | 141.0 | DG         | DGF1-12     | DGF1-12     | DGF1-12 | DGF1-12 |
| S6-FH45-1216  | 30310-1216 | 20241786 | 3/4          | 19.0 | 1           | 1.87                | 47.6 | 1.30     | 33.0 | 3.15        | 80.0  | 5.31       | 135.0 | NS         | Y           |             |         | Y       |
| DG-FH45-1616  | 16310-1616 | 20242417 | 1            | 25.4 | 1           | 1.87                | 47.6 | 1.38     | 35.0 | 3.74        | 95.0  | 6.73       | 171.0 | DG         | DGF1-16     | DGF1-16     | DGF1-16 | DGF1-16 |
| S6-FH45-1616  | 30310-1616 | 20241773 | 1            | 25.4 | 1           | 1.87                | 47.6 | 1.38     | 35.0 | 3.86        | 98.0  | 6.38       | 162.0 | NS         | Y           |             |         | Y       |
| DG-FH45-1620  | 16310-1620 | 20242301 | 1            | 25.4 | 1¼          | 2.13                | 54.0 | 1.73     | 44.0 | 3.58        | 91.0  | 6.61       | 168.0 | DG         | DGF1-16     | DGF1-16     | DGF1-16 | DGF1-16 |
| S6-FH45-1620  | 30310-1620 | 20241770 | 1            | 25.4 | 1¼          | 2.13                | 54.0 | 1.73     | 44.0 | 3.78        | 96.0  | 6.30       | 160.0 | NS         | Y           |             |         | Y       |
| DG-FH45-2020  | 16310-2020 | 20242303 | 1¼           | 31.8 | 1¼          | 2.13                | 54.0 | 1.56     | 39.5 | 4.02        | 102.0 | 7.44       | 189.0 | DG         | DGF2-20     | DGF2-20     |         | DGF1-20 |
| S6-FH45-2020  | 30310-2020 | 20577088 | 1¼           | 31.8 | 1¼          | 2.13                | 54.0 | 1.61     | 41.0 | 4.06        | 103.0 | 7.83       | 199.0 | NS         | Y           |             |         | Y       |
| S6-FH45-2024  | 30310-2024 | 20577089 | 1¼           | 31.8 | 1½          | 2.50                | 63.5 | 1.89     | 48.0 | 4.61        | 117.0 | 8.39       | 213.0 | NS         | Y           |             |         | Y       |
| DG-FH45-2424  | 16310-2424 | 20242302 | 1½           | 38.1 | 1½          | 2.50                | 63.5 | 1.89     | 48.0 | 5.35        | 136.0 | 8.98       | 228.0 | DG         | DGF2-24     | DGF2-24     |         | DGF1-24 |
| S6-FH45-2424  | 30310-2424 | 20241768 | 1½           | 38.1 | 1½          | 2.50                | 63.5 | 1.89     | 48.0 | 5.67        | 144.0 | 8.94       | 227.0 | NS         | Y           |             |         |         |
| DG-FH45-2432  | 16310-2432 | 20242795 | 1½           | 38.1 | 2           | 3.13                | 79.4 | 2.17     | 55.0 | 5.08        | 129.0 | 8.70       | 221.0 | DG         | DGF2-24     | DGF2-24     |         | DGF1-24 |
| S6-FH45-2432  | 30310-2432 | 20241766 | 1½           | 38.1 | 2           | 3.13                | 79.4 | 2.17     | 55.0 | 5.39        | 137.0 | 8.66       | 220.0 | NS         | Y           |             |         |         |
| DG-FH45-3232  | 16310-3232 | 20254310 | 2            | 50.8 | 2           | 3.13                | 79.4 | 2.48     | 63.0 | 6.34        | 161.0 | 10.16      | 258.0 | DG         | DGF2-32     |             |         | DGF1-32 |
| S6-FH45-3232  | 30310-3232 | 20241779 | 2            | 50.8 | 2           | 3.13                | 79.4 | 2.21     | 56.0 | 6.10        | 155.0 | 10.03      | 254.8 | NS         | Y           |             |         |         |

| Descriptive # | Product #  | SAP #    | Hose Size ID |      | Flange Size | Flange Diameter (A) |      | Drop (D)                      |      | Cut-Off (C) |      | Length (L) |       | Skive Type | SR13, ARC13 | SR15, ARC15 | S4SP | S4SH |
|---------------|------------|----------|--------------|------|-------------|---------------------|------|-------------------------------|------|-------------|------|------------|-------|------------|-------------|-------------|------|------|
|               |            |          | in.          | mm   |             | in.                 | mm   | in.                           | mm   | in.         | mm   | in.        | mm    |            |             |             |      |      |
| SG-FH45-0808  | 29310-0808 | 20822120 | 1/2          | 12.7 | 1/2         | 1.25                | 31.8 | 0.86                          | 21.8 | 2.24        | 56.9 | 3.78       | 95.9  | NS         |             |             | Y    |      |
| SG-FH45-0812  | 29310-0812 | 20822119 | 1/2          | 12.7 | 3/4         | 1.63                | 41.4 | 1.08                          | 27.5 | 2.99        | 75.8 | 4.52       | 114.8 | NS         |             |             | Y    |      |
| SG-FH45-1212  | 29310-1212 | 20822118 | 3/4          | 19.0 | 3/4         | 1.63                | 41.4 | 1.12                          | 28.5 | 2.99        | 75.8 | 4.86       | 123.3 | NS         | Y           | Y           | Y    | Y    |
| SG-FH45-1216  | 29310-1216 | 20822117 | 3/4          | 19.0 | 1           | 1.88                | 47.6 | 1.26                          | 32.0 | 3.07        | 78.0 | 4.94       | 125.5 | NS         | Y           | Y           | Y    | Y    |
| SG-FH45-1616  | 29310-1616 | 20822116 | 1            | 25.4 | 1           | 1.88                | 47.6 | 1.26                          | 32.0 | 3.84        | 97.6 | 6.13       | 155.6 | NS         | Y           | Y           | Y    | Y    |
| SG-FH45-1620  | 29310-1620 | 20822115 | 1            | 25.4 | 1¼          | 2.13                | 54.1 | 1.50                          | 38.0 | 3.78        | 96.0 | 6.06       | 154.0 | NS         | Y           | Y           | Y    | Y    |
| SG-FH45-2424  | 29310-2424 | 20757720 | 1½           | 38.1 | 1½          | 2.50                |      | Contact Continental ContiTech |      |             |      |            |       | NS         |             |             |      | Y    |
| SG-FH45-2432  | 29340-2432 | 20757725 | 1½           | 38.1 | 2           | 3.13                |      | Contact Continental ContiTech |      |             |      |            |       | NS         |             |             |      | Y    |



## Code 62 Flange (SAE J518)

60° Elbow



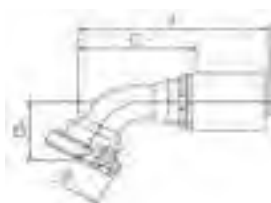
S=Skive  
NS=Non-Skive  
DG=Dual-Grip™

| Descriptive # | Product #  | SAP #    | Hose Size ID | Flange Size | Flange Diameter (A) | Drop (D)  | Cut-Off (C) | Length (L) | Skive Type | SR13, ARC13 | SR15, ARC15 | S4SP | S4SH |
|---------------|------------|----------|--------------|-------------|---------------------|-----------|-------------|------------|------------|-------------|-------------|------|------|
|               |            |          | in.          | mm          | in.                 | mm        | in.         | mm         | in.        | mm          | in.         | mm   |      |
| S6-FH60-1212  | 30312-1212 | 20293337 | 3/4          | 19.0        | 3/4                 | 1.63 41.3 | 1.71 43.5   | 3.66 93.0  | 5.83 148.0 | NS          | Y           |      | Y    |
| S6-FH60-1616  | 30312-1616 | 20293338 | 1            | 25.4        | 1                   | 1.87 47.6 | 1.87 47.5   | 4.21 107.0 | 6.73 171.0 | NS          | Y           |      | Y    |
| S6-FH60-2020  | 30312-2020 | 20577090 | 1 1/4        | 31.8        | 1 1/4               | 2.13 54.0 | 2.54 64.5   | 5.20 132.0 | 8.98 228.0 | NS          | Y           |      | Y    |
| S6-FH60-2024  | 30312-2024 | 20577091 | 1 1/4        | 31.8        | 1 1/2               | 2.50 63.5 | 2.74 69.5   | 5.71 145.0 | 8.70 221.0 | NS          | Y           |      | Y    |
| S6-FH60-3232  | 30312-3232 | 20788099 | 2            | 50.8        | 2                   | 3.13 79.4 | 3.27 83.0   | 5.71 145.0 | 9.64 244.8 | NS          | Y           |      |      |

| Descriptive # | Product #  | SAP #    | Hose Size ID | Flange Size | Flange Diameter (A) | Drop (D)  | Cut-Off (C) | Length (L) | Skive Type | SR13, ARC13 | SR15, ARC15 | S4SP | S4SH |
|---------------|------------|----------|--------------|-------------|---------------------|-----------|-------------|------------|------------|-------------|-------------|------|------|
|               |            |          | in.          | mm          | in.                 | mm        | in.         | mm         | in.        | mm          | in.         | mm   |      |
| SG-FH60-1212  | 29312-1212 | 20822114 | 3/4          | 19.0        | 3/4                 | 1.63 41.3 | 1.55 39.4   | 3.47 88.0  | 5.34 135.5 | NS          | Y           | Y    | Y    |
| SG-FH60-1616  | 29312-1616 | 20822113 | 1            | 25.4        | 1                   | 1.87 47.6 | 1.73 44.0   | 4.15 105.4 | 6.43 163.4 | NS          | Y           | Y    | Y    |

## Code 62 Flange (SAE J518)

67° Elbow



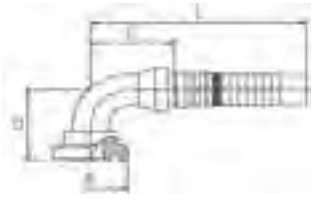
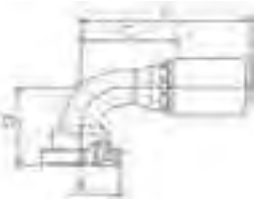
S=Skive  
NS=Non-Skive  
DG=Dual-Grip™

| Descriptive # | Product #  | SAP #    | Hose Size ID | Flange Size | Flange Diameter (A) | Drop (D)  | Cut-Off (C) | Length (L) | Skive Type | SR13, ARC13 | SR15, ARC15 | S4SP | S4SH |
|---------------|------------|----------|--------------|-------------|---------------------|-----------|-------------|------------|------------|-------------|-------------|------|------|
|               |            |          | in.          | mm          | in.                 | mm        | in.         | mm         | in.        | mm          | in.         | mm   |      |
| S6-FH67-1616  | 30313-1616 | 20293344 | 1            | 25.4        | 1                   | 1.87 47.6 | 2.40 61.0   | 4.04 102.5 | 6.56 166.5 | NS          | Y           |      | Y    |

| Descriptive # | Product #  | SAP #    | Hose Size ID | Flange Size | Flange Diameter (A) | Drop (D)  | Cut-Off (C) | Length (L) | Skive Type | SR13, ARC13 | SR15, ARC15 | S4SP | S4SH |
|---------------|------------|----------|--------------|-------------|---------------------|-----------|-------------|------------|------------|-------------|-------------|------|------|
|               |            |          | in.          | mm          | in.                 | mm        | in.         | mm         | in.        | mm          | in.         | mm   |      |
| SG-FH67-1616  | 29313-1616 | 20822112 | 1            | 25.4        | 1                   | 1.87 47.6 | 2.40 61.0   | 3.84 97.6  | 6.13 155.6 | NS          | Y           | Y    | Y    |

Code 62 Flange (SAE J518)

90° Elbow



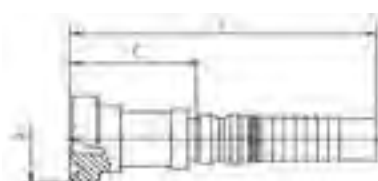
Elbow Type  
LT=Long Tube  
ST=Short Tube

S=Skive  
NS=Non-Skive  
DG=Dual-Grip™

| Descriptive # | Product #  | SAP #    | Hose Size ID |      | Flange Size | Flange Diameter (A) |      | Elbow Type | Drop (D) |       | Cut-Off (C) |       | Length (L) |       | Skive Type | SR13, ARC13 | SR15, ARC15 | S4SP    | S4SH    |
|---------------|------------|----------|--------------|------|-------------|---------------------|------|------------|----------|-------|-------------|-------|------------|-------|------------|-------------|-------------|---------|---------|
|               |            |          | in.          | mm   |             | in.                 | mm   |            | in.      | mm    | in.         | mm    | in.        | mm    |            |             |             |         |         |
| SG-FH90-0808  | 29315-0808 | 20731761 | 1/2          | 12.7 | 1/2         | 1.25                | 31.8 |            | 1.67     | 42.4  | 1.89        | 48.0  | 3.43       | 87.0  | NS         |             |             | Y       |         |
| DG-FH90-1212  | 16315-1212 | 20254311 | 3/4          | 19.0 | 3/4         | 1.63                | 41.3 |            | 2.52     | 64.0  | 2.40        | 61.0  | 4.92       | 125.0 | DG         | DGF1-12     | DGF1-12     | DGF1-12 | DGF1-12 |
| S6-FH90-1212  | 30315-1212 | 20242952 | 3/4          | 19.0 | 3/4         | 1.63                | 41.3 |            | 2.52     | 64.0  | 2.56        | 65.0  | 4.72       | 120.0 | NS         | Y           |             |         | Y       |
| DG-FH90-1216  | 16315-1216 | 20254312 | 3/4          | 19.0 | 1           | 1.87                | 47.6 |            | 2.60     | 66.0  | 2.40        | 61.0  | 4.92       | 125.0 | DG         | DGF1-12     | DGF1-12     | DGF1-12 | DGF1-12 |
| S6-FH90-1216  | 30315-1216 | 20241733 | 3/4          | 19.0 | 1           | 1.87                | 47.6 |            | 2.60     | 66.0  | 2.56        | 65.0  | 4.72       | 120.0 | NS         | Y           |             |         | Y       |
| S6-FH90-1612  | 30315-1612 | 20293341 | 1            | 25.4 | 3/4         | 1.63                | 41.3 |            | 2.40     | 61.0  | 2.95        | 75.0  | 5.47       | 139.0 | NS         | Y           |             |         | Y       |
| DG-FH90-1616  | 16315-1616 | 20242604 | 1            | 25.4 | 1           | 1.87                | 47.6 |            | 2.91     | 74.0  | 2.76        | 70.0  | 5.79       | 147.0 | DG         | DGF1-16     | DGF1-16     | DGF1-16 | DGF1-16 |
| S6-FH90-1616  | 30315-1616 | 20241792 | 1            | 25.4 | 1           | 1.87                | 47.6 |            | 2.91     | 74.0  | 2.95        | 75.0  | 5.47       | 139.0 | NS         | Y           |             |         | Y       |
| DG-FH90-1620  | 16315-1620 | 20242466 | 1            | 25.4 | 1 1/4       | 2.13                | 54.0 |            | 3.15     | 80.0  | 3.03        | 77.0  | 6.06       | 154.0 | DG         | DGF1-16     | DGF1-16     | DGF1-16 | DGF1-16 |
| S6-FH90-1620  | 30315-1620 | 20241784 | 1            | 25.4 | 1 1/4       | 2.13                | 54.0 |            | 3.35     | 85.0  | 3.11        | 79.0  | 5.63       | 143.0 | NS         | Y           |             |         | Y       |
| DG-FH90-2020  | 16315-2020 | 20242305 | 1 1/4        | 31.8 | 1 1/4       | 2.13                | 54.0 |            | 3.58     | 91.0  | 3.46        | 88.0  | 6.89       | 175.0 | DG         | DGF2-20     | DGF2-20     |         | DGF1-20 |
| S6-FH90-2020  | 30315-2020 | 20577092 | 1 1/4        | 31.8 | 1 1/4       | 2.13                | 54.0 |            | 3.58     | 91.0  | 3.78        | 96.0  | 7.56       | 192.0 | NS         | Y           |             |         | Y       |
| S6-FH90L-2020 | 30317-2020 | 20577094 | 1 1/4        | 31.8 | 1 1/4       | 2.13                | 54.0 | LT         | 4.72     | 120.0 | 3.66        | 93.0  | 7.44       | 189.0 | NS         | Y           |             |         | Y       |
| DG-FH90-2024  | 16315-2024 | 20254313 | 1 1/4        | 31.8 | 1 1/2       | 2.50                | 63.5 |            | 4.07     | 103.5 | 3.66        | 93.0  | 7.09       | 180.0 | DG         | DGF2-20     | DGF2-20     |         | DGF1-20 |
| S6-FH90-2024  | 30315-2024 | 20577093 | 1 1/4        | 31.8 | 1 1/2       | 2.50                | 63.5 |            | 4.07     | 103.5 | 3.90        | 99.0  | 7.64       | 194.0 | NS         | Y           |             |         | Y       |
| S6-FH90-2420  | 30315-2420 | 20241782 | 1 1/2        | 38.1 | 1 1/4       | 2.13                | 54.0 |            | 3.35     | 85.0  | 4.41        | 112.0 | 7.68       | 195.0 | NS         | Y           |             |         |         |
| DG-FH90-2424  | 16315-2424 | 20242304 | 1 1/2        | 38.1 | 1 1/2       | 2.50                | 63.5 |            | 4.29     | 109.0 | 4.17        | 106.0 | 7.80       | 198.0 | DG         | DGF2-24     | DGF2-24     |         | DGF1-24 |
| S6-FH90-2424  | 30315-2424 | 20241783 | 1 1/2        | 38.1 | 1 1/2       | 2.50                | 63.5 |            | 4.29     | 109.0 | 4.49        | 114.0 | 7.76       | 197.0 | NS         | Y           |             |         |         |
| S6-FH90-2432  | 30315-2432 | 20293343 | 1 1/2        | 38.1 | 2           | 3.13                | 79.4 |            | 4.78     | 121.5 | 4.65        | 118.0 | 7.91       | 201.0 | NS         | Y           |             |         |         |
| DG-FH90-3232  | 16315-3232 | 20254314 | 2            | 50.8 | 2           | 3.13                | 79.4 |            | 5.45     | 138.5 | 5.87        | 149.0 | 9.69       | 246.0 | DG         | DGF2-32     |             |         | DGF1-32 |
| S6-FH90-3232  | 30315-3232 | 20241735 | 2            | 50.8 | 2           | 3.13                | 79.4 |            | 3.27     | 83.0  | 5.71        | 145.0 | 9.64       | 244.8 | NS         | Y           |             |         |         |

| Descriptive #    | Product #   | SAP #    | Hose Size ID |      | Flange Size | Flange Diameter (A) |      | Elbow Type | Drop (D)                      |       | Cut-Off (C) |      | Length (L) |       | Skive Type | SR13, ARC13 | SR15, ARC15 | S4SP | S4SH |
|------------------|-------------|----------|--------------|------|-------------|---------------------|------|------------|-------------------------------|-------|-------------|------|------------|-------|------------|-------------|-------------|------|------|
|                  |             |          | in.          | mm   |             | in.                 | mm   |            | in.                           | mm    | in.         | mm   | in.        | mm    |            |             |             |      |      |
| SG-FH90-0808     | 29315-0808  | 20731761 | 1/2          | 12.7 | 1/2         | 1.25                | 31.8 |            | 1.67                          | 42.4  | 1.89        | 48.0 | 3.43       | 87.0  | NS         |             |             | Y    |      |
| SG-FH90-080-0808 | 29317A-0808 | 20833294 | 1/2          | 12.7 | 1/2         | 1.25                | 31.8 | LT         | 3.15                          | 80.0  | 1.99        | 50.5 | 3.53       | 89.5  | NS         |             |             | Y    |      |
| SG-FH90-0812     | 29315-0812  | 20822111 | 1/2          | 12.7 | 3/4         | 1.63                | 41.4 |            | 2.28                          | 58.0  | 1.89        | 48.0 | 3.43       | 87.0  | NS         |             |             | Y    |      |
| SG-FH90-1012     | 29315-1012  | 20822110 | 5/8          | 15.9 | 3/4         | 1.63                | 41.4 |            | 2.28                          | 58.0  | 1.97        | 50.0 | 3.56       | 90.5  | NS         |             |             | Y    |      |
| SG-FH90-1212     | 29315-1212  | 20822109 | 3/4          | 19.1 | 3/4         | 1.63                | 41.3 |            | 2.28                          | 58.0  | 2.36        | 59.8 | 4.23       | 107.3 | NS         | Y           | Y           | Y    | Y    |
| SG-FH90-100-1212 | 29317A-1212 | 20833293 | 3/4          | 19.1 | 3/4         | 1.63                | 41.3 | LT         | 3.94                          | 100.0 | 2.40        | 61.0 | 4.27       | 108.5 | NS         | Y           | Y           | Y    | Y    |
| SG-FH90-122-1212 | 29317B-1212 | 20833292 | 3/4          | 19.1 | 3/4         | 1.63                | 41.3 | LT         | 4.80                          | 122.0 | 2.80        | 71.1 | 4.67       | 118.6 | NS         | Y           | Y           | Y    | Y    |
| SG-FH90-1216     | 29315-1216  | 20822108 | 3/4          | 19.1 | 1           | 1.88                | 47.6 |            | 2.76                          | 70.0  | 2.60        | 66.0 | 4.47       | 113.5 | NS         | Y           | Y           | Y    | Y    |
| SG-FH90-140-1216 | 29317A-1216 | 20833291 | 3/4          | 19.1 | 1           | 1.88                | 47.6 | LT         | 5.51                          | 140.0 | 2.56        | 65.0 | 4.43       | 112.5 | NS         | Y           | Y           | Y    | Y    |
| SG-FH90-1612     | 29315-1612  | 20822107 | 1            | 25.4 | 3/4         | 1.63                | 41.3 |            | 2.28                          | 58.0  | 2.87        | 72.9 | 5.15       | 130.9 | NS         | Y           | Y           | Y    | Y    |
| SG-FH90-1616     | 29315-1616  | 20822106 | 1            | 25.4 | 1           | 1.88                | 47.6 |            | 2.76                          | 70.1  | 2.97        | 75.4 | 5.25       | 133.4 | NS         | Y           | Y           | Y    | Y    |
| SG-FH90-090-1616 | 29317A-1616 | 20833290 | 1            | 25.4 | 1           | 1.88                | 47.6 | LT         | 3.54                          | 90.0  | 3.28        | 83.3 | 5.56       | 141.3 | NS         | Y           | Y           | Y    | Y    |
| SG-FH90-120-1616 | 29317B-1616 | 20833229 | 1            | 25.4 | 1           | 1.88                | 47.6 | LT         | 4.72                          | 120.0 | 3.04        | 77.2 | 5.32       | 135.2 | NS         | Y           | Y           | Y    | Y    |
| SG-FH90-1620     | 29315-1620  | 20822105 | 1            | 25.4 | 1 1/4       | 2.13                | 54.0 |            | 3.54                          | 90.0  | 3.07        | 78.0 | 5.35       | 136.0 | NS         | Y           | Y           | Y    | Y    |
| SG-FH90-2424     | 29315-2424  | 20757498 | 1 1/2        | 38.1 | 1 1/2       | 2.50                | 63.5 |            | Contact Continental ContiTech |       |             |      |            |       | NS         |             |             |      | Y    |
| SG-FH90-2432     | 29315-2432  | 20757729 | 1 1/2        | 38.1 | 2           | 3.13                | 79.4 |            | Contact Continental ContiTech |       |             |      |            |       | NS         |             |             |      | Y    |

## Caterpillar® Flange



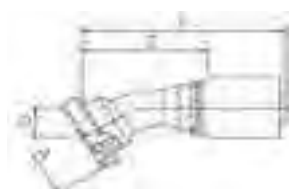
S=Skive  
NS=Non-Skive  
DG=Dual-Grip™

| Descriptive # | Product #  | SAP #    | Hose Size ID |      | Flange Size | Flange Diameter (A) |      | Cut-Off (C) |       | Length (L) |       | Skive Type | SR13, ARC13 | SR15, ARC15 | S4SP    | S4SH    |
|---------------|------------|----------|--------------|------|-------------|---------------------|------|-------------|-------|------------|-------|------------|-------------|-------------|---------|---------|
|               |            |          | in.          | mm   |             | in.                 | mm   | in.         | mm    | in.        | mm    |            |             |             |         |         |
| DG-CF-1212    | 16185-1212 | 20242290 | 3/4          | 19.0 | 3/4         | 1.63                | 41.3 | 2.99        | 76.0  | 5.75       | 146.0 | DG         | DGF1-12     | DGF1-12     | DGF1-12 | DGF1-12 |
| S6-CF-1212    | 30185-1212 | 20293345 | 3/4          | 19.0 | 3/4         | 1.63                | 41.3 | 3.37        | 85.5  | 5.53       | 140.5 | NS         | Y           |             |         | Y       |
| DG-CF-1216    | 16185-1216 | 20242794 | 3/4          | 19.0 | 1           | 1.87                | 47.6 | 2.99        | 76.0  | 5.75       | 146.0 | DG         | DGF1-12     | DGF1-12     | DGF1-12 | DGF1-12 |
| DG-CF-1616    | 16185-1616 | 20242413 | 1            | 25.4 | 1           | 1.87                | 47.6 | 3.23        | 82.0  | 6.56       | 166.5 | DG         | DGF1-16     | DGF1-16     | DGF1-16 | DGF1-16 |
| S6-CF-1616    | 30185-1616 | 20293346 | 1            | 25.4 | 1           | 1.87                | 47.6 | 3.72        | 94.5  | 6.24       | 158.5 | NS         | Y           |             |         | Y       |
| DG-CF-1620    | 16185-1620 | 20242447 | 1            | 25.4 | 1¼          | 2.13                | 54.0 | 3.23        | 82.0  | 6.56       | 166.5 | DG         | DGF1-16     | DGF1-16     | DGF1-16 | DGF1-16 |
| DG-CF-2020    | 16185-2020 | 20242448 | 1¼           | 31.8 | 1¼          | 2.13                | 54.0 | 2.98        | 75.8  | 6.81       | 173.0 | DG         | DGF2-20     | DGF2-20     |         | DGF1-20 |
| S6-CF-2020    | 30185-2020 | 20577069 | 1¼           | 31.8 | 1¼          | 2.13                | 54.0 | 3.62        | 92.0  | 7.38       | 187.5 | NS         | Y           |             |         | Y       |
| DG-CF-2024    | 16185-2024 | 20242289 | 1¼           | 31.8 | 1½          | 2.50                | 63.5 | 2.87        | 72.8  | 6.69       | 170.0 | DG         | DGF2-20     | DGF2-20     |         | DGF1-20 |
| S6-CF-2024    | 30185-2024 | 20551648 | 1¼           | 31.8 | 1½          | 2.50                | 63.5 | 3.43        | 87.0  | 7.19       | 182.5 | NS         | Y           |             |         | Y       |
| S6-CF-2424    | 30185-2424 | 20293347 | 1.5          | 38.1 | 1½          | 2.50                | 63.5 | 3.50        | 89.0  | 6.77       | 172.0 | NS         | Y           |             |         |         |
| S6-CF-3232    | 30185-3232 | 20293348 | 2            | 50.8 | 2           | 3.13                | 79.4 | 4.34        | 110.1 | 8.26       | 209.9 | NS         | Y           |             |         |         |

| Descriptive # | Product #  | SAP #    | Hose Size ID |      | Flange Size | Flange Diameter (A) |      | Cut-Off (C) |       | Length (L) |       | Skive Type | SR13, ARC13 | SR15, ARC15 | S4SP | S4SH |
|---------------|------------|----------|--------------|------|-------------|---------------------|------|-------------|-------|------------|-------|------------|-------------|-------------|------|------|
|               |            |          | in.          | mm   |             | in.                 | mm   | in.         | mm    | in.        | mm    |            |             |             |      |      |
| SG-CF-1212    | 29185-1212 | 20822200 | 3/4          | 19.0 | 3/4         | 1.63                | 41.3 | 3.38        | 85.8  | 5.25       | 133.2 | NS         | Y           | Y           | Y    | Y    |
| SG-CF-1216    | 29185-1216 | 20822199 | 3/4          | 19.0 | 1           | 1.88                | 47.6 | 3.50        | 88.9  | 5.37       | 136.4 | NS         | Y           | Y           | Y    | Y    |
| SG-CF-1612    | 29185-1612 | 20822198 | 1            | 25.4 | 3/4         | 1.63                | 41.3 | 3.47        | 88.0  | 5.75       | 146.0 | NS         | Y           | Y           | Y    | Y    |
| SG-CF-1616    | 29185-1616 | 20822197 | 1            | 25.4 | 1           | 1.88                | 47.6 | 3.69        | 93.8  | 6.00       | 152.3 | NS         | Y           | Y           | Y    | Y    |
| SG-CF-1620    | 29185-1620 | 20822196 | 1            | 25.4 | 1¼          | 2.13                | 54.0 | 3.62        | 92.0  | 5.91       | 150.0 | NS         | Y           | Y           | Y    | Y    |
| SG-CF-3232    | 29185-3232 | 20833299 | 2            | 50.8 | 2           | 3.13                | 79.4 | 4.48        | 113.9 | 8.03       |       | NS         |             |             |      | Y    |

## Caterpillar® Flange

22.5° Elbow



S=Skive  
NS=Non-Skive  
DG=Dual-Grip™

| Descriptive # | Product #  | SAP #    | Hose Size ID |      | Flange Size | Flange Diameter (A) |      | Drop (D) |      | Cut-Off (C) |       | Length (L) |       | Skive Type | SR13, ARC13 | SR15, ARC15 | S4SP | S4SH |
|---------------|------------|----------|--------------|------|-------------|---------------------|------|----------|------|-------------|-------|------------|-------|------------|-------------|-------------|------|------|
|               |            |          | in.          | mm   |             | in.                 | mm   | in.      | mm   | in.         | mm    | in.        | mm    |            |             |             |      |      |
| S6-CF22-2020  | 30187-2020 | 20577070 | 1¼           | 31.8 | 1¼          | 2.13                | 54.0 | 0.79     | 20.0 | 6.42        | 163.0 | 9.41       | 239.0 | NS         | Y           |             |      | Y    |
| S6-CF22-2024  | 30187-2024 | 20545212 | 1¼           | 31.8 | 1½          | 2.50                | 63.5 | 0.87     | 22.0 | 6.69        | 170.0 | 10.47      | 266.0 | NS         | Y           |             |      | Y    |

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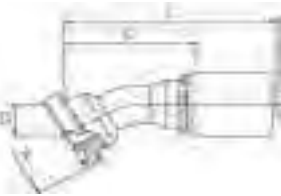
Caterpillar® Flange

22.5° Elbow Continued

| Descriptive # | Product #  | SAP #    | Hose Size ID |      | Flange Size | Flange Diameter (A) |      | Drop (D) |      | Cut-Off (C) |       | Length (L) |       | Skive Type | SR13, ARC13 | SR15, ARC15 | S4SP | S4SH |
|---------------|------------|----------|--------------|------|-------------|---------------------|------|----------|------|-------------|-------|------------|-------|------------|-------------|-------------|------|------|
|               |            |          | in.          | mm   |             | in.                 | mm   | in.      | mm   | in.         | mm    | in.        | mm    |            |             |             |      |      |
| S6-CF22-3232  | 30187-3232 | 20788095 | 2            | 50.8 | 2           | 3.13                | 79.4 | 0.98     | 25.0 | 4.34        | 110.1 | 8.26       | 209.9 | NS         | Y           |             |      |      |
| SG-CF22-1212  | 29187-1212 | 20822195 | 3/4          | 19.1 | 3/4         | 1.63                | 41.3 | 0.63     | 16.0 | 3.25        | 82.6  | 5.20       | 132.0 | NS         | Y           | Y           | Y    | Y    |
| SG-CF22-1616  | 29187-1616 | 20822194 | 1            | 25.4 | 1           | 1.88                | 47.6 | 0.71     | 18.0 | 4.217       | 107.1 | 6.50       | 165.1 | NS         | Y           | Y           | Y    | Y    |
| SG-CF22-1620  | 29187-1620 | 20822193 | 1            | 25.4 | 1¼          | 2.13                | 54.0 | 0.71     | 18.0 | 4.29        | 109.0 | 6.57       | 167.0 | NS         | Y           | Y           | Y    | Y    |

Caterpillar® Flange

30° Elbow



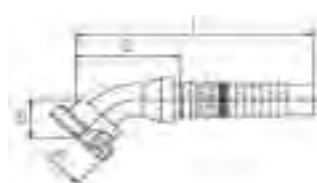
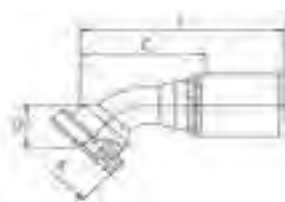
S=Skive  
NS=Non-Skive  
DG=Dual-Grip™

| Descriptive # | Product #  | SAP #    | Hose Size ID |      | Flange Size | Flange Diameter (A) |      | Drop (D) |      | Cut-Off (C) |       | Length (L) |       | Skive Type | SR13, ARC13 | SR15, ARC15 | S4SP | S4SH |
|---------------|------------|----------|--------------|------|-------------|---------------------|------|----------|------|-------------|-------|------------|-------|------------|-------------|-------------|------|------|
|               |            |          | in.          | mm   |             | in.                 | mm   | in.      | mm   | in.         | mm    | in.        | mm    |            |             |             |      |      |
| S6-CF30-1216  | 30188-1216 | 20441334 | 3/4          | 19.0 | 1           | 1.87                | 47.6 | 1.04     | 26.5 | 4.65        | 118.0 | 6.81       | 173.0 | NS         | Y           |             |      | Y    |
| S6-CF30-2020  | 30188-2020 | 20577072 | 1¼           | 31.8 | 1¼          | 2.13                | 54.0 | 1.10     | 28.0 | 5.96        | 151.5 | 8.96       | 227.5 | NS         | Y           |             |      | Y    |
| S6-CF30-2024  | 30188-2024 | 20577073 | 1¼           | 31.8 | 1½          | 2.50                | 63.5 | 1.20     | 30.5 | 6.57        | 167.0 | 9.57       | 243.0 | NS         | Y           |             |      | Y    |
| S6-CF30-3232  | 30188-3232 | 20788096 | 2            | 50.8 | 2           | 3.13                | 79.4 | 1.38     | 35.0 | 6.54        | 166.2 | 10.47      | 266.0 | NS         | Y           |             |      |      |

| Descriptive # | Product #  | SAP #    | Hose Size ID |      | Flange Size | Flange Diameter (A) |      | Drop (D) |      | Cut-Off (C) |      | Length (L) |       | Skive Type | SR13, ARC13 | SR15, ARC15 | S4SP | S4SH |
|---------------|------------|----------|--------------|------|-------------|---------------------|------|----------|------|-------------|------|------------|-------|------------|-------------|-------------|------|------|
|               |            |          | in.          | mm   |             | in.                 | mm   | in.      | mm   | in.         | mm   | in.        | mm    |            |             |             |      |      |
| SG-CF30-1216  | 29188-1216 | 20822192 | 3/4          | 19.0 | 1           | 1.87                | 47.6 | 0.875    | 22.2 | 3.82        | 97.0 | 5.69       | 144.5 | NS         | Y           | Y           | Y    | Y    |

## Caterpillar® Flange

## 45° Elbow



S=Skive  
NS=Non-Skive  
DG=Dual-Grip™

| Descriptive # | Product #  | SAP #    | Hose Size ID |      | Flange Size | Flange Diameter (A) |      | Drop (D) |      | Cut-Off (C) |       | Length (L) |       | Skive Type | SR13, ARC13 | SR15, ARC15 | S4SP    | S4SH    |
|---------------|------------|----------|--------------|------|-------------|---------------------|------|----------|------|-------------|-------|------------|-------|------------|-------------|-------------|---------|---------|
|               |            |          | in.          | mm   |             | in.                 | mm   | in.      | mm   | in.         | mm    | in.        | mm    |            |             |             |         |         |
| DG-CF45-1212  | 16190-1212 | 20242376 | 3/4          | 19.0 | 3/4         | 1.63                | 41.3 | 1.34     | 34.0 | 3.27        | 83.0  | 5.79       | 147.0 | DG         | DGF1-12     | DGF1-12     | DGF1-12 | DGF1-12 |
| S6-CF45-1212  | 30190-1212 | 20424961 | 3/4          | 19.0 | 3/4         | 1.63                | 41.3 | 1.34     | 34.0 | 4.06        | 103.0 | 6.22       | 158.0 | NS         | Y           |             |         | Y       |
| DG-CF45-1216  | 16190-1216 | 20242792 | 3/4          | 19.0 | 1           | 1.87                | 47.6 | 1.34     | 34.0 | 3.43        | 87.0  | 5.94       | 151.0 | DG         | DGF1-12     | DGF1-12     | DGF1-12 | DGF1-12 |
| DG-CF45-1616  | 16190-1616 | 20242410 | 1            | 25.4 | 1           | 1.87                | 47.6 | 1.57     | 40.0 | 3.70        | 94.0  | 6.69       | 170.0 | DG         | DGF1-16     | DGF1-16     | DGF1-16 | DGF1-16 |
| S6-CF45-1616  | 30190-1616 | 20424952 | 1            | 25.4 | 1           | 1.87                | 47.6 | 1.46     | 37.0 | 4.98        | 126.6 | 7.50       | 190.6 | NS         | Y           |             |         | Y       |
| DG-CF45-1620  | 16190-1620 | 20242446 | 1            | 25.4 | 1 1/4       | 2.13                | 54.0 | 1.57     | 40.0 | 3.74        | 95.0  | 6.77       | 172.0 | DG         | DGF1-16     | DGF1-16     | DGF1-16 | DGF1-16 |
| DG-CF45-2020  | 16190-2020 | 20242485 | 1 1/4        | 31.8 | 1 1/4       | 2.13                | 54.0 | 1.69     | 43.0 | 4.09        | 104.0 | 7.48       | 190.0 | DG         | DGF2-20     | DGF2-20     |         | DGF1-20 |
| S6-CF45-2020  | 30190-2020 | 20577074 | 1 1/4        | 31.8 | 1 1/4       | 2.13                | 54.0 | 1.77     | 45.0 | 5.59        | 142.0 | 8.58       | 218.0 | NS         | Y           |             |         | Y       |
| DG-CF45-2024  | 16190-2024 | 20242810 | 1 1/4        | 31.8 | 1 1/2       | 2.50                | 63.5 | 1.95     | 49.5 | 4.33        | 110.0 | 7.76       | 197.0 | DG         | DGF2-20     | DGF2-20     |         | DGF1-20 |
| S6-CF45-2424  | 30190-2424 | 20424964 | 1 1/2        | 38.1 | 1 1/2       | 2.50                | 63.5 | 2.05     | 52.0 | 7.13        | 181.0 | 10.39      | 264.0 | NS         | Y           |             |         |         |
| S6-CF45-3232  | 30190-3232 | 20441298 | 2            | 50.8 | 2           | 3.13                | 79.4 | 2.76     | 70.0 | 6.54        | 166.2 | 10.47      | 266.0 | NS         | Y           |             |         |         |

| Descriptive # | Product #  | SAP #    | Hose Size ID |      | Flange Size | Flange Diameter (A) |      | Drop (D) |      | Cut-Off (C) |      | Length (L) |       | Skive Type | SR13, ARC13 | SR15, ARC15 | S4SP | S4SH |
|---------------|------------|----------|--------------|------|-------------|---------------------|------|----------|------|-------------|------|------------|-------|------------|-------------|-------------|------|------|
|               |            |          | in.          | mm   |             | in.                 | mm   | in.      | mm   | in.         | mm   | in.        | mm    |            |             |             |      |      |
| SG-CF45-1212  | 29190-1212 | 20822191 | 3/4          | 19.0 | 3/4         | 1.63                | 41.4 | 1.34     | 34.0 | 2.99        | 75.8 | 4.856      | 123.3 | NS         | Y           | Y           | Y    | Y    |
| SG-CF45-1216  | 29190-1216 | 20822190 | 3/4          | 19.0 | 1           | 1.88                | 47.6 | 1.34     | 34.0 | 3.50        | 88.9 | 5.37       | 136.4 | NS         | Y           | Y           | Y    | Y    |
| SG-CF45-1616  | 29190-1616 | 20822189 | 1            | 25.4 | 1           | 1.87                | 47.6 | 1.57     | 39.9 | 3.84        | 97.6 | 6.125      | 155.6 | NS         | Y           | Y           | Y    | Y    |
| SG-CF45-1620  | 29190-1620 | 20822188 | 1            | 25.4 | 1 1/4       | 2.13                | 54.0 | 1.50     | 38.0 | 3.86        | 98.0 | 6.143      | 156.0 | NS         | Y           | Y           | Y    | Y    |

Caterpillar® Flange

60° Elbow



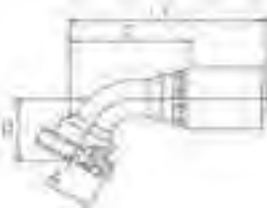
S=Skive  
NS=Non-Skive  
DG=Dual-Grip™

| Descriptive # | Product #  | SAP #    | Hose Size ID |      | Flange Size | Flange Diameter (A) |      | Drop (D) |      | Cut-Off (C) |       | Length (L) |       | Skive Type | SR13, ARC13 | SR15, ARC15 | S4SP | S4SH |
|---------------|------------|----------|--------------|------|-------------|---------------------|------|----------|------|-------------|-------|------------|-------|------------|-------------|-------------|------|------|
|               |            |          | in.          | mm   |             | in.                 | mm   | in.      | mm   | in.         | mm    | in.        | mm    |            |             |             |      |      |
| S6-CF60-1616  | 30192-1616 | 20293352 | 1            | 25.4 | 1           | 1.87                | 47.6 | 2.32     | 59.0 | 4.65        | 118.0 | 7.17       | 182.0 | NS         | Y           |             |      | Y    |
| S6-CF60-1620  | 30192-1620 | 20293353 | 1            | 25.4 | 1¼          | 2.13                | 54.0 | 2.24     | 57.0 | 4.65        | 118.0 | 7.17       | 182.0 | NS         | Y           |             |      | Y    |
| S6-CF60-2020  | 30192-2020 | 20577075 | 1¼           | 31.8 | 1¼          | 2.13                | 54.4 | 2.56     | 65.0 | 5.31        | 135.0 | 9.06       | 230.0 | NS         | Y           |             |      | Y    |
| S6-CF60-2024  | 30192-2024 | 20577076 | 1¼           | 31.8 | 1½          | 2.50                | 63.5 | 2.66     | 67.5 | 5.57        | 141.5 | 8.56       | 217.5 | NS         | Y           |             |      | Y    |
| S6-CF60-2424  | 30192-2424 | 20441299 | 1½           | 38.1 | 1½          | 2.50                | 63.5 | 2.85     | 72.5 | 6.46        | 164.0 | 9.76       | 248.0 | NS         | Y           |             |      |      |
| S6-CF60-2432  | 30192-2432 | 20441335 | 1½           | 38.1 | 2           | 3.13                | 79.4 | 3.35     | 85.0 | 5.71        | 145.0 | 8.98       | 228.0 | NS         | Y           |             |      |      |
| S6-CF60-3232  | 30192-3232 | 20441300 | 2            | 50.8 | 2           | 3.13                | 79.4 | 3.27     | 83.0 | 6.54        | 166.2 | 10.47      | 266.0 | NS         | Y           |             |      |      |

| Descriptive # | Product #  | SAP #    | Hose Size ID |      | Flange Size | Flange Diameter (A) |      | Drop (D) |      | Cut-Off (C) |       | Length (L) |       | Skive Type | SR13, ARC13 | SR15, ARC15 | S4SP | S4SH |
|---------------|------------|----------|--------------|------|-------------|---------------------|------|----------|------|-------------|-------|------------|-------|------------|-------------|-------------|------|------|
|               |            |          | in.          | mm   |             | in.                 | mm   | in.      | mm   | in.         | mm    | in.        | mm    |            |             |             |      |      |
| SG-CF60-1616  | 29192-1616 | 20822187 | 1            | 25.4 | 1           | 1.87                | 47.6 | 2.09     | 53.1 | 4.15        | 105.4 | 6.43       | 163.4 | NS         | Y           | Y           | Y    | Y    |
| SG-CF60-1620  | 29192-1620 | 20822186 | 1            | 25.4 | 1¼          | 2.13                | 54.0 | 2.17     | 55.0 | 4.45        | 113.0 | 6.73       | 171.0 | NS         | Y           | Y           | Y    | Y    |

Caterpillar® Flange

67° Elbow

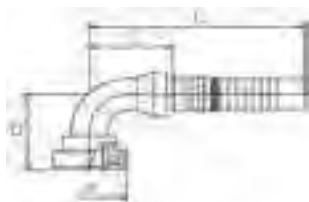
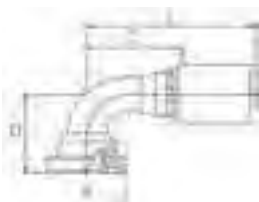


S=Skive  
NS=Non-Skive  
DG=Dual-Grip™

| Descriptive # | Product #  | SAP #    | Hose Size ID |      | Flange Size | Flange Diameter (A) |      | Drop (D) |      | Cut-Off (C) |       | Length (L) |       | Skive Type | SR13, ARC13 | SR15, ARC15 | S4SP | S4SH |
|---------------|------------|----------|--------------|------|-------------|---------------------|------|----------|------|-------------|-------|------------|-------|------------|-------------|-------------|------|------|
|               |            |          | in.          | mm   |             | in.                 | mm   | in.      | mm   | in.         | mm    | in.        | mm    |            |             |             |      |      |
| S6-CF67-2020  | 30194-2020 | 20545210 | 1¼           | 31.8 | 1¼          | 2.13                | 54.4 | 2.76     | 70.0 | 5.04        | 128.0 | 8.82       | 224.0 | NS         | Y           |             |      | Y    |
| S6-CF67-2024  | 30194-2024 | 20545211 | 1¼           | 31.8 | 1½          | 2.50                | 63.5 | 3.03     | 77.0 | 5.20        | 132.0 | 8.94       | 227.0 | NS         | Y           |             |      | Y    |

## Caterpillar® Flange

## 90° Elbow



Elbow Type  
LT=Long Tube  
ST=Short Tube

S=Skive  
NS=Non-Skive  
DG=Dual-Grip™

| Descriptive # | Product #  | SAP #    | Hose Size ID |      | Thread Size(A) | Hex-1 Wrench Size |      | Elbow Type | Drop (D) |       | Cut-Off (C) |       | Length (L) |       | Skive Type | SR13, ARC13 | SR15, ARC15 | S4SP    | S4SH    |
|---------------|------------|----------|--------------|------|----------------|-------------------|------|------------|----------|-------|-------------|-------|------------|-------|------------|-------------|-------------|---------|---------|
|               |            |          | in.          | mm   |                | in.               | mm   |            | in.      | mm    | in.         | mm    | in.        | mm    |            |             |             |         |         |
| DG-CF90-1212  | 16195-1212 | 20242377 | 3/4          | 19.0 | 3/4            | 1.63              | 41.3 |            | 2.64     | 67.0  | 2.52        | 64.0  | 5.04       | 128.0 | DG         | DGF1-12     | DGF1-12     | DGF1-12 | DGF1-12 |
| S6-CF90-1212  | 30195-1212 | 20293356 | 3/4          | 19.0 | 3/4            | 1.63              | 41.3 |            | 2.64     | 67.0  | 2.64        | 67.0  | 4.80       | 122.0 | NS         | Y           |             |         | Y       |
| DG-CF90-1216  | 16195-1216 | 20242793 | 3/4          | 19.0 | 1              | 1.87              | 47.6 |            | 2.76     | 70.0  | 2.56        | 65.0  | 5.08       | 129.0 | DG         | DGF1-12     | DGF1-12     | DGF1-12 | DGF1-12 |
| DG-CF90-1616  | 16195-1616 | 20242411 | 1            | 25.4 | 1              | 1.87              | 47.6 |            | 3.11     | 79.0  | 3.15        | 80.0  | 6.18       | 157.0 | DG         | DGF1-16     | DGF1-16     | DGF1-16 | DGF1-16 |
| S6-CF90-1616  | 30195-1616 | 20293357 | 1            | 25.4 | 1              | 1.87              | 47.6 |            | 3.11     | 79.0  | 3.35        | 85.0  | 5.87       | 149.0 | NS         | Y           |             |         | Y       |
| S6-CF90L-1616 | 30197-1616 | 20293358 | 1            | 25.4 | 1              | 1.87              | 47.6 | LT         | 5.20     | 132.0 | 3.35        | 85.0  | 5.87       | 149.0 | NS         | Y           |             |         | Y       |
| DG-CF90-1620  | 16195-1620 | 20242811 | 1            | 25.4 | 1¼             | 2.13              | 54.0 |            | 3.25     | 82.5  | 2.95        | 75.0  | 5.98       | 152.0 | DG         | DGF1-16     | DGF1-16     | DGF1-16 | DGF1-16 |
| DG-CF90-2020  | 16195-2020 | 20242288 | 1¼           | 31.8 | 1¼             | 2.13              | 54.0 |            | 3.66     | 93.0  | 3.50        | 89.0  | 6.93       | 176.0 | DG         | DGF2-20     | DGF2-20     |         | DGF1-20 |
| S6-CF90-2020  | 30195-2020 | 20577079 | 1¼           | 31.8 | 1¼             | 2.13              | 54.0 |            | 3.66     | 93.0  | 3.82        | 97.0  | 7.60       | 193.0 | NS         | Y           |             |         | Y       |
| DG-CF90-2024  | 16195-2024 | 20242412 | 1¼           | 31.8 | 1½             | 2.50              | 63.5 |            | 3.98     | 101.0 | 3.58        | 91.0  | 7.01       | 178.0 | DG         | DGF2-20     | DGF2-20     |         | DGF1-20 |
| S6-CF90-2424  | 30195-2424 | 20424954 | 1½           | 38.1 | 1½             | 2.50              | 63.5 |            | 4.29     | 109.0 | 4.61        | 117.0 | 7.87       | 200.0 | NS         | Y           |             |         |         |
| S6-CF90-3232  | 30195-3232 | 20441302 | 2            | 50.8 | 2              | 3.13              | 79.4 |            | 5.43     | 138.0 | 5.71        | 145.0 | 9.64       | 244.8 | NS         | Y           |             |         |         |

| Descriptive # | Product #  | SAP #    | Hose Size ID |      | Thread Size (A) | Hex-1 Wrench Size |      | Elbow Type | Drop (D) |       | Cut-Off (C) |      | Length (L) |       | Skive Type | SR13, ARC13 | SR15, ARC15 | S4SP | S4SH |
|---------------|------------|----------|--------------|------|-----------------|-------------------|------|------------|----------|-------|-------------|------|------------|-------|------------|-------------|-------------|------|------|
|               |            |          | in.          | mm   |                 | in.               | mm   |            | in.      | mm    | in.         | mm   | in.        | mm    |            |             |             |      |      |
| SG-CF90-1212  | 29195-1212 | 20822185 | 3/4          | 19.0 | 3/4             | 1.63              | 41.3 |            | 2.60     | 66.0  | 2.36        | 59.8 | 4.23       | 107.3 | NS         | Y           | Y           | Y    | Y    |
| SG-CF90-1216  | 29195-1216 | 20822184 | 3/4          | 19.0 | 1               | 1.63              | 41.3 |            | 2.76     | 70.1  | 2.65        | 67.3 | 4.52       | 114.8 | NS         | Y           | Y           | Y    | Y    |
| SG-CF90-1616  | 29195-1616 | 20822183 | 1            | 25.4 | 1               | 1.87              | 47.6 |            | 3.11     | 79.0  | 2.97        | 75.4 | 5.25       | 133.4 | NS         | Y           | Y           | Y    | Y    |
| SG-CF90L-1616 | 29197-1616 | 20822181 | 1            | 25.4 | 1               | 1.87              | 47.6 | LT         | 5.20     | 132.1 | 3.35        | 85.1 | 5.63       | 143.1 | NS         | Y           | Y           | Y    | Y    |
| SG-CF90-1620  | 29195-1620 | 20822182 | 1            | 25.4 | 1¼              | 2.13              | 54.0 |            | 3.54     | 90.0  | 3.07        | 78.0 | 5.35       | 136.0 | NS         | Y           | Y           | Y    | Y    |

## Komatsu® Flange

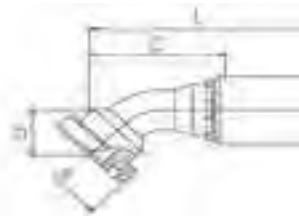


S=Skive  
NS=Non-Skive  
DG=Dual-Grip™

| Descriptive # | Product #  | SAP #    | Hose Size ID |      | Flange Size | Flange Diameter (A) |      | Cut-Off (C) |      | Length (L) |      | Skive Type | SR13, ARC13 | SR15, ARC15 | S4SP | S4SH |
|---------------|------------|----------|--------------|------|-------------|---------------------|------|-------------|------|------------|------|------------|-------------|-------------|------|------|
|               |            |          |              |      |             |                     |      |             |      |            |      |            |             |             |      |      |
|               |            |          | in.          | mm   | in.         | mm                  | in.  | mm          | in.  | mm         |      |            |             |             |      |      |
| SG-KF-0810    | 29530-0810 | 20821988 | 1/2          | 12.7 | 5/8         | 1.34                | 34.0 | 1.83        | 46.6 | 3.39       | 86.1 | NS         |             |             | Y    |      |
| SG-KF-1010    | 29530-1010 | 20821987 | 5/8          | 15.9 | 5/8         | 1.34                | 34.0 | 1.84        | 46.8 | 3.44       | 87.3 | NS         |             |             | Y    |      |
| SG-KF-1210    | 29530-1210 | 20821986 | 3/4          | 19.1 | 5/8         | 1.34                | 34.0 | 1.99        | 50.5 | 3.86       | 98.0 | NS         | Y           | Y           | Y    | Y    |

## Komatsu® Flange

45° Elbow

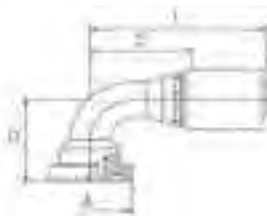


S=Skive  
NS=Non-Skive  
DG=Dual-Grip™

| Descriptive # | Product #  | SAP #    | Hose Size ID |      | Flange Size | Flange Diameter (A) |      | Drop (D) |      | Cut-Off (C) |      | Length (L) |      | Skive Type | SR13, ARC13 | SR15, ARC15 | S4SP | S4SH |
|---------------|------------|----------|--------------|------|-------------|---------------------|------|----------|------|-------------|------|------------|------|------------|-------------|-------------|------|------|
|               |            |          | in.          | mm   |             | in.                 | mm   | in.      | mm   | in.         | mm   | in.        | mm   |            |             |             |      |      |
| SG-KF45-1010  | 29535-1010 | 20821985 | 5/8          | 15.9 | 5/8         | 1.34                | 34.0 | 0.98     | 24.9 | 2.32        | 58.9 | 3.91       | 99.4 | NS         |             |             | Y    |      |

## Komatsu® Flange

90° Elbow

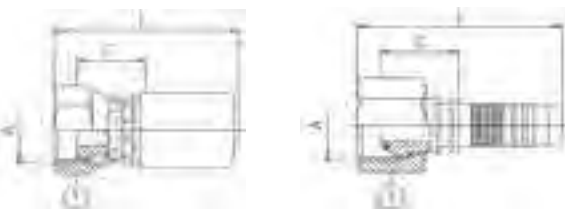


S=Skive  
NS=Non-Skive  
DG=Dual-Grip™

| Descriptive # | Product #  | SAP #    | Hose Size ID |      | Flange Size | Flange Diameter (A) |      | Drop (D) |      | Cut-Off (C) |      | Length (L) |       | Skive Type | SR13, ARC13 | SR15, ARC15 | S4SP | S4SH |
|---------------|------------|----------|--------------|------|-------------|---------------------|------|----------|------|-------------|------|------------|-------|------------|-------------|-------------|------|------|
|               |            |          | in.          | mm   |             | in.                 | mm   | in.      | mm   | in.         | mm   | in.        | mm    |            |             |             |      |      |
| SG-KF90-1010  | 29540-1010 | 20821984 | 5/8          | 15.9 | 5/8         | 1.34                | 34.0 | 2.01     | 51.1 | 1.97        | 50.0 | 3.56       | 90.5  | NS         |             |             | Y    |      |
| SG-KF90-1210  | 29540-1210 | 20821983 | 3/4          | 19.1 | 5/8         | 1.34                | 34.0 | 2.01     | 51.1 | 2.17        | 55.1 | 4.04       | 102.6 | NS         | Y           | Y           | Y    | Y    |

## BSP (British Standard Pipe Parallel)

Female | Swivel



S=Skive  
NS=Non-Skive  
DG=Dual-Grip™

| Descriptive #             | Product #  | SAP #    | Hose Size ID |      | Thread Size (A) | Hex-1 Wrench Size | Cut-Off (C) |      | Length (L) |       | Skive Type | SR13, ARC13 | SR15, ARC15 | S4SP    | S4SH    |
|---------------------------|------------|----------|--------------|------|-----------------|-------------------|-------------|------|------------|-------|------------|-------------|-------------|---------|---------|
|                           |            |          | in.          | mm   |                 | mm                | in.         | mm   | in.        | mm    |            |             |             |         |         |
| SG-BPFX-0808              | 29105-0808 | 20731754 | 1/2          | 12.7 | 1/2-14          |                   |             |      |            |       | NS         |             |             | Y       |         |
| DG-BPFX-1212 <sup>T</sup> | 16105-1212 | 20242375 | 3/4          | 19.0 | 3/4-14          | 32                | 0.89        | 22.5 | 3.75       | 95.2  | DG         | DGF1-12     | DGF1-12     | DGF1-12 | DGF1-12 |
| S6-BPFX-1212              | 30105-1212 | 20424839 | 3/4          | 19.0 | 3/4-14          | 32                | 0.99        | 25.2 | 3.50       | 89.0  | NS         | Y           |             |         | Y       |
| S6-BPFX-1616              | 30105-1616 | 20424940 | 1            | 25.4 | 1-11            | 38                | 1.22        | 31.0 | 4.15       | 105.5 | NS         | Y           |             |         | Y       |
| S6-BPFX-2020              | 30105-2020 | 20577065 | 1 1/4        | 31.8 | 1 1/4-11        | 50                | 1.38        | 35.0 | 5.53       | 140.5 | NS         | Y           |             |         | Y       |
| DG-BPFX-3232 <sup>T</sup> | 16105-3232 | 20242791 | 2            | 50.8 | 2-11            | 70                | 1.30        | 33.0 | 5.75       | 146.1 | DG         | DGF2-32     |             |         | DGF1-32 |
| S6-BPFX-3232              | 30105-3232 | 20788090 | 2            | 50.8 | 2-11            | 70                | 2.38        | 60.4 | 6.31       | 160.1 | NS         | Y           |             |         |         |

T: Thrust-Wire Nut (see "Fitting Identification" in Appendix for details)

DG: Part listed is Dual-Grip™ style (image is Uni-Crimp™ style)

Continued on next page



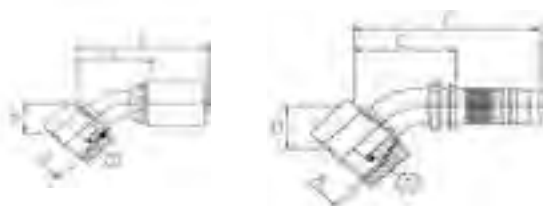
## BSPP (British Standard Pipe Parallel)

Female | Swivel Continued

| Descriptive # | Product #  | SAP #    | Hose Size ID |      | Thread Size (A) | Hex-1 Wrench Size | Cut-Off (C) |      | Length (L) |       | Skive Type | SR13, ARC13 | SR15, ARC15 | S4SP | S4SH |
|---------------|------------|----------|--------------|------|-----------------|-------------------|-------------|------|------------|-------|------------|-------------|-------------|------|------|
|               |            |          | in.          | mm   |                 | mm                | in.         | mm   | in.        | mm    |            |             |             |      |      |
| SG-BPFX-0608  | 29105-0608 | 20822223 | 3/8          | 9.5  | 1/2-14          | 27                | 1.036       | 26.3 | 2.493      | 63.3  | NS         |             |             | Y    |      |
| SG-BPFX-0808  | 29105-0808 | 20731754 | 1/2          | 12.7 | 1/2-14          | 27                | 1.221       | 31.0 | 2.535      | 64.4  | NS         |             |             | Y    |      |
| SG-BPFX-0810  | 29105-0810 | 20822222 | 1/2          | 12.7 | 5/8-14          | 27                | 1.151       | 29.2 | 2.382      | 60.5  | NS         |             |             | Y    |      |
| SG-BPFX-1212  | 29105-1212 | 20822221 | 3/4          | 19.1 | 3/4-14          | 32                | 1.385       | 35.2 | 3.256      | 82.7  | NS         | Y           | Y           | Y    | Y    |
| SG-BPFX-1616  | 29105-1616 | 20822220 | 1            | 25.4 | 1-11            | 38                | 1.628       | 41.4 | 3.911      | 99.3  | NS         | Y           | Y           | Y    | Y    |
| SG-BPFX-2424  | 29105-2424 | 20757733 | 1½           | 38.1 | 1½-11           | 55                | 2.80        | 71.1 | 6.26       | 159.1 | NS         |             |             |      | Y    |
| SG-BPFX-3232  | 29105-3232 | 20833296 | 2            | 50.8 | 2-11            | 70                | 2.54        | 64.5 | 6.09       | 154.6 | NS         |             |             |      | Y    |

## BSPP (British Standard Pipe Parallel)

Female | 45° Elbow | Swivel



S=Skive  
NS=Non-Skive  
DG=Dual-Grip™

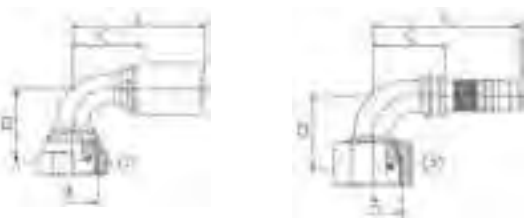
| Descriptive #               | Product #  | SAP #    | Hose Size ID |      | Thread Size | Hex-1 Wrench Size | Drop (D) |      | Cut-Off (C) |       | Length (L) |       | Skive Type | SR13, ARC13 | SR15, ARC15 | S4SP    | S4SH    |
|-----------------------------|------------|----------|--------------|------|-------------|-------------------|----------|------|-------------|-------|------------|-------|------------|-------------|-------------|---------|---------|
|                             |            |          | in.          | mm   |             | mm                | in.      | mm   | in.         | mm    | in.        | mm    |            |             |             |         |         |
| DG-BPFX45-1616 <sup>T</sup> | 16115-1616 | 20242802 | 1            | 25.4 | 1-11        | 38                | 1.34     | 34.0 | 3.19        | 81.0  | 6.43       | 163.3 | DG         | DGF1-16     | DGF1-16     | DGF1-16 | DGF1-16 |
| DG-BPFX45-2020 <sup>T</sup> | 16115-2020 | 20242287 | 1¼           | 31.8 | 1¼-11       | 50                | 1.57     | 40.0 | 3.82        | 97.0  | 7.44       | 189.0 | DG         | DGF2-20     | DGF2-20     |         | DGF1-20 |
| DG-BPFX45-2424 <sup>T</sup> | 16115-2424 | 20242286 | 1½           | 38.1 | 1½-11       | 55                | 1.81     | 46.0 | 4.45        | 113.0 | 8.29       | 210.6 | DG         | DGF2-24     | DGF2-24     |         | DGF1-24 |
| DG-BPFX45-3232 <sup>T</sup> | 16115-3232 | 20242788 | 2            | 50.8 | 2-11        | 70                | 2.36     | 60.0 | 5.94        | 151.0 | 10.08      | 256.0 | DG         | DGF2-32     |             |         | DGF1-32 |
| S6-BPFX45-3232              | 30115-3232 | 20788091 | 2            | 50.8 | 2-11        | 70                | 2.76     | 70.0 | 6.54        | 166.2 | 10.47      | 266.0 | NS         | Y           |             |         |         |

T: Thrust-Wire Nut (see "Fitting Identification" in Appendix for details)

| Descriptive #  | Product #  | SAP #    | Hose Size ID |      | Thread Size | Hex-1 Wrench Size | Drop (D)                      |      | Cut-Off (C) |       | Length (L) |       | Skive Type | SR13, ARC13 | SR15, ARC15 | S4SP | S4SH |
|----------------|------------|----------|--------------|------|-------------|-------------------|-------------------------------|------|-------------|-------|------------|-------|------------|-------------|-------------|------|------|
|                |            |          | in.          | mm   |             | mm                | in.                           | mm   | in.         | mm    | in.        | mm    |            |             |             |      |      |
| SG-BPFX45-0808 | 29115-0808 | 20822218 | 1/2          | 12.7 | 1/2-14      | 27                | 27                            | 0.83 | 21.1        | 2.17  | 55.1       | 3.705 | 94.1       |             |             | Y    |      |
| SG-BPFX45-1212 | 29115-1212 | 20822217 | 3/4          | 19.1 | 3/4-14      | 32                | 32                            | 1.08 | 27.4        | 2.789 | 70.8       | 4.912 | 124.8      | Y           | Y           | Y    | Y    |
| SG-BPFX45-1616 | 29115-1616 | 20822216 | 1            | 25.4 | 1-11        | 38                | 38                            | 1.34 | 34.0        | 3.31  | 84.1       | 5.593 | 142.1      | Y           | Y           | Y    | Y    |
| SG-BPFX45-2424 | 29115-2424 | 20757734 | 1½           | 38.1 | 1½-11       |                   | Contact Continental ContiTech |      |             |       |            |       | NS         |             |             |      | Y    |

BSPB (British Standard Pipe Parallel)

Female | 90° Elbow | Swivel



S=Skive  
NS=Non-Skive  
DG=Dual-Grip™

| Descriptive #               | Product #  | SAP #    | Hose Size ID |      | Thread Size | Hex-1 Wrench Size | Drop (D)                      |       | Cut-Off (C) |       | Length (L) |       | Skive Type | SR13, ARC13 | SR15, ARC15 | S4SP    | S4SH    |
|-----------------------------|------------|----------|--------------|------|-------------|-------------------|-------------------------------|-------|-------------|-------|------------|-------|------------|-------------|-------------|---------|---------|
|                             |            |          | in.          | mm   |             |                   | in.                           | mm    | in.         | mm    | in.        | mm    |            |             |             |         |         |
| S6-BPFX90-1212              | 30120-1212 | 20424914 | 3/4          | 19.0 | 3/4-14      | 32                | 2.40                          | 61.0  | 2.32        | 59.0  | 4.49       | 114.0 | NS         | Y           |             |         | Y       |
| DG-BPFX90-1616 <sup>C</sup> | 16120-1616 | 20242804 | 1            | 25.4 | 1-11        | 38                | 2.80                          | 71.0  | 2.95        | 75.0  | 5.94       | 151.0 | DG         | DGF1-16     | DGF1-16     | DGF1-16 | DGF1-16 |
| S6-BPFX90-1616              | 30120-1616 | 20424915 | 1            | 25.4 | 1-11        | 38                | 2.80                          | 71.0  | 2.91        | 74.0  | 5.43       | 138.0 | NS         | Y           |             |         | Y       |
| S6-BPFX90-2020              | 30120-2020 | 20577067 | 1¼           | 31.8 | 1¼-11       | 50                | 3.27                          | 83.0  | 3.31        | 84.0  | 6.30       | 160.0 | NS         | Y           |             |         | Y       |
| DG-BPFX90-2424 <sup>T</sup> | 16120-2424 | 20242789 | 1½           | 38.1 | 1½-11       | 55                | 3.78                          | 96.0  | 3.66        | 93.0  | 7.28       | 185.0 | DG         | DGF2-24     | DGF2-24     |         | DGF1-24 |
| S6-BPFX90-2424              | 30110-2424 | 20424917 | 1½           | 38.1 | 1½-11       | 55                | Contact Continental ContiTech |       |             |       |            |       | NS         | Y           |             |         |         |
| DG-BPFX90-3232 <sup>T</sup> | 16120-3232 | 20242790 | 2            | 50.8 | 2-11        | 70                | 4.92                          | 125.0 | 5.47        | 139.0 | 9.29       | 236.0 | DG         | DGF2-32     |             |         | DGF1-32 |
| S6-BPFX90-3232              | 30120-3232 | 20788092 | 2            | 50.8 | 2-11        | 70                | 5.51                          | 140.0 | 5.71        | 145.0 | 9.63       | 244.5 | NS         | Y           |             |         |         |

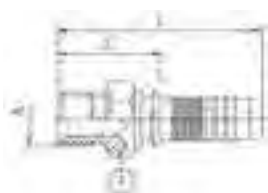
C: Crimp Nut T: Thrust-Wire Nut (see "Fitting Identification" in Appendix for details)

DG: Part listed is Dual-Grip™ style (image is Uni-Crimp™ style)

| Descriptive #  | Product #  | SAP #    | Hose Size ID |      | Thread Size | Hex-1 Wrench Size | Drop (D)                      |      | Cut-Off (C) |      | Length (L) |       | Skive Type | SR13, ARC13 | SR15, ARC15 | S4SP | S4SH |
|----------------|------------|----------|--------------|------|-------------|-------------------|-------------------------------|------|-------------|------|------------|-------|------------|-------------|-------------|------|------|
|                |            |          | in.          | mm   |             |                   | in.                           | mm   | in.         | mm   | in.        | mm    |            |             |             |      |      |
| SG-BPFX90-0608 | 29120-0608 | 20822214 | 3/8          | 9.5  | 1/2-14      | 27                | 1.40                          | 35.6 | 1.34        | 34.0 | 2.80       | 71.0  | NS         |             |             | Y    |      |
| SG-BPFX90-0808 | 29120-0808 | 20731763 | 1/2          | 12.7 | 1/2-14      | 27                | 1.61                          | 40.9 | 1.42        | 36.1 | 2.96       | 75.1  | NS         |             |             | Y    |      |
| SG-BPFX90-1212 | 29120-1212 | 20822213 | 3/4          | 19.1 | 3/4-14      | 32                | 2.24                          | 56.9 | 2.35        | 59.7 | 4.22       | 107.2 | NS         | Y           | Y           | Y    | Y    |
| SG-BPFX90-1616 | 29120-1616 | 20822212 | 1            | 25.4 | 1-11        | 38                | 2.80                          | 71.1 | 3.05        | 77.3 | 5.33       | 135.3 | NS         | Y           | Y           | Y    | Y    |
| SG-BPFX90-2424 | 29120-2424 | 20757732 | 1½           | 38.1 | 1½-11       |                   | Contact Continental ContiTech |      |             |      |            |       | NS         |             |             |      | Y    |

## BSPP (British Standard Pipe Parallel)

Male



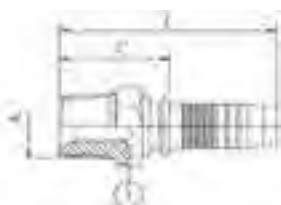
S=Skive  
NS=Non-Skive  
DG=Dual-Grip™

| Descriptive # | Product #  | SAP #    | Hose Size ID |      | Thread Size (A) | Hex-1 Wrench Size | Cut-Off (C) |      | Length (L) |       | Skive Type | SR13, ARC13 | SR15, ARC15 | S4SP | S4SH |
|---------------|------------|----------|--------------|------|-----------------|-------------------|-------------|------|------------|-------|------------|-------------|-------------|------|------|
|               |            |          | in.          | mm   |                 | mm                | in.         | mm   | in.        | mm    |            |             |             |      |      |
| S6-BPM-1212   | 30130-1212 | 20424918 | 3/4          | 19.0 | 3/4-14          | 32                | 1.48        | 37.5 | 3.64       | 92.5  | NS         | Y           |             |      | Y    |
| S6-BPM-1616   | 30130-1616 | 20424919 | 1            | 25.4 | 1-11            | 41                | 1.75        | 44.5 | 4.27       | 108.5 | NS         | Y           |             |      | Y    |
| S6-BPM-2020   | 30130-2020 | 20577068 | 1 1/4        | 31.8 | 1 1/4-11        | 50                | 2.01        | 51.0 | 5.77       | 146.5 | NS         | Y           |             |      | Y    |
| S6-BPM-2424   | 30130-2424 | 20424951 | 1 1/2        | 38.1 | 1 1/2-11        | 50                | 2.20        | 55.9 | 5.47       | 138.8 | NS         | Y           |             |      |      |
| S6-BPM-3232   | 30130-3232 | 20788093 | 2            | 50.8 | 2-11            | 70                | 2.66        | 67.5 | 6.59       | 167.3 | NS         | Y           |             |      |      |

| Descriptive # | Product #  | SAP #    | Hose Size ID |      | Thread Size (A) | Hex-1 Wrench Size | Cut-Off (C) |      | Length (L) |       | Skive Type | SR13, ARC13 | SR15, ARC15 | S4SP | S4SH |
|---------------|------------|----------|--------------|------|-----------------|-------------------|-------------|------|------------|-------|------------|-------------|-------------|------|------|
|               |            |          | in.          | mm   |                 | mm                | in.         | mm   | in.        | mm    |            |             |             |      |      |
| SG-BPM-0606   | 29130-0606 | 20822211 | 3/8          | 9.5  | 3/8-19          | 22                | 1.20        | 30.5 | 2.66       | 67.5  | NS         |             |             | Y    |      |
| SG-BPM-0608   | 29130-0608 | 20822210 | 3/8          | 9.5  | 1/2-14          | 27                | 1.34        | 34.0 | 2.80       | 71.0  | NS         |             |             | Y    |      |
| SG-BPM-0806   | 29130-0806 | 20822209 | 1/2          | 12.7 | 3/8-19          | 22                | 1.20        | 30.5 | 2.74       | 69.5  | NS         |             |             | Y    |      |
| SG-BPM-0808   | 29130-0808 | 20822208 | 1/2          | 12.7 | 1/2-14          | 27                | 1.34        | 34.0 | 2.88       | 73.1  | NS         |             |             | Y    |      |
| SG-BPM-1212   | 29130-1212 | 20822207 | 3/4          | 19.0 | 3/4-14          | 32                | 1.56        | 39.6 | 3.43       | 87.1  | NS         | Y           | Y           | Y    | Y    |
| SG-BPM-1616   | 29130-1616 | 20822206 | 1            | 25.4 | 1-11            | 36                | 1.86        | 47.1 | 4.14       | 105.1 | NS         | Y           | Y           | Y    | Y    |
| SG-BPM-2424   | 29130-2424 | 20757731 | 1 1/2        | 38.1 | 1 1/2-11        | 50                | 2.46        | 62.4 | 5.92       | 150.4 | NS         |             |             |      | Y    |
| SG-BPM-3232   | 29130-3232 | 20833303 | 2            | 50.8 | 2-11            | 70                | 2.81        | 71.3 | 6.35       | 161.3 | NS         |             |             |      | Y    |

## BSPT (British Standard Pipe Tapered)

Male



S=Skive  
NS=Non-Skive  
DG=Dual-Grip™

| Descriptive # | Product #  | SAP #    | Hose Size ID |      | Thread Size (A) | Hex-1 Wrench Size | Cut-Off (C) |      | Length (L) |       | Skive Type | SR13, ARC13 | SR15, ARC15 | S4SP | S4SH |
|---------------|------------|----------|--------------|------|-----------------|-------------------|-------------|------|------------|-------|------------|-------------|-------------|------|------|
|               |            |          | in.          | mm   |                 | mm                | in.         | mm   | in.        | mm    |            |             |             |      |      |
| S6-BTM-3232   | 30170-3232 | 20788094 | 2            | 50.8 | 2-11            | 70                | 2.53        | 64.1 | 6.453      | 163.9 | NS         | Y           |             |      |      |

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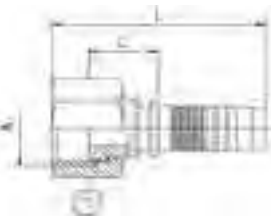
BSPT (British Standard Pipe Tapered)

Male Continued

| Descriptive # | Product #  | SAP #    | Hose Size ID |      | Thread Size (A) | Hex-1 Wrench Size | Cut-Off (C) |      | Length (L) |       | Skive Type | SR13, ARC13 | SR15, ARC15 | S4SP | S4SH |
|---------------|------------|----------|--------------|------|-----------------|-------------------|-------------|------|------------|-------|------------|-------------|-------------|------|------|
|               |            |          | in.          | mm   |                 |                   | in.         | mm   | in.        | mm    |            |             |             |      |      |
| SG-BTM-0606   | 29170-0606 | 20822205 | 3/8          | 9.5  | 3/8-19          | 22                | 1.20        | 30.5 | 2.656      | 67.5  | NS         |             |             | Y    |      |
| SG-BTM-0808   | 29170-0808 | 20822204 | 1/2          | 12.7 | 1/2-14          | 27                | 1.37        | 34.9 | 2.91       | 73.9  | NS         |             |             | Y    |      |
| SG-BTM-1212   | 29170-1212 | 20822203 | 3/4          | 19.0 | 3/4-14          | 22                | 1.48        | 37.5 | 3.347      | 85.0  | NS         | Y           | Y           | Y    | Y    |
| SG-BTM-1616   | 29170-1616 | 20822202 | 1            | 25.4 | 1-11            | 27                | 1.89        | 48.1 | 4.176      | 106.1 | NS         | Y           | Y           | Y    | Y    |
| SG-BTM-3232   | 29170-3232 | 20833297 | 2            | 50.8 | 2-11            | 32                | 2.67        | 67.9 | 6.216      | 157.9 | NS         |             |             |      | Y    |

BSP Flat Seat (British Standard Pipe)

Female | Swivel



S=Skive  
NS=Non-Skive  
DG=Dual-Grip™

| Descriptive # | Product #  | SAP #    | Hose Size ID |      | Thread Size (A) | Hex-1 Wrench Size | Cut-Off (C) |      | Length (L) |      | Skive Type | SR13, ARC13 | SR15, ARC15 | S4SP | S4SH |
|---------------|------------|----------|--------------|------|-----------------|-------------------|-------------|------|------------|------|------------|-------------|-------------|------|------|
|               |            |          | in.          | mm   |                 |                   | in.         | mm   | in.        | mm   |            |             |             |      |      |
| SG-BFFX-0608  | 29100-0608 | 20822227 | 3/8          | 9.5  | 1/2-14          | 27                | 0.80        | 20.3 | 2.26       | 57.3 | NS         |             |             | Y    |      |
| SG-BFFX-0808  | 29100-0808 | 20822226 | 1/2          | 12.7 | 1/2-14          | 27                | 0.82        | 20.9 | 2.36       | 59.8 | NS         |             |             | Y    |      |
| SG-BFFX-0812  | 29100-0812 | 20822225 | 1/2          | 12.7 | 3/4-14          | 32                | 1.00        | 25.4 | 2.54       | 64.4 | NS         |             |             | Y    |      |

DIN 24° Light

Female | Swivel

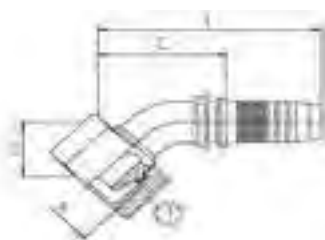


S=Skive  
NS=Non-Skive  
DG=Dual-Grip™

| Descriptive # | Product #  | SAP #    | Hose Size ID |      | Thread Size (A) | Hex-1 Wrench Size | Cut-Off (C) |      | Length (L) |      | Skive Type | SR13, ARC13 | SR15, ARC15 | S4SP | S4SH |
|---------------|------------|----------|--------------|------|-----------------|-------------------|-------------|------|------------|------|------------|-------------|-------------|------|------|
|               |            |          | in.          | mm   |                 |                   | in.         | mm   | in.        | mm   |            |             |             |      |      |
| SG-DLFX-0618  | 29240-0618 | 20758288 | 3/8          | 9.5  | 18x1.5          |                   |             |      |            |      | NS         |             |             | Y    |      |
| SG-DLFX-0822  | 29240-0822 | 20758302 | 1/2          | 12.7 | 22x1.5          | 27                | 1.21        | 30.7 | 2.46       | 62.4 | NS         |             |             | Y    |      |
| SG-DLFX-1230  | 29240-1230 | 20822154 | 3/4          | 19.1 | 30x2.0          | 36                | 1.42        | 36.0 | 3.29       | 83.5 | NS         | Y           | Y           | Y    | Y    |
| SG-DLFX-1236  | 29240-1236 | 20822153 | 3/4          | 19.1 | 36x2.0          | 41                | 1.60        | 40.7 | 3.47       | 88.2 | NS         | Y           | Y           | Y    | Y    |
| SG-DLFX-1636  | 29240-1636 | 20822152 | 1            | 25.4 | 36x2.0          | 41                | 1.49        | 37.9 | 3.60       | 91.5 | NS         | Y           | Y           | Y    | Y    |

## DIN 24° Light

Female | 45° Elbow | Swivel

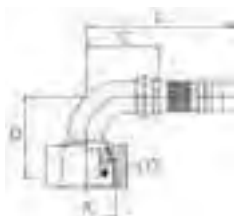


S=Skive  
NS=Non-Skive  
DG=Dual-Grip™

| Descriptive #  | Product #  | SAP #    | Hose Size ID |      | Thread Size | Hex-1 Wrench Size | Drop (D) |      | Cut-Off (C) |      | Length (L) |       | Skive Type | SR13, ARC13 | SR15, ARC15 | S4SP | S4SH |
|----------------|------------|----------|--------------|------|-------------|-------------------|----------|------|-------------|------|------------|-------|------------|-------------|-------------|------|------|
|                |            |          | in.          | mm   |             |                   | in.      | mm   | in.         | mm   | in.        | mm    |            |             |             |      |      |
| SG-DLFX45-0822 | 29245-0822 | 20822150 | 1/2          | 12.7 | 22x1.5      | 27                | 0.83     | 21.1 | 2.17        | 55.1 | 3.71       | 94.1  | NS         |             |             | Y    |      |
| SG-DLFX45-1230 | 29245-1230 | 20822149 | 3/4          | 19.1 | 30x2.0      | 36                | 1.26     | 32.0 | 2.72        | 69.1 | 4.59       | 116.6 | NS         | Y           | Y           | Y    | Y    |
| SG-DLFX45-1636 | 29245-1636 | 20822148 | 1            | 25.4 | 36x2.0      | 41                | 1.26     | 32.0 | 3.58        | 90.9 | 5.86       | 148.9 | NS         | Y           | Y           | Y    | Y    |

## DIN 24° Light

Female | 90° Elbow | Swivel

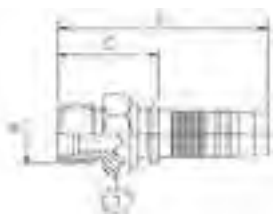


S=Skive  
NS=Non-Skive  
DG=Dual-Grip™

| Descriptive #  | Product #  | SAP #    | Hose Size ID |      | Thread Size | Hex-1 Wrench Size | Drop (D) |      | Cut-Off (C) |      | Length (L) |       | Skive Type | SR13, ARC13 | SR15, ARC15 | S4SP | S4SH |
|----------------|------------|----------|--------------|------|-------------|-------------------|----------|------|-------------|------|------------|-------|------------|-------------|-------------|------|------|
|                |            |          | in.          | mm   |             |                   | in.      | mm   | in.         | mm   | in.        | mm    |            |             |             |      |      |
| SG-DLFX90-0822 | 29250-0822 | 20822146 | 1/2          | 12.7 | 22x1.5      | 27                | 1.59     | 40.4 | 1.57        | 39.9 | 3.11       | 78.9  | NS         |             |             | Y    |      |
| SG-DLFX90-1230 | 29250-1230 | 20822144 | 3/4          | 19.1 | 30x2.0      | 36                | 2.32     | 58.9 | 2.05        | 52.1 | 3.92       | 99.6  | NS         | Y           | Y           | Y    | Y    |
| SG-DLFX90-1636 | 29250-1636 | 20822143 | 1            | 25.4 | 36x2.0      | 41                | 2.68     | 68.1 | 3.07        | 78.0 | 5.35       | 136.0 | NS         | Y           | Y           | Y    | Y    |

## DIN 24° Light

Male

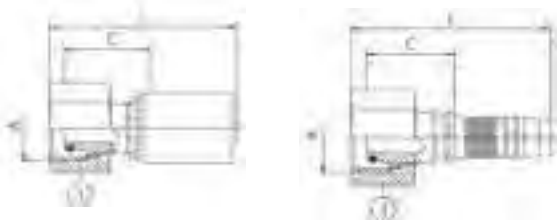


S=Skive  
NS=Non-Skive  
DG=Dual-Grip™

| Descriptive # | Product #  | SAP #    | Hose Size ID |      | Thread Size (A) | Hex-1 Wrench Size | Cut-Off (C) |      | Length (L) |      | Skive Type | SR13, ARC13 | SR15, ARC15 | S4SP | S4SH |
|---------------|------------|----------|--------------|------|-----------------|-------------------|-------------|------|------------|------|------------|-------------|-------------|------|------|
|               |            |          | in.          | mm   |                 |                   | in.         | mm   | in.        | mm   |            |             |             |      |      |
| SG-DLM-0822   | 29255-0822 | 20822140 | 1/2          | 12.7 | 22x1.5          | 22                | 1.10        | 28.0 | 2.64       | 67.0 | NS         |             |             | Y    |      |
| SG-DLM-1230   | 29255-1230 | 20822139 | 3/4          | 19.1 | 30x2.0          | 32                | 1.35        | 34.3 | 3.22       | 81.8 | NS         | Y           | Y           | Y    | Y    |
| SG-DLM-1636   | 29255-1636 | 20822138 | 1            | 25.4 | 36x2.0          | 36                | 1.50        | 38.2 | 3.79       | 96.2 | NS         | Y           | Y           | Y    | Y    |

DIN 24° Heavy

Female | Swivel



S=Skive  
NS=Non-Skive  
DG=Dual-Grip™

| Descriptive #             | Product #  | SAP #    | Hose Size ID |      | Thread Size (A) | Hex-1 Wrench Size | Cut-Off (C) |      | Length (L) |       | Skive Type | SR13, ARC13 | SR15, ARC15 | S4SP    | S4SH    |
|---------------------------|------------|----------|--------------|------|-----------------|-------------------|-------------|------|------------|-------|------------|-------------|-------------|---------|---------|
|                           |            |          | in.          | mm   |                 |                   | in.         | mm   | in.        | mm    |            |             |             |         |         |
| DG-DHFX-1230 <sup>T</sup> | 16210-1230 | 20242320 | 3/4          | 19.0 | 30x2.0          | 36                | 1.47        | 37.3 | 4.17       | 106.0 | DG         | DGF1-12     | DGF1-12     | DGF1-12 | DGF1-12 |
| S6-DHFX-1230              | 30210-1230 | 20424955 | 3/4          | 19.0 | 30x2.0          | 36                | 1.45        | 36.8 | 3.80       | 96.5  | NS         | Y           |             |         | Y       |
| DG-DHFX-1236              | 16210-1236 | 20274104 | 3/4          | 19.0 | 36x2.0          | 36                | 1.79        | 45.5 | 4.30       | 109.3 | DG         | DGF1-12     | DGF1-12     | DGF1-12 | DGF1-12 |
| DG-DHFX-1642              | 16210-1642 | 20242422 | 1            | 25.4 | 42x2.0          | 50                | 1.78        | 45.3 | 4.99       | 126.8 | DG         | DGF1-16     | DGF1-16     | DGF1-16 | DGF1-16 |
| S6-DHFX-1642              | 30210-1642 | 20424956 | 1            | 25.4 | 42x2.0          | 50                | 1.78        | 45.3 | 4.50       | 114.2 | NS         | Y           |             |         | Y       |
| DG-DHFX-2052              | 16210-2052 | 20242423 | 1 1/4        | 31.8 | 52x2.0          | 60                | 1.78        | 45.3 | 5.60       | 142.2 | DG         | DGF2-20     | DGF2-20     |         | DGF1-20 |
| S6-DHFX-2052              | 30210-2052 | 20577080 | 1 1/4        | 31.8 | 52x2.0          | 60                | 2.01        | 51.1 | 6.16       | 156.5 | NS         | Y           |             |         | Y       |

T: Thrust-Wire Nut (see "Fitting Identification" in Appendix for details)  
DG: Part listed is Dual-Grip™ style (image is Uni-Crimp™ style)

| Descriptive # | Product #  | SAP #    | Hose Size ID |      | Thread Size (A) | Hex-1 Wrench Size | Cut-Off (C) |      | Length (L) |       | Skive Type | SR13, ARC13 | SR15, ARC15 | S4SP | S4SH |
|---------------|------------|----------|--------------|------|-----------------|-------------------|-------------|------|------------|-------|------------|-------------|-------------|------|------|
|               |            |          | in.          | mm   |                 |                   | in.         | mm   | in.        | mm    |            |             |             |      |      |
| SG-DHFX-0620  | 29210-0620 | 20774066 | 3/8          | 9.5  | 20x1.5          | 24                | 1.21        | 30.8 | 2.669      | 67.8  | NS         |             |             | Y    |      |
| SG-DHFX-0622  | 29210-0622 | 20822180 | 3/8          | 9.5  | 22x1.5          | 27                | 1.42        | 36.2 | 2.881      | 73.2  | NS         |             |             | Y    |      |
| SG-DHFX-0824  | 29210-0824 | 20731609 | 1/2          | 12.7 | 24x1.5          | 30                | 1.44        | 36.5 | 2.785      | 70.7  | NS         |             |             | Y    |      |
| SG-DHFX-1030  | 29210-1030 | 20822179 | 5/8          | 15.9 | 30x2.0          | 36                | 1.64        | 41.7 | 3.234      | 82.1  | NS         |             |             | Y    |      |
| SG-DHFX-1230  | 29210-1230 | 20822178 | 3/4          | 19.1 | 30x2.0          | 36                | 1.60        | 40.7 | 3.328      | 84.5  | NS         | Y           | Y           | Y    | Y    |
| SG-DHFX-1236  | 29210-1236 | 20774357 | 3/4          | 19.1 | 36x2.0          | 46                | 1.89        | 47.9 | 3.756      | 95.4  | NS         | Y           | Y           | Y    | Y    |
| SG-DHFX-1636  | 29210-1636 | 20822176 | 1            | 25.4 | 36x2.0          | 46                | 2.17        | 55.1 | 4.455      | 113.2 | NS         | Y           | Y           | Y    | Y    |
| SG-DHFX-1642  | 29210-1642 | 20822175 | 1            | 25.4 | 42x2.0          | 50                | 1.88        | 47.9 | 4.167      | 105.8 | NS         | Y           | Y           | Y    | Y    |

## DIN 24° Heavy

Female | 45° Elbow | Swivel



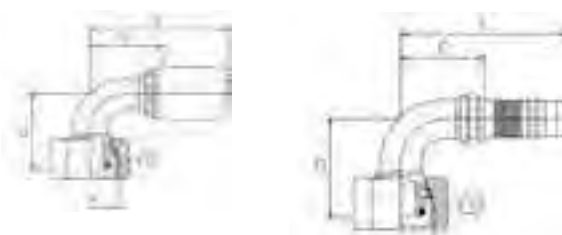
S=Skive  
NS=Non-Skive  
DG=Dual-Grip™

| Descriptive #  | Product #  | SAP #    | Hose Size ID |      | Thread Size (A) | Hex-1 Wrench Size | Drop (D) |      | Cut-Off (C) |      | Length (L) |       | Skive Type | SR13, ARC13 | SR15, ARC15 | S4SP    | S4SH    |
|----------------|------------|----------|--------------|------|-----------------|-------------------|----------|------|-------------|------|------------|-------|------------|-------------|-------------|---------|---------|
|                |            |          | in.          | mm   |                 | mm                | in.      | mm   | in.         | mm   | in.        | mm    |            |             |             |         |         |
| DG-DHFX45-1236 | 16215-1236 | 20298071 | 3/4          | 19.0 | 36x2.0          | 46                | 1.42     | 36.0 | 3.07        | 78.1 | 5.72       | 145.4 | DG         | DGF1-12     | DGF1-12     | DGF1-12 | DGF1-12 |
| DG-DHFX45-1642 | 16215-1642 | 20242311 | 1            | 25.4 | 42x2.0          | 50                | 1.97     | 50.0 | 3.81        | 96.8 | 6.92       | 175.8 | DG         | DGF1-16     | DGF1-16     | DGF1-16 | DGF1-16 |

| Descriptive #  | Product #  | SAP #    | Hose Size ID |      | Thread Size (A) | Hex-1 Wrench Size | Drop (D) |      | Cut-Off (C) |       | Length (L) |       | Skive Type | SR13, ARC13 | SR15, ARC15 | S4SP | S4SH |
|----------------|------------|----------|--------------|------|-----------------|-------------------|----------|------|-------------|-------|------------|-------|------------|-------------|-------------|------|------|
|                |            |          | in.          | mm   |                 | mm                | in.      | mm   | in.         | mm    | in.        | mm    |            |             |             |      |      |
| SG-DHFX45-0620 | 29215-0620 | 20822174 | 3/8          | 9.5  | 20x1.5          | 24                | 0.79     | 20.1 | 2.01        | 51.1  | 3.47       | 88.1  | NS         |             |             | Y    |      |
| SG-DHFX45-0622 | 29215-0622 | 20822173 | 3/8          | 9.5  | 22x1.5          | 27                | 0.83     | 21.1 | 2.09        | 53.1  | 3.55       | 90.1  | NS         |             |             | Y    |      |
| SG-DHFX45-0824 | 29215-0824 | 20822172 | 1/2          | 12.7 | 24x1.5          | 30                | 0.85     | 21.6 | 2.20        | 55.9  | 3.74       | 94.9  | NS         |             |             | Y    |      |
| SG-DHFX45-1236 | 29215-1236 | 20822171 | 3/4          | 19.1 | 36x2.0          | 46                | 1.30     | 33.0 | 2.72        | 69.1  | 4.59       | 116.6 | NS         | Y           | Y           | Y    | Y    |
| SG-DHFX45-1642 | 29215-1642 | 20822170 | 1            | 25.4 | 42x2.0          | 50                | 1.59     | 40.4 | 4.33        | 110.0 | 6.61       | 168.0 | NS         | Y           | Y           | Y    | Y    |

## DIN 24° Heavy

Female | 90° Elbow | Swivel



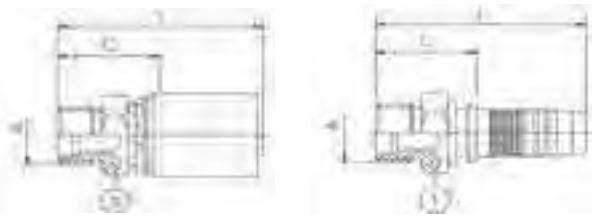
S=Skive  
NS=Non-Skive  
DG=Dual-Grip™

| Descriptive #  | Product #  | SAP #    | Hose Size ID |      | Thread Size (A) |    | Hex-1 Wrench Size |      | Drop (D) |      | Cut-Off (C) |       | Length (L) |         | Skive Type | SR13, ARC13 | SR15, ARC15 | S4SP | S4SH |
|----------------|------------|----------|--------------|------|-----------------|----|-------------------|------|----------|------|-------------|-------|------------|---------|------------|-------------|-------------|------|------|
|                |            |          |              |      |                 |    |                   |      |          |      |             |       |            |         |            |             |             |      |      |
|                |            |          | in.          | mm   |                 | mm | in.               | mm   | in.      | mm   | in.         | mm    |            |         |            |             |             |      |      |
| DG-DHFX90-1236 | 16220-1236 | 20242318 | 3/4          | 19.0 | 36x2.0          | 46 | 2.56              | 65.0 | 2.44     | 62.0 | 4.96        | 126.0 | DG         | DGF1-12 | DGF1-12    | DGF1-12     | DGF1-12     |      |      |

| Descriptive #  | Product #  | SAP #    | Hose Size ID |      | Thread Size (A) | Hex-1 Wrench Size | Drop (D) |      | Cut-Off (C) |      | Length (L) |       | Skive Type | SR13, ARC13 | SR15, ARC15 | S4SP | S4SH |
|----------------|------------|----------|--------------|------|-----------------|-------------------|----------|------|-------------|------|------------|-------|------------|-------------|-------------|------|------|
|                |            |          | in.          | mm   |                 | mm                | in.      | mm   | in.         | mm   | in.        | mm    |            |             |             |      |      |
| SG-DHFX90-0620 | 29220-0620 | 20822169 | 3/8          | 9.5  | 20x1.5          | 24                | 1.52     | 38.6 | 1.34        | 34.0 | 2.80       | 71.0  | NS         |             |             | Y    |      |
| SG-DHFX90-0622 | 29220-0622 | 20822168 | 3/8          | 9.5  | 22x1.5          | 27                | 1.59     | 40.4 | 1.34        | 34.0 | 2.80       | 71.0  | NS         |             |             | Y    |      |
| SG-DHFX90-0824 | 29220-0824 | 20731752 | 1/2          | 12.7 | 24x1.5          | 30                | 1.63     | 41.4 | 1.57        | 39.9 | 3.11       | 78.9  | NS         |             |             | Y    |      |
| SG-DHFX90-1030 | 29220-1030 | 20822167 | 5/8          | 15.9 | 30x2.0          | 36                | 2.17     | 55.1 | 1.97        | 50.0 | 3.56       | 90.5  | NS         |             |             | Y    |      |
| SG-DHFX90-1230 | 29220-1230 | 20822166 | 3/4          | 19.1 | 30x2.0          | 36                | 2.28     | 57.9 | 2.01        | 51.1 | 3.88       | 98.6  | NS         | Y           | Y           | Y    | Y    |
| SG-DHFX90-1236 | 29220-1236 | 20822165 | 3/4          | 19.1 | 36x2.0          | 46                | 2.34     | 59.4 | 2.01        | 51.1 | 3.88       | 98.6  | NS         | Y           | Y           | Y    | Y    |
| SG-DHFX90-1642 | 29220-1642 | 20822163 | 1            | 25.4 | 42x2.0          | 50                | 3.11     | 79.0 | 2.99        | 75.9 | 5.27       | 133.9 | NS         | Y           | Y           | Y    | Y    |

# DIN 24° Heavy

Male



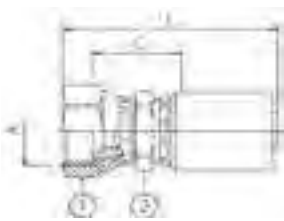
S=Skive  
NS=Non-Skive  
DG=Dual-Grip™

| Descriptive # | Product #  | SAP #    | Hose Size ID |      | Thread Size (A) | Hex-1 Wrench Size | Cut-Off (C) |      | Length (L) |       | Skive Type | SR13, ARC13 | SR15, ARC15 | S4SP    | S4SH    |
|---------------|------------|----------|--------------|------|-----------------|-------------------|-------------|------|------------|-------|------------|-------------|-------------|---------|---------|
|               |            |          | in.          | mm   |                 | mm                | in.         | mm   | in.        | mm    |            |             |             |         |         |
| S6-DHM-1230   | 30225-1230 | 20424958 | 3/4          | 19.0 | 30x2.0          | 32                | 1.36        | 34.5 | 3.52       | 89.5  | NS         | Y           |             |         | Y       |
| DG-DHM-1236   | 16225-1236 | 20242327 | 3/4          | 19.0 | 36x2.0          | 36                | 1.14        | 29.0 | 3.90       | 99.0  | DG         | DGF1-12     | DGF1-12     | DGF1-12 | DGF1-12 |
| DG-DHM-1642   | 16225-1642 | 20242384 | 1            | 25.4 | 42x2.0          | 46                | 1.26        | 32.0 | 4.59       | 116.5 | DG         | DGF1-16     | DGF1-16     | DGF1-16 | DGF1-16 |
| S6-DHM-1642   | 30225-1642 | 20424959 | 1            | 25.4 | 42x2.0          | 46                | 1.59        | 40.5 | 4.11       | 104.5 | NS         | Y           |             |         | Y       |

| Descriptive # | Product #  | SAP #    | Hose Size ID |      | Thread Size (A) | Hex-1 Wrench Size | Cut-Off (C) |      | Length (L) |       | Skive Type | SR13, ARC13 | SR15, ARC15 | S4SP | S4SH |
|---------------|------------|----------|--------------|------|-----------------|-------------------|-------------|------|------------|-------|------------|-------------|-------------|------|------|
|               |            |          | in.          | mm   |                 | mm                | in.         | mm   | in.        | mm    | 4          |             |             |      |      |
| SG-DHM-0824   | 29225-0824 | 20822160 | 1/2          | 12.7 | 24x1.5          | 24                | 1.22        | 31.0 | 2.76       | 70.0  | NS         |             |             | Y    |      |
| SG-DHM-1230   | 29225-1230 | 20822159 | 3/4          | 19.1 | 30x2.0          | 32                | 1.44        | 36.5 | 3.31       | 84.0  | NS         | Y           | Y           | Y    | Y    |
| SG-DHM-1236   | 29225-1236 | 20822158 | 1            | 3/4  | 26x2.0          | 36                | 1.60        | 40.6 | 3.47       | 88.1  | NS         | Y           | Y           | Y    | Y    |
| SG-DHM-1642   | 29225-1642 | 20822157 | 1            | 25.4 | 42x2.0          | 46                | 1.82        | 46.2 | 4.10       | 104.2 | NS         | Y           | Y           | Y    | Y    |

# Japanese Komatsu® 30° Flare with Metric Threads

Female | Swivel



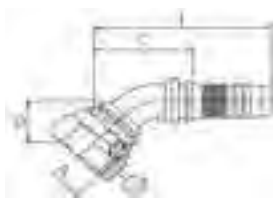
S=Skive  
NS=Non-Skive  
DG=Dual-Grip™

| Descriptive # | Product #  | SAP #    | Hose Size ID |      | Thread Size | Hex-1 Wrench Size | Hex-2 Wrench Size | Cut-Off (C) |      | Length (L) |       | Skive Type | SR13, ARC13 | SR15, ARC15 | S4SP | S4SH |
|---------------|------------|----------|--------------|------|-------------|-------------------|-------------------|-------------|------|------------|-------|------------|-------------|-------------|------|------|
|               |            |          | in.          | mm   |             | mm                | mm                | in.         | mm   | in.        | mm    |            |             |             |      |      |
| SG-KMFX-0618  | 29545-0618 | 20821982 | 3/8          | 9.5  | 18x1.5      | 22                |                   | 1.36        | 34.6 | 2.82       | 71.6  | NS         |             |             | Y    |      |
| SG-KMFX-0822  | 29545-0822 | 20758298 | 1/2          | 12.7 | 22x1.5      | 27                |                   | 1.47        | 37.3 | 3.00       | 76.3  | NS         |             |             | Y    |      |
| SG-KMFX-1024  | 29545-1024 | 20821981 | 5/8          | 15.9 | 24x1.5      | 32                |                   | 1.75        | 44.5 | 3.35       | 85.0  | NS         |             |             | Y    |      |
| SG-KMFX-1230  | 29545-1230 | 20821980 | 3/4          | 19.1 | 30x1.5      | 36                |                   | 1.95        | 49.5 | 3.82       | 97.0  | NS         | Y           | Y           | Y    | Y    |
| SG-KMFX-1633  | 29545-1633 | 20821979 | 1/2          | 12.7 | 33x1.5      | 41                |                   | 2.43        | 61.8 | 4.72       | 119.8 | NS         | Y           | Y           | Y    | Y    |



## Japanese Komatsu® 30° Flare with Metric Threads

Female | 45° Elbow | Swivel

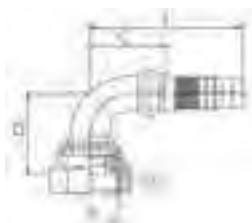


S=Skive  
NS=Non-Skive  
DG=Dual-Grip™

| Descriptive #  | Product #  | SAP #    | Hose Size ID |      | Thread Size (A) | Hex-1 Wrench Size | Drop (D) |      | Cut-Off (C) |      | Length (L) |      | Skive Type | SR13, ARC13 | SR15, ARC15 | S4SP | S4SH |
|----------------|------------|----------|--------------|------|-----------------|-------------------|----------|------|-------------|------|------------|------|------------|-------------|-------------|------|------|
|                |            |          | in.          | mm   |                 |                   | in.      | mm   | in.         | mm   | in.        | mm   |            |             |             |      |      |
| SG-KMFX45-0618 | 29548-0618 | 20821978 | 3/8          | 9.5  | 18x1.5          | 22                | 0.71     | 18.0 | 1.73        | 43.9 | 3.19       | 80.9 | NS         |             |             | Y    |      |
| SG-KMFX45-0822 | 29548-0822 | 20821977 | 1/2          | 12.7 | 22x1.5          | 27                | 1.16     | 29.5 | 2.20        | 55.9 | 3.74       | 94.9 | NS         |             |             | Y    |      |

## Japanese Komatsu® 30° Flare with Metric Threads

Female | 90° Elbow | Swivel



S=Skive  
NS=Non-Skive  
DG=Dual-Grip™

| Descriptive #  | Product #  | SAP #    | Hose Size ID |      | Thread Size (A) | Hex-1 Wrench Size | Drop (D) |      | Cut-Off (C) |      | Length (L) |      | Skive Type | SR13, ARC13 | SR15, ARC15 | S4SP | S4SH |
|----------------|------------|----------|--------------|------|-----------------|-------------------|----------|------|-------------|------|------------|------|------------|-------------|-------------|------|------|
|                |            |          | in.          | mm   |                 |                   | in.      | mm   | in.         | mm   | in.        | mm   |            |             |             |      |      |
| SG-KMFX90-0618 | 29550-0618 | 20821976 | 3/8          | 9.5  | 18x1.5          | 22                | 1.40     | 35.6 | 1.42        | 36.1 | 2.88       | 73.1 | NS         |             |             | Y    |      |
| SG-KMFX90-0822 | 29550-0822 | 20821975 | 1/2          | 12.7 | 22x1.5          | 27                | 2.09     | 53.1 | 1.74        | 44.1 | 3.27       | 83.1 | NS         |             |             | Y    |      |

## JIS 30° (Parallel Pipe Threads)

Female | Swivel



S=Skive  
NS=Non-Skive  
DG=Dual-Grip™

| Descriptive # | Product #  | SAP #    | Hose Size ID |      | Thread Size | Hex-1 Wrench Size | Hex-2 Wrench Size | Cut-Off (C) |      | Length (L) |       | Skive Type | SR13, ARC13 | SR15, ARC15 | S4SP | S4SH |
|---------------|------------|----------|--------------|------|-------------|-------------------|-------------------|-------------|------|------------|-------|------------|-------------|-------------|------|------|
|               |            |          | in.          | mm   |             |                   |                   | in.         | mm   | in.        | mm    |            |             |             |      |      |
| SG-JSFX-0606  | 29520-0606 | 20821992 | 3/8          | 9.5  | 3/8-19      | 22                | 19                | 1.36        | 34.6 | 2.82       | 71.6  | NS         |             |             | Y    |      |
| SG-JSFX-0808  | 29520-0808 | 20821991 | 1/2          | 12.7 | 1/2-14      | 27                | 22                | 1.47        | 37.2 | 3.00       | 76.3  | NS         |             |             | Y    |      |
| SG-JSFX-1212  | 29520-1212 | 20821990 | 3/4          | 19.0 | 3/4-14      | 36                | 30                | 1.70        | 43.1 | 3.57       | 90.6  | NS         | Y           | Y           | Y    | Y    |
| SG-JSFX-1616  | 29520-1616 | 20821989 | 1            | 25.4 | 1-11        | 41                | 36                | 2.05        | 52.1 | 4.33       | 110.1 | NS         | Y           | Y           | Y    | Y    |

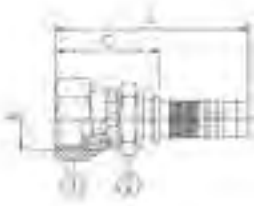
How to Use the Fitting Tables

This section lists ALL fittings that are compatible with the following hoses:

| Hose Family | Hose Description                |
|-------------|---------------------------------|
| SR3         | SAE 100R3/EN 854 R3             |
| HR4         | SAE 100R4                       |
| SR6         | SAE 100R6/EN 854 R6             |
| HR6         | SAE 100R6/EN 854 R6 (High Temp) |
| SR14A       | SAE 100R14A                     |

Fitting Description

Fitting Type



S=Skive  
NS=Non-Skive  
DG=Dual-Grip™

| Descriptive # | Product #   | SAP #    | Hose Size ID |     | Thread Size (A) | Hex-1 Wrench Size |    | Hex-2 Wrench Size |    | Cut-Off (C) |      | Length (L) |      | Skive Type | SR3                  | HR4 | SR6, HR6 | SR14A   |
|---------------|-------------|----------|--------------|-----|-----------------|-------------------|----|-------------------|----|-------------|------|------------|------|------------|----------------------|-----|----------|---------|
|               |             |          | in.          | mm  |                 | in.               | mm | in.               | mm | in.         | mm   | in.        | mm   |            |                      |     |          |         |
| UC-SCFX-0304  | 36400-0304  | 20557173 | 3/16         | 4.8 | 7/16-20         | 9/16              | 14 | 1/2               | 12 | 0.71        | 18.1 | 1.93       | 49.0 |            |                      |     | UCF2-03  | UCF9-03 |
| UC-SCFX-04045 | 36400-0404  | 20242786 | 1/4          | 6.4 | 7/16-20         | 5/8               | 16 | 9/16              | 14 | 0.77        | 19.6 | 2.09       | 53.1 |            | UCF6-04              |     | UCF2-04  | UCF9-04 |
| UC-SCFX-0404  | 36400-0404S | 20540685 | 1/4          | 6.4 | 7/16-20         | 5/8               | 16 | 9/16              | 14 | 0.77        | 19.6 | 2.09       | 53.1 |            | Uni-Crimp Ferrule PN |     | UCF2-04  | UCF9-04 |

Choose fittings carefully considering the working pressure of both hose and fitting. The maximum working pressure of the hose assembly is the lesser of the rated working pressure of the hose and the fitting. See page 313 for working pressure.

A **blank space** in the hose compatibility columns indicates that the fitting **DOES NOT** work for that particular hose.

A **Part Number (Ferrule)** in the hose compatibility columns indicates that the fitting is a **Uni-Crimp™** style. The fitting, along with the ferrule shown, work together as a unit for that particular hose.

## JIC 37° Flare (SAE J514)

Female | Swivel



S=Skive  
NS=Non-Skive  
DG=Dual-Grip™

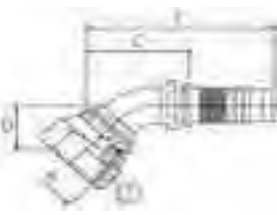
| Descriptive #            | Product #   | SAP #    | Hose Size ID |      | Thread Size (A) | Hex-1 Wrench Size |    | Hex-2 Wrench Size |    | Cut-Off (C) |      | Length (L) |       | Skive Type | SR3     | HR4     | SR6, HR6 | SR14A   |
|--------------------------|-------------|----------|--------------|------|-----------------|-------------------|----|-------------------|----|-------------|------|------------|-------|------------|---------|---------|----------|---------|
|                          |             |          | in.          | mm   |                 | in.               | mm | in.               | mm | in.         | mm   | in.        | mm    |            |         |         |          |         |
| UCHJCFX-0304             | 36400-0304  | 20530659 | 3/16         | 4.8  | 7/16-20         | 9/16              | 14 | 1/2               | 12 | 1.07        | 27.2 | 1.94       | 49.4  | NS         |         |         | UCF2-03  | UCF9-03 |
| UCJCFX-0403              | 36400-0403  | 20318324 | 1/4          | 6.4  | 3/8-24          | 1/2               | 12 | 1/2               | 12 | 1.11        | 28.1 | 2.09       | 53.0  | NS         | UCF6-04 |         | UCF2-04  | UCF9-04 |
| UCJCFX-0404              | 36400-0404  | 20242786 | 1/4          | 6.4  | 7/16-20         | 5/8               | 16 | 9/16              | 14 | 1.17        | 29.6 | 2.15       | 54.5  | NS         | UCF6-04 |         | UCF2-04  | UCF9-04 |
| UCJCFX-0404S             | 36400-0404S | 20540685 | 1/4          | 6.4  | 7/16-20         | 5/8               | 16 | 9/16              | 14 | 1.17        | 29.6 | 2.15       | 54.5  | NS         | UCF6-04 |         | UCF2-04  | UCF9-04 |
| UCJCFX-0405              | 36400-0405  | 20242746 | 1/4          | 6.4  | 1/2-20          | 11/16             | 17 | 9/16              | 14 | 1.24        | 31.4 | 2.22       | 56.3  | NS         | UCF6-04 |         | UCF2-04  | UCF9-04 |
| UCJCFX-0406              | 36400-0406  | 20242778 | 1/4          | 6.4  | 9/16-18         | 3/4               | 19 | 9/16              | 14 | 1.23        | 31.2 | 2.21       | 56.1  | NS         | UCF6-04 |         | UCF2-04  | UCF9-04 |
| UCJCFX-0504              | 36400-0504  | 20629768 | 5/16         | 7.9  | 7/16-20         | 5/8               | 16 | 9/16              | 14 | 1.20        | 30.4 | 2.18       | 55.3  | NS         | UCF6-05 |         | UCF2-05  | UCF9-05 |
| UCJCFX-0505              | 36400-0505  | 20242676 | 5/16         | 7.9  | 1/2-20          | 11/16             | 17 | 9/16              | 14 | 1.24        | 31.4 | 2.22       | 56.3  | NS         | UCF6-05 |         | UCF2-05  | UCF9-05 |
| UCJCFX-0506              | 36400-0506  | 20242765 | 5/16         | 7.9  | 9/16-18         | 3/4               | 19 | 9/16              | 14 | 1.23        | 31.2 | 2.21       | 56.1  | NS         | UCF6-05 |         | UCF2-05  | UCF9-05 |
| UCJCFX-0604              | 36400-0604  | 20688966 | 3/8          | 9.5  | 7/16-20         |                   |    |                   |    |             |      |            |       | NS         | UCF6-06 |         | UCF2-06  | UCF9-06 |
| UCJCFX-0606              | 36400-0606  | 20242787 | 3/8          | 9.5  | 9/16-18         | 3/4               | 19 | 11/16             | 17 | 1.22        | 31.1 | 2.27       | 57.7  | NS         | UCF6-06 |         | UCF2-06  | UCF9-06 |
| UCJCFX-0606S             | 36400-0606S | 20540686 | 3/8          | 9.5  | 9/16-18         | 3/4               | 19 | 11/16             | 17 | 1.22        | 31.1 | 2.27       | 57.7  | NS         | UCF6-06 |         | UCF2-06  | UCF9-06 |
| UCJCFX-0608              | 36400-0608  | 20242779 | 3/8          | 9.5  | 3/4-16          | 1                 | 25 | 3/4               | 19 | 1.37        | 34.9 | 2.42       | 61.5  | NS         | UCF6-06 |         | UCF2-06  | UCF9-06 |
| UCJCFX-0610              | 36400-0610  | 20242708 | 3/8          | 9.5  | 7/8-14          | 1 1/16            | 27 | 7/8               | 22 | 1.53        | 38.8 | 2.58       | 65.5  | NS         | UCF6-06 |         | UCF2-06  | UCF9-06 |
| UCJCFX-0806              | 36400-0806  | 20242666 | 1/2          | 12.7 | 9/16-18         | 3/4               | 19 | 3/4               | 19 | 1.29        | 32.8 | 2.54       | 64.5  | NS         | UCF6-08 |         | UCF2-08  | UCF9-08 |
| UCJCFX-0808              | 36400-0808  | 20242785 | 1/2          | 12.7 | 3/4-16          | 1                 | 25 | 3/4               | 19 | 1.44        | 36.7 | 2.69       | 68.4  | NS         | UCF6-08 |         | UCF2-08  | UCF9-08 |
| UCJCFX-0808S             | 36400-0808S | 20540687 | 1/2          | 12.7 | 3/4-16          | 1                 | 25 | 3/4               | 19 | 1.44        | 36.7 | 2.69       | 68.4  | NS         | UCF6-08 |         | UCF2-08  | UCF9-08 |
| UCJCFX-0810              | 36400-0810  | 20242772 | 1/2          | 12.7 | 7/8-14          | 1 1/16            | 27 | 7/8               | 22 | 1.56        | 39.6 | 2.81       | 71.3  | NS         | UCF6-08 |         | UCF2-08  | UCF9-08 |
| UCJCFX-0812              | 36400-0812  | 20242727 | 1/2          | 12.7 | 1 1/16-12       | 1 1/4             | 32 | 1                 | 25 | 1.68        | 42.6 | 2.93       | 74.3  | NS         | UCF6-08 |         | UCF2-08  | UCF9-08 |
| UCJCFX-1008              | 36400-1008  | 20242399 | 5/8          | 15.9 | 3/4-16          | 1                 | 25 | 15/16             | 24 | 1.52        | 38.7 | 2.88       | 73.2  | NS         | UCF6-10 |         | UCF2-10  | UCF9-10 |
| UCJCFX-1010              | 36400-1010  | 20242774 | 5/8          | 15.9 | 7/8-14          | 1 1/16            | 27 | 15/16             | 24 | 1.67        | 42.4 | 3.03       | 76.9  | NS         | UCF6-10 |         | UCF2-10  | UCF9-10 |
| UCJCFX-1010S             | 36400-1010S | 20540688 | 5/8          | 15.9 | 7/8-14          | 1 1/16            | 27 | 15/16             | 24 | 1.67        | 42.4 | 3.03       | 76.9  | NS         | UCF6-10 |         | UCF2-10  | UCF9-10 |
| UCJCFX-1012              | 36400-1012  | 20242580 | 5/8          | 15.9 | 1 1/16-12       | 1 1/4             | 32 | 1                 | 25 | 1.68        | 42.6 | 3.04       | 77.1  | NS         | UCF6-10 |         | UCF2-10  | UCF9-10 |
| UCJCFX-1210              | 36400-1210  | 20242694 | 3/4          | 19.0 | 7/8-14          | 1 1/4             | 32 | 1 1/16            | 27 | 1.63        | 41.4 | 3.18       | 80.8  | NS         | UCF6-12 | UCF6-12 | UCF2-12  | UCF9-12 |
| UCJCFX-1212              | 36400-1212  | 20242783 | 3/4          | 19.0 | 1 1/16-12       | 1 1/4             | 32 | 1 1/16            | 27 | 1.74        | 44.2 | 3.29       | 83.6  | NS         | UCF6-12 | UCF6-12 | UCF2-12  | UCF9-12 |
| UCJCFX-1212S             | 36400-1212S | 20540689 | 3/4          | 19.0 | 1 1/16-12       | 1 1/4             | 32 | 1 1/16            | 27 | 1.74        | 44.2 | 3.29       | 83.6  | NS         | UCF6-12 | UCF6-12 | UCF2-12  | UCF9-12 |
| UCJCFX-1214              | 36400-1214  | 20242613 | 3/4          | 19.0 | 1 3/16-12       | 1 1/16            | 36 | 1 1/4             | 32 | 1.76        | 44.6 | 3.31       | 84.0  | NS         | UCF6-12 | UCF6-12 | UCF2-12  | UCF9-12 |
| UCJCFX-1216              | 36400-1216  | 20242719 | 3/4          | 19.0 | 1 5/16-12       | 1 1/2             | 38 | 1 1/4             | 32 | 1.89        | 48.1 | 3.45       | 87.5  | NS         | UCF6-12 | UCF6-12 | UCF2-12  | UCF9-12 |
| UCJCFX-1612              | 36400-1612  | 20242702 | 1            | 25.4 | 1 1/16-12       | 1 1/4             | 32 | 1 1/4             | 32 | 1.88        | 47.7 | 3.65       | 92.8  | NS         | UCF6-16 | UCF6-16 |          | UCF9-16 |
| UCJCFX-1616              | 36400-1616  | 20242784 | 1            | 25.4 | 1 5/16-12       | 1 1/2             | 38 | 1 1/4             | 32 | 1.96        | 49.8 | 3.74       | 94.9  | NS         | UCF6-16 | UCF6-16 |          | UCF9-16 |
| UCJCFX-1616S             | 36400-1616S | 20540690 | 1            | 25.4 | 1 5/16-12       | 1 1/2             | 38 | 1 1/4             | 32 | 1.96        | 49.8 | 3.74       | 94.9  | NS         | UCF6-16 | UCF6-16 |          | UCF9-16 |
| UCJCFX-1620 <sup>T</sup> | 36400-1620  | 20242711 | 1            | 25.4 | 1 5/16-12       | 2                 | 50 | 1 5/8             | 41 | 2.07        | 52.5 | 3.84       | 97.6  | NS         | UCF6-16 | UCF6-16 |          | UCF9-16 |
| UCJCFX-2020 <sup>T</sup> | 36400-2020  | 20242781 | 1 1/4        | 31.8 | 1 5/8-12        | 2                 | 50 | 1 5/8             | 41 | 2.15        | 54.6 | 4.20       | 106.6 | NS         |         | UCF6-20 |          |         |
| UCJCFX-2020S             | 36400-2020S | 20676944 | 1 1/4        | 31.8 | 1 5/8-12        | 2                 | 50 | 1 5/8             |    | 2.15        | 54.6 | 4.20       | 106.6 | NS         |         | UCF6-20 |          |         |
| UCJCFX-2420              | 36400-2420  | 20591960 | 1 1/2        | 38.1 | 1 5/8-12        | 2                 | 50 | 2                 | 50 | 2.21        | 56.2 | 4.54       | 115.4 | NS         |         | UCF6-24 |          |         |
| UCJCFX-2424 <sup>T</sup> | 36400-2424  | 20242768 | 1 1/2        | 38.1 | 1 7/8-12        | 2 3/16            | 55 | 2                 | 50 | 2.42        | 61.4 | 4.75       | 120.6 | NS         |         | UCF6-24 |          |         |
| UCJCFX-3232 <sup>T</sup> | 36400-3232  | 20242754 | 2            | 50.8 | 2 1/2-12        | 2 3/4             | 70 | 2 9/16            | 65 | 2.88        | 73.1 | 5.71       | 145.1 | NS         |         | UCF6-32 |          |         |
| UCJCFX-3232S             | 36400-3232S | 20672343 | 2            | 50.8 | 2 1/2-12        | 2 3/4             | 70 | 2 9/16            | 65 | 2.88        | 73.1 | 5.71       | 145.1 | NS         |         | UCF6-32 |          |         |

T: Thrust-Wire Nut (see "Fitting Identification" in Appendix for details)

S: Stainless Steel

JIC 37° Flare (SAE J514)

Female | 45° Elbow | Swivel



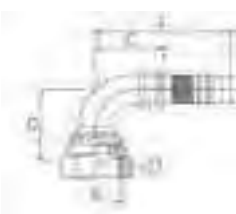
S=Skive  
NS=Non-Skive  
DG=Dual-Grip™

| Descriptive #   | Product #  | SAP #    | Hose Size ID |      | Thread Size (A) | Hex-1 Wrench Size |    | Drop (D) |      | Cut-Off (C) |       | Length (L) |       | Skive Type | SR3     | HR4     | SR6, HR6 | SR14A   |
|-----------------|------------|----------|--------------|------|-----------------|-------------------|----|----------|------|-------------|-------|------------|-------|------------|---------|---------|----------|---------|
|                 |            |          | in.          | mm   |                 | in.               | mm | in.      | mm   | in.         | mm    | in.        | mm    |            |         |         |          |         |
| UC-JCFX45-0304  | 36420-0304 | 20685771 | 3/16         | 4.8  | 7/16-20         | 5/8               | 16 | 0.39     | 10.0 | 1.44        | 36.6  | 2.31       | 58.8  | NS         |         |         | UCF2-04  | UCF9-03 |
| UC-JCFX45-0404  | 36420-0404 | 20242725 | 1/4          | 6.4  | 7/16-20         | 5/8               | 16 | 0.39     | 10.0 | 1.46        | 37.0  | 2.44       | 61.9  | NS         | UCF6-04 |         | UCF2-04  | UCF9-04 |
| UC-JCFX45-0405  | 36420-0405 | 20242628 | 1/4          | 6.4  | 1/2-20          | 11/16             | 17 | 0.47     | 12.0 | 1.46        | 37.0  | 2.44       | 61.9  | NS         | UCF6-04 |         | UCF2-04  | UCF9-04 |
| UC-JCFX45-0406  | 36420-0406 | 20242629 | 1/4          | 6.4  | 9/16-18         | 3/4               | 19 | 0.43     | 11.0 | 1.54        | 39.0  | 2.52       | 63.9  | NS         | UCF6-04 |         | UCF2-04  | UCF9-04 |
| UC-JCFX45-0506  | 36420-0506 | 20242489 | 5/16         | 7.9  | 9/16-18         | 3/4               | 19 | 0.47     | 11.9 | 1.69        | 42.9  | 2.67       | 67.8  | NS         | UCF6-05 |         | UCF2-05  | UCF9-05 |
| UC-JCFX45-0606  | 36420-0606 | 20242743 | 3/8          | 9.5  | 9/16-18         | 3/4               | 19 | 0.43     | 11.0 | 1.81        | 46.0  | 2.86       | 72.6  | NS         | UCF6-06 |         | UCF2-06  | UCF9-06 |
| UC-JCFX45-0608  | 36420-0608 | 20242698 | 3/8          | 9.5  | 3/4-16          | 1                 | 25 | 0.59     | 15.0 | 1.85        | 47.0  | 2.90       | 73.6  | NS         | UCF6-06 |         | UCF2-06  | UCF9-06 |
| UC-JCFX45-0808  | 36420-0808 | 20242729 | 1/2          | 12.7 | 3/4-16          | 1                 | 25 | 0.59     | 15.0 | 2.05        | 52.0  | 3.29       | 83.7  | NS         | UCF6-08 |         | UCF2-08  | UCF9-08 |
| UC-JCFX45-0810  | 36420-0810 | 20242675 | 1/2          | 12.7 | 7/8-14          | 1 1/16            | 27 | 0.63     | 16.0 | 2.01        | 51.0  | 3.26       | 82.7  | NS         | UCF6-08 |         | UCF2-08  | UCF9-08 |
| UC-JCFX45-1010  | 36420-1010 | 20242345 | 5/8          | 15.9 | 7/8-14          | 1 1/16            | 27 | 0.87     | 22.0 | 2.56        | 65.0  | 3.92       | 99.5  | NS         | UCF6-10 |         | UCF2-10  | UCF9-10 |
| UC-JCFX45-1012  | 36420-1012 | 20242344 | 5/8          | 15.9 | 1 1/16-12       | 1 1/4             | 32 | 0.83     | 21.0 | 2.72        | 69.0  | 4.07       | 103.5 | NS         | UCF6-10 |         | UCF2-10  | UCF9-10 |
| UC-JCFX45-1212  | 36420-1212 | 20242721 | 3/4          | 19.0 | 1 1/16-12       | 1 1/4             | 32 | 0.83     | 21.0 | 2.64        | 67.0  | 4.19       | 106.5 | NS         | UCF6-12 | UCF6-12 | UCF2-12  | UCF9-12 |
| UC-JCFX45-1216  | 36420-1216 | 20242343 | 3/4          | 19.0 | 1 3/16-12       | 1 1/2             | 38 | 1.02     | 26.0 | 2.80        | 71.0  | 4.35       | 110.4 | NS         | UCF6-12 | UCF6-12 | UCF2-12  | UCF9-12 |
| UC-JCFX45-1616  | 36420-1616 | 20242742 | 1            | 25.4 | 1 3/16-12       | 1 1/2             | 38 | 0.95     | 24.0 | 3.11        | 79.0  | 4.89       | 124.1 | NS         | UCF6-16 | UCF6-16 |          | UCF9-16 |
| UC-JCFX45-2020T | 36420-2020 | 20242710 | 1 1/4        | 31.8 | 1 5/8-12        | 2                 | 50 | 1.46     | 37.1 | 3.82        | 97.0  | 5.87       | 149.0 | NS         |         | UCF6-20 |          |         |
| UC-JCFX45-2424T | 36420-2424 | 20242632 | 1 1/2        | 38.1 | 1 7/8-12        | 2 3/16            | 55 | 1.69     | 42.9 | 4.45        | 113.0 | 6.78       | 172.2 | NS         |         | UCF6-24 |          |         |
| UC-JCFX45-3232T | 36420-3232 | 20269237 | 2            | 50.8 | 2 1/2-12        | 2 3/4             | 70 | 2.64     | 67.1 | 6.30        | 160.0 | 9.13       | 232.0 | NS         |         | UCF6-32 |          |         |

T: Thrust-Wire Nut (see "Fitting Identification" in Appendix for details)

## JIC 37° Flare (SAE J514)

Female | 90° Elbow | Swivel



Elbow Type:  
LT=Long Tube  
ST=Short Tube

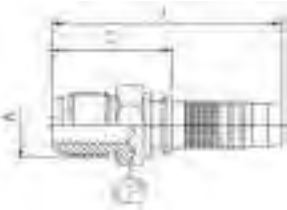
S=Skive  
NS=Non-Skive  
DG=Dual-Grip™

| Descriptive #                | Product #  | SAP #    | Hose Size ID |      | Thread Size (A) | Hex-1 Wrench Size |    | Elbow Type | Drop (D) |       | Cut-Off (C) |       | Length (L) |       | Skive Type | SR3     | HR4     | SR6, HR6 | SR14A   |
|------------------------------|------------|----------|--------------|------|-----------------|-------------------|----|------------|----------|-------|-------------|-------|------------|-------|------------|---------|---------|----------|---------|
|                              |            |          | in.          | mm   |                 | in.               | mm |            | in.      | mm    | in.         | mm    | in.        | mm    |            |         |         |          |         |
| UC-JCFX90-0304               | 36425-0304 | 20269250 | 3/16         | 4.8  | 7/16-20         | 5/8               | 16 |            | 1.26     | 32.0  | 1.30        | 33.0  | 2.17       | 55.2  | NS         |         |         | UCF2-03  | UCF9-03 |
| UC-JCFX90-0404               | 36425-0404 | 20242770 | 1/4          | 6.4  | 7/16-20         | 5/8               | 16 |            | 1.26     | 32.0  | 1.34        | 34.0  | 2.32       | 58.9  | NS         | UCF6-04 |         | UCF2-04  | UCF9-04 |
| UC-JCFX90L-0404              | 36440-0404 | 20242662 | 1/4          | 6.4  | 7/16-20         | 5/8               | 16 | LT         | 1.81     | 46.0  | 1.25        | 31.8  | 2.23       | 56.7  | NS         | UCF6-04 |         | UCF2-04  | UCF9-04 |
| UC-JCFX90S-0404              | 36445-0404 | 20242430 | 1/4          | 6.4  | 7/16-20         | 5/8               | 16 | ST         | 0.83     | 21.0  | 1.06        | 27.0  | 2.04       | 51.9  | NS         | UCF6-04 |         | UCF2-04  | UCF9-04 |
| UC-JCFX90-0405               | 36425-0405 | 20242657 | 1/4          | 6.4  | 1/2-20          | 11/16             | 17 |            | 1.18     | 30.0  | 1.02        | 26.0  | 2.00       | 50.9  | NS         | UCF6-04 |         | UCF2-04  | UCF9-04 |
| UC-JCFX90L-0405              | 36440-0405 | 20242473 | 1/4          | 6.4  | 1/2-20          | 11/16             | 17 | LT         | 1.77     | 45.0  | 1.02        | 26.0  | 2.00       | 50.9  | NS         | UCF6-04 |         | UCF2-04  | UCF9-04 |
| UC-JCFX90S-0405              | 36445-0405 | 20242396 | 1/4          | 6.4  | 1/2-20          | 11/16             | 17 | ST         | 0.93     | 23.5  | 1.02        | 26.0  | 2.00       | 50.9  | NS         | UCF6-04 |         | UCF2-04  | UCF9-04 |
| UC-JCFX90-0406               | 36425-0406 | 20242718 | 1/4          | 6.4  | 9/16-18         | 3/4               | 19 |            | 1.50     | 38.0  | 1.10        | 28.0  | 2.08       | 52.9  | NS         | UCF6-04 |         | UCF2-04  | UCF9-04 |
| UC-JCFX90L-0406              | 36440-0406 | 20242474 | 1/4          | 6.4  | 9/16-18         | 3/4               | 19 | LT         | 2.13     | 54.0  | 1.34        | 34.0  | 2.32       | 58.9  | NS         | UCF6-04 |         | UCF2-04  | UCF9-04 |
| UC-JCFX90S-0406              | 36445-0406 | 20242397 | 1/4          | 6.4  | 9/16-18         | 3/4               | 19 | ST         | 0.91     | 23.0  | 1.22        | 31.0  | 2.20       | 55.9  | NS         | UCF6-04 |         | UCF2-04  | UCF9-04 |
| UC-JCFX90-0504               | 36425-0504 | 20612476 | 5/16         | 7.9  | 7/16-20         | 5/8               | 16 |            | 1.26     | 32.0  | 1.34        | 34.0  | 2.32       | 58.9  | NS         | UCF6-05 |         | UCF2-05  | UCF9-05 |
| UC-JCFX90-0505               | 36425-0505 | 20242565 | 5/16         | 7.9  | 1/2-20          | 3/4               | 17 |            | 1.38     | 35.1  | 1.34        | 34.0  | 2.32       | 58.9  | NS         | UCF6-05 |         | UCF2-05  | UCF9-05 |
| UC-JCFX90-0506               | 36425-0506 | 20242490 | 5/16         | 7.9  | 9/16-18         | 3/4               | 19 |            | 1.38     | 35.1  | 1.30        | 33.0  | 2.28       | 57.9  | NS         | UCF6-05 |         | UCF2-05  | UCF9-05 |
| UC-JCFX90L-0506              | 36440-0506 | 20242454 | 5/16         | 7.9  | 9/16-18         | 3/4               | 19 | LT         | 2.13     | 54.1  | 1.42        | 36.1  | 2.40       | 61.0  | NS         | UCF6-05 |         | UCF2-05  | UCF9-05 |
| UC-JCFX90-0604               | 36425-0604 | 20183323 | 3/8          | 9.5  | 7/16-20         | 5/8               | 16 |            | 1.26     | 32.0  | 1.38        | 35.0  | 2.43       | 61.6  | NS         | UCF6-06 |         | UCF2-06  | UCF9-06 |
| UC-JCFX90L-0604              | 36440-0604 | 20183322 | 3/8          | 9.5  | 7/16-20         | 5/8               | 16 | LT         | 1.81     | 46.0  | 1.22        | 31.0  | 2.27       | 57.6  | NS         | UCF6-06 |         | UCF2-06  | UCF9-06 |
| UC-JCFX90-0606               | 36425-0606 | 20242776 | 3/8          | 9.5  | 9/16-18         | 3/4               | 19 |            | 1.38     | 35.0  | 1.22        | 31.0  | 2.27       | 57.6  | NS         | UCF6-06 |         | UCF2-06  | UCF9-06 |
| UC-JCFX90L-0606              | 36440-0606 | 20242720 | 3/8          | 9.5  | 9/16-18         | 3/4               | 19 | LT         | 2.13     | 54.0  | 1.69        | 43.0  | 2.74       | 69.6  | NS         | UCF6-06 |         | UCF2-06  | UCF9-06 |
| UC-JCFX90S-0606              | 36445-0606 | 20242475 | 3/8          | 9.5  | 9/16-18         | 3/4               | 19 | ST         | 0.91     | 23.0  | 1.65        | 42.0  | 2.70       | 68.7  | NS         | UCF6-06 |         | UCF2-06  | UCF9-06 |
| UC-JCFX90-0608               | 36425-0608 | 20242753 | 3/8          | 9.5  | 3/4-16          | 1                 | 25 |            | 1.61     | 41.0  | 1.54        | 39.0  | 2.58       | 65.6  | NS         | UCF6-06 |         | UCF2-06  | UCF9-06 |
| UC-JCFX90L-0608              | 36440-0608 | 20242587 | 3/8          | 9.5  | 3/4-16          | 1                 | 25 | LT         | 2.52     | 64.0  | 1.85        | 47.0  | 2.90       | 73.6  | NS         | UCF6-06 |         | UCF2-06  | UCF9-06 |
| UC-JCFX90S-0608              | 36445-0608 | 20242431 | 3/8          | 9.5  | 3/4-16          | 1                 | 25 | ST         | 1.14     | 29.0  | 1.93        | 49.0  | 2.98       | 75.6  | NS         | UCF6-06 |         | UCF2-06  | UCF9-06 |
| UC-JCFX90-0808               | 36425-0808 | 20242764 | 1/2          | 12.7 | 3/4-16          | 1                 | 25 |            | 1.58     | 40.0  | 1.46        | 37.0  | 2.70       | 68.7  | NS         | UCF6-08 |         | UCF2-08  | UCF9-08 |
| UC-JCFX90L-0808              | 36440-0808 | 20242688 | 1/2          | 12.7 | 3/4-16          | 1                 | 25 | LT         | 2.52     | 64.0  | 1.97        | 50.0  | 3.22       | 81.7  | NS         | UCF6-08 |         | UCF2-08  | UCF9-08 |
| UC-JCFX90S-0808              | 36445-0808 | 20242429 | 1/2          | 12.7 | 3/4-16          | 1                 | 25 | ST         | 1.14     | 29.0  | 1.81        | 46.0  | 3.06       | 77.7  | NS         | UCF6-08 |         | UCF2-08  | UCF9-08 |
| UC-JCFX90-0810               | 36425-0810 | 20242706 | 1/2          | 12.7 | 7/8-14          | 1 1/16            | 27 |            | 1.85     | 47.0  | 1.69        | 43.0  | 2.94       | 74.7  | NS         | UCF6-08 |         | UCF2-08  | UCF9-08 |
| UC-JCFX90L-0810              | 36440-0810 | 20242584 | 1/2          | 12.7 | 7/8-14          | 1 1/16            | 27 | LT         | 2.56     | 65.0  | 1.46        | 37.0  | 2.70       | 68.7  | NS         | UCF6-08 |         | UCF2-08  | UCF9-08 |
| UC-JCFX90S-0810              | 36445-0810 | 20242395 | 1/2          | 12.7 | 7/8-14          | 1 1/16            | 27 | ST         | 1.26     | 32.0  | 1.81        | 46.0  | 3.06       | 77.7  | NS         | UCF6-08 |         | UCF2-08  | UCF9-08 |
| UC-JCFX90-0812               | 36425-0812 | 20242349 | 1/2          | 12.7 | 1 1/16-12       | 1 1/4             | 32 |            | 1.81     | 46.0  | 1.46        | 37.0  | 2.70       | 68.7  | NS         | UCF6-08 |         | UCF2-08  | UCF9-08 |
| UC-JCFX90-1010               | 36425-1010 | 20242749 | 5/8          | 15.9 | 7/8-14          | 1 1/16            | 27 |            | 1.89     | 48.0  | 1.93        | 49.0  | 3.29       | 83.5  | NS         | UCF6-10 |         | UCF2-10  | UCF9-10 |
| UC-JCFX90L-1010              | 36440-1010 | 20242346 | 5/8          | 15.9 | 7/8-14          | 1 1/16            | 27 | LT         | 2.56     | 65.0  | 1.97        | 50.0  | 3.32       | 84.4  | NS         | UCF6-10 |         | UCF2-10  | UCF9-10 |
| UC-JCFX90S-1010              | 36445-1010 | 20591962 | 5/8          | 15.9 | 7/8-14          | 1 1/16            | 27 | ST         |          |       |             |       |            |       | NS         | UCF6-10 |         | UCF2-10  | UCF9-10 |
| UC-JCFX90-1012               | 36425-1012 | 20242350 | 5/8          | 15.9 | 1 1/16-12       | 1 1/4             | 32 |            | 2.28     | 58.0  | 1.89        | 48.0  | 3.25       | 82.5  | NS         | UCF6-10 |         | UCF2-10  | UCF9-10 |
| UC-JCFX90L-1012              | 36440-1012 | 20283400 | 5/8          | 15.9 | 1 1/16-12       | 1 1/4             | 32 | LT         |          |       |             |       |            |       | NS         | UCF6-10 |         | UCF2-10  | UCF9-10 |
| UC-JCFX90L-1210              | 36440-1210 | 20591961 | 3/4          | 19.0 | 7/8-14          | 1 1/16            | 27 | LT         | 2.76     | 70.0  | 1.97        | 50.0  | 3.52       | 89.5  | NS         | UCF6-12 | UCF6-12 | UCF2-12  | UCF9-12 |
| UC-JCFX90S-1210              | 36445-1210 | 20613762 | 3/4          | 19.0 | 7/8-14          | 1 1/16            | 27 | ST         |          |       |             |       |            |       | NS         | UCF6-12 | UCF6-12 | UCF2-12  | UCF9-12 |
| UC-JCFX90-1212               | 36425-1212 | 20242756 | 3/4          | 19.0 | 1 1/16-12       | 1 1/4             | 32 |            | 2.13     | 54.0  | 2.05        | 52.0  | 3.60       | 91.4  | NS         | UCF6-12 | UCF6-12 | UCF2-12  | UCF9-12 |
| UC-JCFX90L-1212              | 36440-1212 | 20242674 | 3/4          | 19.0 | 1 1/16-12       | 1 1/4             | 32 | LT         | 3.74     | 95.0  | 2.13        | 54.0  | 3.68       | 93.4  | NS         | UCF6-12 | UCF6-12 | UCF2-12  | UCF9-12 |
| UC-JCFX90S-1212              | 36445-1212 | 20591963 | 3/4          | 19.0 | 1 1/16-12       | 1 1/4             | 32 | ST         | 1.81     | 46.0  | 2.28        | 58.0  | 3.84       | 97.4  | NS         | UCF6-12 | UCF6-12 | UCF2-12  | UCF9-12 |
| UC-JCFX90-1216               | 36425-1216 | 20242579 | 3/4          | 19.0 | 1 5/16-12       | 1 1/2             | 38 |            | 2.84     | 72.0  | 2.09        | 53.0  | 3.64       | 92.5  | NS         | UCF6-12 | UCF6-12 | UCF2-12  | UCF9-12 |
| UC-JCFX90-1616               | 36425-1616 | 20242758 | 1            | 25.4 | 1 5/8-12        | 1 1/2             | 38 |            | 2.81     | 71.4  | 2.89        | 73.4  | 4.67       | 118.5 | NS         | UCF6-16 | UCF6-16 |          | UCF9-16 |
| UC-JCFX90L-1616              | 36440-1616 | 20242651 | 1            | 25.4 | 1 5/8-12        | 1 1/2             | 38 | LT         | 4.49     | 114.0 | 3.11        | 79.0  | 4.89       | 124.1 | NS         | UCF6-16 | UCF6-16 |          | UCF9-16 |
| UC-JCFX90S-1616              | 36445-1616 | 20591964 | 1            | 25.4 | 1 5/8-12        | 1 1/2             | 38 | ST         | 2.21     | 56.0  | 2.91        | 74.0  | 4.69       | 119.1 | NS         | UCF6-16 | UCF6-16 |          | UCF9-16 |
| UC-JCFX90-2020 <sup>T</sup>  | 36425-2020 | 20242752 | 1 1/4        | 31.8 | 1 5/8-12        | 2                 | 50 |            | 3.07     | 78.0  | 3.23        | 82.0  | 5.28       | 134.0 | NS         |         | UCF6-20 |          |         |
| UC-JCFX90S-2020 <sup>T</sup> | 36445-2020 | 20591967 | 1 1/4        | 31.8 | 1 5/8-12        | 2                 | 50 | ST         | 2.52     | 64.0  | 3.23        | 82.0  | 5.28       | 134.0 | NS         |         | UCF6-20 |          |         |
| UC-JCFX90-2424 <sup>T</sup>  | 36425-2424 | 20242645 | 1 1/2        | 38.1 | 1 7/8-12        | 2 3/16            | 55 |            | 3.62     | 91.9  | 3.94        | 100.0 | 6.27       | 159.1 | NS         |         | UCF6-24 |          |         |
| UC-JCFX90-3232 <sup>T</sup>  | 36425-3232 | 20269239 | 2            | 50.8 | 2 1/2-12        | 2 3/4             | 70 |            | 5.51     | 140.0 | 5.08        | 129.0 | 7.91       | 201.0 | NS         |         | UCF6-32 |          |         |

T: Thrust-Wire Nut (see "Fitting Identification" in Appendix for details)

JIC 37° Flare (SAE J514)

Male

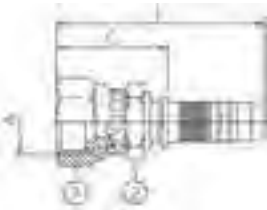


S=Skive  
NS=Non-Skive  
DG=Dual-Grip™

| Descriptive # | Product #  | SAP #    | Hose Size ID |      | Thread Size (A) | Hex-1 Wrench Size |    | Cut-Off (C) |      | Length (L) |       | Skive Type | SR3     | HR4     | SR6, HR6 | SR14A   |
|---------------|------------|----------|--------------|------|-----------------|-------------------|----|-------------|------|------------|-------|------------|---------|---------|----------|---------|
|               |            |          | in.          | mm   |                 | in.               | mm | in.         | mm   | in.        | mm    |            |         |         |          |         |
| UC-JCM-0304   | 36450-0304 | 20592795 | 3/16         | 4.8  | 7/16-20         | 1/2               | 12 | 0.98        | 24.8 | 1.85       | 47.0  |            |         |         | UCF2-04  | UCF9-04 |
| UC-JCM-0404   | 36450-0404 | 20242728 | 1/4          | 6.4  | 7/16-20         | 1/2               | 12 | 0.99        | 25.2 | 1.97       | 50.1  | NS         | UCF6-04 |         | UCF2-04  | UCF9-04 |
| UC-JCM-0405   | 36450-0405 | 20242664 | 1/4          | 6.4  | 1/2-20          | 9/16              | 14 | 1.03        | 26.2 | 2.01       | 51.1  | NS         | UCF6-04 |         | UCF2-04  | UCF9-04 |
| UC-JCM-0406   | 36450-0406 | 20242687 | 1/4          | 6.4  | 9/16-18         | 11/16             | 17 | 1.04        | 26.4 | 2.02       | 51.3  | NS         | UCF6-04 |         | UCF2-04  | UCF9-04 |
| UC-JCM-0505   | 36450-0505 | 20242588 | 5/16         | 7.9  | 1/2-20          | 9/16              | 14 | 1.04        | 26.3 | 2.02       | 51.2  | NS         | UCF6-05 |         | UCF2-05  | UCF9-05 |
| UC-JCM-0506   | 36450-0506 | 20242434 | 5/16         | 7.9  | 9/16-18         | 11/16             | 17 | 1.04        | 26.5 | 2.02       | 51.4  | NS         | UCF6-05 |         | UCF2-05  | UCF9-05 |
| UC-JCM-0606   | 36450-0606 | 20242759 | 3/8          | 9.5  | 9/16-18         | 11/16             | 17 | 1.05        | 26.6 | 2.10       | 53.2  | NS         | UCF6-06 |         | UCF2-06  | UCF9-06 |
| UC-JCM-0608   | 36450-0608 | 20242755 | 3/8          | 9.5  | 3/4-16          | 3/4               | 19 | 1.14        | 28.9 | 2.19       | 55.5  | NS         | UCF6-06 |         | UCF2-06  | UCF9-06 |
| UC-JCM-0610   | 36450-0610 | 20242630 | 3/8          | 9.5  | 7/8-14          | 15/16             | 24 | 1.33        | 33.8 | 2.38       | 60.5  | NS         | UCF6-06 |         | UCF2-06  | UCF9-06 |
| UC-JCM-0808   | 36450-0808 | 20242736 | 1/2          | 12.7 | 3/4-16          | 3/4               | 19 | 1.17        | 29.8 | 2.42       | 61.4  | NS         | UCF6-08 |         | UCF2-08  | UCF9-08 |
| UC-JCM-0810   | 36450-0810 | 20242716 | 1/2          | 12.7 | 7/8-14          | 15/16             | 24 | 1.35        | 34.4 | 2.60       | 66.0  | NS         | UCF6-08 |         | UCF2-08  | UCF9-08 |
| UC-JCM-0812   | 36450-0812 | 20242670 | 1/2          | 12.7 | 1 1/16-12       | 1 1/16            | 27 | 1.46        | 37.1 | 2.71       | 68.7  | NS         | UCF6-08 |         | UCF2-08  | UCF9-08 |
| UC-JCM-1010   | 36450-1010 | 20242435 | 5/8          | 15.9 | 7/8-14          | 15/16             | 24 | 1.38        | 35.0 | 2.73       | 69.4  | NS         | UCF6-10 |         | UCF2-10  | UCF9-10 |
| UC-JCM-1012   | 36450-1012 | 20242400 | 5/8          | 15.9 | 1 1/16-12       | 1 1/16            | 27 | 1.46        | 37.1 | 2.82       | 71.5  | NS         | UCF6-10 |         | UCF2-10  | UCF9-10 |
| UC-JCM-1212   | 36450-1212 | 20242732 | 3/4          | 19.0 | 1 1/16-12       | 1 1/16            | 27 | 1.48        | 37.7 | 3.04       | 77.1  | NS         | UCF6-12 | UCF6-12 | UCF2-12  | UCF9-12 |
| UC-JCM-1214   | 36450-1214 | 20242542 | 3/4          | 19.0 | 1 3/16-12       | 1 1/4             | 32 | 1.62        | 41.0 | 3.17       | 80.5  | NS         | UCF6-12 | UCF6-12 | UCF2-12  | UCF9-12 |
| UC-JCM-1216   | 36450-1216 | 20242634 | 3/4          | 19.0 | 1 5/16-12       | 1 7/16            | 36 | 1.66        | 42.2 | 3.21       | 81.6  | NS         | UCF6-12 | UCF6-12 | UCF2-12  | UCF9-12 |
| UC-JCM-1616   | 36450-1616 | 20242747 | 1            | 25.4 | 1 5/16-12       | 1 7/16            | 36 | 1.67        | 42.4 | 3.45       | 87.5  | NS         | UCF6-16 | UCF6-16 |          | UCF9-16 |
| UC-JCM-1620   | 36450-1620 | 20242433 | 1            | 25.4 | 1 5/8-12        | 1 13/16           | 46 | 1.84        | 46.8 | 3.62       | 91.9  | NS         | UCF6-16 | UCF6-16 |          | UCF9-16 |
| UC-JCM-2020   | 36450-2020 | 20242712 | 1 1/4        | 31.8 | 1 5/8-12        | 1 13/16           | 46 | 1.91        | 48.6 | 3.96       | 100.5 | NS         |         | UCF6-20 |          |         |
| UC-JCM-2024   | 36450-2024 | 20242608 | 1 1/4        | 31.8 | 1 7/8-12        | 2                 | 50 | 2.08        | 52.8 | 4.12       | 104.7 | NS         |         | UCF6-20 |          |         |
| UC-JCM-2424   | 36450-2424 | 20242625 | 1 1/2        | 38.1 | 1 7/8-12        | 2                 | 50 | 2.08        | 52.7 | 4.40       | 111.8 | NS         |         | UCF6-24 |          |         |
| UC-JCM-3232   | 36450-3232 | 20242547 | 2            | 50.8 | 2 1/2-12        | 2 9/16            | 65 | 2.45        | 62.1 | 5.28       | 134.1 | NS         |         | UCF6-32 |          |         |

SAE 45° Flare (J512)

Female | Swivel



S=Skive  
NS=Non-Skive  
DG=Dual-Grip™

| Descriptive # | Product #  | SAP #    | Hose Size ID |      | Thread Size (A) | Hex-1 Wrench Size |    | Hex-2 Wrench Size |    | Cut-Off (C) |      | Length (L) |      | Skive Type | SR3     | HR4     | SR6, HR6 | SR14A   |
|---------------|------------|----------|--------------|------|-----------------|-------------------|----|-------------------|----|-------------|------|------------|------|------------|---------|---------|----------|---------|
|               |            |          | in.          | mm   |                 | in.               | mm | in.               | mm | in.         | mm   | in.        | mm   |            |         |         |          |         |
| UC-SFFX-0304  | 36775-0304 | 20778888 | 3/16         | 4.8  | 7/16-20         | 5/8               | 16 | 1/2               | 13 | 1.07        | 27.2 | 1.94       | 49.4 | NS         |         |         | UCF2-03  | UCF9-03 |
| UC-SFFX-0606  | 36775-0606 | 20242760 | 3/8          | 9.5  | 5/8-18          | 7/8               | 22 | 3/4               | 19 | 1.32        | 33.6 | 2.37       | 60.2 | NS         | UCF6-06 |         | UCF2-06  | UCF9-06 |
| UC-SFFX-0608  | 36775-0608 | 20318359 | 3/8          | 9.5  | 3/4-16          | 1                 | 25 | 3/4               | 19 | 1.37        | 34.9 | 2.42       | 61.5 | NS         | UCF6-06 |         | UCF2-06  | UCF9-06 |
| UC-SFFX-0808  | 36775-0808 | 20778907 | 1/2          | 12.7 | 3/4-16          | 1                 | 25 | 7/8               | 22 | 1.44        | 36.7 | 2.69       | 68.4 | NS         | UCF6-08 |         | UCF2-08  | UCF9-08 |
| UC-SFFX-0810  | 36775-0810 | 20778908 | 1/2          | 12.7 | 7/8-14          | 1 1/16            | 27 | 7/8               | 22 | 1.60        | 40.6 | 2.85       | 72.3 | NS         | UCF6-08 |         | UCF2-08  | UCF9-08 |
| UC-SFFX-1212  | 36775-1212 | 20242652 | 3/4          | 19.0 | 1 1/16-14       | 1 1/4             | 32 | 1 1/16            | 27 | 1.74        | 44.2 | 3.29       | 83.6 | NS         | UCF6-12 | UCF6-12 | UCF2-12  | UCF9-12 |

## SAE 45° Flare (J512)

Female | 45° Elbow | Swivel

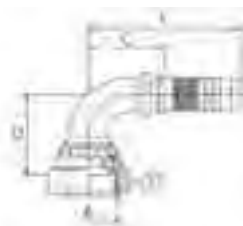


S=Skive  
NS=Non-Skive  
DG=Dual-Grip™

| Descriptive #  | Product #  | SAP #    | Hose Size ID |      | Thread Size (A) | Hex-1 Wrench Size |    | Drop (D) |      | Cut-Off (C) |      | Length (L) |      | Skive Type | SR3     | HR4 | SR6, HR6 | SR14A   |
|----------------|------------|----------|--------------|------|-----------------|-------------------|----|----------|------|-------------|------|------------|------|------------|---------|-----|----------|---------|
|                |            |          | in.          | mm   |                 | in.               | mm | in.      | mm   | in.         | mm   | in.        | mm   |            |         |     |          |         |
| UC-SFFX45-0506 | 36777-0506 | 20778900 | 5/16         | 7.9  | 5/8-18          | 7/8               | 22 | 0.47     | 11.9 | 1.69        | 42.9 | 2.67       | 67.8 | NS         | UCF6-05 |     | UCF2-05  | UCF9-05 |
| UC-SFFX45-0606 | 36777-0606 | 20318360 | 3/8          | 9.5  | 5/8-18          | 7/8               | 22 | 0.47     | 11.9 | 1.81        | 46   | 2.86       | 72.6 | NS         | UCF6-06 |     | UCF2-06  | UCF9-06 |
| UC-SFFX45-0608 | 36777-0608 | 20778909 | 3/8          | 9.5  | 3/4-16          | 1                 | 25 | 0.59     | 15.0 | 1.85        | 47   | 2.90       | 73.6 | NS         | UCF6-06 |     | UCF2-06  | UCF9-06 |
| UC-SFFX45-0808 | 36777-0808 | 20318361 | 1/2          | 12.7 | 3/4-16          | 1                 | 25 | 0.59     | 15.0 | 2.05        | 52   | 3.29       | 83.7 | NS         | UCF6-08 |     | UCF2-08  | UCF9-08 |
| UC-SFFX45-0810 | 36777-0810 | 20778901 | 1/2          | 12.7 | 7/8-14          | 1 1/16            | 27 | 0.63     | 16.0 | 2.00        | 51   | 3.30       | 83.0 | NS         | UCF6-08 |     | UCF2-08  | UCF9-08 |

## SAE 45° Flare (J512)

Female | 90° Elbow | Swivel

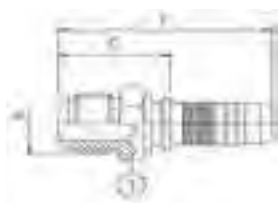


S=Skive  
NS=Non-Skive  
DG=Dual-Grip™

| Descriptive #   | Product #  | SAP #    | Hose Size ID |      | Thread Size (A) | Hex-1 Wrench Size |    | Drop (D) |      | Cut-Off (C) |      | Length (L) |      | Skive Type | SR3     | HR4 | SR6, HR6 | SR14A   |
|-----------------|------------|----------|--------------|------|-----------------|-------------------|----|----------|------|-------------|------|------------|------|------------|---------|-----|----------|---------|
|                 |            |          | in.          | mm   |                 | in.               | mm | in.      | mm   | in.         | mm   | in.        | mm   |            |         |     |          |         |
| UC-SFFX90-0506  | 36780-0506 | 20778902 | 5/16         | 7.9  | 5/8-18          | 7/8               | 22 | 1.38     | 35.1 | 1.30        | 33.0 | 2.28       | 57.9 | NS         | UCF6-05 |     | UCF2-05  | UCF9-05 |
| UC-SFFX90-0606  | 36780-0606 | 20318325 | 3/8          | 9.5  | 5/8-18          | 7/8               | 22 | 0.95     | 24.0 | 1.65        | 42.0 | 2.70       | 68.7 | NS         | UCF6-06 |     | UCF2-06  | UCF9-06 |
| UC-SFFX90L-0606 | 36781-0606 | 20318362 | 3/8          | 9.5  | 5/8-18          | 7/8               | 22 | 2.19     | 55.5 | 1.69        | 43.0 | 2.74       | 69.6 | NS         | UCF6-06 |     | UCF2-06  | UCF9-06 |
| UC-SFFX90-0608  | 36781-0608 | 20761705 | 3/8          | 9.5  | 3/4-16          | 1                 | 25 | 1.61     | 41.0 | 1.54        | 39.0 | 2.58       | 65.6 | NS         | UCF6-06 |     | UCF2-06  | UCF9-06 |
| UC-SFFX90S-0608 | 36783-0608 | 20778910 | 3/8          | 9.5  | 3/4-16          | 1                 | 25 | 1.14     | 29.0 | 1.93        | 49.0 | 2.98       | 75.6 | NS         | UCF6-06 |     | UCF2-06  | UCF9-06 |
| UC-SFFX90-0808  | 36781-0808 | 20778903 | 1/2          | 12.7 | 3/4-16          | 1                 | 25 | 1.58     | 40.0 | 1.46        | 37.0 | 2.70       | 68.7 | NS         | UCF6-08 |     | UCF2-08  | UCF9-08 |
| UC-SFFX90S-0808 | 36783-0808 | 20318363 | 1/2          | 12.7 | 3/4-16          | 1                 | 25 | 1.14     | 29.0 | 1.81        | 46.0 | 3.06       | 77.7 | NS         | UCF6-08 |     | UCF2-08  | UCF9-08 |
| UC-SFFX90-0810  | 36781-0810 | 20778904 | 1/2          | 12.7 | 7/8-14          | 1 1/16            | 27 | 2.13     | 54.0 | 2.05        | 52.0 | 3.60       | 91.4 | NS         | UCF6-08 |     | UCF2-08  | UCF9-08 |
| UC-SFFX90S-0810 | 36783-0810 | 20778905 | 1/2          | 12.7 | 7/8-14          | 1 1/16            | 27 | 1.26     | 32.0 | 1.81        | 46.0 | 3.06       | 77.7 | NS         | UCF6-08 |     | UCF2-08  | UCF9-08 |

## SAE 45° Flare (J512)

Male

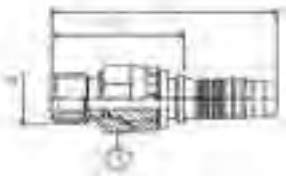


S=Skive  
NS=Non-Skive  
DG=Dual-Grip™

| Descriptive # | Product #  | SAP #    | Hose Size ID |      | Thread Size (A) | Hex-1 Wrench Size |    | Cut-Off (C) |      | Length (L) |      | Skive Type | SR3     | HR4 | SR6, HR6 | SR14A   |
|---------------|------------|----------|--------------|------|-----------------|-------------------|----|-------------|------|------------|------|------------|---------|-----|----------|---------|
|               |            |          | in.          | mm   |                 | in.               | mm | in.         | mm   | in.        | mm   |            |         |     |          |         |
| UC-SFM-0606   | 36785-0606 | 20318320 | 3/8          | 9.5  | 5/8-18          | 5/8               | 16 | 1.12        | 28.5 | 2.17       | 55.2 | NS         | UCF6-06 |     | UCF2-06  | UCF9-06 |
| UC-SFM-0608   | 36785-0810 | 20778911 | 3/8          | 9.5  | 3/4-16          | 3/4               | 19 | 1.23        | 31.2 | 2.28       | 57.9 | NS         | UCF6-06 |     | UCF2-06  | UCF9-06 |
| UC-SFM-0808   | 36785-0808 | 20778906 | 1/2          | 12.7 | 3/4-16          | 3/4               | 19 | 1.27        | 32.1 | 2.51       | 63.8 | NS         | UCF6-08 |     | UCF2-08  | UCF9-08 |

SAE 45° Inverted Flare

Male | Swivel

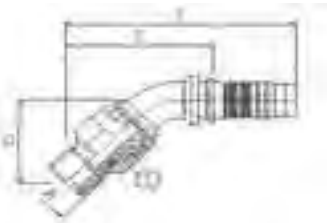


S=Skive  
NS=Non-Skive  
DG=Dual-Grip™

| Descriptive # | Product #  | SAP #    | Hose Size ID |      | Thread Size (A) | Hex-1 Wrench Size |    | Cut-Off (C) |      | Length (L) |      | Skive Type | SR3     | HR4 | SR6, HR6 | SR14A   |
|---------------|------------|----------|--------------|------|-----------------|-------------------|----|-------------|------|------------|------|------------|---------|-----|----------|---------|
|               |            |          | in.          | mm   |                 | in.               | mm | in.         | mm   | in.        | mm   |            |         |     |          |         |
| UC-SIMX-0403  | 36800-0403 | 20318328 | 1/4          | 6.4  | 3/8-24          | 1/2               | 12 | 1.68        | 42.7 | 2.66       | 67.6 | NS         | UCF6-04 |     | UCF2-04  | UCF9-04 |
| UC-SIMX-0404  | 36800-0404 | 20318329 | 1/4          | 6.4  | 7/16-24         | 1/2               | 12 | 1.70        | 43.1 | 2.68       | 67.9 | NS         | UCF6-04 |     | UCF2-04  | UCF9-04 |
| UC-SIMX-0405  | 36800-0405 | 20318330 | 1/4          | 6.4  | 1/2-20          | 9/16              | 14 | 1.83        | 46.6 | 2.81       | 71.5 | NS         | UCF6-04 |     | UCF2-04  | UCF9-04 |
| UC-SIMX-0605  | 36800-0605 | 20318331 | 3/8          | 9.5  | 1/2-20          | 9/16              | 14 | 1.84        | 46.8 | 2.89       | 73.4 | NS         | UCF6-06 |     | UCF2-06  | UCF9-06 |
| UC-SIMX-0606  | 36800-0606 | 20318332 | 3/8          | 9.5  | 5/8-18          | 11/16             | 17 | 1.89        | 48.0 | 2.94       | 74.7 | NS         | UCF6-06 |     | UCF2-06  | UCF9-06 |
| UC-SIMX-0607  | 36800-0607 | 20318333 | 3/8          | 9.5  | 11/16-18        | 3/4               | 19 | 1.92        | 48.7 | 2.97       | 75.3 | NS         | UCF6-06 |     | UCF2-06  | UCF9-06 |
| UC-SIMX-0808  | 36800-0808 | 20318334 | 1/2          | 12.7 | 3/4-18          | 3/4               | 19 | 2.00        | 50.8 | 3.25       | 82.5 | NS         | UCF6-08 |     | UCF2-08  | UCF9-08 |
| UC-SIMX-0810  | 36800-0810 | 20318335 | 1/2          | 12.7 | 7/8-18          | 15/16             | 24 | 2.07        | 52.7 | 3.32       | 84.4 | NS         | UCF6-08 |     | UCF2-08  | UCF9-08 |

SAE 45° Inverted Flare

Male | 45° Elbow | Swivel



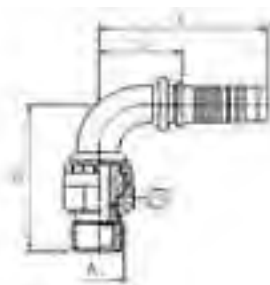
S=Skive  
NS=Non-Skive  
DG=Dual-Grip™

| Descriptive #  | Product #  | SAP #    | Hose Size ID |     | Thread Size (A) | Hex-1 Wrench Size |    | Drop (D) |      | Cut-Off (C) |      | Length (L) |       | Skive Type | SR3     | HR4 | SR6, HR6 | SR14A   |
|----------------|------------|----------|--------------|-----|-----------------|-------------------|----|----------|------|-------------|------|------------|-------|------------|---------|-----|----------|---------|
|                |            |          | in.          | mm  |                 | in.               | mm | in.      | mm   | in.         | mm   | in.        | mm    |            |         |     |          |         |
| UC-SIMX45-0403 | 36810-0403 | 20318336 | 1/4          | 6.4 | 3/8-24          | 1/2               | 12 | 1.24     | 31.5 | 2.68        | 68.1 | 3.66       | 93.0  | NS         | UCF6-04 |     | UCF2-04  | UCF9-04 |
| UC-SIMX45-0404 | 36810-0404 | 20318337 | 1/4          | 6.4 | 7/16-24         | 1/2               | 12 | 1.24     | 31.5 | 2.68        | 68.1 | 3.66       | 93.0  | NS         | UCF6-04 |     | UCF2-04  | UCF9-04 |
| UC-SIMX45-0604 | 36810-0604 | 20318338 | 3/8          | 9.5 | 7/16-24         | 1/2               | 12 | 1.57     | 39.9 | 2.95        | 74.9 | 4.00       | 101.6 | NS         | UCF6-06 |     | UCF2-06  | UCF9-06 |
| UC-SIMX45-0605 | 36810-0605 | 20318339 | 3/8          | 9.5 | 1/2-20          | 9/16              | 14 | 1.50     | 38.1 | 2.99        | 75.9 | 4.04       | 102.6 | NS         | UCF6-06 |     | UCF2-06  | UCF9-06 |
| UC-SIMX45-0606 | 36810-0606 | 20318340 | 3/8          | 9.5 | 5/8-18          | 11/16             | 17 | 1.50     | 38.1 | 2.99        | 75.9 | 4.04       | 102.6 | NS         | UCF6-06 |     | UCF2-06  | UCF9-06 |
| UC-SIMX45-0607 | 36810-0607 | 20318341 | 3/8          | 9.5 | 11/16-18        | 3/4               | 19 | 1.50     | 38.1 | 2.99        | 75.9 | 4.04       | 102.6 | NS         | UCF6-06 |     | UCF2-06  | UCF9-06 |



## SAE 45° Inverted Flare

Male 90° | Elbow | Swivel

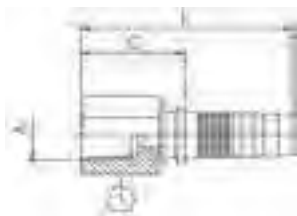


S=Skive  
NS=Non-Skive  
DG=Dual-Grip™

| Descriptive #  | Product #  | SAP #    | Hose Size ID |      | Thread Size (A) |       | Hex-1 Wrench Size |      | Drop (D) |      | Cut-Off (C) |      | Length (L) |    | Skive Type | SR3 | HR4     | SR6, HR6 | SR14A |
|----------------|------------|----------|--------------|------|-----------------|-------|-------------------|------|----------|------|-------------|------|------------|----|------------|-----|---------|----------|-------|
|                |            |          | in.          | mm   |                 |       | in.               | mm   | in.      | mm   | in.         | mm   | in.        | mm |            |     |         |          |       |
| UC-SIMX90-0404 | 36815-0404 | 20318343 | 1/4          | 6.4  | 7/16-24         | 1/2   | 12                | 2.05 | 52.1     | 1.30 | 33.0        | 2.28 | 57.9       | NS | UCF6-04    |     | UCF2-04 | UCF9-04  |       |
| UC-SIMX90-0405 | 36815-0405 | 20318344 | 1/4          | 6.4  | 1/2-20          | 9/16  | 14                | 1.96 | 49.8     | 1.52 | 38.6        | 2.50 | 63.5       | NS | UCF6-04    |     | UCF2-04 | UCF9-04  |       |
| UC-SIMX90-0604 | 36815-0604 | 20318345 | 3/8          | 9.5  | 7/16-24         | 1/2   | 12                | 2.44 | 62.0     | 1.34 | 34.0        | 2.39 | 60.7       | NS | UCF6-06    |     | UCF2-06 | UCF9-06  |       |
| UC-SIMX90-0605 | 36815-0605 | 20318346 | 3/8          | 9.5  | 1/2-20          | 9/16  | 14                | 2.44 | 62.0     | 1.38 | 35.1        | 2.43 | 61.7       | NS | UCF6-06    |     | UCF2-06 | UCF9-06  |       |
| UC-SIMX90-0606 | 36815-0606 | 20318347 | 3/8          | 9.5  | 5/8-18          | 11/16 | 17                | 2.44 | 62.0     | 1.38 | 35.1        | 2.43 | 61.7       | NS | UCF6-06    |     | UCF2-06 | UCF9-06  |       |
| UC-SIMX90-0607 | 36815-0607 | 20318348 | 3/8          | 9.5  | 11/16-18        | 3/4   | 19                | 2.44 | 62.0     | 1.38 | 35.1        | 2.43 | 61.7       | NS | UCF6-06    |     | UCF2-06 | UCF9-06  |       |
| UC-SIMX90-0808 | 36815-0808 | 20318349 | 1/2          | 12.7 | 3/4-18          | 3/4   | 19                | 2.32 | 58.9     | 2.13 | 54.1        | 3.38 | 85.8       | NS | UCF6-08    |     | UCF2-08 | UCF9-08  |       |

## NPTF

Female

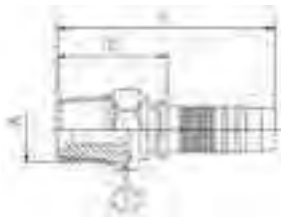


S=Skive  
NS=Non-Skive  
DG=Dual-Grip™

| Descriptive # | Product #  | SAP #    | Hose Size ID |      | Thread Size (A) |       | Hex-1 Wrench Size |      | Cut-Off (C) |      | Length (L) |    | Skive Type | SR3     | HR4 | SR6, HR6 | SR14A   |
|---------------|------------|----------|--------------|------|-----------------|-------|-------------------|------|-------------|------|------------|----|------------|---------|-----|----------|---------|
|               |            |          | in.          | mm   |                 |       | in.               | mm   | in.         | mm   | in.        | mm |            |         |     |          |         |
| UC-NPF-0404   | 36600-0404 | 20242660 | 1/4          | 6.4  | 1/4-18          | 3/4   | 19                | 1.09 | 27.6        | 2.07 | 52.5       | NS | UCF6-04    |         |     | UCF2-04  | UCF9-04 |
| UC-NPF-0606   | 36600-0606 | 20242656 | 3/8          | 9.5  | 3/8-18          | 7/8   | 22                | 1.15 | 29.2        | 2.20 | 55.8       | NS | UCF6-06    |         |     | UCF2-06  | UCF9-06 |
| UC-NPF-0808   | 36600-0808 | 20242622 | 1/2          | 12.7 | 1/2-14          | 1     | 25                | 1.40 | 35.6        | 2.65 | 67.2       | NS | UCF6-08    |         |     | UCF2-08  | UCF9-08 |
| UC-NPF-1212   | 36600-1212 | 20242548 | 3/4          | 19.0 | 3/4-14          | 1 1/4 | 32                | 1.51 | 38.4        | 3.06 | 77.8       | NS | UCF6-12    | UCF6-12 |     | UCF2-12  | UCF9-12 |

## NPTF

Male



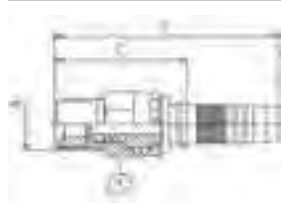
S=Skive  
NS=Non-Skive  
DG=Dual-Grip™

| Descriptive # | Product #   | SAP #    | Hose Size ID |      | Thread Size (A) | Hex-1 Wrench Size |    | Cut-Off (C) |      | Length (L) |       | Skive Type | SR3     | HR4     | SR6, HR6 | SR14A   |
|---------------|-------------|----------|--------------|------|-----------------|-------------------|----|-------------|------|------------|-------|------------|---------|---------|----------|---------|
|               |             |          | in.          | mm   |                 | in.               | mm | in.         | mm   | in.        | mm    |            |         |         |          |         |
| UC-NPM-0302   | 36615-0302  | 20242703 | 3/16         | 4.8  | 1/8-27          | 1/2               | 12 | 0.78        | 19.7 | 1.65       | 41.9  | NS         |         |         | UCF2-03  | UCF9-03 |
| UC-NPM-0402   | 36615-0402  | 20242766 | 1/4          | 6.4  | 1/8-27          | 9/16              | 14 | 0.84        | 21.2 | 1.82       | 46.1  | NS         | UCF6-04 |         | UCF2-04  | UCF9-04 |
| UC-NPM-0404   | 36615-0404  | 20242780 | 1/4          | 6.4  | 1/4-18          | 11/16             | 17 | 1.06        | 27.0 | 2.04       | 51.9  | NS         | UCF6-04 |         | UCF2-04  | UCF9-04 |
| UC-NPM-0404S  | 36615-0404S | 20540691 | 1/4          | 6.4  | 1/4-18          | 11/16             | 17 | 1.06        | 27.0 | 2.04       | 51.9  | NS         | UCF6-04 |         | UCF2-04  | UCF9-04 |
| UC-NPM-0406   | 36615-0406  | 20242748 | 1/4          | 6.4  | 3/8-18          | 3/4               | 19 | 1.09        | 27.7 | 2.07       | 52.6  | NS         | UCF6-04 |         | UCF2-04  | UCF9-04 |
| UC-NPM-0408   | 36615-0408  | 20242661 | 1/4          | 6.4  | 1/2-14          | 7/8               | 22 | 1.27        | 32.2 | 2.25       | 57.1  | NS         | UCF6-04 |         | UCF2-04  | UCF9-04 |
| UC-NPM-0504   | 36615-0504  | 20283392 | 5/16         | 7.9  | 1/4-18          | 11/16             | 17 | 1.07        | 27.1 | 2.05       | 52.0  | NS         | UCF6-05 |         | UCF2-05  | UCF9-05 |
| UC-NPM-0504S  | 36615-0504S | 20540692 | 5/16         | 7.9  | 1/4-18          | 11/16             | 17 | 1.07        | 27.1 | 2.05       | 52.0  | NS         | UCF6-05 |         | UCF2-05  | UCF9-05 |
| UC-NPM-0506   | 36615-0506  | 20283396 | 5/16         | 7.9  | 3/8-18          | 3/4               | 19 | 1.10        | 27.9 | 2.08       | 52.8  | NS         | UCF6-05 |         | UCF2-05  | UCF9-05 |
| UC-NPM-0508   | 36615-0508  | 20592578 | 5/16         | 7.9  | 1/2-14          | 7/8               | 22 | 1.27        | 32.3 | 2.25       | 57.2  | NS         | UCF6-05 |         | UCF2-05  | UCF9-05 |
| UC-NPM-0604   | 36615-0604  | 20242761 | 3/8          | 9.5  | 1/4-18          | 11/16             | 17 | 1.07        | 27.2 | 2.12       | 53.8  | NS         | UCF6-06 |         | UCF2-06  | UCF9-06 |
| UC-NPM-0606   | 36615-0606  | 20242782 | 3/8          | 9.5  | 3/8-18          | 3/4               | 19 | 1.10        | 27.9 | 2.15       | 54.6  | NS         | UCF6-06 |         | UCF2-06  | UCF9-06 |
| UC-NPM-0606S  | 36615-0606S | 20540693 | 3/8          | 9.5  | 3/8-18          | 3/4               | 19 | 1.10        | 27.9 | 2.15       | 54.6  | NS         | UCF6-06 |         | UCF2-06  | UCF9-06 |
| UC-NPM-0608   | 36615-0608  | 20242767 | 3/8          | 9.5  | 1/2-14          | 7/8               | 22 | 1.27        | 32.4 | 2.32       | 59.0  | NS         | UCF6-06 |         | UCF2-06  | UCF9-06 |
| UC-NPM-0806   | 36615-0806  | 20242722 | 1/2          | 12.7 | 3/8-18          | 3/4               | 19 | 1.12        | 28.4 | 2.37       | 60.1  | NS         | UCF6-08 |         | UCF2-08  | UCF9-08 |
| UC-NPM-0808   | 36615-0808  | 20242775 | 1/2          | 12.7 | 1/2-14          | 7/8               | 22 | 1.30        | 33.0 | 2.55       | 64.7  | NS         | UCF6-08 |         | UCF2-08  | UCF9-08 |
| UC-NPM-0808S  | 36615-0808S | 20540694 | 1/2          | 12.7 | 1/2-14          | 7/8               | 22 | 1.30        | 33.0 | 2.55       | 64.7  | NS         | UCF6-08 |         | UCF2-08  | UCF9-08 |
| UC-NPM-0812   | 36615-0812  | 20242679 | 1/2          | 12.7 | 3/4-14          | 1 1/16            | 27 | 1.34        | 34.1 | 2.59       | 65.8  | NS         | UCF6-08 |         | UCF2-08  | UCF9-08 |
| UC-NPM-1012   | 36615-1012  | 20274105 | 5/8          | 15.9 | 3/4-14          | 1 1/16            | 27 | 1.35        | 34.4 | 2.71       | 68.9  | NS         | UCF6-10 |         | UCF2-10  | UCF9-10 |
| UC-NPM-1208   | 36615-1208  | 20242689 | 3/4          | 19.0 | 1/2-14          | 1 1/16            | 27 | 1.32        | 33.5 | 2.87       | 73.0  | NS         | UCF6-12 | UCF6-12 | UCF2-12  | UCF9-12 |
| UC-NPM-1212   | 36615-1212  | 20242771 | 3/4          | 19.0 | 3/4-14          | 1 1/16            | 27 | 1.36        | 34.6 | 2.92       | 74.1  | NS         | UCF6-12 | UCF6-12 | UCF2-12  | UCF9-12 |
| UC-NPM-1212S  | 36615-1212S | 20540695 | 3/4          | 19.0 | 3/4-14          | 1 1/16            | 27 | 1.36        | 34.6 | 2.92       | 74.1  | NS         | UCF6-12 | UCF6-12 | UCF2-12  | UCF9-12 |
| UC-NPM-1216   | 36615-1216  | 20242649 | 3/4          | 19.0 | 1-11 1/2        | 1 7/16            | 36 | 1.72        | 43.7 | 3.27       | 83.1  | NS         | UCF6-12 | UCF6-12 | UCF2-12  | UCF9-12 |
| UC-NPM-1612   | 36615-1612  | 20242684 | 1            | 25.4 | 3/4-14          | 1 7/16            | 36 | 1.56        | 39.5 | 3.33       | 84.6  | NS         | UCF6-16 | UCF6-16 |          | UCF9-16 |
| UC-NPM-1616   | 36615-1616  | 20242769 | 1            | 25.4 | 1-11 1/2        | 1 7/16            | 36 | 1.73        | 43.9 | 3.51       | 89.0  | NS         | UCF6-16 | UCF6-16 |          | UCF9-16 |
| UC-NPM-1616S  | 36615-1616S | 20540696 | 1            | 25.4 | 1-11 1/2        | 1 7/16            | 36 | 1.73        | 43.9 | 3.51       | 89.0  | NS         | UCF6-16 | UCF6-16 |          | UCF9-16 |
| UC-NPM-1620   | 36615-1620  | 20242638 | 1            | 25.4 | 1 1/4-11 1/2    | 1 3/16            | 46 | 1.88        | 47.8 | 3.66       | 92.8  | NS         | UCF6-16 | UCF6-16 |          | UCF9-16 |
| UC-NPM-2020   | 36615-2020  | 20242773 | 1 1/4        | 31.8 | 1 1/4-11 1/2    | 1 3/16            | 46 | 1.95        | 49.5 | 4.00       | 101.5 | NS         |         | UCF6-20 |          |         |
| UC-NPM-2424   | 36615-2424  | 20242685 | 1 1/2        | 38.1 | 1 1/2-11 1/2    | 2                 | 50 | 2.01        | 51.0 | 4.34       | 110.1 | NS         |         | UCF6-24 |          |         |
| UC-NPM-3232   | 36615-3232  | 20242642 | 2            | 50.8 | 2-11 1/2        | 2 9/16            | 65 | 2.14        | 54.5 | 4.98       | 126.4 | NS         |         | UCF6-32 |          |         |

S: Stainless Steel

## NPTF

Male | Swivel



S=Skive  
NS=Non-Skive  
DG=Dual-Grip™

| Descriptive # | Product #  | SAP #    | Hose Size ID |      | Thread Size (A) | Hex-1 Wrench Size |    | Cut-Off (C) |      | Length (L) |       | Skive Type | SR3     | HR4     | SR6, HR6 | SR14A   |
|---------------|------------|----------|--------------|------|-----------------|-------------------|----|-------------|------|------------|-------|------------|---------|---------|----------|---------|
|               |            |          | in.          | mm   |                 | in.               | mm | in.         | mm   | in.        | mm    |            |         |         |          |         |
| UC-NPMX-0404  | 36645-0404 | 20242757 | 1/4          | 6.4  | 1/4-18          | 11/16             | 17 | 1.49        | 37.8 | 2.47       | 62.7  | NS         | UCF6-04 |         | UCF2-04  | UCF9-04 |
| UC-NPMX-0406  | 36645-0406 | 20242519 | 1/4          | 6.4  | 3/8-18          | 7/8               | 22 | 1.57        | 39.9 | 2.55       | 64.8  | NS         | UCF6-04 |         | UCF2-04  | UCF9-04 |
| UC-NPMX-0604  | 36645-0604 | 20242745 | 3/8          | 9.5  | 1/4-18          | 11/16             | 17 | 1.58        | 40.1 | 2.63       | 66.8  | NS         | UCF6-06 |         | UCF2-06  | UCF9-06 |
| UC-NPMX-0606  | 36645-0606 | 20242777 | 3/8          | 9.5  | 3/8-18          | 7/8               | 22 | 1.49        | 37.8 | 2.54       | 64.4  | NS         | UCF6-06 |         | UCF2-06  | UCF9-06 |
| UC-NPMX-0608  | 36645-0608 | 20242751 | 3/8          | 9.5  | 1/2-14          | 1                 | 25 | 1.71        | 43.5 | 2.76       | 70.2  | NS         | UCF6-06 |         | UCF2-06  | UCF9-06 |
| UC-NPMX-0806  | 36645-0806 | 20242503 | 1/2          | 12.7 | 3/8-18          | 7/8               | 22 | 1.51        | 38.5 | 2.76       | 70.1  | NS         | UCF6-08 |         | UCF2-08  | UCF9-08 |
| UC-NPMX-0808  | 36645-0808 | 20242762 | 1/2          | 12.7 | 1/2-14          | 1                 | 25 | 1.66        | 42.3 | 2.91       | 73.9  | NS         | UCF6-08 |         | UCF2-08  | UCF9-08 |
| UC-NPMX-1212  | 36645-1212 | 20242730 | 3/4          | 19.0 | 3/4-14          | 1 1/4             | 32 | 1.97        | 50.1 | 3.53       | 89.6  | NS         | UCF6-12 | UCF6-12 | UCF2-12  | UCF9-12 |
| UC-NPMX-1616  | 36645-1616 | 20242739 | 1            | 25.4 | 1-11 1/2        | 1 5/8             | 41 | 2.30        | 58.4 | 4.07       | 103.5 | NS         | UCF6-16 | UCF6-16 |          | UCF9-16 |

## NPTF

Male | 90° Elbow (Block) | Swivel



S=Skive  
NS=Non-Skive  
DG=Dual-Grip™

| Descriptive #   | Product #  | SAP #    | Hose |      | Thread   | Hex-1  |      | Drop (D) |      |      |      | Cut-Off (C) |      |    |         | Length (L) |         | Skive    |          | SR3 | HR4 | SR6,     |      |
|-----------------|------------|----------|------|------|----------|--------|------|----------|------|------|------|-------------|------|----|---------|------------|---------|----------|----------|-----|-----|----------|------|
|                 |            |          | Size | ID   | Size (A) | Wrench | Size |          |      |      |      |             |      |    |         |            |         | Drop (D) | Drop (D) |     |     | Drop (D) | Type |
|                 |            |          | in.  | mm   | in.      | mm     | in.  | mm       | in.  | mm   | in.  | mm          | in.  | mm | in.     | mm         | in.     | mm       | in.      |     |     | mm       |      |
| UC-NPMX90B-0404 | 36650-0404 | 20318350 | 1/4  | 6.4  | 1/4-18   | 11/16  | 17   | 1.69     | 42.9 | 0.71 | 18.1 | 1.69        | 43.0 | NS | UCF6-04 |            | UCF2-04 | UCF9-04  |          |     |     |          |      |
| UC-NPMX90B-0604 | 36650-0604 | 20318351 | 3/8  | 9.5  | 1/4-18   | 11/16  | 17   | 1.63     | 41.5 | 0.92 | 23.3 | 1.97        | 50.0 | NS | UCF6-06 |            | UCF2-06 | UCF9-06  |          |     |     |          |      |
| UC-NPMX90B-0606 | 36650-0606 | 20318352 | 3/8  | 9.5  | 3/8-18   | 7/8    | 22   | 1.62     | 41.2 | 0.92 | 23.3 | 1.97        | 50.0 | NS | UCF6-06 |            | UCF2-06 | UCF9-06  |          |     |     |          |      |
| UC-NPMX90B-0808 | 36650-0808 | 20318353 | 1/2  | 12.7 | 1/2-14   | 1      | 25   | 2.15     | 54.6 | 1.16 | 29.4 | 2.41        | 61.1 | NS | UCF6-08 |            | UCF2-08 | UCF9-08  |          |     |     |          |      |
| UC-NPMX90B-1212 | 36650-1212 | 20318364 | 3/4  | 19.0 | 3/4-14   | 1¼     | 32   | 2.58     | 65.6 | 1.24 | 31.5 | 2.80        | 71.0 | NS | UCF6-12 | UCF6-12    | UCF2-12 | UCF9-12  |          |     |     |          |      |

## NPSM

Female | Swivel



S=Skive  
NS=Non-Skive  
DG=Dual-Grip™

| Descriptive # | Product #  | SAP #    | Hose Size ID |      | Thread Size(A) | Hex-1 Wrench Size |    | Hex-2 Wrench Size |    | Cut-Off (C) |      | Length (L) |      | Skive Type | SR3     | HR4 | SR6, HR6 | SR14A   |
|---------------|------------|----------|--------------|------|----------------|-------------------|----|-------------------|----|-------------|------|------------|------|------------|---------|-----|----------|---------|
|               |            |          | in.          | mm   |                | in.               | mm | in.               | mm | in.         | mm   | in.        | mm   |            |         |     |          |         |
| UC-NSFX-0404  | 36655-0404 | 20242668 | 1/4          | 6.4  | 1/4-18         | 3/4               | 19 | 11/16             | 17 | 1.19        | 30.2 | 2.17       | 55.1 | NS         | UCF6-04 |     | UCF2-04  | UCF9-04 |
| UC-NSFX-0606  | 36655-0606 | 20242669 | 3/8          | 9.5  | 3/8-18         | 7/8               | 22 | 3/4               | 19 | 1.24        | 31.4 | 2.29       | 58.0 | NS         | UCF6-06 |     | UCF2-06  | UCF9-06 |
| UC-NSFX-0808  | 36655-0808 | 20242654 | 1/2          | 12.7 | 1/2-14         | 1 1/16            | 27 | 7/8               | 22 | 1.35        | 34.3 | 2.60       | 66.0 | NS         | UCF6-08 |     | UCF2-08  | UCF9-08 |

Flareless Tube Fittings (SAE J514)

Male

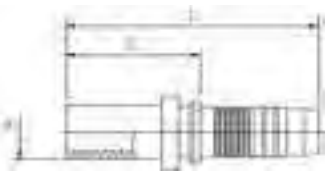


S=Skive  
NS=Non-Skive  
DG=Dual-Grip™

| Descriptive # | Product #  | SAP #    | Hose Size ID |     | Thread Size (A) | Hex-1 Wrench Size |    | Cut-Off (C) |      | Length (L) |      | Skive Type | SR3     | HR4 | SR6, HR6 | SR14A   |
|---------------|------------|----------|--------------|-----|-----------------|-------------------|----|-------------|------|------------|------|------------|---------|-----|----------|---------|
|               |            |          | in.          | mm  |                 | in.               | mm | in.         | mm   | in.        | mm   |            |         |     |          |         |
| UC-FTM-0404   | 36360-0404 | 20286107 | 1/4          | 6.4 | 7/16-20         | 1/2               | 12 | 0.88        | 22.2 | 1.86       | 47.1 | NS         | UCF6-04 |     | UCF2-04  | UCF9-04 |
| UC-FTM-0506   | 36360-0506 | 20295568 | 5/16         | 7.9 | 9/16-18         | 5/8               | 16 | 0.97        | 24.7 | 1.95       | 49.6 | NS         | UCF6-05 |     | UCF2-05  | UCF9-05 |
| UC-FTM-0606   | 36360-0606 | 20286108 | 3/8          | 9.5 | 9/16-18         | 5/8               | 16 | 0.97        | 24.7 | 2.02       | 51.4 | NS         | UCF6-06 |     | UCF2-06  | UCF9-06 |

\*All Fittings come with Nut and Sleeve

Standpipe

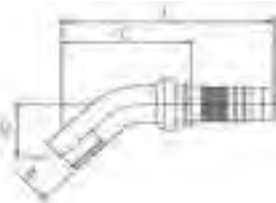


S=Skive  
NS=Non-Skive  
DG=Dual-Grip™

| Descriptive # | Product #  | SAP #    | Hose Size ID |      | Tube OD (A) | Cut-Off (C) |      | Length (L) |      | Skive Type | SR3     | HR4     | SR6, HR6 | SR14A   |
|---------------|------------|----------|--------------|------|-------------|-------------|------|------------|------|------------|---------|---------|----------|---------|
|               |            |          | in.          | mm   |             | in.         | mm   | in.        | mm   |            |         |         |          |         |
| UC-SP-0408    | 36825-0408 | 20242506 | 1/4          | 6.4  | 8           | 1.19        | 30.3 | 2.17       | 55.2 | NS         | UCF6-04 |         | UCF2-04  | UCF9-04 |
| UC-SP-0410    | 36825-0410 | 20242461 | 1/4          | 6.4  | 10          | 1.27        | 32.3 | 2.25       | 57.2 | NS         | UCF6-04 |         | UCF2-04  | UCF9-04 |
| UC-SP-0610    | 36825-0610 | 20242555 | 3/8          | 9.5  | 10          | 1.19        | 30.2 | 2.24       | 56.9 | NS         | UCF6-06 |         | UCF2-06  | UCF9-06 |
| UC-SP-0612    | 36825-0612 | 20242576 | 3/8          | 9.5  | 12          | 1.15        | 29.2 | 2.20       | 55.9 | NS         | UCF6-06 |         | UCF2-06  | UCF9-06 |
| UC-SP-0815    | 36825-0815 | 20242372 | 1/2          | 12.7 | 15          | 1.26        | 32.0 | 2.51       | 63.7 | NS         | UCF6-08 |         | UCF2-08  | UCF9-08 |
| UC-SP-0816    | 36825-0816 | 20242482 | 1/2          | 12.7 | 16          | 1.46        | 37.1 | 2.71       | 68.8 | NS         | UCF6-08 |         | UCF2-08  | UCF9-08 |
| UC-SP-1222    | 36825-1222 | 20242373 | 3/4          | 19.0 | 22          | 1.44        | 36.6 | 2.99       | 76.0 | NS         | UCF6-12 | UCF6-12 | UCF2-12  | UCF9-12 |
| UC-SP-1628    | 36825-1628 | 20242371 | 1            | 25.4 | 28          | 1.59        | 40.4 | 3.37       | 85.5 | NS         | UCF6-16 | UCF6-16 |          | UCF9-16 |

Standpipe

45° Elbow

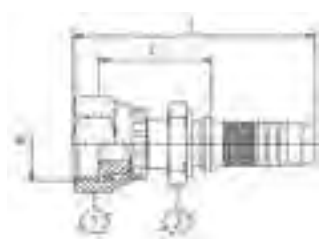


S=Skive  
NS=Non-Skive  
DG=Dual-Grip™

| Descriptive # | Product #  | SAP #    | Hose Size ID |     | Tube OD (A) | Drop (D) |      | Cut-Off (C) |      | Length (L) |      | Skive Type | SR3     | HR4 | SR6, HR6 | SR14A   |
|---------------|------------|----------|--------------|-----|-------------|----------|------|-------------|------|------------|------|------------|---------|-----|----------|---------|
|               |            |          | in.          | mm  |             | in.      | mm   | in.         | mm   | in.        | mm   |            |         |     |          |         |
| UC-SP45-0408  | 36830-0408 | 20242370 | 1/4          | 6.4 | 8           | 0.91     | 23.1 | 1.69        | 42.9 | 2.67       | 67.8 | NS         | UCF6-04 |     | UCF2-04  | UCF9-04 |

## O-Ring Face Seal (SAE J1453 ORS/ORFS)

Female | Swivel

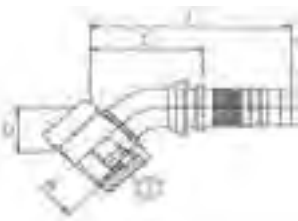


S=Skive  
NS=Non-Skive  
DG=Dual-Grip™

| Descriptive # | Product #  | SAP #    | Hose Size ID |      | Thread Size (A) | Hex-1 Wrench Size |    | Hex-2 Wrench Size |    | Cut-Off (C) |      | Length (L) |       | Skive Type | SR3     | HR4     | SR6, HR6 | SR14A   |
|---------------|------------|----------|--------------|------|-----------------|-------------------|----|-------------------|----|-------------|------|------------|-------|------------|---------|---------|----------|---------|
|               |            |          | in.          | mm   |                 | in.               | mm | in.               | mm | in.         | mm   | in.        | mm    |            |         |         |          |         |
| UC-OFFX-0404  | 36700-0404 | 20242723 | 1/4          | 6.4  | 9/16-18         | 11/16             | 17 | 9/16              | 14 | 1.07        | 27.3 | 2.05       | 52.2  | NS         | UCF6-04 |         | UCF2-04  | UCF9-04 |
| UC-OFFX-0406  | 36700-0406 | 20242655 | 1/4          | 6.4  | 11/16-16        | 7/8               | 22 | 11/16             | 17 | 1.19        | 30.1 | 2.17       | 55.0  | NS         | UCF6-04 |         | UCF2-04  | UCF9-04 |
| UC-OFFX-0408  | 36700-0408 | 20242441 | 1/4          | 6.4  | 13/16-16        | 15/16             | 24 | 7/8               | 22 | 1.39        | 35.4 | 2.37       | 60.3  | NS         | UCF6-04 |         | UCF2-04  | UCF9-04 |
| UC-OFFX-0506  | 36700-0506 | 20242544 | 5/16         | 7.9  | 11/16-16        | 7/8               | 22 | 11/16             | 17 | 1.19        | 30.2 | 2.17       | 55.1  | NS         | UCF6-05 |         | UCF2-05  | UCF9-05 |
| UC-OFFX-0604  | 36700-0604 | 20612477 | 3/8          | 9.5  | 9/16-18         | 11/16             | 17 | 11/16             | 17 | 1.12        | 28.4 | 2.17       | 55.1  | NS         | UCF6-06 |         | UCF2-06  | UCF9-06 |
| UC-OFFX-0606  | 36700-0606 | 20242763 | 3/8          | 9.5  | 11/16-16        | 7/8               | 22 | 11/16             | 17 | 1.19        | 30.3 | 2.24       | 56.9  | NS         | UCF6-06 |         | UCF2-06  | UCF9-06 |
| UC-OFFX-0608  | 36700-0608 | 20242691 | 3/8          | 9.5  | 13/16-16        | 15/16             | 24 | 7/8               | 22 | 1.40        | 35.6 | 2.45       | 62.2  | NS         | UCF6-06 |         | UCF2-06  | UCF9-06 |
| UC-OFFX-0806  | 36700-0806 | 20242552 | 1/2          | 12.7 | 11/16-16        | 7/8               | 22 | 3/4               | 19 | 1.26        | 32.0 | 2.51       | 63.7  | NS         | UCF6-08 |         | UCF2-08  | UCF9-08 |
| UC-OFFX-0808  | 36700-0808 | 20242733 | 1/2          | 12.7 | 13/16-16        | 15/16             | 24 | 7/8               | 22 | 1.42        | 36.1 | 2.67       | 67.8  | NS         | UCF6-08 |         | UCF2-08  | UCF9-08 |
| UC-OFFX-0810  | 36700-0810 | 20242704 | 1/2          | 12.7 | 1-14            | 1 3/16            | 30 | 15/16             | 24 | 1.56        | 39.5 | 2.80       | 71.2  | NS         | UCF6-08 |         | UCF2-08  | UCF9-08 |
| UC-OFFX-0812  | 36700-0812 | 20242551 | 1/2          | 12.7 | 1 3/16-12       | 1 7/16            | 36 | 1 3/16            | 30 | 1.66        | 42.1 | 2.90       | 73.8  | NS         | UCF6-08 |         | UCF2-08  | UCF9-08 |
| UC-OFFX-1010  | 36700-1010 | 20242442 | 5/8          | 15.9 | 1-14            | 1 3/16            | 30 | 15/16             | 24 | 1.56        | 39.6 | 2.92       | 74.1  | NS         | UCF6-10 |         | UCF2-10  | UCF9-10 |
| UC-OFFX-1012  | 36700-1012 | 20242367 | 5/8          | 15.9 | 1 3/16-12       | 1 7/16            | 36 | 1 3/16            | 30 | 1.66        | 42.1 | 3.10       | 78.8  | NS         | UCF6-10 |         | UCF2-10  | UCF9-10 |
| UC-OFFX-1210  | 36700-1210 | 20242553 | 3/4          | 19.0 | 1-14            | 1 3/16            | 30 | 1 1/16            | 27 | 1.58        | 40.1 | 3.13       | 79.5  | NS         | UCF6-12 | UCF6-12 | UCF2-12  | UCF9-12 |
| UC-OFFX-1212  | 36700-1212 | 20242741 | 3/4          | 19.0 | 1 3/16-12       | 1 7/16            | 36 | 1 3/16            | 30 | 1.67        | 42.3 | 3.22       | 81.8  | NS         | UCF6-12 | UCF6-12 | UCF2-12  | UCF9-12 |
| UC-OFFX-1216  | 36700-1216 | 20242646 | 3/4          | 19.0 | 1 7/16-12       | 1 5/8             | 41 | 1 7/16            | 36 | 1.92        | 48.6 | 3.47       | 88.1  | NS         | UCF6-12 | UCF6-12 | UCF2-12  | UCF9-12 |
| UC-OFFX-1612  | 36700-1612 | 20242521 | 1            | 25.4 | 1 3/16-12       | 1 7/16            | 36 | 1 1/4             | 32 | 1.79        | 45.3 | 3.56       | 90.4  | NS         | UCF6-16 | UCF6-16 |          | UCF9-16 |
| UC-OFFX-1616  | 36700-1616 | 20242734 | 1            | 25.4 | 1 7/16-12       | 1 5/8             | 41 | 1 7/16            | 36 | 1.95        | 49.4 | 3.72       | 94.5  | NS         | UCF6-16 | UCF6-16 |          | UCF9-16 |
| UC-OFFX-1620  | 36700-1620 | 20242505 | 1            | 25.4 | 1 11/16-12      | 2                 | 50 | 1 5/8             | 41 | 1.98        | 50.3 | 3.76       | 95.4  | NS         | UCF6-16 | UCF6-16 |          | UCF9-16 |
| UC-OFFX-2020  | 36700-2020 | 20242692 | 1 1/4        | 31.8 | 1 11/16-12      | 2                 | 50 | 1 5/8             | 41 | 2.08        | 52.9 | 4.13       | 104.9 | NS         |         | UCF6-20 |          |         |
| UC-OFFX-2424  | 36700-2424 | 20242495 | 1 1/2        | 38.1 | 2-12            | 2 3/8             | 60 | 2                 | 50 | 2.23        | 56.7 | 4.56       | 115.8 | NS         |         | UCF6-24 |          |         |

O-Ring Face Seal (SAE J1453 ORS/ORFS)

Female | 45° Elbow | Swivel



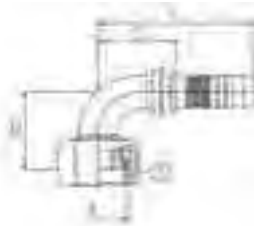
S=Skive  
NS=Non-Skive  
DG=Dual-Grip™

| Descriptive #               | Product #  | SAP #    | Hose Size ID |      | Thread Size (A) | Hex-1 Wrench Size |    | Hex-2 Wrench Size |      | Cut-Off (C) |       | Length (L) |       | Skive Type | SR3     | HR4     | SR6, HR6 | SR14A   |
|-----------------------------|------------|----------|--------------|------|-----------------|-------------------|----|-------------------|------|-------------|-------|------------|-------|------------|---------|---------|----------|---------|
|                             |            |          | in.          | mm   |                 | in.               | mm | in.               | mm   | in.         | mm    | in.        | mm    |            |         |         |          |         |
| UC-OFFX45-0404              | 36710-0404 | 20242631 | 1/4          | 6.4  | 9/16-18         | 11/16             | 17 | 0.43              | 10.9 | 1.61        | 41.0  | 2.60       | 66.0  | NS         | UCF6-04 |         | UCF2-04  | UCF9-04 |
| UC-OFFX45-0406              | 36710-0406 | 20242549 | 1/4          | 6.4  | 11/16-16        | 7/8               | 22 | 0.43              | 10.9 | 1.81        | 46.0  | 2.80       | 71.0  | NS         | UCF6-04 |         | UCF2-04  | UCF9-04 |
| UC-OFFX45-0506              | 36710-0506 | 20242456 | 5/16         | 7.9  | 11/16-16        | 7/8               | 22 | 0.47              | 11.9 | 1.81        | 46.0  | 2.99       | 76.0  | NS         | UCF6-05 |         | UCF2-05  | UCF9-05 |
| UC-OFFX45-0606              | 36710-0606 | 20242683 | 3/8          | 9.5  | 11/16-16        | 7/8               | 22 | 0.47              | 11.9 | 1.85        | 47.0  | 2.91       | 74.0  | NS         | UCF6-06 |         | UCF2-06  | UCF9-06 |
| UC-OFFX45-0608              | 36710-0608 | 20242593 | 3/8          | 9.5  | 13/16-16        | 15/16             | 24 | 0.59              | 15.0 | 2.01        | 51.0  | 3.07       | 78.0  | NS         | UCF6-06 |         | UCF2-06  | UCF9-06 |
| UC-OFFX45-0808 <sup>C</sup> | 36710-0808 | 20242637 | 1/2          | 12.7 | 13/16-16        | 15/16             | 24 | 0.63              | 16.0 | 1.85        | 47.0  | 3.11       | 79.0  | NS         | UCF6-08 |         | UCF2-08  | UCF9-08 |
| UC-OFFX45-0810              | 36710-0810 | 20242532 | 1/2          | 12.7 | 1-14            | 1 3/16            | 30 | 0.65              | 16.5 | 1.97        | 50.0  | 3.23       | 82.0  | NS         | UCF6-08 |         | UCF2-08  | UCF9-08 |
| UC-OFFX45-1212              | 36710-1212 | 20242681 | 3/4          | 19.0 | 1 3/16-12       | 1 7/16            | 36 | 0.83              | 21.0 | 2.48        | 63.0  | 4.06       | 103.0 | NS         | UCF6-12 | UCF6-12 | UCF2-12  | UCF9-12 |
| UC-OFFX45-1216              | 36710-1216 | 20242359 | 3/4          | 19.0 | 1 7/16-12       | 1 5/8             | 41 | 0.94              | 23.9 | 2.80        | 71.1  | 4.33       | 110.0 | NS         | UCF6-12 | UCF6-12 | UCF2-12  | UCF9-12 |
| UC-OFFX45-1616              | 36710-1616 | 20242643 | 1            | 25.4 | 1 7/16-12       | 1 5/8             | 41 | 1.02              | 26.0 | 3.23        | 81.9  | 5.00       | 127.0 | NS         | UCF6-16 | UCF6-16 |          | UCF9-16 |
| UC-OFFX45-1620              | 36710-1620 | 20242355 | 1            | 25.4 | 1 11/16-12      | 2                 | 50 | 1.02              | 25.9 | 3.35        | 85.1  | 5.41       | 137.5 | NS         | UCF6-16 | UCF6-16 |          | UCF9-16 |
| UC-OFFX45-2020              | 36710-2020 | 20242609 | 1 1/4        | 31.8 | 1 11/16-12      | 2                 | 50 | 1.02              | 25.9 | 3.82        | 97.0  | 6.16       | 156.5 | NS         |         | UCF6-20 |          |         |
| UC-OFFX45-2024              | 36710-2024 | 20242477 | 1 1/4        | 31.8 | 2-12            | 2 3/8             | 60 | 1.10              | 27.9 | 3.98        | 101.1 | 6.34       | 161.0 | NS         |         | UCF6-20 |          |         |
| UC-OFFX45-2424              | 36710-2424 | 20242357 | 1 1/2        | 38.1 | 2-12            | 2 3/8             | 60 | 1.10              | 27.9 | 4.13        | 104.9 | 6.77       | 172.0 | NS         |         | UCF6-24 |          |         |

C: Crimp Nut (see "Fitting Identification" in Appendix for details)

## O-Ring Face Seal (SAE J1453 ORS/ORFS)

Female | 90° Elbow | Swivel



Elbow Type:  
LT=Long Tube  
ST=Short Tube

S=Skive  
NS=Non-Skive  
DG=Dual-Grip™

| Descriptive #                | Product #  | SAP #    | Hose Size ID |      | Thread Size (A) | Hex-1 Wrench Size |    | Elbow Type | Drop (D) |       | Cut-Off (C) |       | Length (L) |       | Skive Type | SR3     | HR4     | SR6, HR6 | SR14A   |
|------------------------------|------------|----------|--------------|------|-----------------|-------------------|----|------------|----------|-------|-------------|-------|------------|-------|------------|---------|---------|----------|---------|
|                              |            |          | in.          | mm   |                 | in.               | mm |            | in       | mm    | in.         | mm    | in.        | mm    |            |         |         |          |         |
| UC-OFFX90-0404               | 36715-0404 | 20242602 | 1/4          | 6.4  | 9/16-18         | 11/16             | 17 |            | 1.26     | 32.0  | 1.18        | 30.0  | 2.16       | 54.9  | NS         | UCF6-04 |         | UCF2-04  | UCF9-04 |
| UC-OFFX90L-0404              | 36720-0404 | 20242533 | 1/4          | 6.4  | 9/16-18         | 11/16             | 17 | LT         | 1.81     | 46.0  | 1.30        | 33.0  | 2.28       | 57.9  | NS         | UCF6-04 |         | UCF2-04  | UCF9-04 |
| UC-OFFX90S-0404              | 36725-0404 | 20242682 | 1/4          | 6.4  | 9/16-18         | 11/16             | 17 | ST         | 0.83     | 21.0  | 1.10        | 28.0  | 2.08       | 52.9  | NS         | UCF6-04 |         | UCF2-04  | UCF9-04 |
| UC-OFFX90-0406               | 36715-0406 | 20242479 | 1/4          | 6.4  | 11/16-16        | 7/8               | 22 |            | 1.50     | 38.0  | 1.46        | 37.0  | 2.44       | 61.9  | NS         | UCF6-04 |         | UCF2-04  | UCF9-04 |
| UC-OFFX90L-0406              | 36720-0406 | 20242492 | 1/4          | 6.4  | 11/16-16        | 7/8               | 22 | LT         | 2.13     | 54.0  | 1.38        | 35.0  | 2.36       | 59.9  | NS         | UCF6-04 |         | UCF2-04  | UCF9-04 |
| UC-OFFX90S-0406              | 36725-0406 | 20242598 | 1/4          | 6.4  | 11/16-16        | 7/8               | 22 | ST         | 0.91     | 23.0  | 1.26        | 32.0  | 2.24       | 56.9  | NS         | UCF6-04 |         | UCF2-04  | UCF9-04 |
| UC-OFFX90S-0506              | 36725-0506 | 20242494 | 5/16         | 7.9  | 11/16-16        | 7/8               | 22 | ST         | 0.98     | 24.9  | 1.61        | 40.9  | 2.59       | 65.8  | NS         | UCF6-05 |         | UCF2-05  | UCF9-05 |
| UC-OFFX90-0606               | 36715-0606 | 20242633 | 3/8          | 9.5  | 11/16-16        | 7/8               | 22 |            | 1.50     | 38.0  | 1.65        | 42.0  | 2.70       | 68.6  | NS         | UCF6-06 |         | UCF2-06  | UCF9-06 |
| UC-OFFX90L-0606              | 36720-0606 | 20242615 | 3/8          | 9.5  | 11/16-16        | 7/8               | 22 | LT         | 2.13     | 54.0  | 1.65        | 42.0  | 2.70       | 68.6  | NS         | UCF6-06 |         | UCF2-06  | UCF9-06 |
| UC-OFFX90S-0606              | 36725-0606 | 20242717 | 3/8          | 9.5  | 11/16-16        | 7/8               | 22 | ST         | 0.98     | 25.0  | 1.65        | 42.0  | 2.70       | 68.6  | NS         | UCF6-06 |         | UCF2-06  | UCF9-06 |
| UC-OFFX90-0608               | 36715-0608 | 20242480 | 3/8          | 9.5  | 13/16-16        | 15/16             | 24 |            | 1.61     | 41.0  | 1.73        | 44.0  | 2.78       | 70.6  | NS         | UCF6-06 |         | UCF2-06  | UCF9-06 |
| UC-OFFX90L-0608              | 36720-0608 | 20242493 | 3/8          | 9.5  | 13/16-16        | 15/16             | 24 | LT         | 2.52     | 64.0  | 1.85        | 47.0  | 2.90       | 73.6  | NS         | UCF6-06 |         | UCF2-06  | UCF9-06 |
| UC-OFFX90S-0608              | 36725-0608 | 20242620 | 3/8          | 9.5  | 13/16-16        | 15/16             | 24 | ST         | 1.14     | 29.0  | 1.65        | 42.0  | 2.70       | 68.6  | NS         | UCF6-06 |         | UCF2-06  | UCF9-06 |
| UC-OFFX90-0808 <sup>C</sup>  | 36715-0808 | 20242571 | 1/2          | 12.7 | 13/16-16        | 15/16             | 24 |            | 1.65     | 42.0  | 1.38        | 35.0  | 2.63       | 66.7  | NS         | UCF6-08 |         | UCF2-08  | UCF9-08 |
| UC-OFFX90L-0808 <sup>C</sup> | 36720-0808 | 20242566 | 1/2          | 12.7 | 13/16-16        | 15/16             | 24 | LT         | 2.52     | 64.0  | 1.50        | 38.0  | 2.74       | 69.7  | NS         | UCF6-08 |         | UCF2-08  | UCF9-08 |
| UC-OFFX90S-0808 <sup>C</sup> | 36725-0808 | 20242663 | 1/2          | 12.7 | 13/16-16        | 15/16             | 24 | ST         | 1.14     | 29.0  | 1.58        | 40.0  | 2.82       | 71.7  | NS         | UCF6-08 |         | UCF2-08  | UCF9-08 |
| UC-OFFX90-0810               | 36715-0810 | 20242363 | 1/2          | 12.7 | 1-14            | 1 3/8             | 30 |            | 1.85     | 47.0  | 1.89        | 48.0  | 3.14       | 79.7  | NS         | UCF6-08 |         | UCF2-08  | UCF9-08 |
| UC-OFFX90L-0810              | 36720-0810 | 20242438 | 1/2          | 12.7 | 1-14            | 1 3/8             | 30 | LT         | 2.76     | 70.1  | 1.81        | 46.0  | 3.06       | 77.6  | NS         | UCF6-08 |         | UCF2-08  | UCF9-08 |
| UC-OFFX90S-0810              | 36725-0810 | 20242550 | 1/2          | 12.7 | 1-14            | 1 3/8             | 30 | ST         | 1.28     | 32.5  | 1.81        | 46.0  | 3.06       | 77.6  | NS         | UCF6-08 |         | UCF2-08  | UCF9-08 |
| UC-OFFX90S-0812              | 36725-0812 | 20318321 | 1/2          | 12.7 | 1 3/8-12        | 1 7/8             | 36 | ST         | 2.01     | 51.1  | 2.19        | 55.6  | 3.44       | 87.3  | NS         | UCF6-08 |         | UCF2-08  | UCF9-08 |
| UC-OFFX90-1010               | 36715-1010 | 20242403 | 5/8          | 15.9 | 1-14            | 1 3/8             | 30 |            | 1.73     | 44.0  | 2.17        | 55.0  | 3.52       | 89.5  | NS         | UCF6-10 |         | UCF2-10  | UCF9-10 |
| UC-OFFX90S-1010              | 36725-1010 | 20242365 | 5/8          | 15.9 | 1-14            | 1 3/8             | 30 | ST         | 1.28     | 32.5  | 2.05        | 52.0  | 3.40       | 86.5  | NS         | UCF6-10 |         | UCF2-10  | UCF9-10 |
| UC-OFFX90S-1012              | 36725-1012 | 20242364 | 5/8          | 15.9 | 1 3/8-12        | 1 7/8             | 36 | ST         | 1.93     | 49.0  | 2.17        | 55.1  | 3.53       | 89.6  | NS         | UCF6-10 |         | UCF2-10  | UCF9-10 |
| UC-OFFX90S-1210              | 36725-1210 | 20242457 | 3/4          | 19.0 | 1-14            | 1 3/8             | 30 | ST         | 1.54     | 39.1  | 1.75        | 44.5  | 3.30       | 83.9  | NS         | UCF6-12 | UCF6-12 | UCF2-12  | UCF9-12 |
| UC-OFFX90-1212               | 36715-1212 | 20242439 | 3/4          | 19.0 | 1 3/8-12        | 1 7/8             | 36 |            | 2.28     | 58.0  | 2.44        | 62.0  | 3.99       | 101.4 | NS         | UCF6-12 | UCF6-12 | UCF2-12  | UCF9-12 |
| UC-OFFX90L-1212              | 36720-1212 | 20242514 | 3/4          | 19.0 | 1 3/8-12        | 1 7/8             | 36 | LT         | 3.78     | 96.0  | 2.44        | 62.0  | 3.99       | 101.4 | NS         | UCF6-12 | UCF6-12 | UCF2-12  | UCF9-12 |
| UC-OFFX90S-1212              | 36725-1212 | 20242680 | 3/4          | 19.0 | 1 3/8-12        | 1 7/8             | 36 | ST         | 2.01     | 51.0  | 2.40        | 61.0  | 3.96       | 100.5 | NS         | UCF6-12 | UCF6-12 | UCF2-12  | UCF9-12 |
| UC-OFFX90S-1216              | 36725-1216 | 20242481 | 3/4          | 19.0 | 1 7/8-12        | 1 5/8             | 41 | ST         | 2.80     | 71.1  | 2.60        | 66.0  | 4.15       | 105.5 | NS         | UCF6-12 | UCF6-12 | UCF2-12  | UCF9-12 |
| UC-OFFX90-1616               | 36715-1616 | 20242478 | 1            | 25.4 | 1 7/8-12        | 1 5/8             | 41 |            | 2.60     | 66.0  | 3.27        | 83.0  | 5.04       | 128.1 | NS         | UCF6-16 | UCF6-16 |          | UCF9-16 |
| UC-OFFX90L-1616              | 36720-1616 | 20242504 | 1            | 25.4 | 1 7/8-12        | 1 5/8             | 41 | LT         | 4.49     | 114.0 | 3.27        | 83.0  | 5.04       | 128.1 | NS         | UCF6-16 | UCF6-16 |          | UCF9-16 |
| UC-OFFX90S-1616              | 36725-1616 | 20242690 | 1            | 25.4 | 1 7/8-12        | 1 5/8             | 41 | ST         | 2.28     | 58.0  | 3.27        | 83.0  | 5.04       | 128.1 | NS         | UCF6-16 | UCF6-16 |          | UCF9-16 |
| UC-OFFX90-1620               | 36715-1620 | 20242360 | 1            | 25.4 | 1 11/8-12       | 2                 | 50 |            | 3.07     | 78.0  | 3.27        | 83.0  | 5.04       | 128.1 | NS         | UCF6-16 | UCF6-16 |          | UCF9-16 |
| UC-OFFX90S-1620              | 36725-1620 | 20242440 | 1            | 25.4 | 1 11/8-12       | 2                 | 50 | ST         | 2.52     | 64.0  | 3.27        | 83.0  | 5.04       | 128.1 | NS         | UCF6-16 | UCF6-16 |          | UCF9-16 |
| UC-OFFX90S-2020              | 36725-2020 | 20242671 | 1 1/4        | 31.8 | 1 11/8-12       | 2                 | 50 | ST         | 2.68     | 68.1  | 3.74        | 95.0  | 5.79       | 147.0 | NS         |         | UCF6-20 |          |         |
| UC-OFFX90L-2024              | 36720-2024 | 20242402 | 1 1/4        | 31.8 | 2-12            | 2 3/8             | 60 | LT         | 5.55     | 141.0 | 4.02        | 102.1 | 6.07       | 154.1 | NS         |         | UCF6-20 |          |         |
| UC-OFFX90S-2024              | 36725-2024 | 20242405 | 1 1/4        | 31.8 | 2-12            | 2 3/8             | 60 | ST         | 2.72     | 69.1  | 4.02        | 102.1 | 6.07       | 154.1 | NS         |         | UCF6-20 |          |         |
| UC-OFFX90S-2424              | 36725-2424 | 20242404 | 1 1/2        | 38.1 | 2-12            | 2 3/8             | 60 | ST         | 3.07     | 78.0  | 4.02        | 102.1 | 6.35       | 161.2 | NS         |         | UCF6-24 |          |         |

C: Crimp Nut (see "Fitting Identification" in Appendix for details)

O-Ring Face Seal (SAE J1453) ORS/ORFS

Male

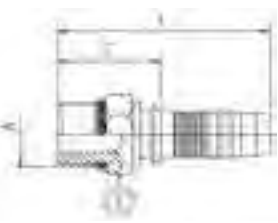


S=Skive  
NS=Non-Skive  
DG=Dual-Grip™

| Descriptive # | Product #  | SAP #    | Hose Size ID |      | Thread Size (A) | Hex-1 Wrench Size |    | Cut-Off (C) |      | Length (L) |      | Skive Type | SR3     | HR4     | SR6, HR6 | SR14A   |
|---------------|------------|----------|--------------|------|-----------------|-------------------|----|-------------|------|------------|------|------------|---------|---------|----------|---------|
|               |            |          | in.          | mm   |                 | in.               | mm | in.         | mm   | in.        | mm   |            |         |         |          |         |
| UC-OFM-0404   | 36730-0404 | 20242567 | 1/4          | 6.4  | 9/16-18         | 11/16             | 17 | 1.00        | 25.4 | 1.98       | 50.3 | NS         | UCF6-04 |         | UCF2-04  | UCF9-04 |
| UC-OFM-0406   | 36730-0406 | 20777952 | 1/4          | 6.4  | 11/16-16        | 3/4               | 19 | 0.96        | 24.3 | 1.94       | 49.1 | NS         | UCF6-04 |         | UCF2-04  | UCF9-04 |
| UC-OFM-0606   | 36730-0606 | 20242596 | 3/8          | 9.5  | 11/16-16        | 3/4               | 19 | 1.05        | 26.7 | 2.10       | 53.4 | NS         | UCF6-06 |         | UCF2-06  | UCF9-06 |
| UC-OFM-0608   | 36730-0608 | 20242575 | 3/8          | 9.5  | 13/16-16        | 7/8               | 22 | 1.05        | 26.6 | 2.10       | 53.2 | NS         | UCF6-06 |         | UCF2-06  | UCF9-06 |
| UC-OFM-0808   | 36730-0808 | 20242545 | 1/2          | 12.7 | 13/16-16        | 7/8               | 22 | 1.19        | 30.3 | 2.44       | 62.0 | NS         | UCF6-08 |         | UCF2-08  | UCF9-08 |
| UC-OFM-0810   | 36730-0810 | 20242369 | 1/2          | 12.7 | 1-14            | 1 1/16            | 27 | 1.21        | 30.7 | 2.46       | 62.4 | NS         | UCF6-08 |         | UCF2-08  | UCF9-08 |
| UC-OFM-0812   | 36730-0812 | 20242368 | 1/2          | 12.7 | 1 1/16-12       | 1 1/4             | 32 | 1.34        | 34.0 | 2.59       | 65.7 | NS         | UCF6-08 |         | UCF2-08  | UCF9-08 |
| UC-OFM-1212   | 36730-1212 | 20242535 | 3/4          | 19.0 | 1 3/16-12       | 1 1/4             | 32 | 1.36        | 34.6 | 2.92       | 74.1 | NS         | UCF6-12 | UCF6-12 | UCF2-12  | UCF9-12 |
| UC-OFM-1216   | 36730-1216 | 20242443 | 3/4          | 19.0 | 1 7/16-12       | 1 5/8             | 41 | 1.55        | 39.3 | 3.10       | 78.8 | NS         | UCF6-12 | UCF6-12 | UCF2-12  | UCF9-12 |
| UC-OFM-1616   | 36730-1616 | 20242459 | 1            | 25.4 | 1 7/16-12       | 1 1/2             | 38 | 1.47        | 37.4 | 3.25       | 82.5 | NS         | UCF6-16 | UCF6-16 |          | UCF9-16 |
| UC-OFM-2020   | 36730-2020 | 20242460 | 1 1/4        | 31.8 | 1 11/16-12      | 1 3/4             | 46 | 1.64        | 41.7 | 3.69       | 93.7 | NS         |         | UCF6-20 |          |         |

O-Ring Boss Straight Thread (SAE J514)

Male



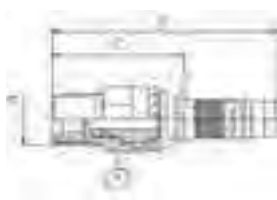
S=Skive  
NS=Non-Skive  
DG=Dual-Grip™

| Descriptive # | Product #  | SAP #    | Hose Size ID |      | Thread Size (A) | Hex-1 Wrench Size |    | Cut-Off (C) |      | Length (L) |      | Skive Type | SR3     | HR4     | SR6, HR6 | SR14A   |
|---------------|------------|----------|--------------|------|-----------------|-------------------|----|-------------|------|------------|------|------------|---------|---------|----------|---------|
|               |            |          | in.          | mm   |                 | in.               | mm | in.         | mm   | in.        | mm   |            |         |         |          |         |
| UC-OBM-0404   | 36670-0404 | 20242597 | 1/4          | 6.4  | 7/16-20         | 9/16              | 14 | 0.88        | 22.3 | 1.86       | 47.2 | NS         | UCF6-04 |         | UCF2-04  | UCF9-04 |
| UC-OBM-0405   | 36670-0405 | 20242531 | 1/4          | 6.4  | 1/2-20          | 5/8               | 16 | 0.88        | 22.3 | 1.86       | 47.2 | NS         | UCF6-04 |         | UCF2-04  | UCF9-04 |
| UC-OBM-0406   | 36670-0406 | 20242591 | 1/4          | 6.4  | 9/16-18         | 11/16             | 17 | 0.88        | 22.3 | 1.86       | 47.2 | NS         | UCF6-04 |         | UCF2-04  | UCF9-04 |
| UC-OBM-0606   | 36670-0606 | 20242677 | 3/8          | 9.5  | 9/16-18         | 3/4               | 19 | 0.94        | 23.7 | 1.98       | 50.4 | NS         | UCF6-06 |         | UCF2-06  | UCF9-06 |
| UC-OBM-0608   | 36670-0608 | 20242672 | 3/8          | 9.5  | 3/4-16          | 7/8               | 22 | 0.73        | 18.6 | 2.04       | 51.7 | NS         | UCF6-06 |         | UCF2-06  | UCF9-06 |
| UC-OBM-0610   | 36670-0610 | 20242614 | 3/8          | 9.5  | 7/8-14          | 1 1/16            | 27 | 1.08        | 27.4 | 2.13       | 54.1 | NS         | UCF6-06 |         | UCF2-06  | UCF9-06 |
| UC-OBM-0808   | 36670-0808 | 20242665 | 1/2          | 12.7 | 3/4-16          | 7/8               | 22 | 1.01        | 25.6 | 2.26       | 57.3 | NS         | UCF6-08 |         | UCF2-08  | UCF9-08 |
| UC-OBM-0810   | 36670-0810 | 20242595 | 1/2          | 12.7 | 7/8-14          | 1 1/16            | 27 | 1.10        | 27.9 | 2.35       | 59.6 | NS         | UCF6-08 |         | UCF2-08  | UCF9-08 |
| UC-OBM-0812   | 36670-0812 | 20242476 | 1/2          | 12.7 | 1 1/16-12       | 1 1/4             | 32 | 1.26        | 32.1 | 2.51       | 63.8 | NS         | UCF6-08 |         | UCF2-08  | UCF9-08 |
| UC-OBM-1210   | 36670-1210 | 20242520 | 3/4          | 19.0 | 7/8-14          | 1 1/16            | 27 | 1.13        | 28.6 | 2.68       | 68.0 | NS         | UCF6-12 | UCF6-12 | UCF2-12  | UCF9-12 |
| UC-OBM-1212   | 36670-1212 | 20242592 | 3/4          | 19.0 | 1 1/16-12       | 1 1/4             | 32 | 1.29        | 32.7 | 2.84       | 72.2 | NS         | UCF6-12 | UCF6-12 | UCF2-12  | UCF9-12 |
| UC-OBM-1216   | 36670-1216 | 20242455 | 3/4          | 19.0 | 1 5/16-12       | 1 1/2             | 38 | 1.37        | 34.8 | 2.92       | 74.2 | NS         | UCF6-12 | UCF6-12 | UCF2-12  | UCF9-12 |
| UC-OBM-1616   | 36670-1616 | 20242589 | 1            | 25.4 | 1 7/16-12       | 1 1/2             | 38 | 1.38        | 35.0 | 3.15       | 80.1 | NS         | UCF6-16 | UCF6-16 |          | UCF9-16 |



## O-Ring Boss Straight Thread (SAE J514)

Male | Swivel

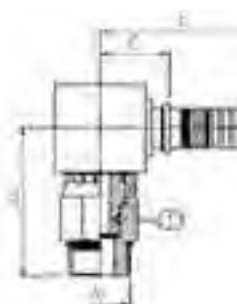


S=Skive  
NS=Non-Skive  
DG=Dual-Grip™

| Descriptive # | Product #  | SAP #    | Hose Size ID |      | Thread Size (A) | Hex-1 Wrench Size |    | Cut-Off (C) |      | Length (L) |      | Skive Type | SR3     | HR4 | SR6, HR6 | SR14A   |
|---------------|------------|----------|--------------|------|-----------------|-------------------|----|-------------|------|------------|------|------------|---------|-----|----------|---------|
|               |            |          | in.          | mm   |                 | in.               | mm | in.         | mm   | in.        | mm   |            |         |     |          |         |
| UC-OBMX-0608  | 36680-0608 | 20318237 | 3/8          | 9.5  | 3/4-16          | 1                 | 25 | 1.73        | 44.0 | 2.78       | 70.6 | NS         | UCF6-06 |     | UCF2-06  | UCF9-06 |
| UC-OBMX-0808  | 36680-0808 | 20318238 | 1/2          | 12.7 | 3/4-16          | 1                 | 25 | 1.68        | 42.7 | 2.93       | 74.4 | NS         | UCF6-08 |     | UCF2-08  | UCF9-08 |
| UC-OBMX-0810  | 36680-0810 | 20318239 | 1/2          | 12.7 | 7/8-14          | 1                 | 25 | 1.69        | 42.9 | 2.94       | 74.6 | NS         | UCF6-08 |     | UCF2-08  | UCF9-08 |

## O-Ring Boss Straight Thread (SAE J514)

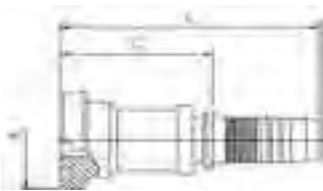
Male | 90° Elbow (Block) | Swivel



S=Skive  
NS=Non-Skive  
DG=Dual-Grip™

| Descriptive #   | Product #  | SAP #    | Hose Size ID |      | Thread Size (A) | Hex-1 Wrench Size |    | Drop (D) |      | Cut-Off (C) |      | Length (L) |      | Skive Type | SR3     | HR4     | SR6, HR6 | SR14A   |
|-----------------|------------|----------|--------------|------|-----------------|-------------------|----|----------|------|-------------|------|------------|------|------------|---------|---------|----------|---------|
|                 |            |          | in.          | mm   |                 | in.               | mm | in.      | mm   | in.         | mm   | in.        | mm   |            |         |         |          |         |
| UC-OBMX90B-0405 | 36685-0405 | 20318354 | 1/4          | 6.4  | 1/2-20          | 11/16             | 17 | 1.48     | 37.6 | 0.71        | 18.1 | 1.69       | 43.0 | NS         | UCF6-04 |         | UCF2-04  | UCF9-04 |
| UC-OBMX90B-0606 | 36685-0606 | 20318355 | 3/8          | 9.5  | 9/16-18         | 7/8               | 22 | 1.74     | 44.3 | 0.92        | 23.3 | 1.97       | 50.0 | NS         | UCF6-06 |         | UCF2-06  | UCF9-06 |
| UC-OBMX90B-0608 | 36685-0608 | 20318356 | 3/8          | 9.5  | 3/4-16          | 1                 | 25 | 2.17     | 55.0 | 1.13        | 28.8 | 2.18       | 55.4 | NS         | UCF6-06 |         | UCF2-06  | UCF9-06 |
| UC-OBMX90B-0808 | 36685-0808 | 20318357 | 1/2          | 12.7 | 3/4-16          | 1                 | 25 | 2.17     | 55.0 | 1.16        | 29.4 | 2.41       | 61.1 | NS         | UCF6-08 |         | UCF2-08  | UCF9-08 |
| UC-OBMX90B-0810 | 36685-0810 | 20318358 | 1/2          | 12.7 | 7/8-14          | 1                 | 25 | 2.17     | 55.2 | 1.16        | 29.4 | 2.41       | 61.1 | NS         | UCF6-08 |         | UCF2-08  | UCF9-08 |
| UC-OBMX90B-1212 | 36685-1212 | 20318365 | 1            | 25.4 | 1 1/16-12       | 1 1/4             | 32 | 2.58     | 65.5 | 1.24        | 31.5 | 2.80       | 71.0 | NS         | UCF6-12 | UCF6-12 | UCF2-12  | UCF9-12 |

Code 61 Flange (SAE J518)

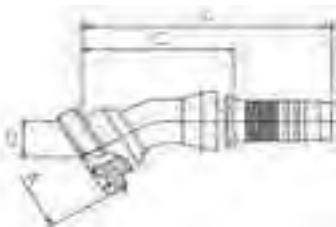


S=Skive  
NS=Non-Skive  
DG=Dual-Grip™

| Descriptive # | Product #  | SAP #    | Hose Size ID |      | Flange Size | Flange Diameter (A) |      | Cut-Off (C) |      | Length (L) |       | Skive Type | SR3     | HR4     | SR6, HR6 | SR14A   |
|---------------|------------|----------|--------------|------|-------------|---------------------|------|-------------|------|------------|-------|------------|---------|---------|----------|---------|
|               |            |          | in.          | mm   |             | in.                 | mm   | in.         | mm   | in.        | mm    |            |         |         |          |         |
| UC-FL-0808    | 36320-0808 | 20242569 | 1/2          | 12.7 | 1/2         | 1.19                | 30.2 | 1.61        | 40.9 | 2.86       | 72.6  | NS         | UCF6-08 |         | UCF2-08  | UCF9-08 |
| UC-FL-0812    | 36320-0812 | 20242300 | 1/2          | 12.7 | 3/4         | 1.50                | 38.1 | 1.65        | 41.9 | 2.90       | 73.6  | NS         | UCF6-08 |         | UCF2-08  | UCF9-08 |
| UC-FL-1212    | 36320-1212 | 20242707 | 3/4          | 19.0 | 3/4         | 1.50                | 38.1 | 1.67        | 42.4 | 3.22       | 81.9  | NS         | UCF6-12 | UCF6-12 | UCF2-12  | UCF9-12 |
| UC-FL-1216    | 36320-1216 | 20242650 | 3/4          | 19.0 | 1           | 1.75                | 44.5 | 1.99        | 50.5 | 3.54       | 90.0  | NS         | UCF6-12 | UCF6-12 | UCF2-12  | UCF9-12 |
| UC-FL-1616    | 36320-1616 | 20242744 | 1            | 25.4 | 1           | 1.75                | 44.5 | 2.02        | 51.3 | 3.80       | 96.4  | NS         | UCF6-16 | UCF6-16 |          | UCF9-16 |
| UC-FL-1620    | 36320-1620 | 20242697 | 1            | 25.4 | 1¼          | 2.00                | 50.8 | 2.12        | 53.8 | 3.90       | 98.9  | NS         | UCF6-16 | UCF6-16 |          | UCF9-16 |
| UC-FL-2020    | 36320-2020 | 20242750 | 1¼           | 31.8 | 1¼          | 2.00                | 50.8 | 2.19        | 55.6 | 4.24       | 107.6 | NS         |         | UCF6-20 |          |         |
| UC-FL-2024    | 36320-2024 | 20242695 | 1¼           | 31.8 | 1½          | 2.37                | 60.3 | 2.30        | 58.4 | 4.35       | 110.4 | NS         |         | UCF6-20 |          |         |
| UC-FL-2424    | 36320-2424 | 20242726 | 1½           | 38.1 | 1½          | 2.37                | 60.3 | 2.31        | 58.7 | 4.64       | 117.8 | NS         |         | UCF6-24 |          |         |
| UC-FL-2432    | 36320-2432 | 20242605 | 1½           | 38.1 | 2           | 2.81                | 71.4 | 2.76        | 70.1 | 5.09       | 129.2 | NS         |         | UCF6-24 |          |         |
| UC-FL-3232    | 36320-3232 | 20242693 | 2            | 50.8 | 2           | 2.81                | 71.4 | 2.76        | 70.1 | 5.59       | 142.1 | NS         |         | UCF6-32 |          |         |
| UC-FL-4040    | 36320-4040 | 20242599 | 2½           | 63.5 | 2½          | 3.31                | 84.1 | 2.24        | 56.9 | 5.49       | 139.4 | NS         |         | UCF6-40 |          |         |

Code 61 Flange (SAE J518)

22.5° Elbow

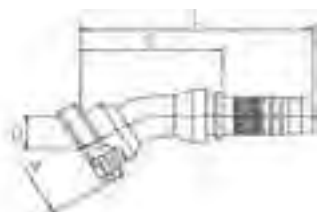


S=Skive  
NS=Non-Skive  
DG=Dual-Grip™

| Descriptive # | Product #  | SAP #    | Hose Size ID |      | Flange Size | Flange Diameter (A) |      | Drop (D) |      | Cut-Off (C) |       | Length (L) |       | Skive Type | SR3     | HR4     | SR6, HR6 | SR14A   |
|---------------|------------|----------|--------------|------|-------------|---------------------|------|----------|------|-------------|-------|------------|-------|------------|---------|---------|----------|---------|
|               |            |          | in.          | mm   |             | in.                 | mm   | in.      | mm   | in.         | mm    | in.        | mm    |            |         |         |          |         |
| UC-FL22-1616  | 36330-1616 | 20242623 | 1            | 25.4 | 1           | 1.75                | 44.5 | 0.47     | 11.9 | 3.66        | 93.0  | 5.44       | 138.0 | NS         | UCF6-16 | UCF6-16 |          | UCF9-16 |
| UC-FL22-2020  | 36330-2020 | 20242568 | 1¼           | 31.8 | 1¼          | 2.00                | 50.8 | 0.63     | 16.0 | 4.49        | 114.0 | 6.54       | 166.0 | NS         |         | UCF6-20 |          |         |
| UC-FL22-2424  | 36330-2424 | 20242465 | 1½           | 38.1 | 1½          | 2.37                | 60.3 | 0.65     | 16.5 | 5.16        | 131.1 | 7.49       | 190.2 | NS         |         | UCF6-24 |          |         |

## Code 61 Flange (SAE J518)

30° Elbow

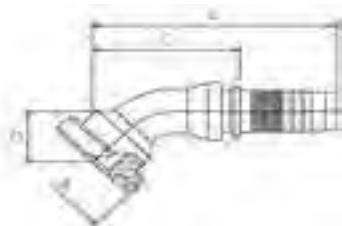


S=Skive  
NS=Non-Skive  
DG=Dual-Grip™

| Descriptive # | Product #  | SAP #    | Hose Size ID |      | Flange Size | Flange Diameter (A) |      | Drop (D) |      | Cut-Off (C) |       | Length (L) |       | Skive Type | SR3     | HR4     | SR6, HR6 | SR14A   |
|---------------|------------|----------|--------------|------|-------------|---------------------|------|----------|------|-------------|-------|------------|-------|------------|---------|---------|----------|---------|
|               |            |          | in.          | mm   |             | in.                 | mm   | in.      | mm   | in.         | mm    | in.        | mm    |            |         |         |          |         |
| UC-FL30-1212  | 36335-1212 | 20242577 | 3/4          | 19.0 | 3/4         | 1.50                | 38.1 | 0.75     | 19.1 | 3.19        | 81.0  | 4.74       | 120.5 | NS         | UCF6-12 | UCF6-12 | UCF2-12  | UCF9-12 |
| UC-FL30-1216  | 36335-1216 | 20242379 | 3/4          | 19.0 | 1           | 1.75                | 44.5 | 0.75     | 19.1 | 3.31        | 84.1  | 4.86       | 123.5 | NS         | UCF6-12 | UCF6-12 | UCF2-12  | UCF9-12 |
| UC-FL30-1616  | 36335-1616 | 20242497 | 1            | 25.4 | 1           | 1.75                | 44.5 | 0.83     | 21.1 | 3.54        | 89.9  | 5.32       | 135.0 | NS         | UCF6-16 | UCF6-16 |          | UCF9-16 |
| UC-FL30-1620  | 36335-1620 | 20242498 | 1            | 25.4 | 1 1/4       | 2.00                | 50.8 | 0.87     | 22.1 | 3.54        | 89.9  | 5.32       | 135.0 | NS         | UCF6-16 | UCF6-16 |          | UCF9-16 |
| UC-FL30-2020  | 36335-2020 | 20242616 | 1 1/4        | 31.8 | 1 1/4       | 2.00                | 50.8 | 0.98     | 24.9 | 4.02        | 102.1 | 6.07       | 154.1 | NS         |         | UCF6-20 |          |         |
| UC-FL30-2024  | 36335-2024 | 20242378 | 1 1/4        | 31.8 | 1 1/2       | 2.37                | 60.3 | 1.06     | 26.9 | 4.41        | 112.0 | 6.46       | 164.0 | NS         |         | UCF6-20 |          |         |
| UC-FL30-2424  | 36335-2424 | 20242582 | 1 1/2        | 38.1 | 1 1/2       | 2.37                | 60.3 | 0.91     | 23.1 | 5.35        | 135.9 | 7.68       | 195.0 | NS         |         | UCF6-24 |          |         |

## Code 61 Flange (SAE J518)

45° Elbow



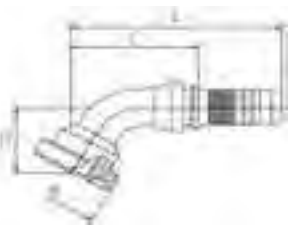
S=Skive  
NS=Non-Skive  
DG=Dual-Grip™

| Descriptive # | Product #  | SAP #    | Hose Size ID |      | Flange Size | Flange Diameter (A) |      | Drop (D) |      | Cut-Off (C) |       | Length (L) |       | Skive Type | SR3     | HR4     | SR6, HR6 | SR14A   |
|---------------|------------|----------|--------------|------|-------------|---------------------|------|----------|------|-------------|-------|------------|-------|------------|---------|---------|----------|---------|
|               |            |          | in.          | mm   |             | in.                 | mm   | in.      | mm   | in.         | mm    | in.        | mm    |            |         |         |          |         |
| UC-FL45-0808  | 36340-0808 | 20242508 | 1/2          | 12.7 | 1/2         | 1.19                | 30.2 | 0.87     | 22.1 | 2.09        | 53.1  | 3.34       | 84.8  | NS         | UCF6-08 |         | UCF2-08  | UCF9-08 |
| UC-FL45-0812  | 36340-0812 | 20242293 | 1/2          | 12.7 | 3/4         | 1.50                | 38.1 | 1.02     | 25.9 | 2.36        | 59.9  | 3.61       | 91.6  | NS         | UCF6-08 |         | UCF2-08  | UCF9-08 |
| UC-FL45-1212  | 36340-1212 | 20242678 | 3/4          | 19.0 | 3/4         | 1.50                | 38.1 | 1.26     | 32.0 | 2.91        | 73.9  | 4.46       | 113.4 | NS         | UCF6-12 | UCF6-12 | UCF2-12  | UCF9-12 |
| UC-FL45-1216  | 36340-1216 | 20242617 | 3/4          | 19.0 | 1           | 1.75                | 44.5 | 1.14     | 29.0 | 3.07        | 78.0  | 4.62       | 117.4 | NS         | UCF6-12 | UCF6-12 | UCF2-12  | UCF9-12 |
| UC-FL45-1616  | 36340-1616 | 20242700 | 1            | 25.4 | 1           | 1.75                | 44.5 | 1.32     | 33.5 | 3.27        | 83.1  | 5.05       | 128.1 | NS         | UCF6-16 | UCF6-16 |          | UCF9-16 |
| UC-FL45-1620  | 36340-1620 | 20242653 | 1            | 25.4 | 1 1/4       | 2.00                | 50.8 | 1.42     | 36.1 | 3.23        | 82.0  | 5.01       | 127.1 | NS         | UCF6-16 | UCF6-16 |          | UCF9-16 |
| UC-FL45-2020  | 36340-2020 | 20242705 | 1 1/4        | 31.8 | 1 1/4       | 2.00                | 50.8 | 1.48     | 37.6 | 3.74        | 95.0  | 5.79       | 147.0 | NS         |         | UCF6-20 |          |         |
| UC-FL45-2024  | 36340-2024 | 20242648 | 1 1/4        | 31.8 | 1 1/2       | 2.37                | 60.3 | 1.57     | 39.9 | 4.09        | 103.9 | 6.14       | 155.9 | NS         |         | UCF6-20 |          |         |
| UC-FL45-2424  | 36340-2424 | 20242686 | 1 1/2        | 38.1 | 1 1/2       | 2.37                | 60.3 | 1.89     | 48.0 | 4.61        | 117.1 | 6.94       | 176.2 | NS         |         | UCF6-24 |          |         |
| UC-FL45-3232  | 36340-3232 | 20242640 | 2            | 50.8 | 2           | 2.81                | 71.4 | 1.87     | 47.5 | 5.55        | 141.0 | 8.38       | 213.0 | NS         |         | UCF6-32 |          |         |
| UC-FL45-4040  | 36340-4040 | 20242509 | 2 1/2        | 63.5 | 2 1/2       | 3.31                | 84.1 | 2.09     | 53.0 | 5.47        | 139.0 | 8.74       | 222.0 | NS         |         | UCF6-40 |          |         |

DG: Part listed is Dual-Grip™ style (image is Uni-Crimp™ style)

Code 61 Flange (SAE J518)

60° Elbow

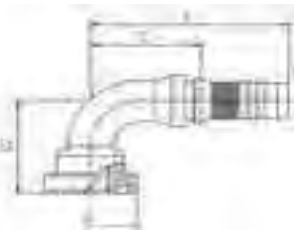


S=Skive  
NS=Non-Skive  
DG=Dual-Grip™

| Descriptive # | Product #  | SAP #    | Hose Size ID |      | Flange Size | Flange Diameter (A) |      | Drop (D) |      | Cut-Off (C) |       | Length (L) |       | Skive Type | SR3     | HR4     | SR6, HR6 | SR14A   |
|---------------|------------|----------|--------------|------|-------------|---------------------|------|----------|------|-------------|-------|------------|-------|------------|---------|---------|----------|---------|
|               |            |          | in.          | mm   |             | in.                 | mm   | in.      | mm   | in.         | mm    | in.        | mm    |            |         |         |          |         |
| UC-FL60-1212  | 36345-1212 | 20242516 | 3/4          | 19.0 | 3/4         | 1.50                | 38.1 | 1.49     | 37.8 | 3.39        | 86.1  | 4.94       | 125.6 | NS         | UCF6-12 | UCF6-12 | UCF2-12  | UCF9-12 |
| UC-FL60-1216  | 36345-1216 | 20242499 | 3/4          | 19.0 | 1           | 1.75                | 44.5 | 1.73     | 43.9 | 4.02        | 102.1 | 5.66       | 143.8 | NS         | UCF6-12 | UCF6-12 | UCF2-12  | UCF9-12 |
| UC-FL60-1616  | 36345-1616 | 20242510 | 1            | 25.4 | 1           | 1.75                | 44.5 | 1.85     | 47.0 | 3.98        | 101.1 | 5.76       | 146.2 | NS         | UCF6-16 | UCF6-16 |          | UCF9-16 |
| UC-FL60-1620  | 36345-1620 | 20242560 | 1            | 25.4 | 1¼          | 2.00                | 50.8 | 1.71     | 43.4 | 4.20        | 106.7 | 5.98       | 151.8 | NS         | UCF6-16 | UCF6-16 |          | UCF9-16 |
| UC-FL60-2020  | 36345-2020 | 20242523 | 1¼           | 31.8 | 1¼          | 2.00                | 50.8 | 2.22     | 56.4 | 5.10        | 129.5 | 7.15       | 181.5 | NS         |         | UCF6-20 |          |         |
| UC-FL60-2424  | 36345-2424 | 20242380 | 1½           | 38.1 | 1½          | 2.37                | 60.3 | 2.28     | 57.9 | 5.31        | 134.9 | 7.36       | 186.8 | NS         |         | UCF6-24 |          |         |

Code 61 Flange (SAE J518)

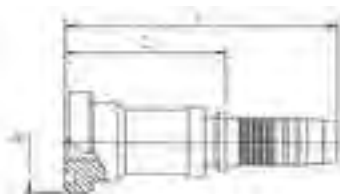
90° Elbow



S=Skive  
NS=Non-Skive  
DG=Dual-Grip™

| Descriptive # | Product #  | SAP #    | Hose Size ID |      | Flange Size | Flange Diameter (A) |      | Drop (D) |       | Cut-Off (C) |       | Length (L) |       | Skive Type | SR3     | HR4     | SR6, HR6 | SR14A   |
|---------------|------------|----------|--------------|------|-------------|---------------------|------|----------|-------|-------------|-------|------------|-------|------------|---------|---------|----------|---------|
|               |            |          | in.          | mm   |             | in.                 | mm   | in.      | mm    | in.         | mm    | in.        | mm    |            |         |         |          |         |
| UC-FL90-0808  | 36350-0808 | 20242537 | 1/2          | 12.7 | 1/2         | 1.19                | 30.2 | 1.65     | 41.9  | 1.81        | 46.0  | 3.06       | 77.6  | NS         | UCF6-08 |         | UCF2-08  | UCF9-08 |
| UC-FL90-0812  | 36350-0812 | 20242381 | 1/2          | 12.7 | 3/4         | 1.50                | 38.1 | 2.01     | 51.1  | 1.77        | 45.0  | 3.02       | 76.6  | NS         | UCF6-08 |         | UCF2-08  | UCF9-08 |
| UC-FL90-1212  | 36350-1212 | 20242696 | 3/4          | 19.0 | 3/4         | 1.50                | 38.1 | 2.36     | 59.9  | 2.28        | 57.9  | 3.83       | 97.4  | NS         | UCF6-12 | UCF6-12 | UCF2-12  | UCF9-12 |
| UC-FL90-1216  | 36350-1216 | 20242667 | 3/4          | 19.0 | 1           | 1.75                | 44.5 | 2.54     | 64.5  | 2.60        | 66.0  | 4.15       | 105.5 | NS         | UCF6-12 | UCF6-12 | UCF2-12  | UCF9-12 |
| UC-FL90-1616  | 36350-1616 | 20242740 | 1            | 25.4 | 1           | 1.75                | 44.5 | 2.64     | 67.1  | 2.80        | 71.1  | 4.58       | 116.2 | NS         | UCF6-16 | UCF6-16 |          | UCF9-16 |
| UC-FL90-1620  | 36350-1620 | 20242701 | 1            | 25.4 | 1¼          | 2.00                | 50.8 | 2.80     | 71.1  | 2.91        | 73.9  | 4.69       | 119.0 | NS         | UCF6-16 | UCF6-16 |          | UCF9-16 |
| UC-FL90-2016  | 36350-2016 | 20242583 | 1¼           | 31.8 | 1           | 1.75                | 44.5 | 2.56     | 65.0  | 3.70        | 94.0  | 5.75       | 145.9 | NS         |         | UCF6-20 |          |         |
| UC-FL90-2020  | 36350-2020 | 20242735 | 1¼           | 31.8 | 1¼          | 2.00                | 50.8 | 3.31     | 84.1  | 3.46        | 87.9  | 5.51       | 139.9 | NS         |         | UCF6-20 |          |         |
| UC-FL90-2024  | 36350-2024 | 20242713 | 1¼           | 31.8 | 1½          | 2.37                | 60.3 | 3.44     | 87.4  | 3.58        | 90.9  | 5.63       | 142.9 | NS         |         | UCF6-20 |          |         |
| UC-FL90-2424  | 36350-2424 | 20242714 | 1½           | 38.1 | 1½          | 2.37                | 60.3 | 3.58     | 90.9  | 4.13        | 104.9 | 6.46       | 164.0 | NS         |         | UCF6-24 |          |         |
| UC-FL90-2432  | 36350-2432 | 20242724 | 1½           | 38.1 | 2           | 2.81                | 71.4 | 4.53     | 115.1 | 4.13        | 104.9 | 6.46       | 164.0 | NS         |         | UCF6-24 |          |         |
| UC-FL90-3224  | 36350-3224 | 20588738 | 2            | 50.8 | 1½          | 2.37                | 60.3 | 5.24     | 133.1 | 5.24        | 133.1 | 8.23       | 209.0 | NS         |         | UCF6-32 |          |         |
| UC-FL90-3232  | 36350-3232 | 20242737 | 2            | 50.8 | 2           | 2.81                | 71.4 | 5.12     | 130.0 | 5.08        | 129.0 | 7.91       | 201.0 | NS         |         | UCF6-32 |          |         |
| UC-FL90-4024  | 36530-4024 | 20793532 | 2½           | 63.5 | 1½          | 2.37                | 60.3 | 5.06     | 128.6 | 5.55        | 140.9 | 8.80       | 223.5 | NS         |         | UCF6-40 |          |         |
| UC-FL90-4032  | 36530-4032 | 20793534 | 2½           | 63.5 | 2           | 2.81                | 71.4 | 4.19     | 106.4 | 5.94        | 150.9 | 9.19       | 233.5 | NS         |         | UCF6-40 |          |         |
| UC-FL90-4040  | 36350-4040 | 20245157 | 2½           | 63.5 | 2½          | 3.31                | 84.1 | 5.75     | 146.0 | 6.30        | 160.0 | 9.55       | 242.5 | NS         |         | UCF6-40 |          |         |

## Code 62 Flange (SAE J518)

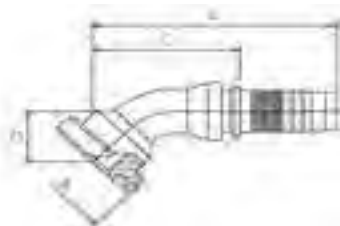


S=Skive  
NS=Non-Skive  
DG=Dual-Grip™

| Descriptive # | Product #  | SAP #    | Hose Size ID |      | Flange Size | Flange Diameter (A) |      | Cut-Off (C) |      | Length (L) |       | Skive Type | SR3     | HR4     | SR6, HR6 | SR14A   |
|---------------|------------|----------|--------------|------|-------------|---------------------|------|-------------|------|------------|-------|------------|---------|---------|----------|---------|
|               |            |          | in.          | mm   |             | in.                 | mm   | in.         | mm   | in.        | mm    |            |         |         |          |         |
| UC-FH-1212    | 36300-1212 | 20242607 | 3/4          | 19.0 | 3/4         | 1.63                | 41.3 | 2.07        | 52.6 | 3.62       | 92.0  | NS         | UCF6-12 | UCF6-12 | UCF2-12  | UCF9-12 |
| UC-FH-1216    | 36300-1216 | 20242467 | 3/4          | 19.0 | 1           | 1.87                | 47.6 | 2.19        | 55.5 | 3.74       | 95.0  | NS         | UCF6-12 | UCF6-12 | UCF2-12  | UCF9-12 |
| UC-FH-1616    | 36300-1616 | 20242647 | 1            | 25.4 | 1           | 1.87                | 47.6 | 2.20        | 55.9 | 4.00       | 101.5 | NS         | UCF6-16 | UCF6-16 |          | UCF9-16 |
| UC-FH-1620    | 36300-1620 | 20242572 | 1            | 25.4 | 1 1/4       | 2.13                | 54.0 | 2.48        | 62.9 | 4.25       | 108.0 | NS         | UCF6-16 | UCF6-16 |          | UCF9-16 |
| UC-FH-2020    | 36300-2020 | 20242659 | 1 1/4        | 31.8 | 1 1/4       | 2.13                | 54.0 | 3.20        | 81.3 | 5.32       | 135.0 | NS         |         | UCF6-20 |          |         |
| UC-FH-2024    | 36300-2024 | 20242419 | 1 1/4        | 31.8 | 1 1/2       | 2.50                | 63.5 | 2.79        | 71.0 | 4.84       | 122.9 | NS         |         | UCF6-20 |          |         |
| UC-FH-2424    | 36300-2424 | 20242601 | 1 1/2        | 38.1 | 1 1/2       | 2.50                | 63.5 | 3.74        | 95.0 | 6.07       | 154.1 | NS         |         | UCF6-24 |          |         |
| UC-FH-3232    | 36300-3232 | 20242512 | 2            | 50.8 | 2           | 3.13                | 79.4 | 2.99        | 75.9 | 5.82       | 147.9 | NS         |         | UCF6-32 |          |         |

## Code 62 Flange (SAE J518)

45° Elbow

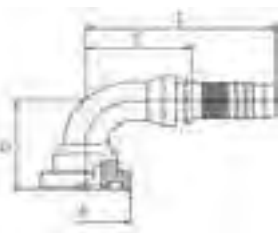


S=Skive  
NS=Non-Skive  
DG=Dual-Grip™

| Descriptive # | Product #  | SAP #    | Hose Size ID |      | Flange Size | Flange Diameter (A) |      | Drop (D) |      | Cut-Off (C) |       | Length (L) |       | Skive Type | SR3     | HR4     | SR6, HR6 | SR14A   |
|---------------|------------|----------|--------------|------|-------------|---------------------|------|----------|------|-------------|-------|------------|-------|------------|---------|---------|----------|---------|
|               |            |          | in.          | mm   |             | in.                 | mm   | in.      | mm   | in.         | mm    | in.        | mm    |            |         |         |          |         |
| UC-FH45-1212  | 36310-1212 | 20242570 | 3/4          | 19.0 | 3/4         | 1.63                | 41.3 | 1.22     | 31.0 | 3.31        | 84.1  | 4.86       | 123.5 | NS         | UCF6-12 | UCF6-12 | UCF2-12  | UCF9-12 |
| UC-FH45-1616  | 36310-1616 | 20242618 | 1            | 25.4 | 1           | 1.87                | 47.6 | 1.42     | 36.1 | 3.82        | 97.0  | 5.60       | 142.1 | NS         | UCF6-16 | UCF6-16 |          | UCF9-16 |
| UC-FH45-1620  | 36310-1620 | 20242527 | 1            | 25.4 | 1 1/4       | 2.13                | 54.0 | 1.54     | 39.1 | 3.78        | 96.0  | 5.65       | 143.4 | NS         | UCF6-16 | UCF6-16 |          | UCF9-16 |
| UC-FH45-2020  | 36310-2020 | 20242600 | 1 1/4        | 31.8 | 1 1/4       | 2.13                | 54.0 | 1.57     | 39.9 | 4.29        | 109.0 | 6.34       | 160.9 | NS         |         | UCF6-20 |          |         |
| UC-FH45-2424  | 36310-2424 | 20242517 | 1 1/2        | 38.1 | 1 1/2       | 2.50                | 63.5 | 1.77     | 45.0 | 4.84        | 122.9 | 7.17       | 182.1 | NS         |         | UCF6-24 |          |         |
| UC-FH45-3232  | 36310-3232 | 20242383 | 2            | 50.8 | 2           | 3.13                | 79.4 | 2.36     | 59.9 | 6.18        | 157.0 | 9.01       | 229.0 | NS         |         | UCF6-32 |          |         |

Code 62 Flange (SAE J518)

90° Elbow

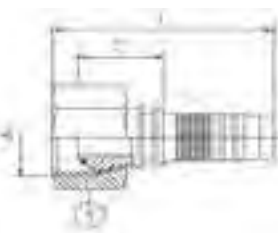


S=Skive  
NS=Non-Skive  
DG=Dual-Grip™

| Descriptive # | Product #  | SAP #    | Hose Size ID |      | Flange Size | Flange Diameter (A) |      | Drop (D) |       | Cut-Off (C) |       | Length (L) |       | Skive Type | SR3     | HR4     | SR6, HR6 | SR14A   |
|---------------|------------|----------|--------------|------|-------------|---------------------|------|----------|-------|-------------|-------|------------|-------|------------|---------|---------|----------|---------|
|               |            |          | in.          | mm   |             | in.                 | mm   | in.      | mm    | in.         | mm    | in.        | mm    |            |         |         |          |         |
| UC-FH90-0808  | 36315-0808 | 20242306 | 1/2          | 12.7 | 1/2         | 1.25                | 31.8 | 1.81     | 46.0  | 1.89        | 48.0  | 3.32       | 84.3  | NS         | UCF6-08 |         | UCF2-08  | UCF9-08 |
| UC-FH90-1212  | 36315-1212 | 20242621 | 3/4          | 19.0 | 3/4         | 1.63                | 41.3 | 2.40     | 61.0  | 2.48        | 63.0  | 4.03       | 102.4 | NS         | UCF6-12 | UCF6-12 | UCF2-12  | UCF9-12 |
| UC-FH90-1216  | 36315-1216 | 20242511 | 3/4          | 19.0 | 1           | 1.87                | 47.6 | 2.60     | 66.0  | 2.48        | 63.0  | 4.03       | 102.4 | NS         | UCF6-12 | UCF6-12 | UCF2-12  | UCF9-12 |
| UC-FH90-1616  | 36315-1616 | 20242673 | 1            | 25.4 | 1           | 1.87                | 47.6 | 2.95     | 74.9  | 2.91        | 73.9  | 4.69       | 119.0 | NS         | UCF6-16 | UCF6-16 |          | UCF9-16 |
| UC-FH90-1620  | 36315-1620 | 20242585 | 1            | 25.4 | 1¼          | 2.13                | 54.0 | 3.07     | 78.0  | 3.07        | 78.0  | 4.85       | 123.1 | NS         | UCF6-16 | UCF6-16 |          | UCF9-16 |
| UC-FH90-2020  | 36315-2020 | 20242635 | 1¼           | 31.8 | 1¼          | 2.13                | 54.0 | 3.50     | 88.9  | 3.70        | 94.0  | 5.75       | 145.9 | NS         |         | UCF6-20 |          |         |
| UC-FH90-2024  | 36315-2024 | 20242418 | 1¼           | 31.8 | 1½          | 2.50                | 63.5 | 3.70     | 94.0  | 3.86        | 98.0  | 5.91       | 150.0 | NS         |         | UCF6-20 |          |         |
| UC-FH90-2424  | 36315-2424 | 20242578 | 1½           | 38.1 | 1½          | 2.50                | 63.5 | 4.13     | 104.9 | 3.94        | 100.1 | 6.27       | 159.2 | NS         |         | UCF6-24 |          |         |
| UC-FH90-3232  | 36315-3232 | 20242487 | 2            | 50.8 | 2           | 3.13                | 79.4 | 5.20     | 132.1 | 5.63        | 143.0 | 8.46       | 215.0 | NS         |         | UCF6-32 |          |         |

BSPP (British Standard Pipe Parallel)

Female | Swivel



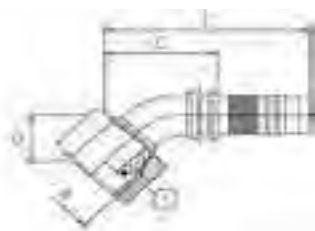
S=Skive  
NS=Non-Skive  
DG=Dual-Grip™

| Descriptive #             | Product #  | SAP #    | Hose Size ID |      | Thread Size (A) | Hex-1 Wrench Size | Cut-Off (C) |      | Length (L) |       | Skive Type | SR3     | HR4     | SR6, HR6 | SR14A   |
|---------------------------|------------|----------|--------------|------|-----------------|-------------------|-------------|------|------------|-------|------------|---------|---------|----------|---------|
|                           |            |          | in.          | mm   |                 |                   | in.         | mm   | in.        | mm    |            |         |         |          |         |
| UC-BPFX-0404              | 36105-0404 | 20242738 | 1/4          | 6.4  | 1/4-19          | 19                | 0.93        | 23.7 | 1.91       | 48.6  | NS         | UCF6-04 |         | UCF2-04  | UCF9-04 |
| UC-BPFX-0406              | 36105-0406 | 20242462 | 1/4          | 6.4  | 3/8-19          | 22                | 1.09        | 27.6 | 2.07       | 52.5  | NS         | UCF6-04 |         | UCF2-04  | UCF9-04 |
| UC-BPFX-0606              | 36105-0606 | 20242731 | 3/8          | 9.5  | 3/8-19          | 22                | 1.09        | 27.8 | 2.14       | 54.4  | NS         | UCF6-06 |         | UCF2-06  | UCF9-06 |
| UC-BPFX-0608              | 36105-0608 | 20242557 | 3/8          | 9.5  | 1/2-14          | 27                | 1.20        | 30.4 | 2.24       | 57.0  | NS         | UCF6-06 |         | UCF2-06  | UCF9-06 |
| UC-BPFX-0808              | 36105-0808 | 20242715 | 1/2          | 12.7 | 1/2-14          | 27                | 1.22        | 31.0 | 2.47       | 62.7  | NS         | UCF6-08 |         | UCF2-08  | UCF9-08 |
| UC-BPFX-0810              | 36105-0810 | 20242406 | 1/2          | 12.7 | 5/8-14          | 27                | 1.48        | 37.6 | 2.73       | 69.3  | NS         | UCF6-08 |         | UCF2-08  | UCF9-08 |
| UC-BPFX-1212 <sup>C</sup> | 36105-1212 | 20242626 | 3/4          | 19.0 | 3/4-14          | 32                | 1.17        | 29.7 | 2.72       | 69.1  | NS         | UCF6-12 | UCF6-12 | UCF2-12  | UCF9-12 |
| UC-BPFX-1616 <sup>C</sup> | 36105-1616 | 20242627 | 1            | 25.4 | 1-11            | 38                | 1.36        | 34.4 | 3.13       | 79.5  | NS         | UCF6-16 | UCF6-16 |          | UCF9-16 |
| UC-BPFX-2020 <sup>T</sup> | 36105-2020 | 20242483 | 1¼           | 31.8 | 1¼-11           | 50                | 1.69        | 42.8 | 3.73       | 94.8  | NS         |         | UCF6-20 |          |         |
| UC-BPFX-2424 <sup>T</sup> | 36105-2424 | 20242806 | 1½           | 38.1 | 1½-11           | 55                | 1.80        | 45.8 | 4.13       | 105.0 | NS         |         | UCF6-24 |          |         |
| UC-BPFX-3232              | 36105-3232 | 20310550 | 2            | 50.8 | 2-11            | 70                | 1.98        | 50.2 | 4.81       | 122.2 | NS         |         | UCF6-32 |          |         |

C: Crimp Nut T: Thrust-Wire Nut (see "Fitting Identification" in Appendix for details)

## BSPP (British Standard Pipe Parallel)

Female | 45° Elbow | Swivel



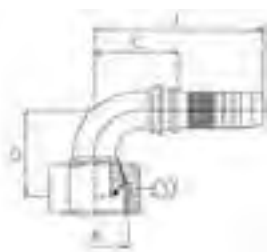
S=Skive  
NS=Non-Skive  
DG=Dual-Grip™

| Descriptive #               | Product #  | SAP #    | Hose Size ID |      | Thread Size (A) | Hex-1 Wrench Size |      | Drop (D) |      | Cut-Off (C) |      | Length (L) |    | Skive Type | SR3     | HR4     | SR6, HR6 | SR14A   |
|-----------------------------|------------|----------|--------------|------|-----------------|-------------------|------|----------|------|-------------|------|------------|----|------------|---------|---------|----------|---------|
|                             |            |          | in.          | mm   |                 | in.               | mm   | in.      | mm   | in.         | mm   | in.        | mm |            |         |         |          |         |
| UC-BPFX45-0404              | 36115-0404 | 20242444 | 1/4          | 6.4  | 1/4-19          | 19                | 0.59 | 15.0     | 1.81 | 46.0        | 2.79 | 70.9       | NS | UCF6-04    |         | UCF2-04 | UCF9-04  | UCF9-03 |
| UC-BPFX45-0606              | 36115-0606 | 20242496 | 3/8          | 9.5  | 3/8-19          | 22                | 0.81 | 20.6     | 1.97 | 50.0        | 3.02 | 76.7       | NS | UCF6-06    |         | UCF2-06 | UCF9-06  | UCF9-04 |
| UC-BPFX45-0808              | 36115-0808 | 20242803 | 1/2          | 12.7 | 1/2-14          | 27                | 0.83 | 21.1     | 2.17 | 55.1        | 3.42 | 86.8       | NS | UCF6-08    |         | UCF2-08 | UCF9-08  | UCF9-05 |
| UC-BPFX45-1212 <sup>C</sup> | 36115-1212 | 20242445 | 3/4          | 19.0 | 3/4-14          | 32                | 1.10 | 27.9     | 2.76 | 70.1        | 4.31 | 109.6      | NS | UCF6-12    | UCF6-12 | UCF2-12 | UCF9-12  | UCF9-06 |
| UC-BPFX45-1616 <sup>C</sup> | 36115-1616 | 20242801 | 1            | 25.4 | 1-11            | 38                | 1.34 | 34.0     | 3.31 | 84.1        | 5.09 | 129.2      | NS | UCF6-16    | UCF6-16 |         | UCF9-16  | UCF9-08 |

C: Crimp Nut (see "Fitting Identification" in Appendix for details)

## BSPP (British Standard Pipe Parallel)

Female | 90° Elbow | Swivel



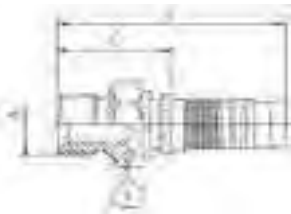
S=Skive  
NS=Non-Skive  
DG=Dual-Grip™

| Descriptive #               | Product #  | SAP #    | Hose Size ID |      | Thread Size (A) | Hex-1 Wrench Size |      | Drop (D) |      | Cut-Off (C) |      | Length (L) |    | Skive Type | SR3     | HR4     | SR6, HR6 | SR14A   |
|-----------------------------|------------|----------|--------------|------|-----------------|-------------------|------|----------|------|-------------|------|------------|----|------------|---------|---------|----------|---------|
|                             |            |          | in.          | mm   |                 | in.               | mm   | in.      | mm   | in.         | mm   | in.        | mm |            |         |         |          |         |
| UC-BPFX90-0404              | 36120-0404 | 20242536 | 1/4          | 6.4  | 1/4-19          | 19                | 1.14 | 29.0     | 1.14 | 29.0        | 2.12 | 53.8       | NS | UCF6-04    |         | UCF2-04 | UCF9-04  | UCF9-03 |
| UC-BPFX90-0606              | 36120-0606 | 20242610 | 3/8          | 9.5  | 3/8-19          | 22                | 1.65 | 41.9     | 1.38 | 35.1        | 2.43 | 61.7       | NS | UCF6-06    |         | UCF2-06 | UCF9-06  | UCF9-04 |
| UC-BPFX90-0608              | 36120-0608 | 20242805 | 3/8          | 9.5  | 1/2-14          | 27                | 1.40 | 35.6     | 1.34 | 34.0        | 2.39 | 60.7       | NS | UCF6-06    |         | UCF2-06 | UCF9-06  |         |
| UC-BPFX90-0808              | 36120-0808 | 20242556 | 1/2          | 12.7 | 1/2-14          | 27                | 1.61 | 40.9     | 1.42 | 36.1        | 2.67 | 67.7       | NS | UCF6-08    |         | UCF2-08 | UCF9-08  | UCF9-05 |
| UC-BPFX90-1212 <sup>C</sup> | 36120-1212 | 20242546 | 3/4          | 19.0 | 3/4-14          | 32                | 2.09 | 53.1     | 1.93 | 49.0        | 3.48 | 88.5       | NS | UCF6-12    | UCF6-12 | UCF2-12 | UCF9-12  | UCF9-06 |
| UC-BPFX90-1616 <sup>C</sup> | 36120-1616 | 20242515 | 1            | 25.4 | 1-11            | 38                | 2.72 | 69.1     | 2.95 | 74.9        | 4.73 | 120.0      | NS | UCF6-16    | UCF6-16 |         | UCF9-16  | UCF9-08 |
| UC-BPFX90-2020 <sup>T</sup> | 36120-2020 | 20242374 | 1 1/4        | 31.8 | 1 1/4-11        | 50                | 3.27 | 83.1     | 3.23 | 82.0        | 5.28 | 134.1      | NS |            | UCF6-20 |         |          | UCF9-06 |

C: Crimp Nut T: Thrust-Wire Nut (see "Fitting Identification" in Appendix for details)

BSPP (British Standard Pipe Parallel)

Male

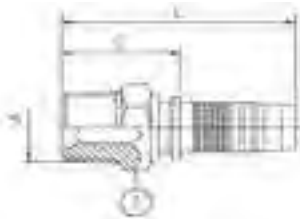


S=Skive  
NS=Non-Skive  
DG=Dual-Grip™

| Descriptive # | Product #  | SAP #    | Hose Size ID |      | Thread Size (A) | Hex-1 Wrench Size | Cut-Off (C) |      | Length (L) |       | Skive Type | SR3     | HR4     | SR6, HR6 | SR14A   |
|---------------|------------|----------|--------------|------|-----------------|-------------------|-------------|------|------------|-------|------------|---------|---------|----------|---------|
|               |            |          | in.          | mm   |                 |                   | in.         | mm   | in.        | mm    |            |         |         |          |         |
| UC-BPM-0404   | 36130-0404 | 20242484 | 1/4          | 6.4  | 1/4-19          | 19                | 1.03        | 26.2 | 2.01       | 51.1  | NS         | UCF6-04 |         | UCF2-04  | UCF9-04 |
| UC-BPM-0606   | 36130-0606 | 20242581 | 3/8          | 9.5  | 3/8-19          | 22                | 1.10        | 28.0 | 2.15       | 54.6  | NS         | UCF6-06 |         | UCF2-06  | UCF9-06 |
| UC-BPM-0608   | 36130-0608 | 20242464 | 3/8          | 9.5  | 1/2-14          | 27                | 1.24        | 31.5 | 2.29       | 58.1  | NS         | UCF6-06 |         | UCF2-06  | UCF9-06 |
| UC-BPM-0806   | 36130-0806 | 20242809 | 1/2          | 12.7 | 3/8-19          | 22                | 1.12        | 28.5 | 2.37       | 60.2  | NS         | UCF6-08 |         | UCF2-08  | UCF9-08 |
| UC-BPM-0808   | 36130-0808 | 20242463 | 1/2          | 12.7 | 1/2-14          | 27                | 1.26        | 32.0 | 2.51       | 63.7  | NS         | UCF6-08 |         | UCF2-08  | UCF9-08 |
| UC-BPM-1212   | 36130-1212 | 20242407 | 3/4          | 19.0 | 3/4-14          | 32                | 1.45        | 36.7 | 3.00       | 76.1  | NS         | UCF6-12 | UCF6-12 | UCF2-12  | UCF9-12 |
| UC-BPM-1616   | 36130-1616 | 20242807 | 1            | 25.4 | 1-11            | 41                | 1.69        | 43.0 | 3.47       | 88.1  | NS         | UCF6-16 | UCF6-16 |          | UCF9-16 |
| UC-BPM-2020   | 36130-2020 | 20242808 | 1 1/4        | 31.8 | 1 1/4-11        | 50                | 1.89        | 48.0 | 3.94       | 100.0 | NS         |         | UCF6-20 |          |         |

BSPT (British Standard Pipe Tapered)

Male



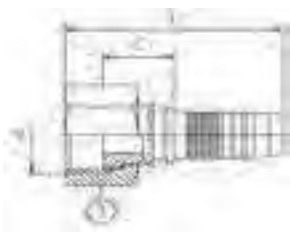
S=Skive  
NS=Non-Skive  
DG=Dual-Grip™

| Descriptive # | Product #  | SAP #    | Hose Size ID |      | Thread Size (A) | Hex-1 Wrench Size | Cut-Off (C) |      | Length (L) |      | Skive Type | SR3     | HR4     | SR6, HR6 | SR14A   |
|---------------|------------|----------|--------------|------|-----------------|-------------------|-------------|------|------------|------|------------|---------|---------|----------|---------|
|               |            |          | in.          | mm   |                 |                   | in.         | mm   | in.        | mm   |            |         |         |          |         |
| UC-BTM-0404   | 36170-0404 | 20242611 | 1/4          | 6.4  | 1/4-19          | 17                | 1.06        | 27.0 | 2.04       | 51.9 | NS         | UCF6-04 |         | UCF2-04  | UCF9-04 |
| UC-BTM-0606   | 36170-0606 | 20242612 | 3/8          | 9.5  | 3/8-19          | 19                | 1.10        | 27.9 | 2.15       | 54.6 | NS         | UCF6-06 |         | UCF2-06  | UCF9-06 |
| UC-BTM-0808   | 36170-0808 | 20242507 | 1/2          | 12.7 | 1/2-14          | 22                | 1.31        | 33.1 | 2.55       | 64.8 | NS         | UCF6-08 |         | UCF2-08  | UCF9-08 |
| UC-BTM-1212   | 36170-1212 | 20242409 | 3/4          | 19.0 | 3/4-14          | 27                | 1.36        | 34.6 | 2.92       | 74.1 | NS         | UCF6-12 | UCF6-12 | UCF2-12  | UCF9-12 |
| UC-BTM-1616   | 36170-1616 | 20242408 | 1            | 25.4 | 1-11            | 36                | 1.73        | 43.9 | 3.51       | 89.0 | NS         | UCF6-16 | UCF6-16 |          | UCF9-16 |



# BSP Flat Seat (British Standard Pipe)

Female | Swivel

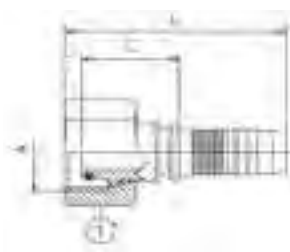


S=Skive  
NS=Non-Skive  
DG=Dual-Grip™

| Descriptive # | Product #  | SAP #    | Hose Size ID |      | Thread Size (A) | Hex-1 Wrench Size | Cut-Off (C) |      | Length (L) |      | Skive Type | SR3     | HR4 | SR6, HR6 | SR14A   |
|---------------|------------|----------|--------------|------|-----------------|-------------------|-------------|------|------------|------|------------|---------|-----|----------|---------|
|               |            |          | in.          | mm   |                 |                   | in.         | mm   | in.        | mm   |            |         |     |          |         |
| UC-BFFX-0606  | 36100-0606 | 20242800 | 3/8          | 9.5  | 3/8-19          | 22                | 0.75        | 19.0 | 1.80       | 45.6 | NS         | UCF6-06 |     | UCF2-06  | UCF9-06 |
| UC-BFFX-0608  | 36100-0608 | 20242799 | 3/8          | 9.5  | 1/2-14          | 27                | 0.80        | 20.2 | 1.84       | 46.8 | NS         | UCF6-06 |     | UCF2-06  | UCF9-06 |
| UC-BFFX-0808  | 36100-0808 | 20242798 | 1/2          | 12.7 | 1/2-14          | 27                | 0.82        | 20.9 | 2.07       | 52.5 | NS         | UCF6-08 |     | UCF2-08  | UCF9-08 |
| UC-BFFX-0812  | 36100-0812 | 20242285 | 1/2          | 12.7 | 3/4-14          | 32                | 0.97        | 24.5 | 2.21       | 56.2 | NS         | UCF6-08 |     | UCF2-08  | UCF9-08 |

# DIN 24° Light

Female | Swivel



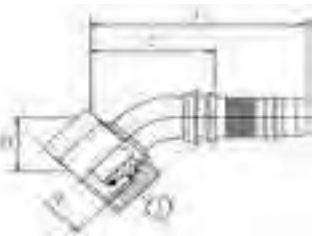
S=Skive  
NS=Non-Skive  
DG=Dual-Grip™

| Descriptive #             | Product #  | SAP #    | Hose Size ID |      | Thread Size (A) | Hex-1 Wrench Size | Cut-Off (C) |      | Length (L) |       | Skive Type | SR3     | HR4     | SR6, HR6 | SR14A   |
|---------------------------|------------|----------|--------------|------|-----------------|-------------------|-------------|------|------------|-------|------------|---------|---------|----------|---------|
|                           |            |          | in.          | mm   |                 |                   | in.         | mm   | in.        | mm    |            |         |         |          |         |
| UC-DLFX-0412 <sup>T</sup> | 36240-0412 | 20242540 | 1/4          | 6.4  | 12x1.5          | 14                | 1.07        | 27.2 | 2.05       | 52.0  | NS         | UCF6-04 |         | UCF2-04  | UCF9-04 |
| UC-DLFX-0414              | 36240-0414 | 20242594 | 1/4          | 6.4  | 14x1.5          | 17                | 1.02        | 25.9 | 2.00       | 50.8  | NS         | UCF6-04 |         | UCF2-04  | UCF9-04 |
| UC-DLFX-0416              | 36240-0416 | 20242471 | 1/4          | 6.4  | 16x1.5          | 19                | 1.08        | 27.4 | 2.06       | 52.2  | NS         | UCF6-04 |         | UCF2-04  | UCF9-04 |
| UC-DLFX-0616              | 36240-0616 | 20242658 | 3/8          | 9.5  | 16x1.5          | 19                | 2.21        | 56.2 | 2.26       | 57.5  | NS         | UCF6-06 |         | UCF2-06  | UCF9-06 |
| UC-DLFX-0618              | 36240-0618 | 20242641 | 3/8          | 9.5  | 18x1.5          | 22                | 1.08        | 27.5 | 2.13       | 54.2  | NS         | UCF6-06 |         | UCF2-06  | UCF9-06 |
| UC-DLFX-0822              | 36240-0822 | 20242586 | 1/2          | 12.7 | 22x1.5          | 27                | 1.21        | 30.7 | 2.46       | 62.4  | NS         | UCF6-08 |         | UCF2-08  | UCF9-08 |
| UC-DLFX-1230              | 36240-1230 | 20242501 | 3/4          | 19.0 | 30x2.0          | 36                | 1.42        | 36.0 | 2.97       | 75.4  | NS         | UCF6-12 | UCF6-12 | UCF2-12  | UCF9-12 |
| UC-DLFX-1636              | 36240-1636 | 20242453 | 1            | 25.4 | 36x2.0          | 41                | 1.49        | 37.9 | 3.27       | 83.0  | NS         | UCF6-16 | UCF6-16 |          | UCF9-16 |
| UC-DLFX-2045              | 36240-2045 | 20242539 | 1 1/4        | 31.8 | 45x2.0          | 50                | 1.74        | 44.1 | 3.78       | 96.1  | NS         |         | UCF6-20 |          |         |
| UC-DLFX-3252              | 36240-3252 | 20588739 | 2            | 50.8 | 52x2.0          | 60                | 1.46        | 37.0 | 4.29       | 109.0 | NS         |         | UCF6-20 |          |         |

T: Thrust-Wire Nut (see "Fitting Identification" in Appendix for details)

DIN 24° Light

Female | 45° Elbow | Swivel



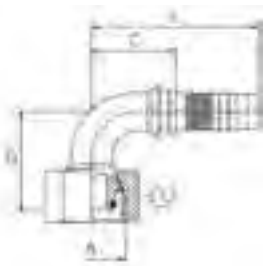
S=Skive  
NS=Non-Skive  
DG=Dual-Grip™

| Descriptive #               | Product #  | SAP #    | Hose Size ID |      | Thread Size (A) | Hex-1 Wrench Size | Drop (D) |      | Cut-Off (C) |      | Length (L) |       | Skive Type | SR3     | HR4     | SR6, HR6 | SR14A   |
|-----------------------------|------------|----------|--------------|------|-----------------|-------------------|----------|------|-------------|------|------------|-------|------------|---------|---------|----------|---------|
|                             |            |          | in.          | mm   |                 |                   | in.      | mm   | in.         | mm   | in.        | mm    |            |         |         |          |         |
| UC-DLFX45-0414 <sup>T</sup> | 36245-0414 | 20242385 | 1/4          | 6.4  | 14x1.5          | 17                | 0.69     | 17.5 | 1.69        | 42.9 | 2.67       | 67.8  | NS         | UCF6-04 |         | UCF2-04  | UCF9-04 |
| UC-DLFX45-0416              | 36245-0416 | 20242386 | 1/4          | 6.4  | 16x1.5          | 19                | 0.79     | 20.1 | 1.65        | 41.9 | 2.63       | 66.8  | NS         | UCF6-04 |         | UCF2-04  | UCF9-04 |
| UC-DLFX45-0618              | 36245-0618 | 20242387 | 3/8          | 9.5  | 18x1.5          | 22                | 0.77     | 19.6 | 1.85        | 47.0 | 2.90       | 73.6  | NS         | UCF6-06 |         | UCF2-06  | UCF9-06 |
| UC-DLFX45-0822              | 36245-0822 | 20242329 | 1/2          | 12.7 | 22x1.5          | 27                | 0.83     | 21.1 | 2.17        | 55.1 | 3.15       | 79.9  | NS         | UCF6-08 |         | UCF2-08  | UCF9-08 |
| UC-DLFX45-1230              | 36245-1230 | 20242330 | 3/4          | 19.0 | 30x2.0          | 36                | 1.26     | 32.0 | 2.72        | 69.1 | 4.27       | 108.5 | NS         | UCF6-12 | UCF6-12 | UCF2-12  | UCF9-12 |
| UC-DLFX45-1636              | 36245-1636 | 20242328 | 1            | 25.4 | 36x2.0          | 41                | 1.26     | 32.0 | 3.58        | 90.9 | 5.36       | 136.0 | NS         | UCF6-16 | UCF6-16 |          | UCF9-16 |

T: Thrust-Wire Nut (see "Fitting Identification" in Appendix for details)

DIN 24° Light

Female | 90° Elbow | Swivel



S=Skive  
NS=Non-Skive  
DG=Dual-Grip™

| Descriptive #  | Product #  | SAP #    | Hose Size ID |      | Thread Size (A) | Hex-1 Wrench Size | Drop (D) |      | Cut-Off (C) |      | Length (L) |       | Skive Type | SR3     | HR4     | SR6, HR6 | SR14A   |
|----------------|------------|----------|--------------|------|-----------------|-------------------|----------|------|-------------|------|------------|-------|------------|---------|---------|----------|---------|
|                |            |          | in.          | mm   |                 |                   | in.      | mm   | in.         | mm   | in.        | mm    |            |         |         |          |         |
| UC-DLFX90-0412 | 36250-0412 | 20242390 | 1/4          | 6.4  | 12x1.5          | 14                | 1.02     | 25.9 | 1.14        | 29.0 | 2.12       | 53.8  | NS         | UCF6-04 |         | UCF2-04  | UCF9-04 |
| UC-DLFX90-0414 | 36250-0414 | 20242425 | 1/4          | 6.4  | 14x1.5          | 17                | 1.28     | 32.5 | 1.10        | 27.9 | 2.08       | 52.8  | NS         | UCF6-04 |         | UCF2-04  | UCF9-04 |
| UC-DLFX90-0416 | 36250-0416 | 20242391 | 1/4          | 6.4  | 16x1.5          | 19                | 1.28     | 32.5 | 1.10        | 27.9 | 2.08       | 52.8  | NS         | UCF6-04 |         | UCF2-04  | UCF9-04 |
| UC-DLFX90-0618 | 36250-0618 | 20242488 | 3/8          | 9.5  | 18x1.5          | 22                | 1.54     | 39.1 | 1.30        | 33.0 | 2.35       | 59.7  | NS         | UCF6-06 |         | UCF2-06  | UCF9-06 |
| UC-DLFX90-0822 | 36250-0822 | 20242389 | 1/2          | 12.7 | 22x1.5          | 27                | 1.59     | 40.4 | 1.57        | 39.9 | 2.82       | 71.6  | NS         | UCF6-08 |         | UCF2-08  | UCF9-08 |
| UC-DLFX90-1230 | 36250-1230 | 20242332 | 3/4          | 19.0 | 30x2.0          | 36                | 2.32     | 58.9 | 2.05        | 52.1 | 3.60       | 91.5  | NS         | UCF6-12 | UCF6-12 | UCF2-12  | UCF9-12 |
| UC-DLFX90-1636 | 36250-1636 | 20242331 | 1            | 25.4 | 36x2.0          | 41                | 2.68     | 68.1 | 3.07        | 78.0 | 4.85       | 123.1 | NS         | UCF6-16 | UCF6-16 |          | UCF9-16 |
| UC-DLFX90-2045 | 36250-2045 | 20242388 | 1 1/4        | 31.8 | 45x2.0          | 50                | 3.50     | 88.9 | 3.54        | 89.9 | 5.59       | 141.9 | NS         |         | UCF6-20 |          |         |

## DIN 24° Light

Male

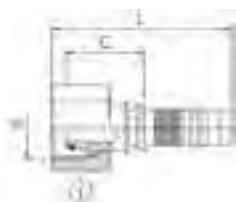


S=Skive  
NS=Non-Skive  
DG=Dual-Grip™

| Descriptive # | Product #  | SAP #    | Hose Size ID |      | Thread Size (A) | Hex-1 Wrench Size | Cut-Off (C) |      | Length (L) |      | Skive Type | SR3     | HR4     | SR6, HR6 | SR14A   |
|---------------|------------|----------|--------------|------|-----------------|-------------------|-------------|------|------------|------|------------|---------|---------|----------|---------|
|               |            |          | in.          | mm   |                 |                   | in.         | mm   | in.        | mm   |            |         |         |          |         |
| UC-DLM-0412   | 36255-0412 | 20242334 | 1/4          | 6.4  | 12x1.5          | 14                | 0.84        | 21.4 | 1.82       | 46.3 | NS         | UCF6-04 |         | UCF2-04  | UCF9-04 |
| UC-DLM-0414   | 36255-0414 | 20242393 | 1/4          | 6.4  | 14x1.5          | 14                | 0.84        | 21.4 | 1.82       | 46.3 | NS         | UCF6-04 |         | UCF2-04  | UCF9-04 |
| UC-DLM-0416   | 36255-0416 | 20242335 | 1/4          | 6.4  | 16x1.5          | 17                | 0.92        | 23.4 | 1.90       | 48.3 | NS         | UCF6-04 |         | UCF2-04  | UCF9-04 |
| UC-DLM-0616   | 36255-0616 | 20242426 | 3/8          | 9.5  | 16x1.5          | 17                | 0.93        | 23.6 | 1.98       | 50.2 | NS         | UCF6-06 |         | UCF2-06  | UCF9-06 |
| UC-DLM-0618   | 36255-0618 | 20242513 | 3/8          | 9.5  | 18x1.5          | 19                | 0.96        | 24.4 | 2.01       | 51.1 | NS         | UCF6-06 |         | UCF2-06  | UCF9-06 |
| UC-DLM-0822   | 36255-0822 | 20242392 | 1/2          | 12.7 | 22x1.5          | 22                | 1.02        | 26.0 | 2.27       | 57.6 | NS         | UCF6-08 |         | UCF2-08  | UCF9-08 |
| UC-DLM-1230   | 36255-1230 | 20242336 | 3/4          | 19.0 | 30x2.0          | 32                | 1.24        | 31.5 | 2.79       | 70.9 | NS         | UCF6-12 | UCF6-12 | UCF2-12  | UCF9-12 |
| UC-DLM-1636   | 36255-1636 | 20242333 | 1            | 25.4 | 36x2.0          | 36                | 1.34        | 34.1 | 3.12       | 79.1 | NS         | UCF6-16 | UCF6-16 |          | UCF9-16 |

## DIN 24° Heavy

Female | Swivel



S=Skive  
NS=Non-Skive  
DG=Dual-Grip™

| Descriptive # | Product #   | SAP #    | Hose Size ID |      | Thread Size (A) | Hex-1 Wrench Size | Cut-Off (C) |      | Length (L) |      | Skive Type | SR3     | HR4     | SR6, HR6 | SR14A   |
|---------------|-------------|----------|--------------|------|-----------------|-------------------|-------------|------|------------|------|------------|---------|---------|----------|---------|
|               |             |          | in.          | mm   |                 |                   | in.         | mm   | in.        | mm   |            |         |         |          |         |
| UC-DHFX-0416  | 36210-0416  | 20242538 | 1/4          | 6.4  | 16x1.5          | 19                | 1.20        | 30.5 | 2.18       | 55.4 | NS         | UCF6-04 |         | UCF2-04  | UCF9-04 |
| UC-DHFX-0418  | 36210-0418  | 20242529 | 1/4          | 6.4  | 18x1.5          | 22                | 1.21        | 30.8 | 2.19       | 55.7 | NS         | UCF6-04 |         | UCF2-04  | UCF9-04 |
| UC-DHFX-0620  | 36210-0620  | 20242624 | 3/8          | 9.5  | 20x1.5          | 24                | 1.21        | 30.8 | 2.26       | 57.4 | NS         | UCF6-06 |         | UCF2-06  | UCF9-06 |
| UC-DHFX-0622  | 36210-0622  | 20242562 | 3/8          | 9.5  | 22x1.5          | 27                | 1.42        | 36.2 | 2.47       | 62.8 | NS         | UCF6-06 |         | UCF2-06  | UCF9-06 |
| UC-DHFX-0824  | 36210-0824  | 20242561 | 1/2          | 12.7 | 24x1.5          | 30                | 1.44        | 36.5 | 2.68       | 68.2 | NS         | UCF6-08 |         | UCF2-08  | UCF9-08 |
| UC-DHFX-1230T | 36210-1230  | 20242319 | 3/4          | 19.0 | 30x2.0          | 36                | 1.62        | 41.0 | 3.17       | 80.5 | NS         | UCF6-12 | UCF6-12 | UCF2-12  | UCF9-12 |
| UC-DHFX-1236  | 36210-1236  | 20242530 | 3/4          | 19.0 | 36x2.0          | 46                | 1.89        | 47.9 | 3.44       | 87.4 | NS         | UCF6-12 | UCF6-12 | UCF2-12  | UCF9-12 |
| UC-DHFX-1236S | 36210-1236S | 20608762 | 3/4          | 19.0 | 36x2.0          | 46                | 1.89        | 47.9 | 3.44       | 87.4 | NS         | UCF6-12 | UCF6-12 | UCF2-12  | UCF9-12 |
| UC-DHFX-1642  | 36210-1642  | 20242500 | 1            | 25.4 | 42x2.0          | 50                | 1.88        | 47.9 | 3.66       | 92.9 | NS         | UCF6-16 | UCF6-16 |          | UCF9-16 |

T: Thrust-Wire Nut (See "Fitting Identification" in Appendix for details)

S: Stainless Steel



## DIN 24° Heavy

Male

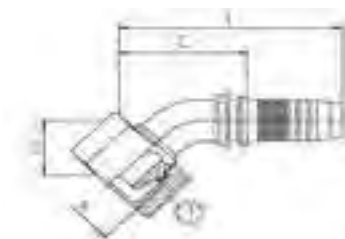


S=Skive  
NS=Non-Skive  
DG=Dual-Grip™

| Descriptive # | Product #  | SAP #    | Hose Size ID |      | Thread Size (A) | Hex-1 Wrench Size | Cut-Off (C) |      | Length (L) |      | Skive Type | SR3     | HR4     | SR6, HR6 | SR14A   |
|---------------|------------|----------|--------------|------|-----------------|-------------------|-------------|------|------------|------|------------|---------|---------|----------|---------|
|               |            |          | in.          | mm   |                 | mm                | in.         | mm   | in.        | mm   |            |         |         |          |         |
| UC-DHM-0416   | 36225-0416 | 20242323 | 1/4          | 6.4  | 16x1.5          | 17                | 0.95        | 24.2 | 1.93       | 49.1 | NS         | UCF6-04 |         | UCF2-04  | UCF9-04 |
| UC-DHM-0418   | 36225-0418 | 20242324 | 1/4          | 6.4  | 18x1.5          | 19                | 0.99        | 25.2 | 1.97       | 50.1 | NS         | UCF6-04 |         | UCF2-04  | UCF9-04 |
| UC-DHM-0620   | 36225-0620 | 20242424 | 3/8          | 9.5  | 20x1.5          | 22                | 1.00        | 25.4 | 2.05       | 52.1 | NS         | UCF6-06 |         | UCF2-06  | UCF9-06 |
| UC-DHM-0622   | 36225-0622 | 20242470 | 3/8          | 9.5  | 22x1.5          | 22                | 1.08        | 27.4 | 2.13       | 54.1 | NS         | UCF6-06 |         | UCF2-06  | UCF9-06 |
| UC-DHM-0824   | 36225-0824 | 20242322 | 1/2          | 12.7 | 24x1.5          | 24                | 1.14        | 29.0 | 2.39       | 60.7 | NS         | UCF6-08 |         | UCF2-08  | UCF9-08 |
| UC-DHM-1230   | 36225-1230 | 20242325 | 3/4          | 19.0 | 30x2.0          | 32                | 1.33        | 33.7 | 2.88       | 73.1 | NS         | UCF6-12 | UCF6-12 | UCF2-12  | UCF9-12 |
| UC-DHM-1236   | 36225-1236 | 20242326 | 3/4          | 19.0 | 36x2.0          | 36                | 1.48        | 37.7 | 3.04       | 77.1 | NS         | UCF6-12 | UCF6-12 | UCF2-12  | UCF9-12 |
| UC-DHM-1642   | 36225-1642 | 20242321 | 1            | 25.4 | 42x2.0          | 46                | 1.66        | 42.1 | 3.43       | 87.2 | NS         | UCF6-16 | UCF6-16 |          | UCF9-16 |

## DIN 60°

Female | 45° Elbow | Swivel

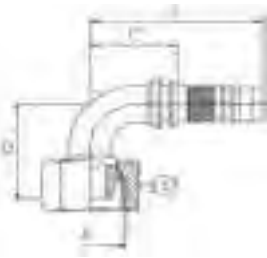


S=Skive  
NS=Non-Skive  
DG=Dual-Grip™

| Descriptive #  | Product #  | SAP #    | Hose Size ID |      | Thread Size (A) | Hex-1 Wrench Size | Drop (D) |      | Cut-Off (C) |      | Length (L) |      | Skive Type | SR3     | HR4 | SR6, HR6 | SR14A   |
|----------------|------------|----------|--------------|------|-----------------|-------------------|----------|------|-------------|------|------------|------|------------|---------|-----|----------|---------|
|                |            |          | in.          | mm   |                 | mm                | in.      | mm   | in.         | mm   | in.        | mm   |            |         |     |          |         |
| UC-DNFX45-0414 | 36275-0414 | 20242338 | 1/4          | 6.4  | 14x1.5          | 17                | 0.63     | 16.0 | 1.38        | 35.1 | 2.36       | 59.9 | NS         | UCF6-04 |     | UCF2-04  | UCF9-04 |
| UC-DNFX45-0416 | 36275-0416 | 20242339 | 1/4          | 6.4  | 16x1.5          | 19                | 0.67     | 17.0 | 1.42        | 36.1 | 2.40       | 61.0 | NS         | UCF6-04 |     | UCF2-04  | UCF9-04 |
| UC-DNFX45-0618 | 36275-0618 | 20242340 | 3/8          | 9.5  | 18x1.5          | 22                | 0.77     | 19.6 | 1.69        | 42.9 | 2.74       | 69.6 | NS         | UCF6-06 |     | UCF2-06  | UCF9-06 |
| UC-DNFX45-0822 | 36275-0822 | 20242337 | 1/2          | 12.7 | 22x1.5          | 27                | 0.79     | 20.1 | 2.17        | 55.1 | 3.42       | 86.8 | NS         | UCF6-08 |     | UCF2-08  | UCF9-08 |

DIN 60°

Female | 90° Elbow | Swivel

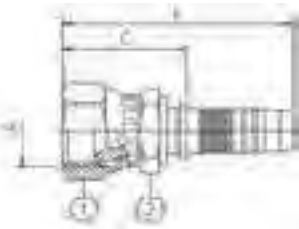


S=Skive  
NS=Non-Skive  
DG=Dual-Grip™

| Descriptive #  | Product #  | SAP #    | Hose Size ID |      | Thread Size (A) | Hex-1 Wrench Size | Drop (D) |      | Cut-Off (C) |      | Length (L) |      | Skive Type | SR3     | HR4 | SR6, HR6 | SR14A   |
|----------------|------------|----------|--------------|------|-----------------|-------------------|----------|------|-------------|------|------------|------|------------|---------|-----|----------|---------|
|                |            |          | in.          | mm   |                 |                   | in.      | mm   | in.         | mm   | in.        | mm   |            |         |     |          |         |
| UC-DNFX90-0414 | 36280-0414 | 20242428 | 1/4          | 6.4  | 14x1.5          | 17                | 1.28     | 32.5 | 1.18        | 30.0 | 2.16       | 54.9 | NS         | UCF6-04 |     | UCF2-04  | UCF9-04 |
| UC-DNFX90-0416 | 36280-0416 | 20242341 | 1/4          | 6.4  | 16x1.5          | 19                | 1.28     | 32.5 | 1.10        | 27.9 | 2.08       | 52.8 | NS         | UCF6-04 |     | UCF2-04  | UCF9-04 |
| UC-DNFX90-0616 | 36280-0616 | 20242342 | 3/8          | 9.5  | 16x1.5          | 19                | 1.26     | 32.0 | 1.18        | 30.0 | 2.23       | 56.6 | NS         | UCF6-06 |     | UCF2-06  | UCF9-06 |
| UC-DNFX90-0618 | 36280-0618 | 20242472 | 3/8          | 9.5  | 18x1.5          | 22                | 1.46     | 37.1 | 1.30        | 33.0 | 2.35       | 59.7 | NS         | UCF6-06 |     | UCF2-06  | UCF9-06 |
| UC-DNFX90-0822 | 36280-0822 | 20242427 | 1/2          | 12.7 | 22x1.5          | 27                | 1.57     | 39.9 | 1.57        | 39.9 | 2.82       | 71.6 | NS         | UCF6-08 |     | UCF2-08  | UCF9-08 |

Japanese Komatsu® 30° Flare with Metric Threads

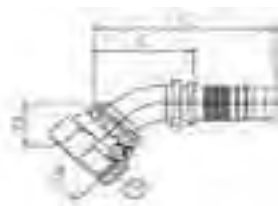
Female | Swivel



S=Skive  
NS=Non-Skive  
DG=Dual-Grip™

| Descriptive # | Product #  | SAP #    | Hose Size ID |      | Thread Size (A) | Hex-1 Wrench Size | Hex-2 Wrench Size | Cut-Off (C) |      | Length (L) |       | Skive Type | SR3     | HR4     | SR6, HR6 | SR14A   |
|---------------|------------|----------|--------------|------|-----------------|-------------------|-------------------|-------------|------|------------|-------|------------|---------|---------|----------|---------|
|               |            |          | in.          | mm   |                 |                   |                   | in.         | mm   | in.        | mm    |            |         |         |          |         |
| UC-KMFX-0414  | 36545-0414 | 20242590 | 1/4          | 6.4  | 14X1.5          | 19                | 17                | 1.22        | 30.9 | 2.20       | 55.8  | NS         | UCF6-04 |         | UCF2-04  | UCF9-04 |
| UC-KMFX-0618  | 36545-0618 | 20242636 | 3/8          | 9.5  | 18X1.5          | 22                | 19                | 1.26        | 32.1 | 2.31       | 58.7  | NS         | UCF6-06 |         | UCF2-06  | UCF9-06 |
| UC-KMFX-0822  | 36545-0822 | 20242573 | 1/2          | 12.7 | 22X1.5          | 27                | 22                | 1.38        | 35.2 | 2.63       | 66.8  | NS         | UCF6-08 |         | UCF2-08  | UCF9-08 |
| UC-KMFX-1024  | 36545-1024 | 20283390 | 5/8          | 15.9 | 24x1.5          | 32                | 30                | 1.66        | 42.2 | 3.02       | 76.6  | NS         | UCF6-10 |         | UCF2-10  | UCF9-10 |
| UC-KMFX-1230  | 36545-1230 | 20242541 | 3/4          | 19.0 | 30X1.5          | 36                | 30                | 1.84        | 46.7 | 3.39       | 86.1  | NS         | UCF6-12 | UCF6-12 | UCF2-12  | UCF9-12 |
| UC-KMFX-1633  | 36545-1633 | 20242564 | 1            | 25.4 | 33X1.5          | 41                | 36                | 2.24        | 56.9 | 4.02       | 102.0 | NS         | UCF6-16 | UCF6-16 |          | UCF9-16 |
| UC-KMFX-2036  | 36545-2036 | 20242394 | 1 1/4        | 31.8 | 36X1.5          | 46                | 46                | 2.50        | 63.6 | 4.55       | 115.5 | NS         |         | UCF6-20 |          |         |

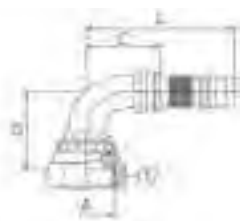
## Japanese Komatsu® 30° Flare with Metric Threads Female | 45° Elbow | Swivel



S=Skive  
NS=Non-Skive  
DG=Dual-Grip™

| Descriptive #  | Product #  | SAP #    | Hose Size ID |      | Thread Size (A) | Hex-1 Wrench Size | Drop (D) |      | Cut-Off (C) |      | Length (L) |      | Skive Type | SR3     | HR4 | SR6, HR6 | SR14A   |
|----------------|------------|----------|--------------|------|-----------------|-------------------|----------|------|-------------|------|------------|------|------------|---------|-----|----------|---------|
|                |            |          | in.          | mm   |                 | mm                | in.      | mm   | in.         | mm   | in.        | mm   |            |         |     |          |         |
| UC-KMFX45-0414 | 36548-0414 | 20318233 | 1/4          | 6.4  | 14X1.5          | 19                | 0.61     | 15.5 | 1.50        | 38.1 | 2.48       | 63.0 | NS         | UCF6-04 |     | UCF2-04  | UCF9-04 |
| UC-KMFX45-0618 | 36548-0618 | 20318234 | 3/8          | 9.5  | 18X1.5          | 22                | 0.71     | 18.0 | 1.73        | 43.9 | 2.78       | 70.6 | NS         | UCF6-06 |     | UCF2-06  | UCF9-06 |
| UC-KMFX45-0822 | 36548-0822 | 20318235 | 1/2          | 12.7 | 22X1.5          | 27                | 1.16     | 29.5 | 2.20        | 55.9 | 3.45       | 87.6 | NS         | UCF6-08 |     | UCF2-08  | UCF9-08 |

## Japanese Komatsu® 30° Flare with Metric Threads Female | 90° Elbow | Swivel

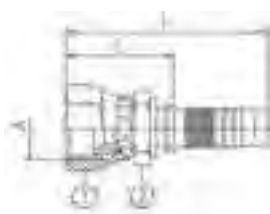


S=Skive  
NS=Non-Skive  
DG=Dual-Grip™

| Descriptive #  | Product #  | SAP #    | Hose Size ID |      | Thread Size (A) | Hex-1 Wrench Size | Drop (D) |      | Cut-Off (C) |      | Length (L) |      | Skive Type | SR3     | HR4 | SR6, HR6 | SR14A   |
|----------------|------------|----------|--------------|------|-----------------|-------------------|----------|------|-------------|------|------------|------|------------|---------|-----|----------|---------|
|                |            |          | in.          | mm   |                 | mm                | in.      | mm   | in.         | mm   | in.        | mm   |            |         |     |          |         |
| UC-KMFX90-0414 | 36550-0414 | 20318236 | 1/4          | 6.4  | 14X1.5          | 19                | 1.16     | 29.5 | 1.30        | 33.0 | 2.28       | 57.9 | NS         | UCF6-04 |     | UCF2-04  | UCF9-04 |
| UC-KMFX90-0618 | 36550-0618 | 20318326 | 3/8          | 9.5  | 18X1.5          | 22                | 1.40     | 35.6 | 1.42        | 36.0 | 2.47       | 62.7 | NS         | UCF6-06 |     | UCF2-06  | UCF9-06 |
| UC-KMFX90-0822 | 36550-0822 | 20318327 | 1/2          | 12.7 | 22X1.5          | 27                | 2.09     | 53.1 | 1.74        | 37.0 | 2.98       | 75.8 | NS         | UCF6-08 |     | UCF2-08  | UCF9-08 |

## JIS 30° (Parallel Pipe Threads)

Female | Swivel



S=Skive  
NS=Non-Skive  
DG=Dual-Grip™

| Descriptive # | Product #  | SAP #    | Hose Size ID |      | Thread Size (A) | Hex-1 Wrench Size | Hex-2 Wrench Size | Cut-Off (C) |      | Length (L) |       | Skive Type | SR3     | HR4     | SR6, HR6 | SR14A   |
|---------------|------------|----------|--------------|------|-----------------|-------------------|-------------------|-------------|------|------------|-------|------------|---------|---------|----------|---------|
|               |            |          | in.          | mm   |                 | mm                | mm                | in.         | mm   | in.        | mm    |            |         |         |          |         |
| UC-JSFX-0404  | 36520-0404 | 20242644 | 1/4          | 6.4  | 1/4-19          | 19                | 17                | 1.22        | 30.9 | 2.20       | 55.8  | NS         | UCF6-04 |         | UCF2-04  | UCF9-04 |
| UC-JSFX-0606  | 36520-0606 | 20242699 | 3/8          | 9.5  | 3/8-19          | 22                | 19                | 1.26        | 32.1 | 2.31       | 58.7  | NS         | UCF6-06 |         | UCF2-06  | UCF9-06 |
| UC-JSFX-0808  | 36520-0808 | 20242606 | 1/2          | 12.7 | 1/2-14          | 27                | 22                | 1.39        | 35.2 | 2.63       | 66.9  | NS         | UCF6-08 |         | UCF2-08  | UCF9-08 |
| UC-JSFX-1212  | 36520-1212 | 20242543 | 3/4          | 19.0 | 3/4-14          | 36                | 30                | 1.58        | 40.2 | 3.14       | 79.6  | NS         | UCF6-12 | UCF6-12 | UCF2-12  | UCF9-12 |
| UC-JSFX-1616  | 36520-1616 | 20242502 | 1            | 25.4 | 1-11            | 41                | 36                | 1.87        | 47.5 | 3.65       | 92.6  | NS         | UCF6-16 | UCF6-16 |          | UCF9-16 |
| UC-JSFX-2020T | 36520-2020 | 20242436 | 1 1/4        | 31.8 | 1 1/4-11        | 50                | 46                | 2.16        | 54.9 | 4.21       | 106.9 | NS         |         | UCF6-20 |          |         |

T: Thrust-Wire Nut (see "Fitting Identification" in Appendix for details)

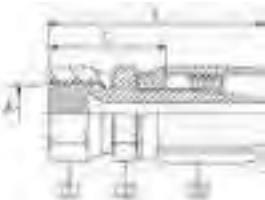
# How to Use the Fitting Tables

This section lists ALL fittings that are compatible with the following hoses:

| Hose Family | Hose Descriptive           |
|-------------|----------------------------|
| SR5         | SAE 100R5                  |
| DR5         | SAE 100R5 (High Temp)      |
| SCX5        | SAE 100R5 (Rubber Covered) |

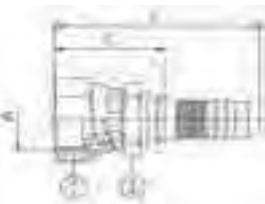
Fitting Description

Fitting Type



| Descriptive #   | Product #  | SAP #    | Hose Size ID |     | Thread Size (A) | Hex-1 Wrench Size |    | Hex-2 Wrench Size |    | Socket (S) Wrench Size | Cut-Off (C) |      | Length (L) |      | SR5, DR5 |
|-----------------|------------|----------|--------------|-----|-----------------|-------------------|----|-------------------|----|------------------------|-------------|------|------------|------|----------|
|                 |            |          | in.          | mm  |                 | in.               | mm | in.               | mm |                        | in.         | mm   | in.        | mm   |          |
| Field Grip, PN1 | 18400-0404 | 20245798 | 3/16         | 4.8 | 7/16-20         | 9/16              |    | 9/16              |    | 5/8                    | 1.19        | 30.2 | 1.94       | 49.2 | Y        |
| Field Grip, PN2 | 18400-0505 | 20245799 | 1/4          | 6.4 | 1/2-20          | 5/8               |    | 5/8               |    | 11/16                  | 1.30        | 32.9 | 2.08       | 52.8 | Y        |
| Field Grip, PN3 | 18400-0606 | 20245800 | 5/16         | 7.9 | 9/16-18         | 11/16             |    | 11/16             |    | 13/16                  | 1.41        | 35.7 | 2.31       | 58.7 | Y        |

A “Y” in the hose compatibility columns indicates that the fitting is a **Field Grip™** style fitting and that it works for that particular hose.



| Descriptive #  | Product #   | SAP #    | Hose Size ID |     | Thread Size (A) | Hex-1 Wrench Size |    | Hex-2 Wrench Size |    | Socket (S) Wrench Size | Cut-Off (C) |      | Length (L) |      | SR5, DR5, SCX5       |
|----------------|-------------|----------|--------------|-----|-----------------|-------------------|----|-------------------|----|------------------------|-------------|------|------------|------|----------------------|
|                |             |          | in.          | mm  |                 | in.               | mm | in.               | mm |                        | in.         | mm   | in.        | mm   |                      |
| Uni-Crimp, PN1 | 36400-0304  | 20557173 | 3/16         | 4.8 | 7/16-20         | 9/16              | 14 | 1/2               | 12 | N/A                    | 0.71        | 18.1 | 1.93       | 49.0 | UCF6-03              |
| Uni-Crimp, PN2 | 36400-0404  | 20242786 | 1/4          | 6.4 | 7/16-20         | 5/8               | 16 | 9/16              | 14 | N/A                    | 0.77        | 19.6 | 2.09       | 53.1 | UCF6-04              |
| Uni-Crimp, PN3 | 36400-0404S | 20540685 | 1/4          | 6.4 | 7/16-20         | 5/8               | 16 | 9/16              | 14 | N/A                    | 0.77        | 19.6 | 2.09       | 53.1 | Uni-Crimp Ferrule PN |

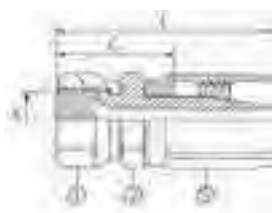
Choose fittings carefully, considering the working pressure of both hose and fitting. The maximum working pressure of the hose assembly is the lesser of the rated working pressure of the hose and the fitting. See page 327 for working pressure.

A **Part Number (Ferrule)** in the hose compatibility columns indicates that the fitting is a **Uni-Crimp™** or **Dual Grip™** style. The fitting, along with the Ferrule shown, work together as a unit for that particular hose.



## JIC 37° Flare (SAE J514)

Female | Swivel



| Descriptive # | Product #  | SAP #    | Hose Size ID |      | Thread Size (A) | Hex-1 Wrench Size |    | Hex-2 Wrench Size | Socket (S) Wrench Size | Cut-Off (C) |      | Length (L) |       | SR5, DR5 |
|---------------|------------|----------|--------------|------|-----------------|-------------------|----|-------------------|------------------------|-------------|------|------------|-------|----------|
|               |            |          | in.          | mm   |                 | in.               | mm | in.               |                        | in.         | mm   | in.        | mm    |          |
| FG-JCFX-0404  | 18400-0404 | 20245798 | 3/16         | 4.8  | 7/16-20         | 9/16              |    | 9/16              | 5/8                    | 1.19        | 30.2 | 1.94       | 49.2  | Y        |
| FG-JCFX-0505  | 18400-0505 | 20245799 | 1/4          | 6.4  | 1/2-20          | 5/8               |    | 5/8               | 11/16                  | 1.30        | 32.9 | 2.08       | 52.8  | Y        |
| FG-JCFX-0606  | 18400-0606 | 20245800 | 5/16         | 7.9  | 9/16-18         | 11/16             |    | 11/16             | 13/16                  | 1.41        | 35.7 | 2.31       | 58.7  | Y        |
| FG-JCFX-0808  | 18400-0808 | 20245801 | 13/32        | 10.3 | 3/4-16          | 7/8               |    | 7/8               | 15/16                  | 1.58        | 40.1 | 2.68       | 68.1  | Y        |
| FG-JCFX-1010  | 18400-1010 | 20245792 | 1/2          | 12.7 | 7/8-14          | 1                 |    | 1                 | 1 1/8                  | 1.67        | 42.5 | 3.06       | 77.8  | Y        |
| FG-JCFX-1212  | 18400-1212 | 20245793 | 5/8          | 15.9 | 1 1/16-12       | 1 1/4             |    | 1 1/4             | 1 1/4                  | 1.92        | 48.8 | 3.50       | 88.9  | Y        |
| FG-JCFX-1616  | 18400-1616 | 20245794 | 7/8          | 22.2 | 1 5/16-12       | 1 1/2             |    | 1 1/2             | 1 7/16                 | 1.92        | 48.8 | 3.19       | 81.0  | Y        |
| FG-JCFX-2020  | 18400-2020 | 20245795 | 1 1/8        | 28.6 | 1 5/8-12        | 2                 |    | 2                 | 1 3/4                  | 2.50        | 63.5 | 3.38       | 85.7  | Y        |
| FG-JCFX-2424  | 18400-2424 | 20245796 | 1 3/8        | 34.9 | 1 7/8-12        | 2 1/4             |    | 2 1/4             | 2                      | 2.23        | 56.8 | 3.66       | 92.9  | Y        |
| FG-JCFX-3232  | 18400-3232 | 20245797 | 1 13/16      | 46.0 | 2 1/2-12        | 2 7/8             |    | 2 7/8             | 2 1/2                  | 2.58        | 65.5 | 4.44       | 112.7 | Y        |



| Descriptive # | Product #   | SAP #    | Hose Size ID |      | Thread Size (A) | Hex-1 Wrench Size |    | Hex-2 Wrench Size |    | Socket (S) Wrench Size | Cut-Off (C) |      | Length (L) |      | SR5, DR5, SCX5 |
|---------------|-------------|----------|--------------|------|-----------------|-------------------|----|-------------------|----|------------------------|-------------|------|------------|------|----------------|
|               |             |          | in.          | mm   |                 | in.               | mm | in.               | mm |                        | in.         | mm   | in.        | mm   |                |
| UCH-JCFX-0304 |             | 20530659 | 3/16         | 4.8  | 7/16-20         | 5/8               | 16 | 9/16              | 14 | N/A                    | 1.07        | 27.2 | 1.94       | 49.4 | UCF6-03        |
| UC-JCFX-0403  | 36400-0403  | 20318324 | 1/4          | 6.4  | 3/8-24          | 9/16              | 14 | 1/2               | 12 | N/A                    | 1.11        | 28.1 | 2.09       | 53.0 | UCF6-04        |
| UC-JCFX-0404  | 36400-0404  | 20242786 | 1/4          | 6.4  | 7/16-20         | 5/8               | 16 | 9/16              | 14 | N/A                    | 1.17        | 29.6 | 2.15       | 54.5 | UCF6-04        |
| UC-JCFX-0404S | 36400-0404S | 20540685 | 1/4          | 6.4  | 7/16-20         | 5/8               | 16 | 9/16              | 14 | N/A                    | 1.17        | 29.6 | 2.15       | 54.5 | UCF6-04        |
| UC-JCFX-0405  | 36400-0405  | 20242746 | 1/4          | 6.4  | 1/2-20          | 11/16             | 17 | 9/16              | 14 | N/A                    | 1.24        | 31.4 | 2.22       | 56.3 | UCF6-04        |
| UC-JCFX-0406  | 36400-0406  | 20242778 | 1/4          | 6.4  | 9/16-18         | 3/4               | 19 | 9/16              | 14 | N/A                    | 1.23        | 31.2 | 2.21       | 56.1 | UCF6-04        |
| UC-JCFX-0504  | 36400-0504  | 20629768 | 5/16         | 7.9  | 7/16-20         | 5/8               | 16 | 9/16              | 14 | N/A                    | 1.20        | 30.4 | 2.18       | 55.3 | UCF6-05        |
| UC-JCFX-0505  | 36400-0505  | 20242676 | 5/16         | 7.9  | 1/2-20          | 11/16             | 17 | 9/16              | 14 | N/A                    | 1.24        | 31.4 | 2.22       | 56.3 | UCF6-05        |
| UC-JCFX-0506  | 36400-0506  | 20242765 | 5/16         | 7.9  | 9/16-18         | 3/4               | 19 | 9/16              | 14 | N/A                    | 1.23        | 31.2 | 2.21       | 56.1 | UCF6-05        |
| UC-JCFX-0604  | 36400-0604  | 20688966 | 13/32        | 10.3 | 7/16-20         |                   |    |                   |    | N/A                    |             |      |            |      | UCF6-06        |
| UC-JCFX-0606  | 36400-0606  | 20242787 | 13/32        | 10.3 | 9/16-18         | 3/4               | 19 | 11/16             | 17 | N/A                    | 1.22        | 31.1 | 2.27       | 57.7 | UCF6-06        |
| UC-JCFX-0606S | 36400-0606S | 20540686 | 13/32        | 10.3 | 9/16-18         | 3/4               | 19 | 11/16             | 17 | N/A                    | 1.22        | 31.1 | 2.27       | 57.7 | UCF6-06        |
| UC-JCFX-0608  | 36400-0608  | 20242779 | 13/32        | 10.3 | 3/4-16          | 1                 | 25 | 3/4               | 19 | N/A                    | 1.37        | 34.9 | 2.42       | 61.5 | UCF6-06        |
| UC-JCFX-0610  | 36400-0610  | 20242708 | 13/32        | 10.3 | 7/8-14          | 1 1/16            | 27 | 7/8               | 22 | N/A                    | 1.53        | 38.8 | 2.58       | 65.5 | UCF6-06        |

S: Stainless Steel

Continued on next page

JIC 37° Flare (SAE J514)

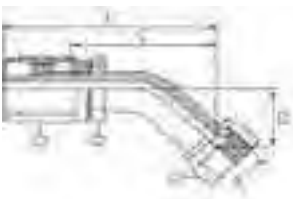
Female | Swivel Continued

| Descriptive # | Product #   | SAP #    | Hose Size ID |      | Thread    | Hex-1  |    | Hex-2  |    | Socket (S)  | Cut-Off (C) |      | Length (L) |       | SR5, DR5, SCX5 |
|---------------|-------------|----------|--------------|------|-----------|--------|----|--------|----|-------------|-------------|------|------------|-------|----------------|
|               |             |          | in.          | mm   | Size (A)  | in.    | mm | in.    | mm | Wrench Size | in.         | mm   | in.        | mm    |                |
| UC-JCFX-0806  | 36400-0806  | 20242666 | 1/2          | 12.7 | 9/16-18   | 3/4    | 19 | 3/4    | 19 | N/A         | 1.29        | 32.8 | 2.54       | 64.5  | UCF6-08        |
| UC-JCFX-0808  | 36400-0808  | 20242785 | 1/2          | 12.7 | 3/4-16    | 1      | 25 | 3/4    | 19 | N/A         | 1.44        | 36.7 | 2.69       | 68.4  | UCF6-08        |
| UC-JCFX-0808S | 36400-0808S | 20540687 | 1/2          | 12.7 | 3/4-16    | 1      | 25 | 3/4    | 19 | N/A         | 1.44        | 36.7 | 2.69       | 68.4  | UCF6-08        |
| UC-JCFX-0810  | 36400-0810  | 20242772 | 1/2          | 12.7 | 7/8-14    | 1 1/16 | 27 | 7/8    | 22 | N/A         | 1.56        | 39.6 | 2.81       | 71.3  | UCF6-08        |
| UC-JCFX-0812  | 36400-0812  | 20242727 | 1/2          | 12.7 | 1 1/16-12 | 1 1/4  | 32 | 1      | 25 | N/A         | 1.68        | 42.6 | 2.93       | 74.3  | UCF6-08        |
| UC-JCFX-1008  | 36400-1008  | 20242399 | 5/8          | 15.9 | 3/4-16    | 1      | 25 | 15/16  | 24 | N/A         | 1.52        | 38.7 | 2.88       | 73.2  | UCF6-10        |
| UC-JCFX-1010  | 36400-1010  | 20242774 | 5/8          | 15.9 | 7/8-14    | 1 1/16 | 27 | 15/16  | 24 | N/A         | 1.67        | 42.4 | 3.03       | 76.9  | UCF6-10        |
| UC-JCFX-1010S | 36400-1010S | 20540688 | 5/8          | 15.9 | 7/8-14    | 1 1/16 | 27 | 15/16  | 24 | N/A         | 1.67        | 42.4 | 3.03       | 76.9  | UCF6-10        |
| UC-JCFX-1012  | 36400-1012  | 20242580 | 5/8          | 15.9 | 1 1/16-12 | 1 1/4  | 32 | 1      | 25 | N/A         | 1.68        | 42.6 | 3.04       | 77.1  | UCF6-10        |
| UC-JCFX-1416  | 36400-1416  | 20283395 | 7/8          | 22.2 | 1 5/16-12 | 1 1/2  | 38 | 1 1/4  | 32 | N/A         | 1.85        | 47.0 | 3.40       | 86.3  | UCF6-12        |
| UC-JCFX-1816  | 36400-1816  | 20613766 | 1            | 28.6 | 1 5/16-12 | 1 1/2  | 38 | 1 3/8  | 41 | N/A         | 1.80        | 45.8 | 3.56       | 90.4  | UCF6-16        |
| UC-JCFX-1820  | 36400-1820  | 20283399 | 1            | 28.6 | 1 3/8-12  | 2      | 50 | 1 3/8  | 41 | N/A         | 2.09        | 53.0 | 3.84       | 97.6  | UCF6-16        |
| UC-JCFX-2224  | 36400-2224  | 20283397 | 1 3/8        | 34.9 | 1 7/8-12  | 2 3/16 | 55 | 2      | 50 | N/A         | 2.46        | 62.4 | 4.50       | 114.4 | UCF6-20        |
| UC-JCFX-2932  | 36400-2932  | 20283398 | 1 13/16      | 46.0 | 2 1/2-12  | 2 3/4  | 70 | 2 9/16 | 65 | N/A         | 2.86        | 72.7 | 5.70       | 144.8 | UCF8-32        |

S: Stainless Steel

JIC 37° Flare (SAE J514)

Female | 45° Elbow | Swivel

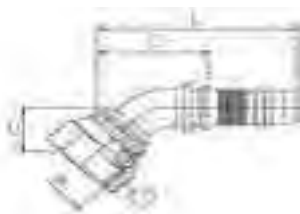


| Descriptive #  | Product #  | SAP #    | Hose Size ID |      | Thread    | Hex-1       | Hex-2       | Socket (S)  | Drop (D) |      | Cut-Off (C) |      | Length (L) |      | SR5, DR5 |
|----------------|------------|----------|--------------|------|-----------|-------------|-------------|-------------|----------|------|-------------|------|------------|------|----------|
|                |            |          | in.          | mm   | Size (A)  | Wrench Size | Wrench Size | Wrench Size | in.      | mm   | in.         | mm   | in.        | mm   |          |
| FG-JCFX45-0404 | 18420-0404 | 20245820 | 3/16         | 4.8  | 7/16-20   | 9/16        | 9/16        | 5/8         | 0.33     | 8.3  | 1.11        | 28.2 | 1.84       | 46.8 | Y        |
| FG-JCFX45-0505 | 18420-0505 | 20245821 | 1/4          | 6.4  | 1/2-20    | 9/16        | 5/8         | 11/16       | 0.36     | 9.1  | 1.28        | 32.5 | 1.06       | 27.0 | Y        |
| FG-JCFX45-0606 | 18420-0606 | 20245822 | 5/16         | 7.9  | 9/16-18   | 9/16        | 11/16       | 13/16       | 0.39     | 9.9  | 1.33        | 33.7 | 2.23       | 56.8 | Y        |
| FG-JCFX45-0808 | 18420-0808 | 20245823 | 13/32        | 10.3 | 3/4-16    | 11/16       | 7/8         | 15/16       | 0.55     | 13.9 | 1.84        | 46.8 | 2.98       | 75.8 | Y        |
| FG-JCFX45-1010 | 18420-1010 | 20245817 | 1/2          | 12.7 | 7/8-14    | 7/8         | 1           | 1 1/8       | 0.62     | 15.9 | 1.95        | 49.6 | 3.23       | 82.2 | Y        |
| FG-JCFX45-1212 | 18420-1212 | 20245818 | 5/8          | 15.9 | 1 1/16-12 | 1 1/8       | 1 1/4       | 1 1/4       | 0.77     | 19.5 | 2.22        | 56.4 | 3.78       | 96.0 | Y        |
| FG-JCFX45-1616 | 18420-1616 | 20245819 | 7/8          | 22.2 | 1 5/16-12 | 1 3/8       | 1 1/2       | 1 7/8       | 0.89     | 22.6 | 2.23        | 56.8 | 3.56       | 90.5 | Y        |

Continued on next page

## JIC 37° Flare (SAE J514)

Female | 45° Elbow | Swivel Continued



| Descriptive #  | Product #  | SAP #    | Hose Size ID |      | Thread Size (A) | Hex-1 Wrench Size |    | Socket (S) Wrench Size | Drop (D) |      | Cut-Off (C) |      | Length (L) |       | SR5, DR5, SCX5 |
|----------------|------------|----------|--------------|------|-----------------|-------------------|----|------------------------|----------|------|-------------|------|------------|-------|----------------|
|                |            |          | in.          | mm   |                 | in.               | mm |                        | in.      | mm   | in.         | mm   | in.        | mm    |                |
| UC-JCFX45-0304 | 36420-0304 | 20685771 | 1/4          | 6.4  | 7/16-20         | 5/8               | 16 | N/A                    | 0.39     | 10.0 | 1.44        | 36.6 | 2.31       | 58.8  | UCF6-03        |
| UC-JCFX45-0404 | 36420-0404 | 20242725 | 1/4          | 6.4  | 7/16-20         | 5/8               | 16 | N/A                    | 0.39     | 10.0 | 1.46        | 37.0 | 2.44       | 61.9  | UCF6-04        |
| UC-JCFX45-0405 | 36420-0405 | 20242628 | 1/4          | 6.4  | 1/2-20          | 11/16             | 17 | N/A                    | 0.47     | 12.0 | 1.46        | 37.0 | 2.44       | 61.9  | UCF6-04        |
| UC-JCFX45-0406 | 36420-0406 | 20242629 | 1/4          | 6.4  | 9/16-18         | 3/4               | 19 | N/A                    | 0.43     | 11.0 | 1.54        | 39.0 | 2.52       | 63.9  | UCF6-04        |
| UC-JCFX45-0506 | 36420-0506 | 20242489 | 5/16         | 7.9  | 9/16-18         | 3/4               | 19 | N/A                    | 0.47     | 11.9 | 1.69        | 42.9 | 2.67       | 67.8  | UCF6-05        |
| UC-JCFX45-0606 | 36420-0606 | 20242743 | 13/32        | 10.3 | 9/16-18         | 3/4               | 19 | N/A                    | 0.43     | 11.0 | 1.81        | 46.0 | 2.86       | 72.6  | UCF6-06        |
| UC-JCFX45-0608 | 36420-0608 | 20242698 | 13/32        | 10.3 | 3/4-16          | 1                 | 25 | N/A                    | 0.59     | 15.0 | 1.85        | 47.0 | 2.90       | 73.6  | UCF6-06        |
| UC-JCFX45-0808 | 36420-0808 | 20242729 | 1/2          | 12.7 | 3/4-16          | 1                 | 25 | N/A                    | 0.59     | 15.0 | 2.05        | 52.0 | 3.29       | 83.7  | UCF6-08        |
| UC-JCFX45-0810 | 36420-0810 | 20242675 | 1/2          | 12.7 | 7/8-14          | 1 1/16            | 27 | N/A                    | 0.63     | 16.0 | 2.01        | 51.0 | 3.26       | 82.7  | UCF6-08        |
| UC-JCFX45-1010 | 36420-1010 | 20242345 | 5/8          | 15.9 | 7/8-14          | 1 1/16            | 27 | N/A                    | 0.87     | 22.0 | 2.56        | 65.0 | 3.92       | 99.5  | UCF6-10        |
| UC-JCFX45-1012 | 36420-1012 | 20242344 | 5/8          | 15.9 | 1 1/16-12       | 1 1/4             | 32 | N/A                    | 0.83     | 21.0 | 2.72        | 69.0 | 4.07       | 103.5 | UCF6-10        |
| UC-JCFX45-1416 | 36420-1416 | 20749855 | 7/8          | 22.2 | 1 5/16-12       | 1 1/2             | 38 | N/A                    | 1.24     | 31.4 | 3.14        | 79.6 | 4.68       | 118.9 | UCF6-12        |
| UC-JCFX45-1820 | 36420-1820 | 20367919 | 1            | 28.6 | 1 3/4-12        | 2                 | 50 | N/A                    | 1.52     | 38.6 | 3.43        | 87.1 | 5.19       | 131.7 | UCF6-16        |

## JIC 37° Flare (SAE J514)

Female | 90° Elbow | Swivel



Elbow Type  
LT=Long Tube  
ST=Short Tube

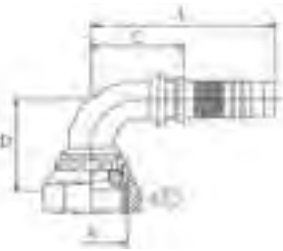
| Descriptive #   | Product #  | SAP #    | Hose Size ID |      | Thread Size (A) | Hex-1 Wrench Size | Hex-2 Wrench Size | Socket (S) Wrench Size | Elbow Type | Drop (D) |      | Cut-Off (C) |      | Length (L) |      | SR5, DR5 |
|-----------------|------------|----------|--------------|------|-----------------|-------------------|-------------------|------------------------|------------|----------|------|-------------|------|------------|------|----------|
|                 |            |          | in.          | mm   |                 |                   |                   |                        |            | in.      | mm   | in.         | mm   | in.        | mm   |          |
| FG-JCFX90-0404  | 18425-0404 | 20245827 | 3/16         | 4.8  | 7/16-20         | 9/16              | 9/16              | 5/8                    |            | 0.69     | 17.5 | 1.00        | 25.4 | 1.75       | 44.5 | Y        |
| FG-JCFX90L-0404 | 18440-0404 | 20245834 | 3/16         | 4.8  | 7/16-20         | 9/16              | 9/16              | 5/8                    | LT         | 1.80     | 45.6 | 1.00        | 25.4 | 1.75       | 44.5 | Y        |
| FG-JCFX90-0505  | 18425-0505 | 20245828 | 1/4          | 6.4  | 1/2-20          | 9/16              | 5/8               | 11/16                  |            | 0.77     | 19.5 | 1.19        | 30.2 | 1.97       | 50.0 | Y        |
| FG-JCFX90L-0505 | 18440-0505 | 20245835 | 1/4          | 6.4  | 1/2-20          | 9/16              | 5/8               | 11/16                  | LT         | 1.78     | 45.2 | 1.19        | 30.2 | 1.97       | 50.0 | Y        |
| FG-JCFX90-0606  | 18425-0606 | 20245829 | 5/16         | 7.9  | 9/16-18         | 11/16             | 11/16             | 13/16                  |            | 0.84     | 21.4 | 1.23        | 31.4 | 2.12       | 54.0 | Y        |
| FG-JCFX90L-0606 | 18440-0606 | 20245836 | 5/16         | 7.9  | 9/16-18         | 11/16             | 11/16             | 13/16                  | LT         | 2.19     | 55.6 | 1.23        | 31.4 | 2.12       | 54.0 | Y        |
| FG-JCFX90-0808  | 18425-0808 | 20245830 | 13/32        | 10.3 | 3/4-16          | 7/8               | 7/8               | 15/16                  |            | 1.09     | 27.8 | 1.61        | 40.9 | 2.75       | 69.9 | Y        |
| FG-JCFX90L-0808 | 18440-0808 | 20245837 | 13/32        | 10.3 | 3/4-16          | 7/8               | 7/8               | 15/16                  | LT         | 2.44     | 61.9 | 1.61        | 40.9 | 2.75       | 69.9 | Y        |

Continued on next page

JIC 37° Flare (SAE J514)

Female | 90° Elbow | Swivel Continued

| Descriptive #   | Product #  | SAP #    | Hose Size ID |      | Thread Size (A) | Hex-1 Wrench Size | Hex-2 Wrench Size | Socket (S) Wrench Size | Elbow Type | Drop (D) |       | Cut-Off (C) |      | Length (L) |      | SR5, DR5 |
|-----------------|------------|----------|--------------|------|-----------------|-------------------|-------------------|------------------------|------------|----------|-------|-------------|------|------------|------|----------|
|                 |            |          | in.          | mm   |                 | in.               | in.               | in.                    |            | in.      | mm    | in.         | mm   | in.        | mm   |          |
| FG-JCFX90-1010  | 18425-1010 | 20245824 | 1/2          | 12.7 | 7/8-14          | 1 1/16            | 1                 | 1 1/8                  |            | 1.23     | 31.4  | 1.66        | 42.1 | 2.94       | 74.6 | Y        |
| FG-JCFX90L-1010 | 18440-1010 | 20245831 | 1/2          | 12.7 | 7/8-14          | 1 1/16            | 1                 | 1 1/8                  | LT         | 2.56     | 65.1  | 1.66        | 42.1 | 2.94       | 74.6 | Y        |
| FG-JCFX90-1212  | 18425-1212 | 20245825 | 5/8          | 15.9 | 1 1/16-12       | 1 1/4             | 1 1/4             | 1 1/4                  |            | 1.81     | 46.0  | 2.17        | 55.2 | 3.75       | 95.3 | Y        |
| FG-JCFX90L-1212 | 18440-1212 | 20245832 | 5/8          | 15.9 | 1 1/16-12       | 1 1/4             | 1 1/4             | 1 1/4                  | LT         | 3.73     | 94.9  | 2.17        | 55.2 | 3.75       | 95.3 | Y        |
| FG-JCFX90-1616  | 18425-1616 | 20245826 | 7/8          | 22.2 | 1 5/16-12       | 1 1/2             | 1 1/2             | 1 7/16                 |            | 2.14     | 54.4  | 2.28        | 57.9 | 3.55       | 90.1 | Y        |
| FG-JCFX90L-1616 | 18440-1616 | 20245833 | 7/8          | 22.2 | 1 5/16-12       | 1 1/2             | 1 1/2             | 1 7/16                 | LT         | 4.33     | 109.9 | 2.28        | 57.9 | 3.55       | 90.1 | Y        |



Elbow Type  
LT=Long Tube  
ST=Short Tube

| Descriptive #   | Product #  | SAP #    | Hose Size ID |      | Thread Size (A) | Hex-1 Wrench Size |    | Socket (S) Wrench Size | Elbow Type | Drop (D) |      | Cut-Off (C) |      | Length (L) |      | SR5, DR5, SCX5 |
|-----------------|------------|----------|--------------|------|-----------------|-------------------|----|------------------------|------------|----------|------|-------------|------|------------|------|----------------|
|                 |            |          | in.          | mm   |                 | in.               | mm | in.                    |            | in.      | mm   | in.         | mm   | in.        | mm   |                |
| UC-JCFX90-0304  | 36425-0304 | 20269250 | 3/16         | 4.8  | 7/16-20         | 5/8               | 16 | N/A                    |            | 1.26     | 32.0 | 1.30        | 33.0 | 2.17       | 55.2 | UCF6-03        |
| UC-JCFX90-0404  | 36425-0404 | 20242770 | 1/4          | 6.4  | 7/16-20         | 5/8               | 16 | N/A                    |            | 1.26     | 32.0 | 1.34        | 34.0 | 2.32       | 58.9 | UCF6-04        |
| UC-JCFX90L-0404 | 36440-0404 | 20242662 | 1/4          | 6.4  | 7/16-20         | 5/8               | 16 | N/A                    | LT         | 1.81     | 46.0 | 1.25        | 31.8 | 2.23       | 56.7 | UCF6-04        |
| UC-JCFX90S-0404 | 36445-0404 | 20242430 | 1/4          | 6.4  | 7/16-20         | 5/8               | 16 | N/A                    | ST         | 0.83     | 21.0 | 1.06        | 27.0 | 2.04       | 51.9 | UCF6-04        |
| UC-JCFX90-0405  | 36425-0405 | 20242657 | 1/4          | 6.4  | 1/2-20          | 11/16             | 17 | N/A                    |            | 1.18     | 30.0 | 1.02        | 26.0 | 2.00       | 50.9 | UCF6-04        |
| UC-JCFX90L-0405 | 36440-0405 | 20242473 | 1/4          | 6.4  | 1/2-20          | 11/16             | 17 | N/A                    | LT         | 1.77     | 45.0 | 1.02        | 26.0 | 2.00       | 50.9 | UCF6-04        |
| UC-JCFX90S-0405 | 36445-0405 | 20242396 | 1/4          | 6.4  | 1/2-20          | 11/16             | 17 | N/A                    | ST         | 0.93     | 23.5 | 1.02        | 26.0 | 2.00       | 50.9 | UCF6-04        |
| UC-JCFX90-0406  | 36425-0406 | 20242718 | 1/4          | 6.4  | 9/16-18         | 3/4               | 19 | N/A                    |            | 1.50     | 38.0 | 1.10        | 28.0 | 2.08       | 52.9 | UCF6-04        |
| UC-JCFX90L-0406 | 36440-0406 | 20242474 | 1/4          | 6.4  | 9/16-18         | 3/4               | 19 | N/A                    | LT         | 2.13     | 54.0 | 1.34        | 34.0 | 2.32       | 58.9 | UCF6-04        |
| UC-JCFX90S-0406 | 36445-0406 | 20242397 | 1/4          | 6.4  | 9/16-18         | 3/4               | 19 | N/A                    | ST         | 0.91     | 23.0 | 1.22        | 31.0 | 2.20       | 55.9 | UCF6-04        |
| UC-JCFX90-0504  | 36425-0504 | 20612476 | 5/16         | 7.9  | 7/16-20         | 5/8               | 16 | N/A                    |            | 1.26     | 32.0 | 1.34        | 34.0 | 2.32       | 58.9 | UCF6-05        |
| UC-JCFX90-0505  | 36425-0505 | 20242565 | 5/16         | 7.9  | 1/2-20          | 11/16             | 17 | N/A                    |            | 1.38     | 35.1 | 1.34        | 34.0 | 2.32       | 58.9 | UCF6-05        |
| UC-JCFX90-0506  | 36425-0506 | 20242490 | 5/16         | 7.9  | 9/16-18         | 3/4               | 19 | N/A                    |            | 1.38     | 35.1 | 1.30        | 33.0 | 2.28       | 57.9 | UCF6-05        |
| UC-JCFX90L-0506 | 36440-0506 | 20242454 | 5/16         | 7.9  | 9/16-18         | 3/4               | 19 | N/A                    | LT         | 2.13     | 54.1 | 1.42        | 36.1 | 2.40       | 61.0 | UCF6-05        |
| UC-JCFX90-0604  | 36425-0604 | 20318323 | 13/32        | 10.3 | 7/16-20         | 5/8               | 16 | N/A                    |            | 1.26     | 32.0 | 1.38        | 35.0 | 2.43       | 61.6 | UCF6-06        |
| UC-JCFX90L-0604 | 36440-0604 | 20318322 | 13/32        | 10.3 | 7/16-20         | 5/8               | 16 | N/A                    | LT         | 1.81     | 46.0 | 1.22        | 31.0 | 2.27       | 57.6 | UCF6-06        |
| UC-JCFX90-0606  | 36425-0606 | 20242776 | 13/32        | 10.3 | 9/16-18         | 3/4               | 19 | N/A                    |            | 1.38     | 35.0 | 1.22        | 31.0 | 2.27       | 57.6 | UCF6-06        |
| UC-JCFX90L-0606 | 36440-0606 | 20242720 | 13/32        | 10.3 | 9/16-18         | 3/4               | 19 | N/A                    | LT         | 2.13     | 54.0 | 1.69        | 43.0 | 2.74       | 69.6 | UCF6-06        |
| UC-JCFX90S-0606 | 36445-0606 | 20242475 | 13/32        | 10.3 | 9/16-18         | 3/4               | 19 | N/A                    | ST         | 0.91     | 23.0 | 1.65        | 42.0 | 2.70       | 68.7 | UCF6-06        |
| UC-JCFX90-0608  | 36425-0608 | 20242753 | 13/32        | 10.3 | 3/4-16          | 1                 | 25 | N/A                    |            | 1.61     | 41.0 | 1.54        | 39.0 | 2.58       | 65.6 | UCF6-06        |
| UC-JCFX90L-0608 | 36440-0608 | 20242587 | 13/32        | 10.3 | 3/4-16          | 1                 | 25 | N/A                    | LT         | 2.52     | 64.0 | 1.85        | 47.0 | 2.90       | 73.6 | UCF6-06        |
| UC-JCFX90S-0608 | 36445-0608 | 20242431 | 13/32        | 10.3 | 3/4-16          | 1                 | 25 | N/A                    | ST         | 1.14     | 29.0 | 1.93        | 49.0 | 2.98       | 75.6 | UCF6-06        |

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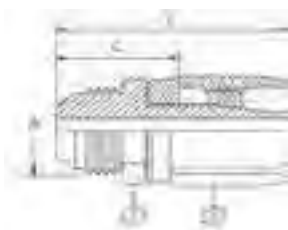
## JIC 37° Flare (SAE J514)

Female | 90° Elbow | Swivel Continued

| Descriptive #   | Product #  | SAP #    | Hose Size ID |      | Thread Size (A) | Hex-1 Wrench Size |    | Socket (S) Wrench Size | Elbow Type | Drop (D) |      | Cut-Off (C) |      | Length (L) |       | SR5, DR5, SCX5 |
|-----------------|------------|----------|--------------|------|-----------------|-------------------|----|------------------------|------------|----------|------|-------------|------|------------|-------|----------------|
|                 |            |          | in.          | mm   |                 | in.               | mm | in.                    |            | in.      | mm   | in.         | mm   | in.        | mm    |                |
| UC-JCFX90-0808  | 36425-0808 | 20242764 | 1/2          | 12.7 | 3/4-16          | 1                 | 25 | N/A                    |            | 1.58     | 40.0 | 1.46        | 37.0 | 2.70       | 68.7  | UCF6-08        |
| UC-JCFX90L-0808 | 36440-0808 | 20242688 | 1/2          | 12.7 | 3/4-16          | 1                 | 25 | N/A                    | LT         | 2.52     | 64.0 | 1.97        | 50.0 | 3.22       | 81.7  | UCF6-08        |
| UC-JCFX90S-0808 | 36445-0808 | 20242429 | 1/2          | 12.7 | 3/4-16          | 1                 | 25 | N/A                    | ST         | 1.14     | 29.0 | 1.81        | 46.0 | 3.06       | 77.7  | UCF6-08        |
| UC-JCFX90-0810  | 36425-0810 | 20242706 | 1/2          | 12.7 | 7/8-14          | 1 1/16            | 27 | N/A                    |            | 1.85     | 47.0 | 1.69        | 43.0 | 2.94       | 74.7  | UCF6-08        |
| UC-JCFX90L-0810 | 36440-0810 | 20242584 | 1/2          | 12.7 | 7/8-14          | 1 1/16            | 27 | N/A                    | LT         | 2.56     | 65.0 | 1.46        | 37.0 | 2.70       | 68.7  | UCF6-08        |
| UC-JCFX90S-0810 | 36445-0810 | 20242395 | 1/2          | 12.7 | 7/8-14          | 1 1/16            | 27 | N/A                    | ST         | 1.26     | 32.0 | 1.81        | 46.0 | 3.06       | 77.7  | UCF6-08        |
| UC-JCFX90-0812  | 36425-0812 | 20242349 | 1/2          | 12.7 | 1 1/16-12       | 1 1/4             | 32 | N/A                    |            | 1.81     | 46.0 | 1.46        | 37.0 | 2.70       | 68.7  | UCF6-08        |
| UC-JCFX90-1010  | 36425-1010 | 20242749 | 5/8          | 15.9 | 7/8-14          | 1 1/16            | 27 | N/A                    |            | 1.89     | 48.0 | 1.93        | 49.0 | 3.29       | 83.5  | UCF6-10        |
| UC-JCFX90L-1010 | 36440-1010 | 20242346 | 5/8          | 15.9 | 7/8-14          | 1 1/16            | 27 | N/A                    | LT         | 2.56     | 65.0 | 1.97        | 50.0 | 3.32       | 84.4  | UCF6-10        |
| UC-JCFX90S-1010 | 36445-1010 | 20591962 | 5/8          | 15.9 | 7/8-14          | 1 1/16            | 27 | N/A                    | ST         |          |      |             |      |            |       | UCF6-10        |
| UC-JCFX90-1012  | 36425-1012 | 20242350 | 5/8          | 15.9 | 1 1/16-12       | 1 1/4             | 32 | N/A                    |            | 2.28     | 58.0 | 1.89        | 48.0 | 3.25       | 82.5  | UCF6-10        |
| UC-JCFX90L-1012 | 36440-1012 | 20283400 | 5/8          | 15.9 | 1 1/16-12       | 1 1/4             | 32 | N/A                    | LT         |          |      |             |      |            |       | LUCF6-10       |
| UC-JCFX90-1416  | 36425-1416 | 20749859 | 7/8          | 22.2 | 1 5/16-12       | 1 1/2             | 38 | N/A                    |            | 2.85     | 72.3 | 2.93        | 74.5 | 4.48       | 113.7 | UCF6-12        |

## JIC 37° Flare (SAE J514)

Male

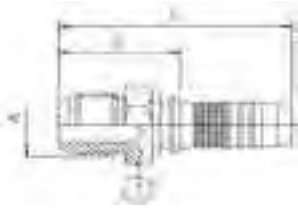


| Descriptive # | Product #  | SAP #    | Hose Size ID |      | Thread Size (A) | Hex-1 Wrench Size | Socket (S) Wrench Size | Cut-Off (C) |      | Length (L) |      | SR5, DR5 |
|---------------|------------|----------|--------------|------|-----------------|-------------------|------------------------|-------------|------|------------|------|----------|
|               |            |          | in.          | mm   |                 |                   |                        | in.         | mm   | in.        | mm   |          |
| FG-JCM-0404   | 18450-0404 | 20245775 | 3/16         | 4.8  | 7/16-20         | 1/2               | 5/8                    | 1.09        | 27.8 | 1.84       | 46.8 | Y        |
| FG-JCM-0505   | 18450-0505 | 20245776 | 1/4          | 6.4  | 1/2-20          | 9/16              | 11/16                  | 1.17        | 29.8 | 1.95       | 49.6 | Y        |
| FG-JCM-0606   | 18450-0606 | 20245777 | 5/16         | 7.9  | 9/16-18         | 5/8               | 13/16                  | 1.22        | 31.0 | 2.12       | 54.0 | Y        |
| FG-JCM-0808   | 18450-0808 | 20245778 | 13/32        | 10.3 | 3/4-16          | 13/16             | 15/16                  | 1.31        | 33.3 | 2.56       | 65.1 | Y        |
| FG-JCM-1010   | 18450-1010 | 20245770 | 1/2          | 12.7 | 7/8-14          | 15/16             | 1 1/8                  | 1.50        | 38.1 | 2.89       | 73.4 | Y        |
| FG-JCM-1212   | 18450-1212 | 20245771 | 5/8          | 15.9 | 1 1/16-12       | 1 1/8             | 1 1/4                  | 1.78        | 45.2 | 3.34       | 84.9 | Y        |
| FG-JCM-1616   | 18450-1616 | 20245772 | 7/8          | 22.2 | 1 5/16-12       | 1 1/2             | 1 7/8                  | 1.69        | 42.9 | 2.94       | 74.6 | Y        |
| FG-JCM-2020   | 18450-2020 | 20245773 | 1 1/8        | 28.6 | 1 7/8-12        | 1 3/4             | 1 7/8                  | 1.77        | 44.9 | 3.12       | 79.4 | Y        |
| FG-JCM-2424   | 18450-2424 | 20245774 | 1 1/2        | 38.1 | 2 1/8-12        | 2                 | 2 1/4                  | 1.97        | 50.0 | 3.42       | 86.9 | Y        |

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## JIC 37° Flare (SAE J514)

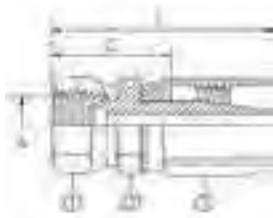
Male | Continued



| Descriptive # | Product #  | SAP #    | Hose Size ID |      | Thread Size (A) | Hex-1 Wrench Size |    | Socket (S) Wrench Size | Cut-Off (C) |      | Length (L) |      | SR5, DR5, SCX5 |
|---------------|------------|----------|--------------|------|-----------------|-------------------|----|------------------------|-------------|------|------------|------|----------------|
|               |            |          | in.          | mm   |                 | in.               | mm |                        | in.         | mm   | in.        | mm   |                |
| UC-JCM-0304   | 36450-0304 | 20592795 | 3/16         | 4.8  | 7/16-20         | 1/2               | 12 | N/A                    | 0.98        | 24.8 | 1.85       | 47.0 | UCF6-03        |
| UC-JCM-0404   | 36450-0404 | 20242728 | 1/4          | 6.4  | 7/16-20         | 1/2               | 12 | N/A                    | 0.99        | 25.2 | 1.97       | 50.1 | UCF6-04        |
| UC-JCM-0405   | 36450-0405 | 20242664 | 1/4          | 6.4  | 1/2-20          | 9/16              | 14 | N/A                    | 1.03        | 26.2 | 2.01       | 51.1 | UCF6-04        |
| UC-JCM-0406   | 36450-0406 | 20242687 | 1/4          | 6.4  | 9/16-18         | 11/16             | 17 | N/A                    | 1.04        | 26.4 | 2.02       | 51.3 | UCF6-04        |
| UC-JCM-0505   | 36450-0505 | 20242588 | 5/16         | 7.9  | 1/2-20          | 9/16              | 14 | N/A                    | 1.04        | 26.3 | 2.02       | 51.2 | UCF6-05        |
| UC-JCM-0506   | 36450-0506 | 20242434 | 5/16         | 7.9  | 9/16-18         | 11/16             | 17 | N/A                    | 1.04        | 26.5 | 2.02       | 51.4 | UCF6-05        |
| UC-JCM-0606   | 36450-0606 | 20242759 | 13/32        | 10.3 | 9/16-18         | 11/16             | 17 | N/A                    | 1.05        | 26.6 | 2.10       | 53.2 | UCF6-06        |
| UC-JCM-0608   | 36450-0608 | 20242755 | 13/32        | 10.3 | 3/4-16          | 3/4               | 19 | N/A                    | 1.14        | 28.9 | 2.19       | 55.5 | UCF6-06        |
| UC-JCM-0610   | 36450-0610 | 20242630 | 13/32        | 10.3 | 7/8-14          | 15/16             | 24 | N/A                    | 1.33        | 33.8 | 2.38       | 60.5 | UCF6-06        |
| UC-JCM-0808   | 36450-0808 | 20242736 | 1/2          | 12.7 | 3/4-16          | 3/4               | 19 | N/A                    | 1.17        | 29.8 | 2.42       | 61.4 | UCF6-08        |
| UC-JCM-0810   | 36450-0810 | 20242716 | 1/2          | 12.7 | 7/8-14          | 15/16             | 24 | N/A                    | 1.35        | 34.4 | 2.60       | 66.0 | UCF6-08        |
| UC-JCM-0812   | 36450-0812 | 20242670 | 1/2          | 12.7 | 1 1/16-12       | 1 1/16            | 27 | N/A                    | 1.46        | 37.1 | 2.71       | 68.7 | UCF6-08        |
| UC-JCM-1010   | 36450-1010 | 20242435 | 5/8          | 15.9 | 7/8-14          | 15/16             | 24 | N/A                    | 1.38        | 35.0 | 2.73       | 69.4 | UCF6-10        |
| UC-JCM-1012   | 36450-1012 | 20242400 | 5/8          | 15.9 | 1 1/16-12       | 1 1/16            | 27 | N/A                    | 1.46        | 37.1 | 2.82       | 71.5 | UCF6-10        |

## SAE 45° Flare (J512)

Female | Swivel

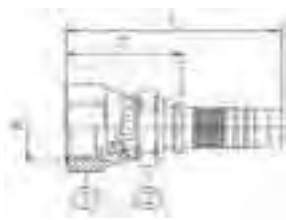


| Descriptive # | Product #  | SAP #    | Hose Size ID |      | Thread Size (A) | Hex-1 Wrench Size | Hex-2 Wrench Size | Socket (S) Wrench Size | Cut-Off (C) |      | Length (L) |      | SR5, DR5 |
|---------------|------------|----------|--------------|------|-----------------|-------------------|-------------------|------------------------|-------------|------|------------|------|----------|
|               |            |          | in.          | mm   |                 |                   |                   |                        | in.         | mm   | in.        | mm   |          |
| FG-SFFX-0404  | 18775-0404 | 20245814 | 3/16         | 4.8  | 7/16-20         | 9/16              | 9/16              | 5/8                    | 1.19        | 30.2 | 1.94       | 49.2 | Y        |
| FG-SFFX-0505  | 18775-0505 | 20245815 | 1/4          | 6.4  | 1/2-20          | 5/8               | 5/8               | 11/16                  | 1.30        | 32.9 | 2.08       | 52.8 | Y        |
| FG-SFFX-0606  | 18775-0606 | 20245816 | 5/16         | 7.9  | 5/8-18          | 3/4               | 3/4               | 13/16                  | 1.44        | 36.5 | 2.34       | 59.5 | Y        |
| FG-SFFX-0808  | 18775-0808 | 20291192 | 13/32        | 10.3 | 3/4-16          | 7/8               | 7/8               | 7/8                    | 1.60        | 40.6 | 2.70       | 68.6 | Y        |
| FG-SFFX-1010  | 18775-1010 | 20245812 | 1/2          | 12.7 | 7/8-14          | 1                 | 1                 | 1 1/8                  | 1.67        | 42.5 | 3.06       | 77.8 | Y        |
| FG-SFFX-1212  | 18775-1212 | 20245813 | 5/8          | 15.9 | 1 1/16-14       | 1 1/4             | 1 1/4             | 1 1/4                  | 1.92        | 48.8 | 3.50       | 88.9 | Y        |

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## SAE 45° Flare (J512)

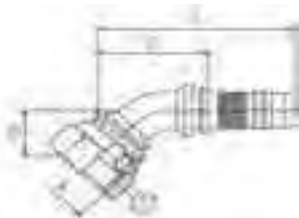
Female | Swivel Continued



| Descriptive # | Product #  | SAP #    | Hose Size ID |      | Thread Size (A) | Hex-1 Wrench Size |    | Hex-2 Wrench Size |    | Socket (S) Wrench Size | Cut-Off (C) |      | Length (L) |      | SR5, DR5, SCX5 |
|---------------|------------|----------|--------------|------|-----------------|-------------------|----|-------------------|----|------------------------|-------------|------|------------|------|----------------|
|               |            |          | in.          | mm   |                 | in.               | mm | in.               | mm |                        | in.         | mm   | in.        | mm   |                |
| UC-SFFX-0304  | 36775-0304 | 20778888 | 3/16         | 4.8  | 7/16-20         | 5/8               | 16 | 9/16              | 13 | N/A                    | 1.07        | 27.2 | 1.94       | 49.4 | UCF6-03        |
| UC-SFFX-0506  | 36775-0506 | 20778889 | 5/16         | 7.9  | 5/8-18          | 7/8               | 22 |                   |    | N/A                    | 1.32        | 33.5 | 2.30       | 58.4 | UCF6-05        |
| UC-SFFX-0606  | 36775-0606 | 20242760 | 13/32        | 10.3 | 5/8-18          | 7/8               | 22 | 7/8               | 19 | N/A                    | 1.32        | 33.6 | 2.37       | 60.2 | UCF6-06        |
| UC-SFFX-0608  | 36775-0608 | 20318359 | 13/32        | 10.3 | 3/4-16          | 1                 | 25 | 13/16             | 19 | N/A                    | 1.37        | 34.9 | 2.42       | 61.5 | UCF6-06        |
| UC-SFFX-0808  | 36775-0808 | 20778907 | 1/2          | 12.7 | 3/4-16          | 1                 | 25 | 3/4               | 19 | N/A                    | 1.44        | 36.7 | 2.69       | 68.4 | UCF6-08        |
| UC-SFFX-0810  | 36775-0810 | 20778908 | 1/2          | 12.7 | 7/8-14          | 1 1/16            | 27 | 7/8               | 22 | N/A                    | 1.6         | 40.6 | 2.85       | 72.3 | UCF6-08        |

## SAE 45° Flare (J512)

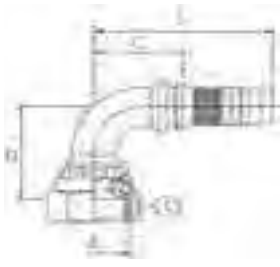
Female | 45° Elbow | Swivel



| Descriptive #  | Product #  | SAP #    | Hose Size ID |      | Thread Size (A) | Hex-1 Wrench Size |    | Drop (D) |      | Cut-Off (C) |      | Length (L) |      | GS5, DR5, SCX5 |
|----------------|------------|----------|--------------|------|-----------------|-------------------|----|----------|------|-------------|------|------------|------|----------------|
|                |            |          | in.          | mm   |                 | in.               | mm | in.      | mm   | in.         | mm   | in.        | mm   |                |
| UC-SFFX45-0506 | 36777-0506 | 20778900 | 5/16         | 7.9  | 5/8-18          | 7/8               | 22 | 0.47     | 11.9 | 1.69        | 42.9 | 2.67       | 67.8 | UCF6-05        |
| UC-SFFX45-0606 | 36777-0606 | 20318360 | 13/32        | 10.3 | 5/8-18          | 7/8               | 22 | 0.47     | 12.0 | 1.811       | 46.0 | 2.86       | 72.6 | UCF6-06        |
| UC-SFFX45-0608 | 36777-0608 | 20778909 | 13/32        | 10.3 | 3/4-16          | 1                 | 25 | 0.59     | 15.0 | 1.85        | 47.0 | 2.9        | 73.6 | UCF6-06        |
| UC-SFFX45-0808 | 36777-0808 | 20318361 | 1/2          | 12.7 | 3/4-16          | 1                 | 25 | 0.59     | 15.0 | 2.05        | 52.0 | 3.29       | 83.7 | UCF6-08        |
| UC-SFFX45-0810 | 36777-0810 | 20778901 | 1/2          | 12.7 | 7/8-14          | 1 1/16            | 27 | 0.63     | 16.0 | 2.01        | 51.0 | 3.26       | 82.7 | UCF6-08        |

## SAE 45° Flare (J512)

Female | 90° Elbow | Swivel



| Descriptive #   | Product #  | SAP #    | Hose Size ID |      | Thread Size (A) | Hex-1 Wrench Size |    | Drop (D) |    | Cut-Off (C) |      | Length (L) |      | GS5, DR5, SCX5 |
|-----------------|------------|----------|--------------|------|-----------------|-------------------|----|----------|----|-------------|------|------------|------|----------------|
|                 |            |          | in.          | mm   |                 | in.               | mm | in.      | mm | in.         | mm   | in.        | mm   |                |
| UC-SFFX90-0506  | 36780-0506 | 20778902 | 5/16         | 7.9  | 5/8-18          | 7/8               | 22 | 1.38     | 35 | 1.30        | 33.0 | 2.28       | 57.9 | UCF6-05        |
| UC-SFFX90-0606  | 36780-0606 | 20318325 | 13/32        | 10.3 | 5/8-18          | 7/8               | 22 | 0.95     | 24 | 1.65        | 42.0 | 2.70       | 68.7 | UCF6-06        |
| UC-SFFX90L-0606 | 36781-0606 | 20318362 | 13/32        | 10.3 | 5/8-18          | 7/8               | 22 | 2.19     | 55 | 1.69        | 43.0 | 2.74       | 69.6 | UCF6-06        |
| UC-SFFX90-0608  | 36780-0608 | 20761705 | 13/32        | 10.3 | 3/4-16          | 1                 | 25 | 1.61     | 41 | 1.54        | 39.0 | 2.58       | 65.6 | UCF6-06        |
| UC-SFFX90S-0608 | 36783-0608 | 20778910 | 13/32        | 10.3 | 3/4-16          | 1                 | 25 | 1.14     | 29 | 1.93        | 49.0 | 2.98       | 75.6 | UCF6-06        |
| UC-SFFX90-0808  | 36780-0808 | 20778903 | 1/2          | 12.7 | 3/4-16          | 1                 | 25 | 1.58     | 40 | 1.46        | 37.0 | 2.70       | 68.7 | UCF6-08        |
| UC-SFFX90S-0808 | 36783-0808 | 20318363 | 1/2          | 12.7 | 3/4-16          | 1                 | 25 | 1.14     | 29 | 1.81        | 46.0 | 3.06       | 77.7 | UCF6-08        |
| UC-SFFX90-0810  | 36780-0810 | 20778904 | 1/2          | 12.7 | 7/8-14          | 1 1/16            | 27 | 2.13     | 54 | 2.05        | 52.0 | 3.60       | 91.4 | UCF6-08        |
| UC-SFFX90S-0810 | 36783-0810 | 20778905 | 1/2          | 12.7 | 7/8-14          | 1 1/16            | 27 | 1.26     | 32 | 1.81        | 46.0 | 3.06       | 77.7 | UCF6-08        |

## SAE 45° Flare (J512)

Male



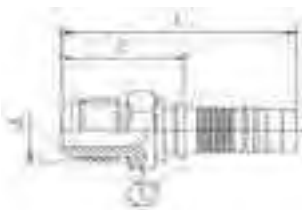
| Descriptive # | Product #  | SAP #    | Hose Size ID |      | Thread Size (A) | Hex-1 Wrench Size | Socket (S) Wrench Size | Cut-Off (C) |      | Length (L) |      | SR5, DR5 |
|---------------|------------|----------|--------------|------|-----------------|-------------------|------------------------|-------------|------|------------|------|----------|
|               |            |          | in.          | mm   |                 | in.               | in.                    | in.         | mm   | in.        | mm   |          |
| FG-SFM-0404   | 18785-0404 | 20245626 | 3/16         | 4.8  | 7/16-20         | 1/2               | 5/8                    | 1.03        | 26.2 | 1.80       | 45.6 | Y        |
| FG-SFM-0505   | 18785-0505 | 20245627 | 1/4          | 6.4  | 1/2-20          | 9/16              | 11/16                  | 1.19        | 30.2 | 1.97       | 50.0 | Y        |
| FG-SFM-0606   | 18785-0606 | 20245628 | 5/16         | 7.9  | 5/8-18          | 11/16             | 13/16                  | 1.28        | 32.5 | 2.19       | 55.6 | Y        |
| FG-SFM-0808   | 18785-0808 | 20245629 | 13/32        | 10.3 | 3/4-16          | 13/16             | 15/16                  | 1.41        | 35.7 | 2.66       | 67.5 | Y        |
| FG-SFM-1010   | 18785-1010 | 20245624 | 1/2          | 12.7 | 7/8-14          | 15/16             | 1 1/8                  | 1.59        | 40.5 | 3.00       | 76.2 | Y        |
| FG-SFM-1212   | 18785-1212 | 20245625 | 5/8          | 15.9 | 1 1/16-14       | 1 1/8             | 1 1/4                  | 1.81        | 46.0 | 3.50       | 88.9 | Y        |

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## SAE 45° Flare (J512)

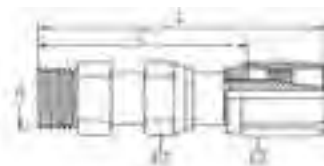
Female | Swivel Continued



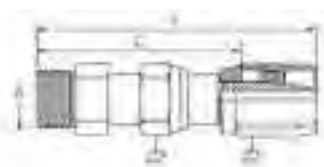
| Descriptive # | Product #  | SAP #    | Hose Size ID |      | Thread Size (A) | Hex-1 Wrench Size | Socket (S) Wrench Size | Cut-Off (C) |      | Length (L) |      | SR5, DR5, SCX5 |
|---------------|------------|----------|--------------|------|-----------------|-------------------|------------------------|-------------|------|------------|------|----------------|
|               |            |          | in.          | mm   |                 | in.               | in.                    | in.         | mm   | in.        | mm   |                |
| UC-SFM-0606   | 36785-0606 | 20318320 | 13/32        | 10.0 | 5/8-18          | 5/8               | 16                     | 1.12        | 28.5 | 2.17       | 55.2 | UCF6-06        |
| UC-SFM-0608   | 36785-0608 | 20778911 | 13/32        | 10.0 | 3/4-16          | 3/4               | 19                     | 1.23        | 31.2 | 2.28       | 57.9 | UCF6-06        |
| UC-SFM-0808   | 36785-0808 | 20778906 | 1/2          | 12.7 | 3/4-16          | 3/4               | 19                     | 1.27        | 32.1 | 2.51       | 63.8 | UCF6-08        |

## SAE 45° Inverted Flare

Male | Swivel



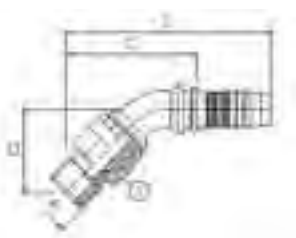
| Descriptive # | Product #  | SAP #    | Hose Size ID |      | Thread Size (A) | Hex-1 Wrench Size | Socket (S) Wrench Size | Cut-Off (C) |      | Length (L) |      | SR5, DR5 |
|---------------|------------|----------|--------------|------|-----------------|-------------------|------------------------|-------------|------|------------|------|----------|
|               |            |          | in.          | mm   |                 | in.               | in.                    | in.         | mm   | in.        | mm   |          |
| FG-SIMX-0404  | 18800-0404 | 20245779 | 3/16         | 4.8  | 7/16-24         | 3/8               | 5/8                    | 1.72        | 43.7 | 2.47       | 62.7 | Y        |
| FG-SIMX-0505  | 18800-0505 | 20245780 | 1/4          | 6.4  | 1/2-20          | 7/16              | 11/16                  | 1.84        | 46.8 | 2.62       | 66.7 | Y        |
| FG-SIMX-0606  | 18800-0606 | 20245781 | 5/16         | 7.9  | 5/8-18          | 1/2               | 13/16                  | 1.81        | 46.0 | 2.72       | 69.1 | Y        |
| FG-SIMX-0808  | 18800-0808 | 20245782 | 13/32        | 10.3 | 3/4-18          | 5/8               | 15/16                  | 1.98        | 50.4 | 3.12       | 79.4 | Y        |



| Descriptive # | Product #  | SAP #    | Hose Size ID |      | Thread Size (A) | Hex-1 Wrench Size |    | Cut-Off (C) |      | Length (L) |      | SR5, DR5, SCX5 |
|---------------|------------|----------|--------------|------|-----------------|-------------------|----|-------------|------|------------|------|----------------|
|               |            |          | in.          | mm   |                 | in.               | mm | in.         | mm   | in.        | mm   |                |
|               |            |          |              |      |                 |                   |    |             |      |            |      |                |
| UC-SIMX-0403  | 36800-0403 | 20318328 | 1/4          | 6.4  | 3/8-24          | 1/2               | 12 | 1.68        | 42.7 | 2.66       | 67.6 | UCF6-04        |
| UC-SIMX-0404  | 36800-0404 | 20318329 | 1/4          | 6.4  | 7/16-24         | 1/2               | 12 | 1.70        | 43.1 | 2.68       | 67.9 | UCF6-04        |
| UC-SIMX-0405  | 36800-0405 | 20318330 | 1/4          | 6.4  | 1/2-20          | 9/16              | 14 | 1.83        | 46.6 | 2.81       | 71.5 | UCF6-04        |
| UC-SIMX-0605  | 36800-0605 | 20318331 | 13/32        | 10.3 | 1/2-20          | 9/16              | 14 | 1.84        | 46.8 | 2.89       | 73.4 | UCF6-06        |
| UC-SIMX-0606  | 36800-0606 | 20318332 | 13/32        | 10.3 | 5/8-18          | 11/16             | 17 | 1.89        | 48.0 | 2.94       | 74.7 | UCF6-06        |
| UC-SIMX-0607  | 36800-0607 | 20318333 | 13/32        | 10.3 | 11/16-18        | 3/4               | 19 | 1.92        | 48.7 | 2.97       | 75.3 | UCF6-06        |
| UC-SIMX-0808  | 36800-0808 | 20318334 | 1/2          | 12.7 | 3/4-18          | 3/4               | 19 | 2.00        | 50.8 | 3.25       | 82.5 | UCF6-08        |
| UC-SIMX-0810  | 36800-0810 | 20318335 | 1/2          | 12.7 | 7/8-18          | 15/16             | 24 | 2.07        | 52.7 | 3.32       | 84.4 | UCF6-08        |

SAE 45° Inverted Flare

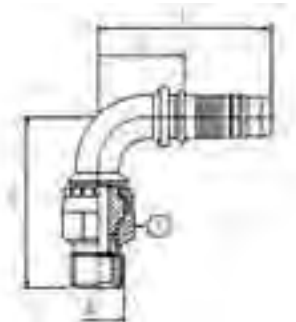
Male | 45° Elbow | Swivel



| Descriptive #  | Product #  | SAP #    | Hose Size ID |      | Thread Size (A) | Hex-1 Wrench Size |    | Drop (D) |      | Cut-Off (C) |      | Length (L) |       | GS5, DR5, SCX5 |
|----------------|------------|----------|--------------|------|-----------------|-------------------|----|----------|------|-------------|------|------------|-------|----------------|
|                |            |          | in.          | mm   |                 | in.               | mm | in.      | mm   | in.         | mm   | in.        | mm    |                |
| UC-SIMX45-0403 | 36810-0403 | 20318336 | 1/4          | 6.4  | 3/8-24          | 1/2               | 12 | 1.24     | 31.5 | 2.68        | 68.1 | 3.66       | 93.0  | UCF6-04        |
| UC-SIMX45-0404 | 36810-0404 | 20318337 | 1/4          | 6.4  | 7/16-24         | 1/2               | 12 | 1.24     | 31.5 | 2.68        | 68.1 | 3.66       | 93.0  | UCF6-04        |
| UC-SIMX45-0604 | 36810-0604 | 20318338 | 13/32        | 10.3 | 7/16-24         | 1/2               | 12 | 1.57     | 39.9 | 2.95        | 74.9 | 4.00       | 101.6 | UCF6-06        |
| UC-SIMX45-0605 | 36810-0605 | 20318339 | 13/32        | 10.3 | 1/2-20          | 9/16              | 14 | 1.50     | 38.1 | 2.99        | 75.9 | 4.04       | 102.6 | UCF6-06        |
| UC-SIMX45-0606 | 36810-0606 | 20318340 | 13/32        | 10.3 | 5/8-18          | 11/16             | 17 | 1.50     | 38.1 | 2.99        | 75.9 | 4.04       | 102.6 | UCF6-06        |
| UC-SIMX45-0607 | 36810-0607 | 20318341 | 13/32        | 10.3 | 11/16-18        | 3/4               | 19 | 1.50     | 38.1 | 2.99        | 75.9 | 4.04       | 102.6 | UCF6-06        |

SAE 45° Inverted Flare

Male | 90° Elbow | Swivel



| Descriptive #  | Product #  | SAP #    | Hose Size ID |      | Thread Size (A) | Hex-1 Wrench Size |    | Drop (D) |      | Cut-Off (C) |      | Length (L) |      | GS5, DR5, SCX5 |
|----------------|------------|----------|--------------|------|-----------------|-------------------|----|----------|------|-------------|------|------------|------|----------------|
|                |            |          | in.          | mm   |                 | in.               | mm | in.      | mm   | in.         | mm   | in.        | mm   |                |
| UC-SIMX90-0404 | 36815-0404 | 20318343 | 1/4          | 6.4  | 7/16-24         | 1/2               | 12 | 2.05     | 52.1 | 1.30        | 33.0 | 2.28       | 57.9 | UCF6-04        |
| UC-SIMX90-0405 | 36815-0405 | 20318344 | 1/4          | 6.4  | 1/2-20          | 9/16              | 14 | 1.96     | 49.8 | 1.52        | 38.6 | 2.50       | 63.5 | UCF6-04        |
| UC-SIMX90-0604 | 36815-0604 | 20318345 | 13/32        | 10.3 | 7/16-24         | 1/2               | 12 | 2.44     | 62.0 | 1.34        | 34.0 | 2.39       | 60.7 | UCF6-06        |
| UC-SIMX90-0605 | 36815-0605 | 20318346 | 13/32        | 10.3 | 1/2-20          | 9/16              | 14 | 2.44     | 62.0 | 1.38        | 35.1 | 2.43       | 61.7 | UCF6-06        |
| UC-SIMX90-0606 | 36815-0606 | 20318347 | 13/32        | 10.3 | 5/8-18          | 11/16             | 17 | 2.44     | 62.0 | 1.38        | 35.1 | 2.43       | 61.7 | UCF6-06        |
| UC-SIMX90-0607 | 36815-0607 | 20318348 | 13/32        | 10.3 | 11/16-18        | 3/4               | 19 | 2.44     | 62.0 | 1.38        | 35.1 | 2.43       | 61.7 | UCF6-06        |
| UC-SIMX90-0808 | 36815-0808 | 20318349 | 1/2          | 12.7 | 3/4-18          | 3/4               | 19 | 2.32     | 58.9 | 2.13        | 54.1 | 3.35       | 85.8 | UCF6-08        |

## NPTF

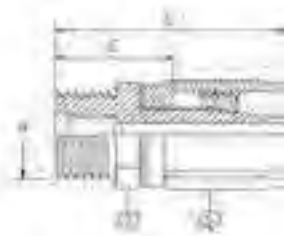
Female



| Descriptive # | Product #  | SAP #    | Hose Size ID |      | Thread Size (A) | Hex-1 Wrench Size |    | Cut-Off (C) |      | Length (L) |      | GS5, DR5, SCX5 |
|---------------|------------|----------|--------------|------|-----------------|-------------------|----|-------------|------|------------|------|----------------|
|               |            |          | in.          | mm   |                 | in.               | mm | in.         | mm   | in.        | mm   |                |
| UC-NPF-0402   | 36600-0402 | 20638492 | 1/4          | 6.4  | 1/8-27          | 9/16              | 14 | 0.88        | 22.4 | 1.86       | 47.3 | UCF6-04        |
| UC-NPF-0404   | 36600-0404 | 20242660 | 1/4          | 6.4  | 1/4-18          | 3/4               | 19 | 1.09        | 27.6 | 2.07       | 52.5 | UCF6-04        |
| UC-NPF-0606   | 36600-0606 | 20242656 | 13/32        | 10.3 | 3/8-18          | 7/8               | 22 | 1.15        | 29.2 | 2.20       | 55.8 | UCF6-06        |
| UC-NPF-0808   | 36600-0808 | 20242622 | 1/2          | 12.7 | 1/2-14          | 1                 | 25 | 1.40        | 35.6 | 2.65       | 67.2 | UCF6-08        |

## NPTF

Male

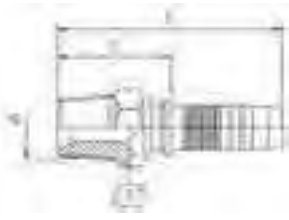


| Descriptive # | Product #  | SAP #    | Hose Size ID |      | Thread Size (A) | Hex-1 Wrench Size | Socket (S) Wrench Size | Cut-Off (C) |      | Length (L) |      | SR5, DR5 |
|---------------|------------|----------|--------------|------|-----------------|-------------------|------------------------|-------------|------|------------|------|----------|
|               |            |          | in.          | mm   |                 |                   |                        | in.         | mm   | in.        | mm   |          |
| FG-NPM-0402   | 18615-0402 | 20245804 | 3/16         | 4.8  | 1/8-27          | 9/16              | 5/8                    | 0.92        | 23.4 | 1.67       | 42.5 | Y        |
| FG-NPM-0404   | 18615-0404 | 20245805 | 3/16         | 4.8  | 1/4-18          | 9/16              | 5/8                    | 1.11        | 28.2 | 1.86       | 47.2 | Y        |
| FG-NPM-0504   | 18615-0504 | 20245806 | 1/4          | 6.4  | 1/4-18          | 9/16              | 11/16                  | 1.19        | 30.2 | 1.97       | 50.0 | Y        |
| FG-NPM-0604   | 18615-0604 | 20245807 | 5/16         | 7.9  | 1/4-18          | 9/16              | 13/16                  | 1.23        | 31.4 | 2.17       | 55.2 | Y        |
| FG-NPM-0606   | 18615-0606 | 20245808 | 5/16         | 7.9  | 3/8-18          | 11/16             | 13/16                  | 1.27        | 32.2 | 2.20       | 56.0 | Y        |
| FG-NPM-0806   | 18615-0806 | 20245809 | 13/32        | 10.3 | 3/8-18          | 11/16             | 15/16                  | 1.33        | 33.7 | 2.48       | 63.1 | Y        |
| FG-NPM-0808   | 18615-0808 | 20245811 | 13/32        | 10.3 | 1/2-14          | 7/8               | 15/16                  | 1.56        | 39.7 | 2.72       | 69.1 | Y        |
| FG-NPM-1008   | 18615-1008 | 20245810 | 1/2          | 12.7 | 1/2-14          | 7/8               | 1%                     | 1.59        | 40.5 | 2.86       | 72.6 | Y        |
| FG-NPM-1012   | 18615-1012 | 20245802 | 1/2          | 12.7 | 3/4-14          | 1 1/16            | 1%                     | 1.66        | 42.1 | 2.91       | 73.8 | Y        |
| FG-NPM-1212   | 18615-1212 | 20245803 | 5/8          | 15.9 | 3/4-14          | 1 1/16            | 1 1/4                  | 1.67        | 42.5 | 3.20       | 81.4 | Y        |
| FG-NPM-1612   | 18615-1612 | 20245842 | 7/8          | 22.2 | 3/4-14          | 1%                | 1 7/16                 | 1.53        | 38.9 | 2.80       | 71.0 | Y        |
| FG-NPM-1616   | 18615-1616 | 20245841 | 7/8          | 22.2 | 1-11 1/2        | 1%                | 1 7/16                 | 1.72        | 43.7 | 2.98       | 75.8 | Y        |
| FG-NPM-2020   | 18615-2020 | 20245838 | 1%           | 28.6 | 1 1/4-11 1/2    | 1 3/4             | 1 3/4                  | 1.83        | 46.4 | 3.19       | 81.0 | Y        |
| FG-NPM-2424   | 18615-2424 | 20245840 | 1%           | 34.9 | 1 1/2-11 1/2    | 2                 | 2                      | 1.92        | 48.8 | 3.36       | 85.3 | Y        |
| FG-NPM-3232   | 18615-3232 | 20245839 | 1 3/16       | 46.0 | 2-11 1/2        | 2 1/2             | 2 1/2                  | 2.06        | 52.4 | 3.91       | 99.2 | Y        |

Continued on next page

## NPTF

## Male Continued

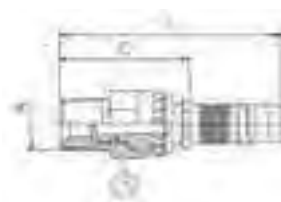


| Descriptive # | Product #   | SAP #    | Hose Size ID |      | Thread Size (A) | Hex-1 Wrench Size |    | Cut-Off (C) |      | Length (L) |       | SR5, DR5, SCX5 |
|---------------|-------------|----------|--------------|------|-----------------|-------------------|----|-------------|------|------------|-------|----------------|
|               |             |          | in.          | mm   |                 | in.               | mm | in.         | mm   | in.        | mm    |                |
| UC-NPM-0302   | 36615-0302  | 20242703 | 3/16         | 4.8  | 1/8-27          | 1/2               | 12 | 0.78        | 19.7 | 1.65       | 41.9  | UCF6-03        |
| UC-NPM-0402   | 36615-0402  | 20242766 | 1/4          | 6.4  | 1/8-27          | 9/16              | 14 | 0.84        | 21.2 | 1.82       | 46.1  | UCF6-04        |
| UC-NPM-0404   | 36615-0404  | 20242780 | 1/4          | 6.4  | 1/4-18          | 11/16             | 17 | 1.06        | 27.0 | 2.04       | 51.9  | UCF6-04        |
| UC-NPM-0404S  | 36615-0404S | 20540691 | 1/4          | 6.4  | 1/4-18          | 11/16             | 17 | 1.06        | 27.0 | 2.04       | 51.9  | UCF6-04        |
| UC-NPM-0406   | 36615-0406  | 20242748 | 1/4          | 6.4  | 3/8-18          | 3/4               | 19 | 1.09        | 27.7 | 2.07       | 52.6  | UCF6-04        |
| UC-NPM-0408   | 36615-0408  | 20242661 | 1/4          | 6.4  | 1/2-14          | 7/8               | 22 | 1.27        | 32.2 | 2.25       | 57.1  | UCF6-04        |
| UC-NPM-0504   | 36615-0504  | 20283392 | 5/16         | 7.9  | 1/4-18          | 11/16             | 17 | 1.07        | 27.1 | 2.05       | 52.0  | UCF6-05        |
| UC-NPM-0504S  | 36615-0504S | 20540692 | 5/16         | 7.9  | 1/4-18          | 11/16             | 17 | 1.07        | 27.1 | 2.05       | 52.0  | UCF6-05        |
| UC-NPM-0506   | 36615-0506  | 20283396 | 5/16         | 7.9  | 3/8-18          | 3/4               | 19 | 1.10        | 27.9 | 2.08       | 52.8  | UCF6-05        |
| UC-NPM-0508   | 36615-0508  | 20592578 | 5/16         | 7.9  | 1/2-14          |                   |    | 1.27        | 32.3 | 2.25       | 57.2  | UCF6-05        |
| UC-NPM-0604   | 36615-0604  | 20242761 | 13/32        | 10.3 | 1/4-18          | 11/16             | 17 | 1.07        | 27.2 | 2.12       | 53.8  | UCF6-06        |
| UC-NPM-0606   | 36615-0606  | 20242782 | 13/32        | 10.3 | 3/8-18          | 3/4               | 19 | 1.10        | 27.9 | 2.15       | 54.6  | UCF6-06        |
| UC-NPM-0606S  | 36615-0606S | 20540693 | 13/32        | 10.3 | 3/8-18          | 3/4               | 19 | 1.10        | 27.9 | 2.15       | 54.6  | UCF6-06        |
| UC-NPM-0608   | 36615-0608  | 20242767 | 13/32        | 10.3 | 1/2-14          | 7/8               | 22 | 1.27        | 32.4 | 2.32       | 59.0  | UCF6-06        |
| UC-NPM-0806   | 36615-0806  | 20242722 | 1/2          | 12.7 | 3/8-18          | 3/4               | 19 | 1.12        | 28.4 | 2.37       | 60.1  | UCF6-08        |
| UC-NPM-0808   | 36615-0808  | 20242775 | 1/2          | 12.7 | 1/2-14          | 7/8               | 22 | 1.30        | 33.0 | 2.55       | 64.7  | UCF6-08        |
| UC-NPM-0808S  | 36615-0808S | 20540694 | 1/2          | 12.7 | 1/2-14          | 7/8               | 22 | 1.30        | 33.0 | 2.55       | 64.7  | UCF6-08        |
| UC-NPM-0812   | 36615-0812  | 20242679 | 1/2          | 12.7 | 3/4-14          | 1 1/16            | 27 | 1.34        | 34.1 | 2.59       | 65.8  | UCF6-08        |
| UC-NPM-1012   | 36615-1012  | 20274105 | 5/8          | 15.9 | 3/4-14          | 1 1/16            | 27 | 1.35        | 34.4 | 2.71       | 68.9  | UCF6-10        |
| UC-NPM-1416   | 36615-1416  | 20269531 | 7/8          | 22.2 | 1-11 1/2        | 1 7/16            | 36 | 1.73        | 43.9 | 3.27       | 83.1  | UCF6-12        |
| UC-NPM-1820   | 36615-1820  | 20283394 | 1 1/8        | 28.6 | 1 1/4-11 1/2    | 1 13/16           | 46 | 1.89        | 48.0 | 3.65       | 92.6  | UCF6-16        |
| UC-NPM-2224   | 36615-2224  | 20283393 | 1 1/2        | 34.9 | 1 1/2-11 1/2    | 2                 | 50 | 1.99        | 50.6 | 4.04       | 102.6 | UCF6-20        |
| UC-NPM-2932   | 36615-2932  | 20269535 | 1 13/16      | 46.0 | 2-11 1/2        | 2 9/16            | 65 | 2.14        | 54.4 | 4.98       | 126.5 | UCF8-32        |

S: Stainless Steel

## NPTF

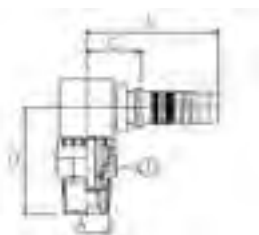
Male | Swivel



| Descriptive # | Product #  | SAP #    | Hose Size ID |      | Thread Size (A) | Hex-1 Wrench Size |    | Cut-Off (C) |      | Length (L) |      | GS5, DR5, SCX5 |
|---------------|------------|----------|--------------|------|-----------------|-------------------|----|-------------|------|------------|------|----------------|
|               |            |          | in.          | mm   |                 | in.               | mm | in.         | mm   | in.        | mm   |                |
| UC-NPMX-0404  | 36645-0404 | 20242757 | 1/4          | 6.4  | 1/4-18          | 11/16             | 17 | 1.49        | 37.8 | 2.47       | 62.7 | UCF6-04        |
| UC-NPMX-0406  | 36645-0406 | 20242519 | 1/4          | 6.4  | 3/8-18          | 7/8               | 22 | 1.57        | 39.9 | 2.55       | 64.8 | UCF6-04        |
| UC-NPMX-0604  | 36645-0604 | 20242745 | 13/32        | 10.3 | 1/4-18          | 11/16             | 17 | 1.58        | 40.1 | 2.63       | 66.8 | UCF6-06        |
| UC-NPMX-0606  | 36645-0606 | 20242777 | 13/32        | 10.3 | 3/8-18          | 7/8               | 22 | 1.49        | 37.8 | 2.54       | 64.4 | UCF6-06        |
| UC-NPMX-0608  | 36645-0608 | 20242751 | 13/32        | 10.3 | 1/2-14          | 1                 | 25 | 1.71        | 43.5 | 2.76       | 70.2 | UCF6-06        |
| UC-NPMX-0806  | 36645-0806 | 20242503 | 1/2          | 12.7 | 3/8-18          | 7/8               | 22 | 1.51        | 38.5 | 2.76       | 70.1 | UCF6-08        |
| UC-NPMX-0808  | 36645-0808 | 20242762 | 1/2          | 12.7 | 1/2-14          | 1                 | 25 | 1.66        | 42.3 | 2.91       | 73.9 | UCF6-08        |

## NPTF

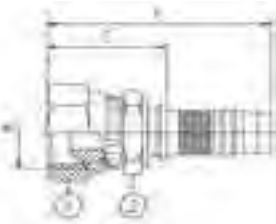
Male | 90° Elbow (Block) | Swivel



| Descriptive #   | Product #  | SAP #    | Hose Size ID |      | Thread Size (A) | Hex-1 Wrench Size |    | Drop (D) |      | Cut-Off (C) |      | Length (L) |      | GS5, DR5, SCX5 |
|-----------------|------------|----------|--------------|------|-----------------|-------------------|----|----------|------|-------------|------|------------|------|----------------|
|                 |            |          | in.          | mm   |                 | in.               | mm | in.      | mm   | in.         | mm   | in.        | mm   |                |
| UC-NPMX90B-0404 | 36650-0404 | 20318350 | 1/4          | 6.4  | 1/4-18          | 11/16             | 17 | 1.69     | 42.9 | 0.71        | 18.1 | 1.69       | 43.0 | UCF6-04        |
| UC-NPMX90B-0604 | 36650-0604 | 20318351 | 13/32        | 10.3 | 1/4-18          | 11/16             | 17 | 1.63     | 41.5 | 0.92        | 23.3 | 1.97       | 50.0 | UCF6-06        |
| UC-NPMX90B-0606 | 36650-0606 | 20318352 | 13/32        | 10.3 | 3/8-18          | 7/8               | 22 | 1.62     | 41.2 | 0.92        | 23.3 | 1.97       | 50.0 | UCF6-06        |
| UC-NPMX90B-0808 | 36650-0808 | 20318353 | 1/2          | 12.7 | 1/2-14          | 1                 | 25 | 2.15     | 54.6 | 1.16        | 29.4 | 2.41       | 61.1 | UCF6-08        |

NPSM

Female | Swivel



| Descriptive # | Product #  | SAP #    | Hose Size ID |      | Thread Size (A) | Hex-1 Wrench Size |    | Hex-2 Wrench Size |    | Cut-Off (C) |      | Length (L) |      | GS5, DR5, SCX5 |
|---------------|------------|----------|--------------|------|-----------------|-------------------|----|-------------------|----|-------------|------|------------|------|----------------|
|               |            |          | in.          | mm   |                 | in.               | mm | in.               | mm | in.         | mm   | in.        | mm   |                |
| UC-NSFX-0404  | 36655-0404 | 20242668 | 1/4          | 6.4  | 1/4-18          | 3/4               | 19 | 11/16             | 17 | 1.19        | 30.2 | 2.17       | 55.1 | UCF6-04        |
| UC-NSFX-0606  | 36655-0606 | 20242669 | 13/32        | 10.3 | 3/8-18          | 7/8               | 22 | 3/4               | 19 | 1.24        | 31.4 | 2.29       | 58.0 | UCF6-06        |
| UC-NSFX-0808  | 36655-0808 | 20242654 | 1/2          | 12.7 | 1/2-14          | 1 1/16            | 27 | 7/8               | 22 | 1.35        | 34.3 | 2.60       | 66.0 | UCF6-08        |

SAE J514 Flareless Tube Fittings

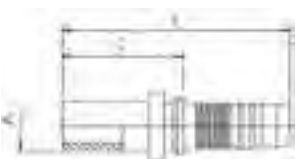
Male



| Descriptive # | Product #  | SAP #    | Hose Size ID |      | Thread Size (A) | Hex-1 Wrench Size |    | Cut-Off (C) |      | Length (L) |      | GS5, DR5, SCX5 |
|---------------|------------|----------|--------------|------|-----------------|-------------------|----|-------------|------|------------|------|----------------|
|               |            |          | in.          | mm   |                 | in.               | mm | in.         | mm   | in.        | mm   |                |
| UC-FTM-0404   | 36360-0404 | 20286107 | 1/4          | 6.4  | 7/16-20         | 1/2               | 12 | 0.88        | 22.2 | 1.86       | 47.1 | UCF6-04        |
| UC-FTM-0506   | 36360-0506 | 20295568 | 5/16         | 7.9  | 9/16-18         | 5/8               | 16 | 0.97        | 24.7 | 1.95       | 49.6 | UCF6-05        |
| UC-FTM-0606   | 36360-0606 | 20286108 | 13/32        | 10.3 | 9/16-18         | 5/8               | 16 | 0.97        | 24.7 | 2.02       | 51.4 | UCF6-06        |

\*All fittings come with Nut and Sleeve

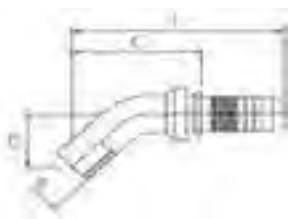
Standpipe



| Descriptive # | Product #  | SAP #    | Hose Size ID |      | Tube OD (A) | Cut-Off (C) |      | Length (L) |      | GS5, DR5, SCX5 |
|---------------|------------|----------|--------------|------|-------------|-------------|------|------------|------|----------------|
|               |            |          | in.          | mm   |             | in.         | mm   | in.        | mm   |                |
| UC-SP-0408    | 36825-0408 | 20242506 | 1/4          | 6.4  | 8           | 1.19        | 30.3 | 2.17       | 55.2 | UCF6-04        |
| UC-SP-0410    | 36825-0410 | 20242461 | 1/4          | 6.4  | 10          | 1.27        | 32.3 | 2.25       | 57.2 | UCF6-04        |
| UC-SP-0610    | 36825-0610 | 20242555 | 13/32        | 10.3 | 10          | 1.19        | 30.2 | 2.24       | 56.9 | UCF6-06        |
| UC-SP-0612    | 36825-0612 | 20242576 | 13/32        | 10.3 | 12          | 1.15        | 29.2 | 2.20       | 55.9 | UCF6-06        |
| UC-SP-0815    | 36825-0815 | 20242372 | 1/2          | 12.7 | 15          | 1.26        | 32.0 | 2.51       | 63.7 | UCF6-08        |
| UC-SP-0816    | 36825-0816 | 20242482 | 1/2          | 12.7 | 16          | 1.46        | 37.1 | 2.71       | 68.8 | UCF6-08        |

# Standpipe

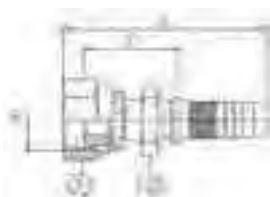
45° Elbow



| Descriptive # | Product #  | SAP #    | Hose Size ID |     | Tube OD<br>(A) | Drop (D) |      | Cut-Off (C) |      | Length (L) |      | GS5, DR5,<br>SCX5 |
|---------------|------------|----------|--------------|-----|----------------|----------|------|-------------|------|------------|------|-------------------|
|               |            |          | in.          | mm  | mm             | in.      | mm   | in.         | mm   | in.        | mm   |                   |
| UC-SP45-0408  | 36830-0408 | 20242370 | 1/4          | 6.4 | 8              | 0.91     | 23.1 | 1.69        | 42.9 | 2.67       | 67.8 | UCF6-04           |

# O-Ring Face Seal (SAE J1453 ORS/ORFS)

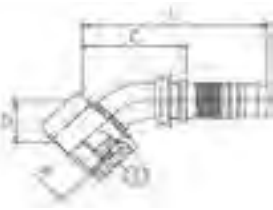
Female | Swivel



| Descriptive # | Product #  | SAP #    | Hose Size ID |      | Thread<br>Size (A) | Hex-1<br>Wrench Size |    | Hex-2<br>Wrench Size |    | Cut-Off (C) |      | Length (L) |      | SR5, DR5,<br>SCX5 |
|---------------|------------|----------|--------------|------|--------------------|----------------------|----|----------------------|----|-------------|------|------------|------|-------------------|
|               |            |          | in.          | mm   |                    | in.                  | mm | in.                  | mm | in.         | mm   | in.        | mm   |                   |
| UC-OFFX-0404  | 36700-0404 | 20242723 | 1/4          | 6.4  | 9/16-18            | 11/16                | 17 | 9/16                 | 14 | 1.07        | 27.3 | 2.05       | 52.2 | UCF6-04           |
| UC-OFFX-0406  | 36700-0406 | 20242655 | 1/4          | 6.4  | 11/16-16           | 7/8                  | 22 | 11/16                | 17 | 1.19        | 30.1 | 2.17       | 55.0 | UCF6-04           |
| UC-OFFX-0408  | 36700-0408 | 20242441 | 1/4          | 6.4  | 13/16-16           | 15/16                | 24 | 7/8                  | 22 | 1.39        | 35.4 | 2.37       | 60.3 | UCF6-04           |
| UC-OFFX-0506  | 36700-0506 | 20242544 | 5/16         | 7.9  | 11/16-16           | 7/8                  | 22 | 11/16                | 17 | 1.19        | 30.2 | 2.17       | 55.1 | UCF6-05           |
| UC-OFFX-0604  | 36700-0604 | 20612477 | 13/32        | 10.3 | 9/16-18            | 11/16                | 17 | 11/16                | 17 | 1.12        | 28.4 | 2.17       | 55.1 | UCF6-06           |
| UC-OFFX-0606  | 36700-0606 | 20242763 | 13/32        | 10.3 | 11/16-16           | 7/8                  | 22 | 11/16                | 17 | 1.19        | 30.3 | 2.24       | 56.9 | UCF6-06           |
| UC-OFFX-0608  | 36700-0608 | 20242691 | 13/32        | 10.3 | 13/16-16           | 15/16                | 24 | 7/8                  | 22 | 1.40        | 35.6 | 2.45       | 62.2 | UCF6-06           |
| UC-OFFX-0806  | 36700-0806 | 20242552 | 1/2          | 12.7 | 11/16-16           | 7/8                  | 22 | 3/4                  | 19 | 1.26        | 32.0 | 2.51       | 63.7 | UCF6-08           |
| UC-OFFX-0808  | 36700-0808 | 20242733 | 1/2          | 12.7 | 13/16-16           | 15/16                | 24 | 7/8                  | 22 | 1.42        | 36.1 | 2.67       | 67.8 | UCF6-08           |
| UC-OFFX-0810  | 36700-0810 | 20242704 | 1/2          | 12.7 | 1-14               | 1 3/16               | 30 | 15/16                | 24 | 1.56        | 39.5 | 2.80       | 71.2 | UCF6-08           |
| UC-OFFX-0812  | 36700-0812 | 20242551 | 1/2          | 12.7 | 1 3/16-12          | 1 7/16               | 36 | 1 3/16               | 30 | 1.66        | 42.1 | 2.90       | 73.8 | UCF6-08           |
| UC-OFFX-1010  | 36700-1010 | 20242442 | 5/8          | 15.9 | 1-14               | 1 3/16               | 30 | 15/16                | 24 | 1.56        | 39.6 | 2.92       | 74.1 | UCF6-10           |
| UC-OFFX-1012  | 36700-1012 | 20242367 | 5/8          | 15.9 | 1 3/16-12          | 1 7/16               | 36 | 1 3/16               | 30 | 1.66        | 42.1 | 3.10       | 78.8 | UCF6-10           |

O-Ring Face Seal (SAE J1453 ORS/ORFS)

Female | 45° Elbow | Swivel

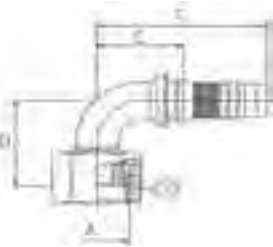


| Descriptive #   | Product #  | SAP #    | Hose Size ID |      | Thread Size (A) | Hex-1 Wrench Size |    | Drop (D) |      | Cut-Off (C) |      | Length (L) |      | SR5, DR5, SCX5 |
|-----------------|------------|----------|--------------|------|-----------------|-------------------|----|----------|------|-------------|------|------------|------|----------------|
|                 |            |          | in.          | mm   |                 | in.               | mm | in.      | mm   | in.         | mm   | in.        | mm   |                |
| UC-OFFX45-0404  | 36710-0404 | 20242631 | 1/4          | 6.4  | 9/16-18         | 11/16             | 17 | 0.43     | 10.9 | 1.61        | 41.0 | 2.59       | 65.9 | UCF6-04        |
| UC-OFFX45-0406  | 36710-0406 | 20242549 | 1/4          | 6.4  | 11/16-16        | 7/8               | 22 | 0.43     | 10.9 | 1.81        | 46.0 | 2.79       | 70.9 | UCF6-04        |
| UC-OFFX45-0506  | 36710-0506 | 20242456 | 5/16         | 7.9  | 11/16-16        | 7/8               | 22 | 0.47     | 11.9 | 1.81        | 46.0 | 2.79       | 70.9 | UCF6-05        |
| UC-OFFX45-0606  | 36710-0606 | 20242683 | 13/32        | 10.3 | 11/16-16        | 7/8               | 22 | 0.47     | 11.9 | 1.85        | 47.0 | 2.90       | 73.6 | UCF6-06        |
| UC-OFFX45-0608  | 36710-0608 | 20242593 | 13/32        | 10.3 | 13/16-16        | 15/16             | 24 | 0.59     | 15.0 | 2.01        | 51.0 | 3.06       | 77.6 | UCF6-06        |
| UC-OFFX45-0808C | 36710-0808 | 20242637 | 1/2          | 12.7 | 13/16-16        | 15/16             | 24 | 0.63     | 16.0 | 1.85        | 47.0 | 3.10       | 78.7 | UCF6-08        |
| UC-OFFX45-0810  | 36710-0810 | 20242532 | 1/2          | 12.7 | 1-14            | 13/16             | 30 | 0.65     | 16.5 | 1.97        | 50.0 | 3.22       | 81.7 | UCF6-08        |

C: Crimp Nut (see "Fitting Identification" in Appendix for details)

O-Ring Face Seal (SAE J1453 ORS/ORFS)

Female | 90° Elbow | Swivel



Elbow Type  
LT=Long Tube  
ST=Short Tube

| Descriptive #   | Product #  | SAP #    | Hose Size ID |      | Thread Size (A) | Hex-1 Wrench Size |    | Elbow Type | Drop (D) |      | Cut-Off (C) |      | Length (L) |      | SR5, DR5, SCX5 |
|-----------------|------------|----------|--------------|------|-----------------|-------------------|----|------------|----------|------|-------------|------|------------|------|----------------|
|                 |            |          | in.          | mm   |                 | in.               | mm |            | in.      | mm   | in.         | mm   | in.        | mm   |                |
| UC-OFFX90-0404  | 36715-0404 | 20242602 | 1/4          | 6.4  | 9/16-18         | 11/16             | 17 |            | 1.26     | 32.0 | 1.18        | 30.0 | 2.16       | 54.9 | UCF6-04        |
| UC-OFFX90L-0404 | 36720-0404 | 20242533 | 1/4          | 6.4  | 9/16-18         | 11/16             | 17 | LT         | 1.81     | 46.0 | 1.30        | 33.0 | 2.28       | 57.9 | UCF6-04        |
| UC-OFFX90S-0404 | 36725-0404 | 20242682 | 1/4          | 6.4  | 9/16-18         | 11/16             | 17 | ST         | 0.83     | 21.0 | 1.10        | 28.0 | 2.08       | 52.9 | UCF6-04        |
| UC-OFFX90-0406  | 36715-0406 | 20242479 | 1/4          | 6.4  | 11/16-16        | 7/8               | 22 |            | 1.50     | 38.0 | 1.46        | 37.0 | 2.44       | 61.9 | UCF6-04        |
| UC-OFFX90L-0406 | 36720-0406 | 20242492 | 1/4          | 6.4  | 11/16-16        | 7/8               | 22 | LT         | 2.13     | 54.0 | 1.38        | 35.0 | 2.36       | 59.9 | UCF6-04        |
| UC-OFFX90S-0406 | 36725-0406 | 20242598 | 1/4          | 6.4  | 11/16-16        | 7/8               | 22 | ST         | 0.91     | 23.0 | 1.26        | 32.0 | 2.24       | 56.9 | UCF6-04        |
| UC-OFFX90S-0506 | 36725-0506 | 20242494 | 5/16         | 7.9  | 11/16-16        | 7/8               | 22 | ST         | 0.98     | 24.9 | 1.61        | 40.9 | 2.59       | 65.8 | UCF6-05        |
| UC-OFFX90-0606  | 36715-0606 | 20242633 | 13/32        | 10.3 | 11/16-16        | 7/8               | 22 |            | 1.50     | 38.0 | 1.65        | 42.0 | 2.70       | 68.6 | UCF6-06        |
| UC-OFFX90L-0606 | 36720-0606 | 20242615 | 13/32        | 10.3 | 11/16-16        | 7/8               | 22 | LT         | 2.13     | 54.0 | 1.65        | 42.0 | 2.70       | 68.6 | UCF6-06        |
| UC-OFFX90S-0606 | 36725-0606 | 20242717 | 13/32        | 10.3 | 11/16-16        | 7/8               | 22 | ST         | 0.98     | 25.0 | 1.65        | 42.0 | 2.70       | 68.6 | UCF6-06        |
| UC-OFFX90-0608  | 36715-0608 | 20242480 | 13/32        | 10.3 | 13/16-16        | 15/16             | 24 |            | 1.61     | 41.0 | 1.73        | 44.0 | 2.78       | 70.6 | UCF6-06        |
| UC-OFFX90L-0608 | 36720-0608 | 20242493 | 13/32        | 10.3 | 13/16-16        | 15/16             | 24 | LT         | 2.52     | 64.0 | 1.85        | 47.0 | 2.90       | 73.6 | UCF6-06        |
| UC-OFFX90S-0608 | 36725-0608 | 20242620 | 13/32        | 10.3 | 13/16-16        | 15/16             | 24 | ST         | 1.14     | 29.0 | 1.65        | 42.0 | 2.70       | 68.6 | UCF6-06        |

Continued on next page



## O-Ring Face Seal (SAE J1453 ORS/ORFS)

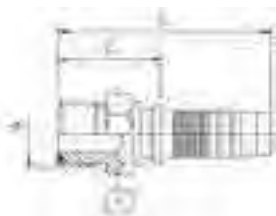
Female | 90° Elbow | Swivel Continued

| Descriptive #                | Product #  | SAP #    | Hose Size ID |      | Thread Size (A) | Hex-1 Wrench Size |    | Elbow Type | Drop (D) |      | Cut-Off (C) |      | Length (L) |      | SR5, DR5, SCX5 |
|------------------------------|------------|----------|--------------|------|-----------------|-------------------|----|------------|----------|------|-------------|------|------------|------|----------------|
|                              |            |          | in.          | mm   |                 | in.               | mm |            | in.      | mm   | in.         | mm   | in.        | mm   |                |
| UC-OFFX90-0808 <sup>C</sup>  | 36715-0808 | 20242571 | 1/2          | 12.7 | 13/16-16        | 15/16             | 24 |            | 1.65     | 42.0 | 1.38        | 35.0 | 2.63       | 66.7 | UCF6-08        |
| UC-OFFX90L-0808 <sup>C</sup> | 36720-0808 | 20242566 | 1/2          | 12.7 | 13/16-16        | 15/16             | 24 | LT         | 2.52     | 64.0 | 1.50        | 38.0 | 2.74       | 69.7 | UCF6-08        |
| UC-OFFX90S-0808 <sup>C</sup> | 36725-0808 | 20242663 | 1/2          | 12.7 | 13/16-16        | 15/16             | 24 | ST         | 1.14     | 29.0 | 1.58        | 40.0 | 2.82       | 71.7 | UCF6-08        |
| UC-OFFX90-0810               | 36715-0810 | 20242363 | 1/2          | 12.7 | 1-14            | 1 3/16            | 30 |            | 1.85     | 47.0 | 1.89        | 48.0 | 3.14       | 79.7 | UCF6-08        |
| UC-OFFX90L-0810              | 36720-0810 | 20242438 | 1/2          | 12.7 | 1-14            | 1 3/16            | 30 | LT         | 2.76     | 70.1 | 1.81        | 46.0 | 3.06       | 77.6 | UCF6-08        |
| UC-OFFX90S-0810              | 36725-0810 | 20242550 | 1/2          | 12.7 | 1-14            | 1 3/16            | 30 | ST         | 1.28     | 32.5 | 1.81        | 46.0 | 3.06       | 77.6 | UCF6-08        |
| UC-OFFX90S-0812              | 36725-0812 | 20318321 | 1/2          | 12.7 | 1 3/16-12       | 1 7/16            | 36 |            | 2.01     | 51.1 | 2.19        | 55.6 | 3.44       | 87.3 | UCF6-08        |
| UC-OFFX90-1010               | 36715-1010 | 20242403 | 5/8          | 15.9 | 1-14            | 1 3/16            | 30 |            | 1.73     | 44.0 | 2.17        | 55.0 | 3.52       | 89.5 | UCF6-10        |
| UC-OFFX90S-1010              | 36725-1010 | 20242365 | 5/8          | 15.9 | 1-14            | 1 3/16            | 30 | ST         | 1.28     | 32.5 | 2.05        | 52.0 | 3.40       | 86.5 | UCF6-10        |
| UC-OFFX90S-1012              | 36725-1012 | 20242364 | 5/8          | 15.9 | 1 3/16-12       | 1 7/16            | 36 | ST         | 1.93     | 49.0 | 2.17        | 55.1 | 3.53       | 89.6 | UCF6-10        |

C: Crimp Nut (see "Fitting Identification" in Appendix for details)

## O-Ring Face Seal (SAE J1453 ORS/ORFS)

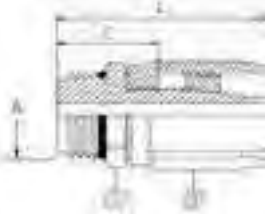
Male



| Descriptive # | Product #  | SAP #    | Hose Size ID |      | Thread Size (A) | Hex-1 Wrench Size |    | Cut-Off (C) |      | Length (L) |      | GS5, DR5, SCX5 |
|---------------|------------|----------|--------------|------|-----------------|-------------------|----|-------------|------|------------|------|----------------|
|               |            |          | in.          | mm   |                 | in.               | mm | in.         | mm   | in.        | mm   |                |
| UC-OFM-0404   | 36730-0404 | 20242567 | 1/4          | 6.4  | 9/16-18         | 11/16             | 17 | 1.00        | 25.4 | 1.98       | 50.3 | UCF6-04        |
| UC-OFM-0406   | 36730-0406 | 20777952 | 1/4          | 6.4  | 11/16-16        |                   |    | 0.96        | 24.3 | 1.94       | 49.1 | UCF6-04        |
| UC-OFM-0606   | 36730-0606 | 20242596 | 13/32        | 10.3 | 11/16-16        | 3/4               | 19 | 1.05        | 26.7 | 2.10       | 53.4 | UCF6-06        |
| UC-OFM-0608   | 36730-0608 | 20242575 | 13/32        | 10.3 | 13/16-16        | 7/8               | 22 | 1.05        | 26.6 | 2.10       | 53.2 | UCF6-06        |
| UC-OFM-0808   | 36730-0808 | 20242545 | 1/2          | 12.7 | 13/16-16        | 7/8               | 22 | 1.19        | 30.3 | 2.44       | 62.0 | UCF6-08        |
| UC-OFM-0810   | 36730-0810 | 20242369 | 1/2          | 12.7 | 1-14            | 1 1/16            | 27 | 1.21        | 30.7 | 2.46       | 62.4 | UCF6-08        |
| UC-OFM-0812   | 36730-0812 | 20242368 | 1/2          | 12.7 | 1 3/16-12       | 1 1/4             | 32 | 1.34        | 34.0 | 2.59       | 65.7 | UCF6-08        |

O-Ring Boss Straight Thread (SAE J514)

Male



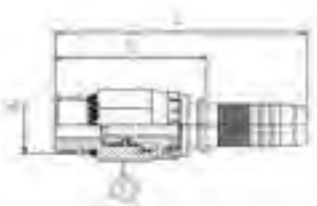
| Descriptive # | Product #  | SAP #    | Hose Size ID |      | Thread Size (A) | Hex-1 Wrench Size | Socket (S) Wrench Size | Cut-Off (C) |      | Length (L) |      | SR5, DR5 |
|---------------|------------|----------|--------------|------|-----------------|-------------------|------------------------|-------------|------|------------|------|----------|
|               |            |          | in.          | mm   |                 | in.               | in.                    | in.         | mm   | in.        | mm   |          |
| FG-OBM-0404   | 18670-0404 | 20245788 | 3/16         | 4.8  | 7/16-20         | 9/16              | 5/8                    | 0.89        | 22.6 | 1.64       | 41.7 | Y        |
| FG-OBM-0505   | 18670-0505 | 20245789 | 1/4          | 6.4  | 1/2-20          | 5/8               | 11/16                  | 0.97        | 24.6 | 1.75       | 44.5 | Y        |
| FG-OBM-0606   | 18670-0606 | 20245790 | 5/16         | 7.9  | 9/16-18         | 11/16             | 13/16                  | 1.03        | 26.2 | 1.94       | 49.2 | Y        |
| FG-OBM-0808   | 18670-0808 | 20245791 | 13/32        | 10.3 | 3/4-16          | 7/8               | 15/16                  | 1.09        | 27.8 | 2.34       | 59.5 | Y        |
| FG-OBM-1010   | 18670-1010 | 20245783 | 1/2          | 12.7 | 7/8-14          | 1                 | 1 1/8                  | 1.23        | 31.4 | 2.62       | 66.7 | Y        |
| FG-OBM-1212   | 18670-1212 | 20245784 | 5/8          | 15.9 | 1 1/16-12       | 1 1/4             | 1 1/4                  | 1.53        | 38.9 | 3.09       | 78.6 | Y        |
| FG-OBM-1616   | 18670-1616 | 20245785 | 7/8          | 22.2 | 1 5/16-12       | 1 1/2             | 1 7/16                 | 1.39        | 35.3 | 2.66       | 67.5 | Y        |
| FG-OBM-2020   | 18670-2020 | 20245786 | 1 1/8        | 28.6 | 1 7/8-12        | 1 7/8             | 1 3/4                  | 1.39        | 35.3 | 2.75       | 69.9 | Y        |
| FG-OBM-2424   | 18670-2424 | 20245787 | 1 3/4        | 34.9 | 1 7/8-12        | 2 1/8             | 2                      | 1.39        | 35.3 | 2.84       | 72.2 | Y        |



| Descriptive # | Product #  | SAP #    | Hose Size ID |      | Thread Size (A) | Hex-1 Wrench Size |    | Cut-Off (C) |      | Length (L) |      | SR5, DR5, SCX5 |
|---------------|------------|----------|--------------|------|-----------------|-------------------|----|-------------|------|------------|------|----------------|
|               |            |          | in.          | mm   |                 | in.               | mm | in.         | mm   | in.        | mm   |                |
| UC-OBM-0404   | 36670-0404 | 20242597 | 1/4          | 6.4  | 7/16-20         | 9/16              | 14 | 0.88        | 22.3 | 1.86       | 47.2 | UCF6-04        |
| UC-OBM-0405   | 36670-0405 | 20242531 | 1/4          | 6.4  | 1/2-20          | 5/8               | 16 | 0.88        | 22.3 | 1.86       | 47.2 | UCF6-04        |
| UC-OBM-0406   | 36670-0406 | 20242591 | 1/4          | 6.4  | 9/16-18         | 11/16             | 17 | 0.88        | 22.3 | 1.86       | 47.2 | UCF6-04        |
| UC-OBM-0606   | 36670-0606 | 20242677 | 13/32        | 10.3 | 9/16-18         | 3/4               | 19 | 0.94        | 23.7 | 1.98       | 50.4 | UCF6-06        |
| UC-OBM-0608   | 36670-0608 | 20242672 | 13/32        | 10.3 | 3/4-16          | 7/8               | 22 | 0.73        | 18.6 | 2.04       | 51.7 | UCF6-06        |
| UC-OBM-0610   | 36670-0610 | 20242614 | 13/32        | 10.3 | 7/8-14          | 1½                | 27 | 1.08        | 27.4 | 2.13       | 54.1 | UCF6-06        |
| UC-OBM-0808   | 36670-0808 | 20242665 | 1/2          | 12.7 | 3/4-16          | 7/8               | 22 | 1.01        | 25.6 | 2.26       | 57.3 | UCF6-08        |
| UC-OBM-0810   | 36670-0810 | 20242595 | 1/2          | 12.7 | 7/8-14          | 1½                | 27 | 1.10        | 27.9 | 2.35       | 59.6 | UCF6-08        |
| UC-OBM-0812   | 36670-0812 | 20242476 | 1/2          | 12.7 | 1½-12           | 1¾                | 32 | 1.26        | 32.1 | 2.51       | 63.8 | UCF6-08        |

## O-Ring Boss Straight Thread (SAE J514)

Male | Swivel



| Descriptive # | Product #  | SAP #    | Hose Size ID |      | Thread Size (A) | Hex-1 Wrench Size |    | Cut-Off (C) |      | Length (L) |      | SR5, DR5, SCX5 |
|---------------|------------|----------|--------------|------|-----------------|-------------------|----|-------------|------|------------|------|----------------|
|               |            |          | in.          | mm   |                 | in.               | mm | in.         | mm   | in.        | mm   |                |
| UC-OBMX-0608  | 36680-0608 | 20318237 | 13/32        | 10.3 | 3/4-16          | 1                 | 25 | 1.73        | 44.0 | 2.78       | 70.6 | UCF6-06        |
| UC-OBMX-0808  | 36680-0808 | 20318238 | 1/2          | 12.7 | 3/4-16          | 1                 | 25 | 1.68        | 42.7 | 2.93       | 74.4 | UCF6-08        |
| UC-OBMX-0810  | 36680-0810 | 20318239 | 1/2          | 12.7 | 7/8-14          | 1                 | 25 | 1.69        | 42.9 | 2.94       | 74.6 | UCF6-08        |

## O-Ring Boss Straight Thread (SAE J514)

Male | 90° Elbow (Block) | Swivel



| Descriptive #   | Product #  | SAP #    | Hose Size ID |      | Thread Size (A) | Hex-1 Wrench Size |    | Drop (D) |      | Cut-Off (C) |      | Length (L) |      | SR5, DR5, SCX5 |
|-----------------|------------|----------|--------------|------|-----------------|-------------------|----|----------|------|-------------|------|------------|------|----------------|
|                 |            |          | in.          | mm   |                 | in.               | mm | in.      | mm   | in.         | mm   | in.        | mm   |                |
| UC-OBMX90B-0405 | 36685-0405 | 20318354 | 1/4          | 6.4  | 1/2-20          | 11/16             | 17 | 1.48     | 37.6 | 0.71        | 18.1 | 1.69       | 43.0 | UCF6-04        |
| UC-OBMX90B-0606 | 36685-0606 | 20318355 | 13/32        | 10.3 | 9/16-18         | 7/8               | 22 | 1.74     | 44.3 | 0.92        | 23.3 | 1.97       | 50.0 | UCF6-06        |
| UC-OBMX90B-0608 | 36685-0608 | 20318356 | 13/32        | 10.3 | 3/4-16          | 1                 | 25 | 2.17     | 55.0 | 1.13        | 28.8 | 2.18       | 55.4 | UCF6-06        |
| UC-OBMX90B-0808 | 36685-0808 | 20318357 | 1/2          | 12.7 | 3/4-16          | 1                 | 25 | 2.17     | 55.0 | 1.16        | 29.4 | 2.41       | 61.1 | UCF6-08        |
| UC-OBMX90B-0810 | 36685-0810 | 20318358 | 1/2          | 12.7 | 7/8-14          | 1                 | 25 | 2.17     | 55.2 | 1.16        | 29.4 | 2.41       | 61.1 | UCF6-08        |

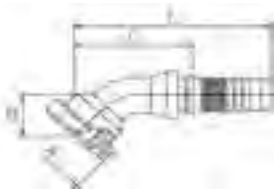
## Code 61 Flange (SAE J518)



| Descriptive # | Product #  | SAP #    | Hose Size ID |      | Flange Size | Cut-Off (C) |      | Length (L) |      | GS5, DR5, SCX5 |
|---------------|------------|----------|--------------|------|-------------|-------------|------|------------|------|----------------|
|               |            |          | in.          | mm   |             | in.         | mm   | in.        | mm   |                |
| UC-FL-0808    | 36320-0808 | 20242569 | 1/2          | 12.7 | 1/2         | 1.61        | 40.9 | 2.86       | 72.6 | UCF6-08        |
| UC-FL-0812    | 36320-0812 | 20242300 | 1/2          | 12.7 | 3/4         | 1.65        | 41.9 | 2.90       | 73.6 | UCF6-08        |

## Code 61 Flange (SAE J518)

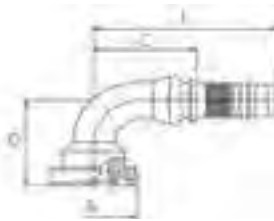
45° Elbow



| Descriptive # | Product #  | SAP #    | Hose Size ID |      | Flange Size | Drop (D) |      | Cut-Off (C) |      | Length (L) |      | GS5, DR5, SCX5 |
|---------------|------------|----------|--------------|------|-------------|----------|------|-------------|------|------------|------|----------------|
|               |            |          | in.          | mm   |             | in.      | mm   | in.         | mm   | in.        | mm   |                |
| UC-FL45-0808  | 36340-0808 | 20242508 | 1/2          | 12.7 | 1/2         | 0.87     | 22.1 | 2.09        | 53.1 | 3.34       | 84.8 | UCF6-08        |
| UC-FL45-0812  | 36340-0812 | 20242293 | 1/2          | 12.7 | 3/4         | 1.02     | 25.9 | 2.36        | 59.9 | 3.61       | 91.6 | UCF6-08        |

## Code 61 Flange (SAE J518)

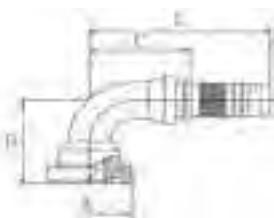
90° Elbow



| Descriptive # | Product #  | SAP #    | Hose Size ID |      | Flange Size | Drop (D) |      | Cut-Off (C) |      | Length (L) |      | GS5, DR5, SCX5 |
|---------------|------------|----------|--------------|------|-------------|----------|------|-------------|------|------------|------|----------------|
|               |            |          | in.          | mm   |             | in.      | mm   | in.         | mm   | in.        | mm   |                |
| UC-FL90-0808  | 36350-0808 | 20242537 | 1/2          | 12.7 | 1/2         | 1.65     | 41.9 | 1.81        | 46.0 | 3.06       | 77.6 | UCF6-08        |
| UC-FL90-0812  | 36350-0812 | 20242381 | 1/2          | 12.7 | 3/4         | 2.01     | 51.1 | 1.77        | 45.0 | 3.02       | 76.6 | UCF6-08        |

## Code 62 Flange (SAE J518)

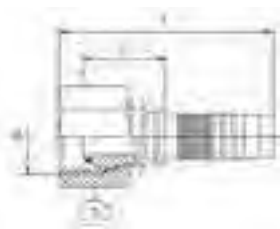
90° Elbow



| Descriptive # | Product #  | SAP #    | Hose Size ID |      | Flange Size | Drop (D) |      | Cut-Off (C) |      | Length (L) |      | GS5, DR5, SCX5 |
|---------------|------------|----------|--------------|------|-------------|----------|------|-------------|------|------------|------|----------------|
|               |            |          | in.          | mm   |             | in.      | mm   | in.         | mm   | in.        | mm   |                |
| UC-FH90-0808  | 36315-0808 | 20242306 | 1/2          | 12.7 | 1/2         | 1.81     | 46.0 | 1.89        | 48.0 | 3.32       | 84.3 | UCF6-08        |

## BSPP (British Standard Pipe Parallel)

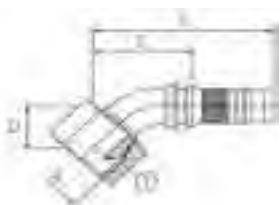
Female | Swivel



| Descriptive # | Product #  | SAP #    | Hose Size ID |      | Thread Size (A) | Hex-1 Wrench Size |    | Cut-Off (C) |      | Length (L) |      | GS5, DR5, SCX5 |
|---------------|------------|----------|--------------|------|-----------------|-------------------|----|-------------|------|------------|------|----------------|
|               |            |          | in.          | mm   |                 | in.               | mm | in.         | mm   | in.        | mm   |                |
| UC-BPFX-0404  | 36105-0404 | 20242738 | 1/4          | 6.4  | 1/4-19          | 3/4               | 19 | 0.93        | 23.7 | 1.91       | 48.6 | UCF6-04        |
| UC-BPFX-0406  | 36105-0406 | 20242462 | 1/4          | 6.4  | 3/8-19          | 7/8               | 22 | 1.09        | 27.6 | 2.07       | 52.5 | UCF6-04        |
| UC-BPFX-0606  | 36105-0606 | 20242731 | 13/32        | 10.3 | 3/8-19          | 7/8               | 22 | 1.09        | 27.8 | 2.14       | 54.4 | UCF6-06        |
| UC-BPFX-0608  | 36105-0608 | 20242557 | 13/32        | 10.3 | 1/2-14          | 1 1/16            | 27 | 1.20        | 30.4 | 2.24       | 57.0 | UCF6-06        |
| UC-BPFX-0808  | 36105-0808 | 20242715 | 1/2          | 12.7 | 1/2-14          | 1 1/16            | 27 | 1.22        | 31.0 | 2.47       | 62.7 | UCF6-08        |
| UC-BPFX-0810  | 36105-0810 | 20242406 | 1/2          | 12.7 | 5/8-14          | 1 1/16            | 27 | 1.48        | 37.6 | 2.73       | 69.3 | UCF6-08        |

## BSPP (British Standard Pipe Parallel)

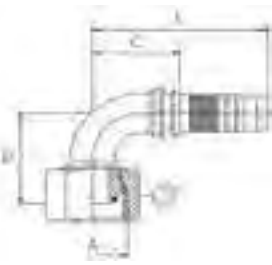
Female | 45° Elbow | Swivel



| Descriptive #  | Product #  | SAP #    | Hose Size ID |      | Thread Size (A) | Hex-1 Wrench Size |    | Drop (D) |      | Cut-Off (C) |      | Length (L) |      | GS5, DR5, SCX5 |
|----------------|------------|----------|--------------|------|-----------------|-------------------|----|----------|------|-------------|------|------------|------|----------------|
|                |            |          | in.          | mm   |                 | in.               | mm | in.      | mm   | in.         | mm   | in.        | mm   |                |
| UC-BPFX45-0404 | 36115-0404 | 20242444 | 1/4          | 6.4  | 1/4-19          | 3/4               | 19 | 0.59     | 15.0 | 1.81        | 46.0 | 2.79       | 70.9 | UCF6-04        |
| UC-BPFX45-0606 | 36115-0606 | 20242496 | 13/32        | 10.3 | 3/8-19          | 7/8               | 22 | 0.81     | 20.6 | 1.97        | 50.0 | 3.02       | 76.7 | UCF6-06        |
| UC-BPFX45-0808 | 36115-0808 | 20242803 | 1/2          | 12.7 | 1/2-14          | 1 1/16            | 27 | 0.83     | 21.1 | 2.17        | 55.1 | 3.42       | 86.8 | UCF6-08        |

## BSPP (British Standard Pipe Parallel)

Female | 90° Elbow | Swivel



| Descriptive #  | Product #  | SAP #    | Hose Size ID |      | Thread Size (A) | Hex-1 Wrench Size |    | Drop (D) |      | Cut-Off (C) |      | Length (L) |      | GS5, DR5, SCX5 |
|----------------|------------|----------|--------------|------|-----------------|-------------------|----|----------|------|-------------|------|------------|------|----------------|
|                |            |          | in.          | mm   |                 | in.               | mm | in.      | mm   | in.         | mm   | in.        | mm   |                |
| UC-BPFX90-0404 | 36120-0404 | 20242536 | 1/4          | 6.4  | 1/4-19          | 3/4               | 19 | 1.14     | 29.0 | 1.14        | 29.0 | 2.12       | 53.8 | UCF6-04        |
| UC-BPFX90-0606 | 36120-0606 | 20242610 | 13/32        | 10.3 | 3/8-19          | 7/8               | 22 | 1.65     | 41.9 | 1.38        | 35.1 | 2.43       | 61.7 | UCF6-06        |
| UC-BPFX90-0608 | 36120-0608 | 20242805 | 13/32        | 10.3 | 1/2-14          | 1 1/16            | 27 | 1.40     | 35.6 | 1.34        | 34.0 | 2.39       | 60.7 | UCF6-06        |
| UC-BPFX90-0808 | 36120-0808 | 20242556 | 1/2          | 12.7 | 1/2-14          | 1 1/16            | 27 | 1.61     | 40.9 | 1.42        | 36.1 | 2.67       | 67.7 | UCF6-08        |

## BSPP (British Standard Pipe Parallel)

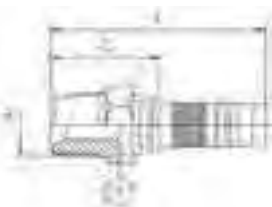
Male



| Descriptive # | Product #  | SAP #    | Hose Size ID |      | Thread Size (A) | Hex-1 Wrench Size |    | Cut-Off (C) |      | Length (L) |      | GS5, DR5, SCX5 |
|---------------|------------|----------|--------------|------|-----------------|-------------------|----|-------------|------|------------|------|----------------|
|               |            |          | in.          | mm   |                 | in.               | mm | in.         | mm   | in.        | mm   |                |
| UC-BPM-0404   | 36130-0404 | 20242484 | 1/4          | 6.4  | 1/4-19          | 3/4               | 19 | 1.03        | 26.2 | 2.01       | 51.1 | UCF6-04        |
| UC-BPM-0606   | 36130-0606 | 20242581 | 13/32        | 10.3 | 3/8-19          | 7/8               | 22 | 1.10        | 28.0 | 2.15       | 54.6 | UCF6-06        |
| UC-BPM-0608   | 36130-0608 | 20242464 | 13/32        | 10.3 | 1/2-14          | 1 1/16            | 27 | 1.24        | 31.5 | 2.29       | 58.1 | UCF6-06        |
| UC-BPM-0806   | 36130-0806 | 20242809 | 1/2          | 12.7 | 3/8-19          | 7/8               | 22 | 1.12        | 28.5 | 2.37       | 60.2 | UCF6-08        |
| UC-BPM-0808   | 36130-0808 | 20242463 | 1/2          | 12.7 | 1/2-14          | 1 1/16            | 27 | 1.26        | 32.0 | 2.51       | 63.7 | UCF6-08        |

## BSPT (British Standard Pipe Tapered)

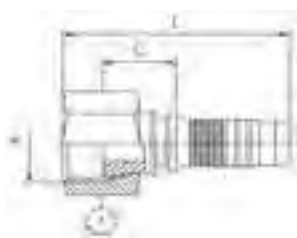
Male



| Descriptive # | Product #  | SAP #    | Hose Size ID |      | Thread Size (A) | Hex-1 Wrench Size |    | Cut-Off (C) |      | Length (L) |      | GS5, DR5, SCX5 |
|---------------|------------|----------|--------------|------|-----------------|-------------------|----|-------------|------|------------|------|----------------|
|               |            |          | in.          | mm   |                 | in.               | mm | in.         | mm   | in.        | mm   |                |
| UC-BTM-0404   | 36170-0404 | 20242611 | 1/4          | 6.4  | 1/4-19          | 1 1/16            | 17 | 1.06        | 27.0 | 2.04       | 51.9 | UCF6-04        |
| UC-BTM-0606   | 36170-0606 | 20242612 | 13/32        | 10.3 | 3/8-19          | 3/4               | 19 | 1.10        | 27.9 | 2.15       | 54.6 | UCF6-06        |
| UC-BTM-0808   | 36170-0808 | 20242507 | 1/2          | 12.7 | 1/2-14          | 7/8               | 22 | 1.31        | 33.1 | 2.55       | 64.8 | UCF6-08        |

## BSP Flat Seat (British Standard Pipe)

Female | Swivel



| Descriptive # | Product #  | SAP #    | Hose Size ID |      | Thread Size (A) | Hex-1 Wrench Size |    | Cut-Off (C) |      | Length (L) |      | GS5, DR5, SCX5 |
|---------------|------------|----------|--------------|------|-----------------|-------------------|----|-------------|------|------------|------|----------------|
|               |            |          | in.          | mm   |                 | in.               | mm | in.         | mm   | in.        | mm   |                |
| UC-BFFX-0606  | 36100-0606 | 20242800 | 13/32        | 10.3 | 3/8-19          | 7/8               | 22 | 0.75        | 19.0 | 1.80       | 45.6 | UCF6-06        |
| UC-BFFX-0608  | 36100-0608 | 20242799 | 13/32        | 10.3 | 1/2-14          | 1 1/16            | 27 | 0.80        | 20.2 | 1.84       | 46.8 | UCF6-06        |
| UC-BFFX-0808  | 36100-0808 | 20242798 | 1/2          | 12.7 | 1/2-14          | 1 1/16            | 27 | 0.82        | 20.9 | 2.07       | 52.5 | UCF6-08        |
| UC-BFFX-0812  | 36100-0812 | 20242285 | 1/2          | 12.7 | 3/4-14          | 1 1/4             | 32 | 0.97        | 24.5 | 2.21       | 56.2 | UCF6-08        |

## DIN 24° Light

Female | Swivel

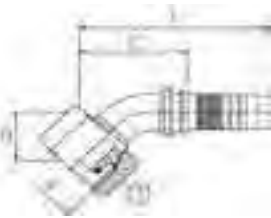


| Descriptive #             | Product #  | SAP #    | Hose Size ID |      | Thread Size (A) | Hex-1 Wrench Size | Cut-Off (C) |      | Length (L) |      | GS5, DR5, SCX5 |
|---------------------------|------------|----------|--------------|------|-----------------|-------------------|-------------|------|------------|------|----------------|
|                           |            |          | in.          | mm   |                 |                   | in.         | mm   | in.        | mm   |                |
| UC-DLFX-0412 <sup>T</sup> | 36240-0412 | 20242540 | 1/4          | 6.4  | 12x1.5          | 14                | 1.07        | 27.2 | 2.05       | 52.0 | UCF6-04        |
| UC-DLFX-0414              | 36240-0414 | 20242594 | 1/4          | 6.4  | 14x1.5          | 17                | 1.02        | 25.9 | 2.00       | 50.8 | UCF6-04        |
| UC-DLFX-0416              | 36240-0416 | 20242471 | 1/4          | 6.4  | 16x1.5          | 19                | 1.08        | 27.4 | 2.06       | 52.2 | UCF6-04        |
| UC-DLFX-0616              | 36240-0616 | 20242658 | 13/32        | 10.3 | 16x1.5          | 19                | 2.21        | 56.2 | 2.26       | 57.5 | UCF6-06        |
| UC-DLFX-0618              | 36240-0618 | 20242641 | 13/32        | 10.3 | 18x1.5          | 22                | 1.08        | 27.5 | 2.13       | 54.2 | UCF6-06        |
| UC-DLFX-0822              | 36240-0822 | 20242586 | 1/2          | 12.7 | 22x1.5          | 27                | 1.21        | 30.7 | 2.46       | 62.4 | UCF6-08        |

T: Thrust-Wire Nut (see "Fitting Identification" in Appendix for details)

DIN 24° Light

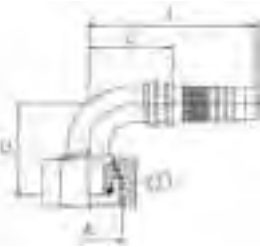
Female | 45° Elbow | Swivel



| Descriptive #  | Product #  | SAP #    | Hose Size ID |      | Thread Size (A) | Hex-1 Wrench Size | Drop (D) |      | Cut-Off (C) |      | Length (L) |      | GS5, DR5, SCX5 |
|----------------|------------|----------|--------------|------|-----------------|-------------------|----------|------|-------------|------|------------|------|----------------|
|                |            |          | in.          | mm   |                 |                   | in.      | mm   | in.         | mm   | in.        | mm   |                |
| UC-DLFX45-0414 | 36245-0414 | 20242385 | 1/4          | 6.4  | 14x1.5          | 17                | 0.69     | 17.5 | 1.69        | 42.9 | 2.67       | 67.8 | UCF6-04        |
| UC-DLFX45-0416 | 36245-0416 | 20242386 | 1/4          | 6.4  | 16x1.5          | 19                | 0.79     | 20.1 | 1.65        | 41.9 | 2.63       | 66.8 | UCF6-04        |
| UC-DLFX45-0618 | 36245-0618 | 20242387 | 13/32        | 10.3 | 18x1.5          | 22                | 0.77     | 19.6 | 1.85        | 47.0 | 2.90       | 73.6 | UCF6-06        |
| UC-DLFX45-0822 | 36245-0822 | 20242329 | 1/2          | 12.7 | 22x1.5          | 27                | 0.83     | 21.1 | 2.17        | 55.1 | 3.15       | 79.9 | UCF6-08        |

DIN 24° Light

Female | 90° Elbow | Swivel

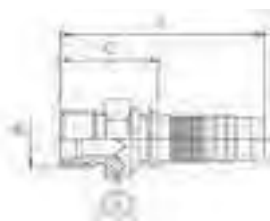


| Descriptive #  | Product #  | SAP #    | Hose Size ID |      | Thread Size (A) | Hex-1 Wrench Size | Drop (D) |      | Cut-Off (C) |      | Length (L) |      | GS5, DR5, SCX5 |
|----------------|------------|----------|--------------|------|-----------------|-------------------|----------|------|-------------|------|------------|------|----------------|
|                |            |          | in.          | mm   |                 |                   | in.      | mm   | in.         | mm   | in.        | mm   |                |
| UC-DLFX90-0412 | 36250-0412 | 20242390 | 1/4          | 6.4  | 12x1.5          | 14                | 1.02     | 25.9 | 1.14        | 29.0 | 2.12       | 53.8 | UCF6-04        |
| UC-DLFX90-0414 | 36250-0414 | 20242425 | 1/4          | 6.4  | 14x1.5          | 17                | 1.28     | 32.5 | 1.10        | 27.9 | 2.08       | 52.8 | UCF6-04        |
| UC-DLFX90-0416 | 36250-0416 | 20242391 | 1/4          | 6.4  | 16x1.5          | 19                | 1.28     | 32.5 | 1.10        | 27.9 | 2.08       | 52.8 | UCF6-04        |
| UC-DLFX90-0618 | 36250-0618 | 20242488 | 13/32        | 10.3 | 18x1.5          | 22                | 1.54     | 39.1 | 1.30        | 33.0 | 2.35       | 59.7 | UCF6-06        |
| UC-DLFX90-0822 | 36250-0822 | 20242389 | 1/2          | 12.7 | 22x1.5          | 27                | 1.59     | 40.4 | 1.57        | 39.9 | 2.82       | 71.6 | UCF6-08        |



## DIN 24° Light

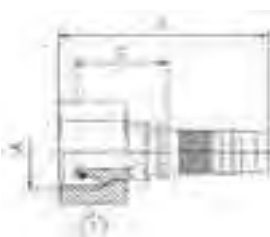
Male



| Descriptive # | Product #  | SAP #    | Hose Size ID |      | Thread Size (A) | Hex-1 Wrench Size | Cut-Off (C) |      | Length (L) |      | GS5, DR5, SCX5 |
|---------------|------------|----------|--------------|------|-----------------|-------------------|-------------|------|------------|------|----------------|
|               |            |          | in.          | mm   |                 |                   | in.         | mm   | in.        | mm   |                |
| UC-DLM-0412   | 36255-0412 | 20242334 | 1/4          | 6.4  | 12x1.5          | 14                | 0.84        | 21.4 | 1.82       | 46.3 | UCF6-04        |
| UC-DLM-0414   | 36255-0414 | 20242393 | 1/4          | 6.4  | 14x1.5          | 14                | 0.84        | 21.4 | 1.82       | 46.3 | UCF6-04        |
| UC-DLM-0416   | 36255-0416 | 20242335 | 1/4          | 6.4  | 16x1.5          | 17                | 0.92        | 23.4 | 1.90       | 48.3 | UCF6-04        |
| UC-DLM-0616   | 36255-0616 | 20242426 | 13/32        | 10.3 | 16x1.5          | 17                | 0.93        | 23.6 | 1.98       | 50.2 | UCF6-06        |
| UC-DLM-0618   | 36255-0618 | 20242513 | 13/32        | 10.3 | 18x1.5          | 19                | 0.96        | 24.4 | 2.01       | 51.1 | UCF6-06        |
| UC-DLM-0822   | 36255-0822 | 20242392 | 1/2          | 12.7 | 22x1.5          | 22                | 1.02        | 26.0 | 2.27       | 57.6 | UCF6-08        |

## DIN 24° Heavy

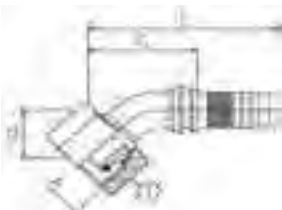
Female | Swivel



| Descriptive # | Product #  | SAP #    | Hose Size ID |      | Thread Size (A) | Hex-1 Wrench Size | Cut-Off (C) |      | Length (L) |      | GS5, DR5, SCX5 |
|---------------|------------|----------|--------------|------|-----------------|-------------------|-------------|------|------------|------|----------------|
|               |            |          | in.          | mm   |                 |                   | in.         | mm   | in.        | mm   |                |
| UC-DHFX-0416  | 36210-0416 | 20242538 | 1/4          | 6.4  | 16x1.5          | 19                | 1.20        | 30.5 | 2.18       | 55.4 | UCF6-04        |
| UC-DHFX-0418  | 36210-0418 | 20242529 | 1/4          | 6.4  | 18x1.5          | 22                | 1.21        | 30.8 | 2.19       | 55.7 | UCF6-04        |
| UC-DHFX-0620  | 36210-0620 | 20242624 | 13/32        | 10.3 | 20x1.5          | 24                | 1.21        | 30.8 | 2.26       | 57.4 | UCF6-06        |
| UC-DHFX-0622  | 36210-0622 | 20242562 | 13/32        | 10.3 | 22x1.5          | 27                | 1.42        | 36.2 | 2.47       | 62.8 | UCF6-06        |
| UC-DHFX-0824  | 36210-0824 | 20242561 | 1/2          | 12.7 | 24x1.5          | 30                | 1.44        | 36.5 | 2.68       | 68.2 | UCF6-08        |

DIN 24° Heavy

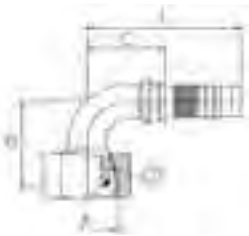
Female | 45° Elbow | Swivel



| Descriptive #  | Product #  | SAP #    | Hose Size ID |      | Thread Size (A) | Hex-1 Wrench Size | Drop (D) |      | Cut-Off (C) |      | Length (L) |      | GS5, DR5, SCX5 |
|----------------|------------|----------|--------------|------|-----------------|-------------------|----------|------|-------------|------|------------|------|----------------|
|                |            |          | in.          | mm   |                 |                   | in.      | mm   | in.         | mm   | in.        | mm   |                |
| UC-DHFX45-0418 | 36215-0418 | 20242313 | 1/4          | 6.4  | 18x1.5          | 22                | 0.75     | 19.1 | 1.69        | 42.9 | 2.67       | 67.8 | UCF6-04        |
| UC-DHFX45-0620 | 36215-0620 | 20242315 | 13/32        | 10.3 | 20x1.5          | 24                | 0.79     | 20.1 | 2.01        | 51.1 | 3.06       | 77.7 | UCF6-06        |
| UC-DHFX45-0622 | 36215-0622 | 20242316 | 13/32        | 10.3 | 22x1.5          | 27                | 0.83     | 21.1 | 2.09        | 53.1 | 3.14       | 79.7 | UCF6-06        |
| UC-DHFX45-0824 | 36215-0824 | 20242312 | 1/2          | 12.7 | 24x1.5          | 30                | 0.85     | 21.6 | 2.20        | 55.9 | 3.45       | 87.6 | UCF6-08        |

DIN 24° Heavy

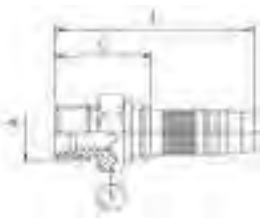
Female | 90° Elbow | Swivel



| Descriptive #  | Product #  | SAP #    | Hose Size ID |      | Thread Size (A) | Hex-1 Wrench Size | Drop (D) |      | Cut-Off (C) |      | Length (L) |      | GS5, DR5, SCX5 |
|----------------|------------|----------|--------------|------|-----------------|-------------------|----------|------|-------------|------|------------|------|----------------|
|                |            |          | in.          | mm   |                 |                   | in.      | mm   | in.         | mm   | in.        | mm   |                |
| UC-DHFX90-0418 | 36220-0418 | 20242421 | 1/4          | 6.4  | 18x1.5          | 22                | 1.34     | 34.0 | 1.06        | 26.9 | 2.04       | 51.8 | UCF6-04        |
| UC-DHFX90-0620 | 36220-0620 | 20242563 | 13/32        | 10.3 | 20x1.5          | 24                | 1.52     | 38.6 | 1.34        | 34.0 | 2.39       | 60.7 | UCF6-06        |
| UC-DHFX90-0622 | 36220-0622 | 20242469 | 13/32        | 10.3 | 22x1.5          | 27                | 1.59     | 40.4 | 1.34        | 34.0 | 2.39       | 60.7 | UCF6-06        |
| UC-DHFX90-0824 | 36220-0824 | 20242468 | 1/2          | 12.7 | 24x1.5          | 30                | 1.63     | 41.4 | 1.57        | 39.9 | 2.82       | 71.6 | UCF6-08        |

DIN 24° Heavy

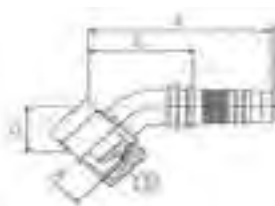
Male



| Descriptive # | Product #  | SAP #    | Hose Size ID |      | Thread Size (A) | Hex-1 Wrench Size | Cut-Off (C) |      | Length (L) |      | GS5, DR5, SCX5 |
|---------------|------------|----------|--------------|------|-----------------|-------------------|-------------|------|------------|------|----------------|
|               |            |          | in.          | mm   |                 |                   | in.         | mm   | in.        | mm   |                |
| UC-DHM-0416   | 36225-0416 | 20242323 | 1/4          | 6.4  | 16x1.5          | 17                | 0.95        | 24.2 | 1.93       | 49.1 | UCF6-04        |
| UC-DHM-0418   | 36225-0418 | 20242324 | 1/4          | 6.4  | 18x1.5          | 19                | 0.99        | 25.2 | 1.97       | 50.1 | UCF6-04        |
| UC-DHM-0620   | 36225-0620 | 20242424 | 13/32        | 10.3 | 20x1.5          | 22                | 1.00        | 25.4 | 2.05       | 52.1 | UCF6-06        |
| UC-DHM-0622   | 36225-0622 | 20242470 | 13/32        | 10.3 | 22x1.5          | 22                | 1.08        | 27.4 | 2.13       | 54.1 | UCF6-06        |
| UC-DHM-0824   | 36225-0824 | 20242322 | 1/2          | 12.7 | 24x1.5          | 24                | 1.14        | 29.0 | 2.39       | 60.7 | UCF6-08        |

## DIN 60°

Female | 45° Elbow | Swivel



| Descriptive #  | Product #  | SAP #    | Hose Size ID |      | Thread Size (A) | Hex-1 Wrench Size | Drop (D) |      | Cut-Off (C) |      | Length (L) |      | GS5, DR5, SCX5 |
|----------------|------------|----------|--------------|------|-----------------|-------------------|----------|------|-------------|------|------------|------|----------------|
|                |            |          | in.          | mm   |                 |                   | in.      | mm   | in.         | mm   | in.        | mm   |                |
| UC-DNFX45-0414 | 36275-0414 | 20242338 | 1/4          | 6.4  | 14x1.5          | 17                | 0.63     | 16.0 | 1.38        | 35.1 | 2.36       | 59.9 | UCF6-04        |
| UC-DNFX45-0416 | 36275-0416 | 20242339 | 1/4          | 6.4  | 16x1.5          | 19                | 0.67     | 17.0 | 1.42        | 36.1 | 2.40       | 61.0 | UCF6-04        |
| UC-DNFX45-0618 | 36275-0618 | 20242340 | 13/32        | 10.3 | 18x1.5          | 22                | 0.77     | 19.6 | 1.69        | 42.9 | 2.74       | 69.6 | UCF6-06        |
| UC-DNFX45-0822 | 36275-0822 | 20242337 | 1/2          | 12.7 | 22x1.5          | 27                | 0.79     | 20.1 | 2.17        | 55.1 | 3.42       | 86.8 | UCF6-08        |

## DIN 60°

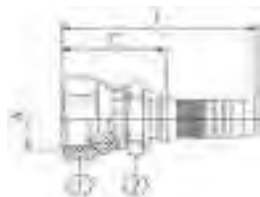
Female | 90° Elbow | Swivel



| Descriptive #  | Product #  | SAP #    | Hose Size ID |      | Thread Size (A) | Hex-1 Wrench Size | Drop (D) |      | Cut-Off (C) |      | Length (L) |      | GS5, DR5, SCX5 |
|----------------|------------|----------|--------------|------|-----------------|-------------------|----------|------|-------------|------|------------|------|----------------|
|                |            |          | in.          | mm   |                 |                   | in.      | mm   | in.         | mm   | in.        | mm   |                |
| UC-DNFX90-0414 | 36280-0414 | 20242428 | 1/4          | 6.4  | 14x1.5          | 17                | 1.28     | 32.5 | 1.18        | 30.0 | 2.16       | 54.9 | UCF6-04        |
| UC-DNFX90-0416 | 36280-0416 | 20242341 | 1/4          | 6.4  | 16x1.5          | 19                | 1.28     | 32.5 | 1.10        | 27.9 | 2.08       | 52.8 | UCF6-04        |
| UC-DNFX90-0616 | 36280-0616 | 20242342 | 13/32        | 10.3 | 16x1.5          | 19                | 1.26     | 32.0 | 1.18        | 30.0 | 2.23       | 56.6 | UCF6-06        |
| UC-DNFX90-0618 | 36280-0618 | 20242472 | 13/32        | 10.3 | 18x1.5          | 22                | 1.46     | 37.1 | 1.30        | 33.0 | 2.35       | 59.7 | UCF6-06        |
| UC-DNFX90-0822 | 36280-0822 | 20242427 | 1/2          | 12.7 | 22x1.5          | 27                | 1.57     | 39.9 | 1.57        | 39.9 | 2.82       | 71.6 | UCF6-08        |

## Japanese Komatsu® 30° Flare with Metric Threads

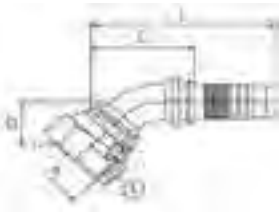
Female | Swivel



| Descriptive # | Product #  | SAP #    | Hose Size ID |      | Thread Size (A) | Hex-1 Wrench Size | Hex-2 Wrench Size | Cut-Off (C) |      | Length (L) |      | GS5, DR5, SCX5 |
|---------------|------------|----------|--------------|------|-----------------|-------------------|-------------------|-------------|------|------------|------|----------------|
|               |            |          | in.          | mm   |                 |                   |                   | in.         | mm   | in.        | mm   |                |
| UC-KMFX-0414  | 36545-0414 | 20242590 | 1/4          | 6.4  | 14X1.5          | 19                | 17                | 1.22        | 30.9 | 2.20       | 55.8 | UCF6-04        |
| UC-KMFX-0618  | 36545-0618 | 20242636 | 13/32        | 10.3 | 18X1.5          | 22                | 19                | 1.26        | 32.1 | 2.31       | 58.7 | UCF6-06        |
| UC-KMFX-0822  | 36545-0822 | 20242573 | 1/2          | 12.7 | 22X1.5          | 27                | 22                | 1.38        | 35.2 | 2.63       | 66.8 | UCF6-08        |
| UC-KMFX-1024  | 36545-1024 | 20283390 | 5/8          | 15.9 | 24X1.5          | 32                | 30                | 1.66        | 42.2 | 3.02       | 76.6 | UCF6-10        |

## Japanese Komatsu® 30° Flare with Metric Threads

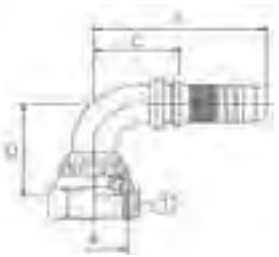
Female | 45° Elbow | Swivel



| Descriptive #  | Product #  | SAP #    | Hose Size ID |      | Thread Size (A) | Hex-1 Wrench Size | Drop (D) |      | Cut-Off (C) |      | Length (L) |      | GS5, DR5, SCX5 |
|----------------|------------|----------|--------------|------|-----------------|-------------------|----------|------|-------------|------|------------|------|----------------|
|                |            |          | in.          | mm   |                 |                   | in.      | mm   | in.         | mm   | in.        | mm   |                |
| UC-KMFX45-0414 | 36548-0414 | 20318233 | 1/4          | 6.4  | 14X1.5          | 19                | 0.61     | 15.5 | 1.50        | 38.1 | 2.48       | 63.0 | UCF6-04        |
| UC-KMFX45-0618 | 36548-0618 | 20318234 | 13/32        | 10.3 | 18X1.5          | 22                | 0.71     | 18.0 | 1.73        | 43.9 | 2.78       | 70.6 | UCF6-06        |
| UC-KMFX45-0822 | 36548-0822 | 20318235 | 1/2          | 12.7 | 22X1.5          | 27                | 1.16     | 29.5 | 2.20        | 55.9 | 3.45       | 87.6 | UCF6-08        |

## Japanese Komatsu® 30° Flare with Metric Threads

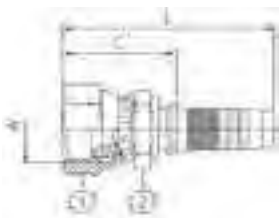
Female | 90° Elbow | Swivel



| Descriptive #  | Product #  | SAP #    | Hose Size ID |      | Thread Size (A) | Hex-1 Wrench Size | Drop (D) |      | Cut-Off (C) |      | Length (L) |      | GS5, DR5, SCX5 |
|----------------|------------|----------|--------------|------|-----------------|-------------------|----------|------|-------------|------|------------|------|----------------|
|                |            |          | in.          | mm   |                 |                   | in.      | mm   | in.         | mm   | in.        | mm   |                |
| UC-KMFX90-0414 | 36550-0414 | 20318236 | 1/4          | 6.4  | 14X1.5          | 19                | 1.16     | 29.5 | 1.30        | 33.0 | 2.28       | 57.9 | UCF6-04        |
| UC-KMFX90-0618 | 36550-0618 | 20318326 | 13/32        | 10.3 | 18X1.5          | 22                | 1.40     | 35.6 | 1.42        | 36.1 | 2.47       | 62.7 | UCF6-06        |
| UC-KMFX90-0822 | 36550-0822 | 20318327 | 1/2          | 12.7 | 22X1.5          | 27                | 2.09     | 53.1 | 1.74        | 44.1 | 2.98       | 75.8 | UCF6-08        |

## JIS 30° (Parallel Pipe Threads)

Female | Swivel



| Descriptive # | Product #  | SAP #    | Hose Size ID |      | Thread Size (A) | Hex-1 Wrench Size |    | Hex-2 Wrench Size |    | Cut-Off (C) |      | Length (L) |      | GS5, DR5, SCX5 |
|---------------|------------|----------|--------------|------|-----------------|-------------------|----|-------------------|----|-------------|------|------------|------|----------------|
|               |            |          | in.          | mm   |                 | in.               | mm | in.               | mm | in.         | mm   | in.        | mm   |                |
| UC-JSFX-0404  | 36520-0404 | 20242644 | 1/4          | 6.4  | 1/4-19          | 3/4               | 19 | 11/16             | 17 | 1.22        | 30.9 | 2.20       | 55.8 | UCF6-04        |
| UC-JSFX-0606  | 36520-0606 | 20242699 | 13/32        | 10.3 | 3/8-19          | 7/8               | 22 | 3/4               | 19 | 1.26        | 32.1 | 2.31       | 58.7 | UCF6-06        |
| UC-JSFX-0808  | 36520-0808 | 20242606 | 1/2          | 12.7 | 1/2-14          | 1 1/16            | 27 | 7/8               | 22 | 1.39        | 35.2 | 2.63       | 66.9 | UCF6-08        |

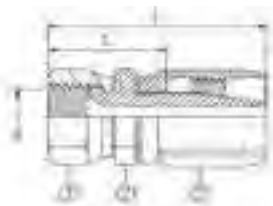
# How to Use the Fitting Tables

This section lists ALL fittings that are compatible with the following hoses:

| Hose Family | Hose Descriptive                    |
|-------------|-------------------------------------|
| DUT         | Universal Truck (SAE J1402 Type A1) |

## Fitting Description

Fitting Type



| Descriptive #                      | Product #  | SAP #    | Hose Size ID |     | Thread Size |     | Hex-1 Wrench Size |       | Hex-2 Wrench Size |      | Socket Hex (S) Wrench Size | Cut-Off (C) |      | Length (L) |      | DUT |
|------------------------------------|------------|----------|--------------|-----|-------------|-----|-------------------|-------|-------------------|------|----------------------------|-------------|------|------------|------|-----|
|                                    |            |          | in.          | mm  |             |     | in.               | mm    | in.               | mm   | in.                        | in.         | mm   | in.        | mm   |     |
| Universal Truck, PN1 <sup>DS</sup> | 38400-0404 | 20419786 | 3/16         | 4.8 | 7/16-20     | 1/2 | 12.7              | 9/16  | 14.3              | 9/16 |                            | 1.10        | 27.9 | 1.82       | 46.2 | Y   |
| Universal Truck, PN2 <sup>DS</sup> | 38400-0505 | 20419787 | 1/4          | 6.4 | 1/2-20      | 1/2 | 12.7              | 11/16 | 17.5              | 5/8  |                            | 1.21        | 30.7 | 2.00       | 50.8 | Y   |
| Universal Truck, PN3               | 38400-0606 | 20419788 | 5/16         | 7.9 | 9/16-18     | 3/4 | 19.1              | 3/4   | 19.1              | 3/4  |                            | 1.19        | 30.2 | 2.04       | 51.8 | Y   |

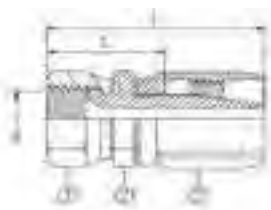
DS: Dual Seat - Connects to either SAE 45° or JIC 37° male fitting

Choose fittings carefully, considering the working pressure of both hose and fitting. The maximum working pressure of the hose assembly is the lesser of the rated working pressure of the hose and the fitting. See page 327 for working pressure.

A "Y" in the hose compatibility columns indicates that the fitting is a "UT" style fitting and that it works for that particular hose.

JIC 37° Flare (SAE J514)

Female | Swivel

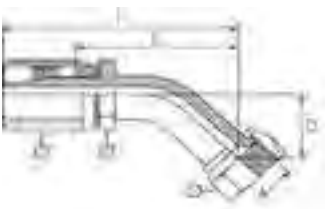


| Descriptive #              | Product #  | SAP #    | Hose Size ID |      | Thread Size | Hex-1 Wrench Size |      | Hex-2 Wrench Size |      | Socket Hex (S) Wrench Size | Cut-Off (C) |      | Length (L) |      | DUT |
|----------------------------|------------|----------|--------------|------|-------------|-------------------|------|-------------------|------|----------------------------|-------------|------|------------|------|-----|
|                            |            |          | in.          | mm   |             | in.               | mm   | in.               | mm   |                            | in.         | mm   | in.        | mm   |     |
| UT-JCFX-0404 <sup>DS</sup> | 38400-0404 | 20419786 | 3/16         | 4.8  | 7/16-20     | 1/2               | 12.7 | 9/16              | 14.3 | 9/16                       | 1.10        | 27.9 | 1.82       | 46.2 | Y   |
| UT-JCFX-0505 <sup>DS</sup> | 38400-0505 | 20419787 | 1/4          | 6.4  | 1/2-20      | 1/2               | 12.7 | 11/16             | 17.5 | 5/8                        | 1.21        | 30.7 | 2.00       | 50.8 | Y   |
| UT-JCFX-0606               | 38400-0606 | 20419788 | 5/16         | 7.9  | 9/16-18     | 3/4               | 19.1 | 3/4               | 19.1 | 3/4                        | 1.19        | 30.2 | 2.04       | 51.8 | Y   |
| UT-JCFX-0808 <sup>DS</sup> | 38400-0808 | 20419789 | 13/32        | 10.3 | 3/4-16      | 7/8               | 22.2 | 7/8               | 22.2 | 7/8                        | 1.45        | 36.8 | 2.45       | 62.2 | Y   |
| UT-JCFX-1010 <sup>DS</sup> | 38400-1010 | 20419801 | 1/2          | 12.7 | 7/8-14      | 1 1/16            | 27.0 | 1 1/16            | 27.0 | 1                          | 1.65        | 41.9 | 2.72       | 69.1 | Y   |
| UT-JCFX-1212               | 38400-1212 | 20419803 | 5/8          | 15.9 | 1 1/16-12   | 1 1/4             | 31.8 | 1 1/4             | 31.8 | 1 1/8                      | 1.78        | 45.2 | 2.92       | 74.2 | Y   |
| UT-JCFX-1616               | 38400-1616 | 20419804 | 7/8          | 22.2 | 1 5/16-12   | 1 1/2             | 38.1 | 1 1/2             | 38.1 | 1 1/8                      | 1.84        | 46.7 | 2.90       | 73.7 | Y   |
| UT-JCFX-2020               | 38400-2020 | 20419806 | 1            | 28.6 | 1 5/8-12    | 1 9/16            | 39.7 | 2                 | 50.8 | 1 1/8                      | 2.20        | 55.9 | 3.34       | 84.8 | Y   |

DS: Dual Seat - Connects to either SAE 45° or JIC 37° male fitting

JIC 37° Flare (SAE J514)

Female | 45° Elbow | Swivel



| Descriptive #                | Product #  | SAP #    | Hose Size ID |      | Thread Size | Hex-1 Wrench Size |      | Hex-2 Wrench Size |      | Socket (S) Wrench Size | Drop (D) |      | Cut-Off (C) |      | Length (L) |      | DUT |
|------------------------------|------------|----------|--------------|------|-------------|-------------------|------|-------------------|------|------------------------|----------|------|-------------|------|------------|------|-----|
|                              |            |          | in.          | mm   |             | in.               | mm   | in.               | mm   |                        | in.      | mm   | in.         | mm   | in.        | mm   |     |
| UT-JCFX45-0404 <sup>DS</sup> | 38420-0404 | 20419746 | 3/16         | 4.8  | 7/16-20     | 1/2               | 12.7 | 9/16              | 14.3 | 9/16                   | 0.34     | 8.6  | 1.20        | 30.5 | 1.92       | 48.8 | Y   |
| UT-JCFX45-0606               | 38420-0606 | 20419747 | 5/16         | 7.9  | 9/16-18     | 1/2               | 12.7 | 11/16             | 17.5 | 3/4                    | 0.41     | 10.4 | 1.48        | 37.6 | 2.33       | 59.2 | Y   |
| UT-JCFX45-0808 <sup>DS</sup> | 38420-0808 | 20419749 | 13/32        | 10.3 | 3/4-16      | 11/16             | 17.5 | 7/8               | 22.2 | 7/8                    | 0.56     | 14.2 | 1.73        | 43.9 | 2.73       | 69.3 | Y   |
| UT-JCFX45-1010 <sup>DS</sup> | 38420-1010 | 20419750 | 1/2          | 12.7 | 7/8-14      | 3/4               | 19.1 | 1                 | 25.4 | 1                      | 0.63     | 16.0 | 2.11        | 53.6 | 3.17       | 80.5 | Y   |
| UT-JCFX45-1212               | 38420-1212 | 20419751 | 5/8          | 15.9 | 1 1/16-12   | 7/8               | 22.2 | 1 1/4             | 31.8 | 1 1/8                  | 0.78     | 19.8 | 2.49        | 63.2 | 3.63       | 92.2 | Y   |

DS: Dual Seat - Connects to either SAE 45° or JIC 37° male fitting

## JIC 37° Flare (SAE J514)

Female | 90° Elbow | Swivel

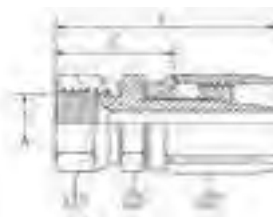


| Descriptive #                | Product #  | SAP #    | Hose Size ID |      | Thread Size | Hex-1 Wrench Size |      | Hex-2 Wrench Size |      | Socket (S) Wrench Size | Drop (D) |      | Cut-Off (C) |      | Length (L) |      | DUT |
|------------------------------|------------|----------|--------------|------|-------------|-------------------|------|-------------------|------|------------------------|----------|------|-------------|------|------------|------|-----|
|                              |            |          | in.          | mm   |             | in.               | mm   | in.               | mm   | in.                    | in.      | mm   | in.         | mm   | in.        | mm   |     |
| UT-JCFX90-0404 <sup>DS</sup> | 38425-0404 | 20419742 | 3/16         | 4.8  | 7/16-20     | 1/2               | 12.7 | 9/16              | 14.3 | 9/16                   | 0.69     | 17.5 | 1.00        | 25.4 | 1.72       | 43.7 | Y   |
| UT-JCFX90-0606               | 38425-0606 | 20419538 | 5/16         | 7.9  | 9/16-18     | 1/2               | 12.7 | 11/16             | 17.5 | 3/4                    | 0.84     | 21.3 | 1.36        | 34.5 | 2.21       | 56.1 | Y   |
| UT-JCFX90-0808 <sup>DS</sup> | 38425-0808 | 20419743 | 13/32        | 10.3 | 3/4-16      | 11/16             | 17.5 | 7/8               | 22.2 | 7/8                    | 1.09     | 27.7 | 1.54        | 39.1 | 2.54       | 64.5 | Y   |
| UT-JCFX90-1010 <sup>DS</sup> | 38425-1010 | 20419744 | 1/2          | 12.7 | 7/8-14      | 3/4               | 19.1 | 1                 | 25.4 | 1                      | 1.25     | 31.8 | 1.91        | 48.5 | 2.97       | 75.4 | Y   |
| UT-JCFX90-1212               | 38425-1212 | 20419535 | 5/8          | 15.9 | 1 1/16-12   | 7/8               | 22.2 | 1 1/4             | 31.8 | 1 1/8                  | 1.81     | 46.0 | 2.44        | 62.0 | 3.58       | 90.9 | Y   |
| UT-JCFX90-1616               | 38425-1616 | 20419537 | 7/8          | 22.2 | 1 5/16-12   | 1 1/4             | 31.8 | 1 1/2             | 38.1 | 1 3/8                  | 2.16     | 54.9 | 2.66        | 67.6 | 3.72       | 94.5 | Y   |

DS: Dual Seat - Connects to either SAE 45° or JIC 37° male fitting

## SAE 45° J512 Flare

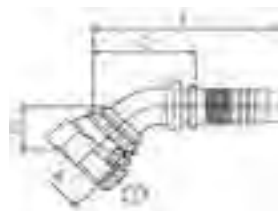
Female | Swivel



| Descriptive # | Product #  | SAP #    | Hose Size ID |      | Thread Size | Hex-1 Wrench Size |      | Hex-2 Wrench Size |      | Socket Hex (S) Wrench Size | Cut-Off (C) |      | Length (L) |      | DUT |
|---------------|------------|----------|--------------|------|-------------|-------------------|------|-------------------|------|----------------------------|-------------|------|------------|------|-----|
|               |            |          | in.          | mm   |             | in.               | mm   | in.               | mm   | in.                        | in.         | mm   | in.        | mm   |     |
| UT-SFFX-0606  | 38775-0606 | 20419782 | 5/16         | 7.9  | 5/8-18      | 3/4               | 19.1 | 3/4               | 19.1 | 3/4                        | 1.28        | 32.5 | 2.13       | 54.1 | Y   |
| UT-SFFX-1212  | 38775-1212 | 20419784 | 5/8          | 15.9 | 1 1/16-14   | 1 1/4             | 31.8 | 1 1/4             | 31.8 | 1 1/8                      | 1.80        | 45.7 | 2.94       | 74.7 | Y   |

## SAE 45° J512 Flare

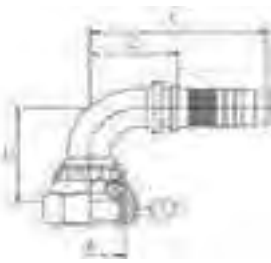
Female | 45° Elbow | Swivel



| Descriptive #  | Product #  | SAP #    | Hose Size ID |      | Thread Size | Hex-1 Wrench Size |      | Hex-2 Wrench Size |      | Socket (S) Wrench Size | Drop (D) |      | Cut-Off (C) |      | Length (L) |      | DUT |
|----------------|------------|----------|--------------|------|-------------|-------------------|------|-------------------|------|------------------------|----------|------|-------------|------|------------|------|-----|
|                |            |          | in.          | mm   |             | in.               | mm   | in.               | mm   | in.                    | in.      | mm   | in.         | mm   | in.        | mm   |     |
| UT-SFFX45-0606 | 38777-0606 | 20419748 | 5/16         | 7.9  | 5/8-18      | 1/2               | 12.7 | 3/4               | 19.1 | 3/4                    | 0.41     | 10.4 | 1.48        | 37.6 | 2.33       | 59.2 | Y   |
| UT-SFFX45-1212 | 38777-1212 | 20419752 | 5/8          | 15.9 | 1 1/16-14   | 7/8               | 22.2 | 1 1/4             | 31.8 | 1 1/8                  | 0.78     | 19.8 | 2.49        | 63.2 | 3.63       | 92.2 | Y   |

SAE 45° J512 Flare

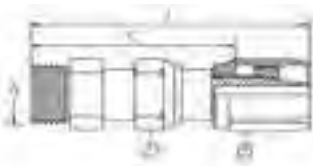
Female | 90° Elbow | Swivel



| Descriptive #  | Product #  | SAP #    | Hose Size ID |      | Thread Size | Hex-1 Wrench Size |      | Hex-2 Wrench Size |      | Socket (S) Wrench Size | Drop (D) |      | Cut-Off (C) |      | Length (L) |      | DUT |
|----------------|------------|----------|--------------|------|-------------|-------------------|------|-------------------|------|------------------------|----------|------|-------------|------|------------|------|-----|
|                |            |          | in.          | mm   |             | in.               | mm   | in.               | mm   |                        | in.      | mm   | in.         | mm   | in.        | mm   |     |
| UT-SFFX90-0606 | 38780-0606 | 20419539 | 5/16         | 7.9  | 5/8-18      | 1/2               | 12.7 | 3/4               | 19.1 | 3/4                    | 0.84     | 21.3 | 1.36        | 34.5 | 2.21       | 56.1 | Y   |
| UT-SFFX90-1212 | 38780-1212 | 20419536 | 5/8          | 15.9 | 1 1/16-14   | 7/8               | 22.2 | 1 1/4             | 31.8 | 1 1/4                  | 1.81     | 46.0 | 2.44        | 62.0 | 3.58       | 90.9 | Y   |

SAE 45° Inverted Flare

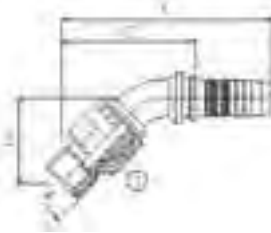
Male | Swivel



| Descriptive # | Product #  | SAP #    | Hose Size ID |      | Thread Size | Hex-1 Wrench Size |      | Hex-2 Wrench Size |      | Socket Hex (S) Wrench Size | Cut-Off (C) |      | Length (L) |      | DUT |
|---------------|------------|----------|--------------|------|-------------|-------------------|------|-------------------|------|----------------------------|-------------|------|------------|------|-----|
|               |            |          | in.          | mm   |             | in.               | mm   | in.               | mm   |                            | in.         | mm   | in.        | mm   |     |
| UT-SIMX-0404  | 38800-0404 | 20419716 | 3/16         | 4.8  | 7/16-24     | 1/2               | 12.7 | 7/16              | 11.1 | 9/16                       | 1.33        | 33.8 | 2.05       | 52.1 | Y   |
| UT-SIMX-0505  | 38800-0505 | 20419717 | 1/4          | 6.4  | 1/2-20      | 1/2               | 12.7 | 1/2               | 12.7 | 5/8                        | 1.45        | 36.8 | 2.26       | 57.4 | Y   |
| UT-SIMX-0605  | 38800-0605 | 20419718 | 5/16         | 7.9  | 1/2-20      | 1/2               | 12.7 | 1/2               | 12.7 | 3/4                        | 1.54        | 39.1 | 2.39       | 60.7 | Y   |
| UT-SIMX-0606  | 38800-0606 | 20419719 | 5/16         | 7.9  | 5/8-18      | 1/2               | 12.7 | 5/8               | 15.9 | 3/4                        | 1.86        | 47.2 | 2.71       | 68.8 | Y   |
| UT-SIMX-0808  | 38800-0808 | 20419740 | 13/32        | 10.3 | 3/4-18      | 11/16             | 17.5 | 3/4               | 19.1 | 7/8                        | 2.24        | 56.9 | 3.24       | 82.3 | Y   |

SAE 45° Inverted Flare

Male | 45° Elbow | Swivel

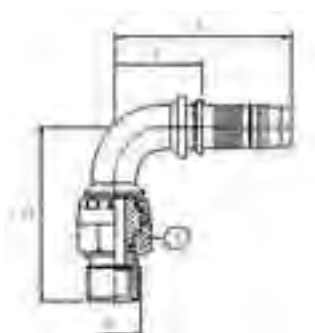


| Descriptive #  | Product #  | SAP #    | Hose Size ID |      | Thread Size | Hex-1 Wrench Size |      | Hex-2 Wrench Size |      | Socket (S) Wrench Size | Drop (D) |      | Cut-Off (C) |      | Length (L) |       | DUT |
|----------------|------------|----------|--------------|------|-------------|-------------------|------|-------------------|------|------------------------|----------|------|-------------|------|------------|-------|-----|
|                |            |          | in.          | mm   |             | in.               | mm   | in.               | mm   |                        | in.      | mm   | in.         | mm   | in.        | mm    |     |
| UT-SIMX45-0606 | 38810-0606 | 20419640 | 5/16         | 7.9  | 5/8-18      | 1/2               | 12.7 | 5/8               | 15.9 | 3/4                    | 0.84     | 21.3 | 2.94        | 74.7 | 3.79       | 96.3  | Y   |
| UT-SIMX45-0808 | 38810-0808 | 20419741 | 13/32        | 10.3 | 3/4-18      | 11/16             | 17.5 | 3/4               | 19.1 | 7/8                    | 1.09     | 27.7 | 3.24        | 82.3 | 4.24       | 107.7 | Y   |



## SAE 45° Inverted Flare

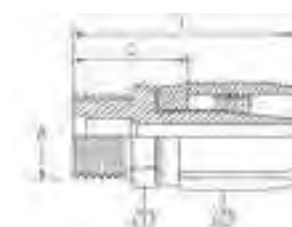
Male | 90° Elbow | Swivel



| Descriptive #  | Product #  | SAP #    | Hose Size ID |      | Thread Size | Hex-1 Wrench Size |      | Hex-2 Wrench Size |      | Socket (S) Wrench Size | Drop (D) |      | Cut-Off (C) |      | Length (L) |      | DUT |
|----------------|------------|----------|--------------|------|-------------|-------------------|------|-------------------|------|------------------------|----------|------|-------------|------|------------|------|-----|
|                |            |          | in.          | mm   |             | in.               | mm   | in.               | mm   |                        | in.      | mm   | in.         | mm   | in.        | mm   |     |
| UT-SIMX90-0404 | 38815-0404 | 20419641 | 3/16         | 4.8  | 7/16-24     | 1/2               | 12.7 | 7/16              | 11.1 | 9/16                   | 1.25     | 31.8 | 1.33        | 33.8 | 2.05       | 52.1 | Y   |
| UT-SIMX90-0505 | 38815-0505 | 20419642 | 1/4          | 6.4  | 1/2-20      | 1/2               | 12.7 | 1/2               | 12.7 | 5/8                    | 1.50     | 38.1 | 1.46        | 37.1 | 2.25       | 57.2 | Y   |
| UT-SIMX90-0605 | 38815-0605 | 20419643 | 5/16         | 7.9  | 1/2-20      | 1/2               | 12.7 | 1/2               | 12.7 | 3/4                    | 1.50     | 38.1 | 1.54        | 39.1 | 2.39       | 60.7 | Y   |
| UT-SIMX90-0606 | 38815-0606 | 20419644 | 5/16         | 7.9  | 5/8-18      | 1/2               | 12.7 | 5/8               | 15.9 | 3/4                    | 1.63     | 41.4 | 1.86        | 47.2 | 2.71       | 68.8 | Y   |
| UT-SIMX90-0808 | 38815-0808 | 20419714 | 13/32        | 10.3 | 3/4-18      | 11/16             | 17.5 | 3/4               | 19.1 | 7/8                    | 2.00     | 50.8 | 2.24        | 56.9 | 3.24       | 82.3 | Y   |

## NPTF

Male



| Descriptive # | Product #  | SAP #    | Hose Size ID |      | Thread Size  | Hex-1 Wrench Size |      | Socket Hex (S) Wrench Size | Cut-Off (C) |      | Length (L) |      | DUT |
|---------------|------------|----------|--------------|------|--------------|-------------------|------|----------------------------|-------------|------|------------|------|-----|
|               |            |          | in.          | mm   |              | in.               | mm   |                            | in.         | mm   | in.        | mm   |     |
| UT-NPM-0402   | 38615-0402 | 20419753 | 3/16         | 4.8  | 1/8-27       | 1/2               | 12.7 | 9/16                       | 0.81        | 20.6 | 1.53       | 38.9 | Y   |
| UT-NPM-0404   | 38615-0404 | 20419754 | 3/16         | 4.8  | 1/4-18       | 9/16              | 14.3 | 9/16                       | 1.03        | 26.2 | 1.75       | 44.5 | Y   |
| UT-NPM-0504   | 38615-0504 | 20419755 | 1/4          | 6.4  | 1/4-18       | 9/16              | 14.3 | 5/8                        | 0.96        | 24.4 | 1.76       | 44.7 | Y   |
| UT-NPM-0604   | 38615-0604 | 20419756 | 5/16         | 7.9  | 1/4-18       | 9/16              | 14.3 | 3/4                        | 1.00        | 25.4 | 1.85       | 47.0 | Y   |
| UT-NPM-0606   | 38615-0606 | 20419757 | 5/16         | 7.9  | 3/8-18       | 11/16             | 17.5 | 3/4                        | 1.04        | 26.4 | 1.89       | 48.0 | Y   |
| UT-NPM-0806   | 38615-0806 | 20419758 | 13/32        | 10.3 | 3/8-18       | 11/16             | 17.5 | 7/8                        | 1.19        | 30.2 | 2.19       | 55.6 | Y   |
| UT-NPM-0808   | 38615-0808 | 20419759 | 13/32        | 10.3 | 1/2-14       | 7/8               | 22.2 | 7/8                        | 1.29        | 32.8 | 2.29       | 58.2 | Y   |
| UT-NPM-1008   | 38615-1008 | 20419770 | 1/2          | 12.7 | 1/2-14       | 7/8               | 22.2 | 1                          | 1.31        | 33.3 | 2.38       | 60.5 | Y   |
| UT-NPM-1212   | 38615-1212 | 20419771 | 5/8          | 15.9 | 3/4-14       | 1 1/16            | 27.0 | 1 1/8                      | 1.44        | 36.6 | 2.59       | 65.8 | Y   |
| UT-NPM-1612   | 38615-1612 | 20419773 | 7/8          | 22.2 | 3/4-14       | 1 1/16            | 27.0 | 1 1/8                      | 1.43        | 36.3 | 2.49       | 63.2 | Y   |
| UT-NPM-1616   | 38615-1616 | 20419772 | 7/8          | 22.2 | 1-11 1/2     | 1 3/8             | 34.9 | 1 1/2                      | 1.74        | 44.2 | 2.80       | 71.1 | Y   |
| UT-NPM-2020   | 38615-2020 | 20419774 | 1 1/8        | 28.6 | 1 1/4-11 1/2 | 1 3/4             | 44.5 | 1 3/4                      | 1.80        | 45.7 | 2.92       | 74.2 | Y   |

SAE J514 Flareless Tube Fittings

Male

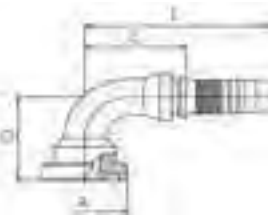


| Descriptive # | Product #  | SAP #    | Hose Size ID |      | Thread Size | Hex-1 Wrench Size |      | Hex-2 Wrench Size |      | Socket Hex (S) Wrench Size | Cut-Off (C) |      | Length (L) |      | DUT |
|---------------|------------|----------|--------------|------|-------------|-------------------|------|-------------------|------|----------------------------|-------------|------|------------|------|-----|
|               |            |          | in.          | mm   |             | in.               | mm   | in.               | mm   |                            | in.         | mm   | in.        | mm   |     |
| UT-FTM-0404   | 38360-0404 | 20419775 | 3/16         | 4.8  | 7/16-20     | 1/2               | 12.7 | 9/16              | 14.3 | 9/16                       | 0.96        | 24.5 | 1.68       | 42.7 | Y   |
| UT-FTM-0505   | 38360-0505 | 20419777 | 1/4          | 6.4  | 1/2-20      | 9/16              | 14.3 | 5/8               | 15.9 | 5/8                        | 0.92        | 23.4 | 1.72       | 43.7 | Y   |
| UT-FTM-0604   | 38360-0604 | 20419778 | 5/16         | 7.9  | 7/16-20     | 9/16              | 14.3 | 9/16              | 14.3 | 3/4                        | 1.01        | 25.7 | 2.12       | 53.8 | Y   |
| UT-FTM-0606   | 38360-0606 | 20419779 | 5/16         | 7.9  | 5/8-18      | 5/8               | 15.9 | 11/16             | 17.5 | 3/4                        | 1.03        | 26.2 | 1.87       | 47.6 | Y   |
| UT-FTM-0808   | 38360-0808 | 20419780 | 13/32        | 10.3 | 3/4-16      | 13/16             | 20.6 | 7/8               | 22.2 | 7/8                        | 1.15        | 29.2 | 2.15       | 54.6 | Y   |
| UT-FTM-1010   | 38360-1010 | 20419781 | 1/2          | 12.7 | 7/8-14      | 15/16             | 23.8 | 1                 | 25.4 | 1                          | 1.27        | 32.3 | 2.34       | 59.6 | Y   |

\* All Fittings come with Nut and Sleeve

Flange Engine Oil Connection (Two Bolt)

90° Elbow

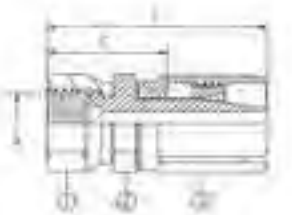


| Descriptive #   | Product #  | SAP #    | Hose Size ID |      | Thread Size | Hex-1 Wrench Size |      | Hex-2 Wrench Size |      | Socket (S) Wrench Size | Drop (D) |      | Cut-Off (C) |       | Length (L) |      | DUT |
|-----------------|------------|----------|--------------|------|-------------|-------------------|------|-------------------|------|------------------------|----------|------|-------------|-------|------------|------|-----|
|                 |            |          | in.          | mm   |             | in.               | mm   | in.               | mm   |                        | in.      | mm   | in.         | mm    | in.        | mm   |     |
| UT-FL90EOC-2020 | 38351-2020 | 20419745 | 1½           | 28.6 | 1¼          | 1½ <sup>16</sup>  | 39.7 | 1½                | 2.50 | 63.5                   | 3.82     | 97.0 | 4.95        | 125.7 | Y          | 52.1 | Y   |

UT-FL90EOC-2020 includes engine connection flange clamp plate

PTT 30°

Female | Swivel



| Descriptive # | Product #  | SAP #    | Hose Size ID |      | Thread Size          | Hex-1 Wrench Size |      | Hex-2 Wrench Size |      | Socket Hex (S) Wrench Size | Cut-Off (C) |      | Length (L) |      | DUT |
|---------------|------------|----------|--------------|------|----------------------|-------------------|------|-------------------|------|----------------------------|-------------|------|------------|------|-----|
|               |            |          | in.          | mm   |                      | in.               | mm   | in.               | mm   |                            | in.         | mm   | in.        | mm   |     |
| UT-PTTFX-1616 | 38745-1616 | 20419805 | 7/8          | 22.2 | 1½ <sup>16</sup> -14 | 1½                | 38.1 | 1½                | 38.1 | 1½                         | 1.68        | 42.7 | 2.74       | 69.6 | Y   |

## How to Use the Fitting Tables

This section lists ALL fittings that are compatible with the following hoses:

| Hose Family | Hose Description                             |
|-------------|----------------------------------------------|
| NSFX        | SAFLEX® (Non-Conductive)                     |
| SHR         | Slim Hole Rotary                             |
| HOT OILER   | Hot Oiler                                    |
| SGUN        | Grease Gun                                   |
| SHJ         | Jack Hose                                    |
| IG          | Insta-Grip™ 300 (Non-Conductive)             |
| IGHT        | Insta-Grip™ HT 300 Push-On (High Temp)       |
| IGTC        | Insta-Grip™ TC (Textile Cover)               |
| FXG         | FLEXA-Grip™ (Non-Conductive, Abrasion Cover) |

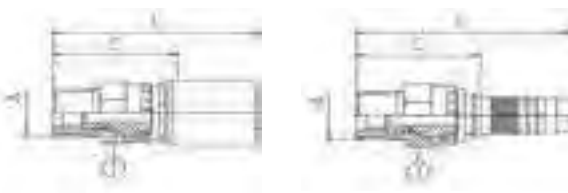
The Continental ContiTech hose compatible with each fitting style in this section is shown at the right, in the "Fitting Style" heading. The fitting styles are different for each hose family.

The fittings listed in each "Fitting Style" section are the only approved fittings for the hose shown.

Be sure to use only those fittings shown for the hose families listed in the heading.

## Fitting Description

Compatible Hose Family

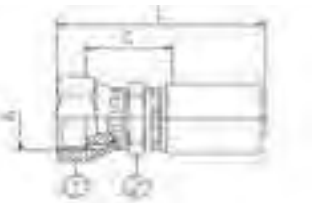


| Descriptive # | Product #  | Hose Size ID |      | Thread Size (A) | Hex-1 Wrench Size |    | Cut-Off (C) |       | Length (L) |       |
|---------------|------------|--------------|------|-----------------|-------------------|----|-------------|-------|------------|-------|
|               |            | in.          | mm   |                 | in.               | mm | in.         | mm    | in.        | mm    |
| B2-NPM-0402   | 14615-0402 | 1/4          | 6.40 | 1/8-27          | 9/16              | 14 | 0.88        | 22.30 | 1.85       | 47.10 |
| B2-NPM-0404   | 14615-0404 | 1/4          | 6.40 | 1/4-18          | 11/16             | 17 | 1.04        | 26.30 | 2.01       | 51.10 |
| B2-NPM-0406   | 14615-0406 | 1/4          | 6.40 | 3/8-18          | 13/16             | 19 | 1.04        | 26.30 | 2.01       | 51.10 |
| B2-NPM-0408   | 14615-0408 | 1/4          | 6.40 | 1/2-14          | 7/8               | 22 | 1.31        | 33.30 | 2.29       | 58.10 |

“SF” NSFJ Hose Fittings (for use with SAFLEX® Hose)

JIC 37° Flare (SAE J514)

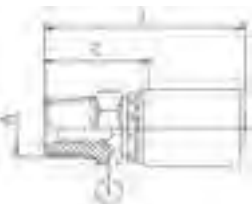
Female | Swivel



| Descriptive # | Product #  | SAP #    | Hose Size ID |     | Thread Size (A) | Hex-1 Wrench Size |    | Cut-Off (C)                   |    | Length (L) |    |
|---------------|------------|----------|--------------|-----|-----------------|-------------------|----|-------------------------------|----|------------|----|
|               |            |          | in.          | mm  |                 | in.               | mm | in.                           | mm | in.        | mm |
| SF-JCFX-0606  | 26400-0606 | 20766318 | 3/8          | 9.5 | 9/16-18         | 1 1/16            | 27 | Contact Continental ContiTech |    |            |    |

NPTF

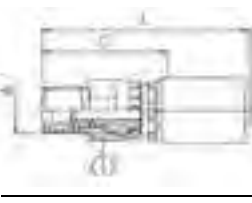
Male



| Descriptive # | Product #  | SAP #    | Hose Size ID |      | Thread Size (A) | Hex-1 Wrench Size |    | Cut-Off (C) |      | Length (L) |      |
|---------------|------------|----------|--------------|------|-----------------|-------------------|----|-------------|------|------------|------|
|               |            |          | in.          | mm   |                 | in.               | mm | in.         | mm   | in.        | mm   |
| SF-NPM-0606   | 26615-0606 | 20285743 | 3/8          | 9.5  | 3/8-18          | 3/4               | 19 | 1.24        | 31.5 | 2.58       | 65.5 |
| SF-NPM-0608   | 26615-0608 | 20413965 | 3/8          | 9.5  | 1/2-14          | 7/8               | 22 | 1.59        | 40.5 | 2.86       | 72.6 |
| SF-NPM-0808   | 26615-0808 | 20352115 | 1/2          | 12.7 | 1/2-14          | 7/8               | 22 | 1.57        | 40.0 | 3.04       | 77.2 |

NPTF

Male | Swivel

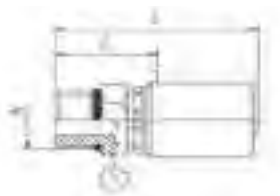


| Descriptive # | Product #  | SAP #    | Hose Size ID |      | Thread Size (A) | Hex-1 Wrench Size |    | Cut-Off (C) |      | Length (L) |      |
|---------------|------------|----------|--------------|------|-----------------|-------------------|----|-------------|------|------------|------|
|               |            |          | in.          | mm   |                 | in.               | mm | in.         | mm   | in.        | mm   |
| SF-NPMX-0606  | 26645-0606 | 20347559 | 3/8          | 9.5  | 3/8-18          | 3/4               | 19 | 1.83        | 46.6 | 3.15       | 79.9 |
| SF-NPMX-0808  | 26645-0808 | 20414341 | 1/2          | 12.7 | 1/2-14          | 7/8               | 22 | 1.76        | 44.6 | 3.26       | 82.8 |

## “SF” NSFHX Hose Fittings (for use with SAFLEX® Hose) Continued

## O-Ring Boss

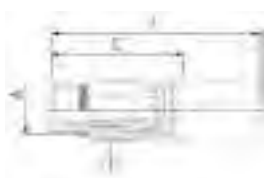
Male



| Descriptive # | Product #  | SAP #    | Hose Size ID |     | Thread Size (A) | Hex-1 Wrench Size |    | Cut-Off (C)                   |    | Length (L) |    |
|---------------|------------|----------|--------------|-----|-----------------|-------------------|----|-------------------------------|----|------------|----|
|               |            |          | in.          | mm  |                 | in.               | mm | in.                           | mm | in.        | mm |
| SF-OBM-0608   | 26670-0608 | 20766320 | 3/8          | 9.5 | 3/4-16          | 7/8               | 22 | Contact Continental ContiTech |    |            |    |

## O-Ring Boss

Male | Swivel

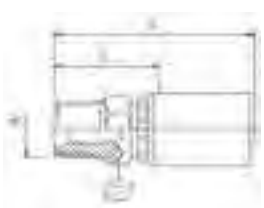


| Descriptive # | Product #  | SAP #    | Hose Size ID |     | Thread Size (A) | Hex-1 Wrench Size |    | Cut-Off (C)                   |      | Length (L) |      |
|---------------|------------|----------|--------------|-----|-----------------|-------------------|----|-------------------------------|------|------------|------|
|               |            |          | in.          | mm  |                 | in.               | mm | in.                           | mm   | in.        | mm   |
| SF-OBMX-0606  | 26680-0606 | 20766322 | 3/8          | 9.5 | 9/16-18         | 7/8               | 22 | Contact Continental ContiTech |      |            |      |
| SF-OBMX-0608  | 26680-0608 | 20352114 | 3/8          | 9.5 | 3/4-16          | 7/8               | 22 | 1.73                          | 44.0 | 3.00       | 76.3 |

## SHR Hose Fittings (for use with Prospector™ Slim Hole Rotary Hose)

## NPT

Male API



S=Skive  
NS=Non-Skive  
DG=Dual-Grip™

| Descriptive #     | Product #  | SAP #    | Hose Size ID |      | Thread Size (A) | Hex-1 Wrench Size             |    | Cut-Off (C) |       | Length (L) |       | Skive Type | SHR 3000 | SHR 3650 | SHR 5000 |
|-------------------|------------|----------|--------------|------|-----------------|-------------------------------|----|-------------|-------|------------|-------|------------|----------|----------|----------|
|                   |            |          | in.          | mm   |                 | in.                           | mm | in.         | mm    | in.        | mm    |            |          |          |          |
| S6-NPMAPI-1616*   | 30617-1616 | 20466169 | 1            | 25.4 | 1-11½           | 1⅞                            | 36 | 2.66        | 67.5  | 5.18       | 131.5 | NS         |          |          | Y        |
| S6-NPMAPI-2020*   | 30617-2020 | 20466171 | 1¼           | 31.8 | 1¼-11½          | 1⅞                            | 46 | 2.94        | 74.6  | 6.70       | 170.1 | NS         |          |          | Y        |
| S6-NPMAPI-2424*   | 30617-2424 | 20466174 | 1½           | 38.1 | 1½-11½          | 2                             | 50 | 3.27        | 83.0  | 6.54       | 166.0 | NS         |          |          | Y        |
| S4H-NPMAPI-3232   |            | 20762944 | 2            | 50.8 | 2-11½           | Contact Continental ContiTech |    |             |       |            |       | NS         | Y        |          |          |
| S6-NPMAPI-3232*   | 30618-3232 | 20679658 | 2            | 50.8 | 2-11½           | 2⅞                            | 70 | 4.20        | 106.8 | 8.31       | 211.1 | NS         |          |          | Y        |
| DG-NPMAPI-3232**  | 16630-3232 | 20466175 | 2            | 50.8 | 2-11½           | 2⅞                            | 65 | 3.76        | 95.5  | 7.58       | 192.5 | DG         | DGF1-32  | DGF1-32  | DGF2-32  |
| SG-NPMAPI-3232*** | 29630-3232 | 20833300 | 2            | 50.8 | 2-11½           | 2⅞                            | 70 | 4.35        | 110.5 | 7.90       | 200.5 | NS         |          | Y        |          |

\*Can be used with SR13

\*\*Can be used with S4SH and SR13

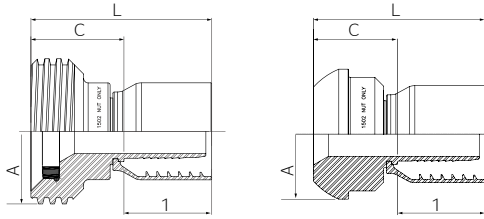
\*\*\*Can be used with S4SH-32

Continued on next page

## SHR Hose Fittings (for use with Prospector™ Slim Hole Rotary Hose) Continued

Fig. 1502

Fig. 1502 Hammer Union



| Descriptive #      | Product #  | SAP #    | Hose Size ID |      | Thread Size (A) | Hex-1 Wrench Size |    | Cut-Off (C) |      | Length (L) |       | Skive Type | SHR 3000 | SHR 3650 | SHR 5000 |
|--------------------|------------|----------|--------------|------|-----------------|-------------------|----|-------------|------|------------|-------|------------|----------|----------|----------|
|                    |            |          | in.          | mm   |                 | in.               | mm | in.         | mm   | in.        | mm    |            |          |          |          |
| S6-IHUF1502-3232*  | 30390-3232 | 20806362 | 2            | 50.8 | ACME-2G, 3 TPI  |                   |    | 2.59        | 65.8 | 6.52       | 165.5 | NS         |          |          | Y        |
| S6-IHUM1502-3232*  | 30395-3232 | 20806363 | 2            | 50.8 | ACME-2G, 3 TPI  |                   |    | 2.62        | 66.4 | 6.55       | 166.3 | NS         |          |          | Y        |
| SG-IHUF1502-3232** | 29390-3232 | 20833304 | 2            | 50.8 | ACME-2G, 3 TPI  |                   |    | 2.74        | 69.5 | 6.28       | 159.5 | NS         |          | Y        |          |
| SG-IHUM1502-3232** | 29395-3232 | 20833305 | 2            | 50.8 | ACME-2G, 3 TPI  |                   |    | 2.77        | 70.2 | 6.31       | 160.2 | NS         |          | Y        |          |

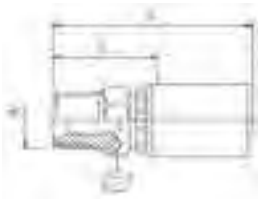
\*Can be used with SR13

\*\*Can be used with S4SH

## Hot Oiler Hose Fittings (for use with Prospector™ Hot Oiler Hose)

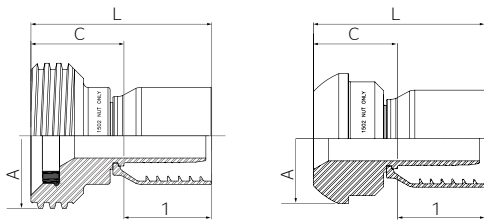
NPT - API

Fig. 1502 Hammer Union



| Descriptive #   | Product #  | SAP #    | Hose Size ID |      | Thread Size (A) | Hex-1 Wrench Size |    | Cut-Off (C) |      | Length (L) |       | Skive Type | Hot Oiler |
|-----------------|------------|----------|--------------|------|-----------------|-------------------|----|-------------|------|------------|-------|------------|-----------|
|                 |            |          | in.          | mm   |                 | in.               | mm | in.         | mm   | in.        | mm    |            |           |
| S4-NPM-API-2424 | 28617-2424 | 20636530 | 1½           | 38.1 | 2-11½           | 2                 | 51 | 3.072       | 78.0 | 5.4        | 137.2 | NS         | Y         |

Fig. 1502

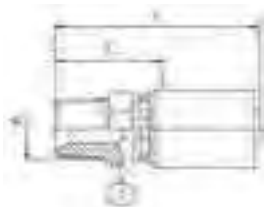


| Descriptive #    | Product #  | SAP #    | Hose Size ID |      | Thread Size (A) | Hex-1 Wrench Size |    | Cut-Off (C) |      | Length (L) |       | Skive Type | Hot Oiler |
|------------------|------------|----------|--------------|------|-----------------|-------------------|----|-------------|------|------------|-------|------------|-----------|
|                  |            |          | in.          | mm   |                 | in.               | mm | in.         | mm   | in.        | mm    |            |           |
| S4-IHUF1502-2432 | 28390-2432 | 20815350 | 1½           | 38.1 | ACME-2G, 3 TPI  |                   |    | 2.64        | 67.1 | 4.81       | 122.2 | NS         | Y         |
| S4-IHUM1502-2432 | 28395-2432 | 20815351 | 1½           | 38.1 | ACME-2G, 3 TPI  |                   |    | 2.38        | 60.5 | 4.88       | 123.9 | NS         | Y         |

## “GG” SGUN Hose Fittings (for use with Grease Gun Hose)

NPTF

Male

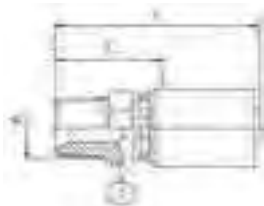


| Descriptive # | Product #  | SAP #    | Hose Size ID |     | Thread Size (A) | Hex-1 Wrench Size |    | Cut-Off (C) |     | Length (L) |      |
|---------------|------------|----------|--------------|-----|-----------------|-------------------|----|-------------|-----|------------|------|
|               |            |          | in.          | mm  |                 | in.               | mm | in.         | mm  | in.        | mm   |
| GG-NPM-0302   | 20615-0302 | 20288023 | 3/16         | 4.8 | 1/8-27          | 5/8               | 15 | 0.38        | 9.7 | 1.38       | 35.1 |

## “B2” SHJ Hose Fittings (for use with Jack Hose)

NPTF

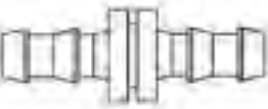
Male



| Descriptive # | Product #   | SAP #    | Hose Size ID |     | Thread Size (A) | Hex-1 Wrench Size |    | Cut-Off Length (C) |      | Length (L) |      |
|---------------|-------------|----------|--------------|-----|-----------------|-------------------|----|--------------------|------|------------|------|
|               |             |          | in.          | mm  |                 | in.               | mm | in.                | mm   | in.        | mm   |
| B2-NPM-0402   | 14615-0402  | 20242110 | 1/4          | 6.4 | 1/8-27          | 9/16              | 14 | 0.88               | 22.3 | 1.85       | 47.1 |
| B2-NPM-0404   | 14615-0404  | 20242111 | 1/4          | 6.4 | 1/4-18          | 11/16             | 17 | 1.06               | 27.0 | 2.15       | 54.6 |
| B2-NPM-0404S  | 14615-0404S | 20286649 | 1/4          | 6.4 | 1/4-18          | 11/16             | 17 | 1.06               | 27.0 | 2.15       | 54.6 |
| B2-NPM-0406   | 14615-0406  | 20242109 | 1/4          | 6.4 | 3/8-18          | 3/4               | 19 | 1.04               | 26.3 | 2.01       | 51.1 |
| B2-NPM-0408   | 14615-0408  | 20242115 | 1/4          | 6.4 | 1/2-14          | 7/8               | 22 | 1.31               | 33.3 | 2.29       | 58.1 |
| B2-NPM-0604   | 14615-0604  | 20242067 | 3/8          | 9.5 | 1/4-18          | 11/16             | 17 | 1.04               | 26.3 | 2.09       | 53.0 |
| B2-NPM-0606   | 14615-0606  | 20242069 | 3/8          | 9.5 | 3/8-18          | 3/4               | 19 | 1.04               | 26.4 | 2.09       | 53.1 |
| B2-NPM-0606S  | 14615-0606S | 20286830 | 3/8          | 9.5 | 3/8-18          |                   |    | 1.10               | 27.9 | 2.05       | 52.0 |
| B2-NPM-0608   | 14615-0608  | 20242079 | 3/8          | 9.5 | 1/2-14          | 7/8               | 22 | 1.27               | 32.3 | 2.32       | 59.0 |

“PB” Push-On Brass Fittings (for use with Insta-Grip™ 300, Insta-Grip™ HT 300, Insta-Grip™ TC & FLEXA-Grip™ Hose)

Hose Mender



| Descriptive # | Product #  | SAP #    | Hose Size ID |      | Thread Size (A) | Hex-1 Wrench Size |    | Cut-Off Length (C) |     | Overall Length (L) |      |
|---------------|------------|----------|--------------|------|-----------------|-------------------|----|--------------------|-----|--------------------|------|
|               |            |          | in.          | mm   |                 | in.               | mm | in.                | mm  | in.                | mm   |
| PB-HM-0404    | 22380-0404 | 20282715 | 1/4          | 6.4  |                 |                   |    | 0.06               | 1.5 | 1.80               | 45.7 |
| PB-HM-0505    | 22380-0505 | 20282716 | 5/16         | 7.9  |                 |                   |    | 0.06               | 1.5 | 1.80               | 45.7 |
| PB-HM-0606    | 22380-0606 | 20282717 | 3/8          | 9.5  |                 |                   |    | 0.06               | 1.5 | 2.00               | 50.8 |
| PB-HM-0808    | 22380-0808 | 20282718 | 1/2          | 12.7 |                 |                   |    | 0.06               | 1.5 | 2.00               | 50.8 |
| PB-HM-1010    | 22380-1010 | 20283080 | 5/8          | 15.9 |                 |                   |    | 0.13               | 3.3 | 3.03               | 77.0 |
| PB-HM-1212    | 22380-1212 | 20283081 | 3/4          | 19.0 |                 |                   |    | 0.13               | 3.3 | 3.03               | 77.0 |

JIC 37° Flare

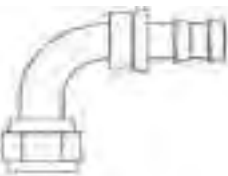
Female | Swivel



| Descriptive # | Product #  | SAP #    | Hose Size ID |      | Thread Size (A) | Hex-1 Wrench Size |    | Cut-Off Length (C) |      | Overall Length (L) |      |
|---------------|------------|----------|--------------|------|-----------------|-------------------|----|--------------------|------|--------------------|------|
|               |            |          | in.          | mm   |                 | in.               | mm | in.                | mm   | in.                | mm   |
| PB-JCFX-0404  | 22400-0404 | 20282736 | 1/4          | 6.4  | 7/16-20         | 9/16              | 14 | 0.57               | 14.5 | 1.54               | 39.1 |
| PB-JCFX-0405  | 22400-0405 | 20283092 | 1/4          | 6.4  | 1/2-20          | 5/8               | 16 | 0.60               | 15.1 | 1.57               | 39.9 |
| PB-JCFX-0406  | 22400-0406 | 20282738 | 1/4          | 6.4  | 9/16-18         | 3/4               | 19 | 0.62               | 15.8 | 1.60               | 40.6 |
| PB-JCFX-0605  | 22400-0605 | 20282739 | 3/8          | 9.5  | 1/2-20          | 5/8               | 16 | 0.60               | 15.1 | 1.67               | 42.4 |
| PB-JCFX-0606  | 22400-0606 | 20282740 | 3/8          | 9.5  | 9/16-18         | 3/4               | 19 | 0.62               | 15.8 | 1.70               | 43.2 |
| PB-JCFX-0608  | 22400-0608 | 20282741 | 3/8          | 9.5  | 3/4-16          | 7/8               | 22 | 0.75               | 19.0 | 1.85               | 47.0 |
| PB-JCFX-0808  | 22400-0808 | 20282742 | 1/2          | 12.7 | 3/4-16          | 7/8               | 22 | 0.69               | 17.5 | 1.78               | 45.2 |
| PB-JCFX-0810  | 22400-0810 | 20283093 | 1/2          | 12.7 | 7/8-14          | 1                 | 25 | 0.74               | 18.8 | 1.84               | 46.7 |
| PB-JCFX-1008  | 22400-1008 | 20283094 | 5/8          | 15.9 | 3/4-16          | 7/8               | 22 | 0.70               | 17.7 | 2.27               | 57.7 |
| PB-JCFX-1010  | 22400-1010 | 20282745 | 5/8          | 15.9 | 7/8-14          | 1                 | 25 | 0.75               | 19.0 | 2.33               | 59.2 |
| PB-JCFX-1212  | 22400-1212 | 20283095 | 3/4          | 19.0 | 1 1/16-12       | 1 1/4             | 32 | 0.81               | 20.5 | 2.40               | 61.0 |
| PB-JCFX-1616  | 22400-1616 | 20466036 | 1            | 25.4 | 1 5/16-12       | 1 1/2             | 38 | 1.13               | 28.7 | 2.57               | 65.3 |

JIC 37° Flare

Female 90° Elbow | Swivel



| Descriptive #  | Product #  | SAP #    | Hose Size ID |     | Thread Size (A) | Hex-1 Wrench Size |    | Cut-Off Length (C) |      | Drop Length (L) |      |
|----------------|------------|----------|--------------|-----|-----------------|-------------------|----|--------------------|------|-----------------|------|
|                |            |          | in.          | mm  |                 | in.               | mm | in.                | mm   | in.             | mm   |
| PB-JCFX90-0606 | 22425-0606 | 20450811 | 3/8          | 9.5 | 9/16-18         | 3/4               | 19 | 0.87               | 22.0 | 1.02            | 26.0 |



**“PB” Push-On Brass Fittings (for use with Insta-Grip™ 300, Insta-Grip™ HT 300, Insta-Grip™ TC & FLEXA-Grip™ Hose)**  
Continued

## JIC 37° Flare

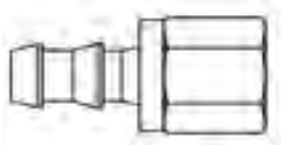
Male



| Descriptive # | Product #  | SAP #    | Hose Size ID |      | Thread Size (A) | Hex-1 Wrench Size |    | Cut-Off Length (C) |      | Overall Length (L) |      |
|---------------|------------|----------|--------------|------|-----------------|-------------------|----|--------------------|------|--------------------|------|
|               |            |          | in.          | mm   |                 | in.               | mm | in.                | mm   | in.                | mm   |
| PB-JCM-0404   | 22450-0404 | 20282768 | 1/4          | 6.4  | 7/16-20         | 1/2               | 13 | 0.70               | 17.8 | 1.57               | 39.9 |
| PB-JCM-0406   | 22450-0406 | 20289525 | 1/4          | 6.4  | 9/16-18         | 5/8               | 16 | 0.77               | 19.6 | 1.64               | 41.7 |
| PB-JCM-0606   | 22450-0606 | 20282769 | 3/8          | 9.5  | 9/16-18         | 5/8               | 16 | 0.81               | 20.6 | 1.78               | 45.2 |
| PB-JCM-0808   | 22450-0808 | 20282771 | 1/2          | 12.7 | 3/4-16          | 3/4               | 19 | 1.00               | 25.4 | 1.97               | 50.0 |

## NPTF

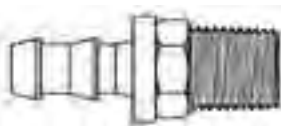
Female



| Descriptive # | Product #  | SAP #    | Hose Size ID |      | Thread Size (A) | Hex-1 Wrench Size |    | Cut-Off Length (C) |      | Overall Length (L) |      |
|---------------|------------|----------|--------------|------|-----------------|-------------------|----|--------------------|------|--------------------|------|
|               |            |          | in.          | mm   |                 | in.               | mm | in.                | mm   | in.                | mm   |
| PB-NPF-0402   | 22600-0402 | 20289527 | 1/4          | 6.4  | 1/8-27          | 1/2               | 13 | 0.41               | 10.4 | 1.35               | 34.3 |
| PB-NPF-0404   | 22600-0404 | 20282772 | 1/4          | 6.4  | 1/4-18          | 5/8               | 16 | 0.54               | 13.8 | 1.51               | 38.4 |
| PB-NPF-0504   | 22600-0504 | 20289528 | 5/16         | 7.9  | 1/4-18          | 5/8               | 16 | 0.54               | 13.8 | 1.51               | 38.4 |
| PB-NPF-0604   | 22600-0604 | 20283105 | 3/8          | 9.5  | 1/4-18          | 5/8               | 16 | 0.54               | 13.8 | 1.61               | 40.9 |
| PB-NPF-0606   | 22600-0606 | 20282774 | 3/8          | 9.5  | 3/8-18          | 3/4               | 19 | 0.56               | 14.3 | 1.63               | 41.4 |
| PB-NPF-0806   | 22600-0806 | 20282775 | 1/2          | 12.7 | 3/8-18          | 3/4               | 19 | 0.56               | 14.3 | 1.63               | 41.4 |
| PB-NPF-0808   | 22600-0808 | 20282776 | 1/2          | 12.7 | 1/2-14          | 15/16             | 24 | 0.68               | 17.3 | 1.77               | 45.0 |

## NPTF

Male



| Descriptive # | Product #  | SAP #    | Hose Size ID |     | Thread Size (A) | Hex-1 Wrench Size |    | Cut-Off Length (C) |      | Overall Length (L) |      |
|---------------|------------|----------|--------------|-----|-----------------|-------------------|----|--------------------|------|--------------------|------|
|               |            |          | in.          | mm  |                 | in.               | mm | in.                | mm   | in.                | mm   |
| PB-NPM-0402   | 22615-0402 | 20283096 | 1/4          | 6.4 | 1/8-27          | 1/2               | 13 | 0.56               | 14.2 | 1.43               | 36.3 |
| PB-NPM-0404   | 22615-0404 | 20282748 | 1/4          | 6.4 | 1/4-18          | 9/16              | 14 | 0.79               | 20.1 | 1.66               | 42.2 |
| PB-NPM-0406   | 22615-0406 | 20282749 | 1/4          | 6.4 | 3/8-18          | 11/16             | 17 | 0.79               | 20.1 | 1.66               | 42.2 |
| PB-NPM-0504   | 22615-0504 | 20289529 | 5/16         | 7.9 | 1/4-18          | 9/16              | 14 | 0.79               | 20.1 | 1.66               | 42.2 |
| PB-NPM-0602   | 22615-0602 | 20282750 | 3/8          | 9.5 | 1/8-27          | 1/2               | 13 | 0.56               | 14.2 | 1.53               | 38.9 |
| PB-NPM-0604   | 22615-0604 | 20283097 | 3/8          | 9.5 | 1/4-18          | 9/16              | 14 | 0.79               | 20.1 | 1.76               | 44.7 |
| PB-NPM-0606   | 22615-0606 | 20282752 | 3/8          | 9.5 | 3/8-18          | 11/16             | 17 | 0.79               | 20.1 | 1.76               | 44.7 |
| PB-NPM-0608   | 22615-0608 | 20282753 | 3/8          | 9.5 | 1/2-14          | 7/8               | 22 | 1.00               | 25.4 | 1.97               | 50.0 |

Continued on next page

**“PB” Push-On Brass Fittings (for use with Insta-Grip™ 300, Insta-Grip™ HT 300, Insta-Grip™ TC & FLEXA-Grip™ Hose)**  
Continued

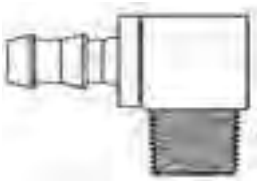
## NPTF

### Male Continued

| Descriptive # | Product #  | SAP #    | Hose Size ID |      | Thread Size (A) | Hex-1 Wrench Size |    | Cut-Off Length (C) |      | Overall Length (L) |      |
|---------------|------------|----------|--------------|------|-----------------|-------------------|----|--------------------|------|--------------------|------|
|               |            |          | in.          | mm   |                 | in.               | mm | in.                | mm   | in.                | mm   |
| PB-NPM-0804   | 22615-0804 | 20283098 | 1/2          | 12.7 | 1/4-18          | 11/16             | 17 | 0.79               | 20.1 | 1.76               | 44.7 |
| PB-NPM-0806   | 22615-0806 | 20282755 | 1/2          | 12.7 | 3/8-18          | 11/16             | 17 | 0.79               | 20.1 | 1.76               | 44.7 |
| PB-NPM-0808   | 22615-0808 | 20282756 | 1/2          | 12.7 | 1/2-14          | 7/8               | 22 | 1.00               | 25.4 | 1.97               | 50.0 |
| PB-NPM-0812   | 22615-0812 | 20283099 | 1/2          | 12.7 | 3/4-14          | 1 1/16            | 27 | 1.00               | 25.4 | 1.97               | 50.0 |
| PB-NPM-1006   | 22615-1006 | 20289540 | 5/8          | 15.9 | 3/8-18          | 3/4               | 19 | 0.89               | 22.6 | 2.34               | 59.4 |
| PB-NPM-1008   | 22615-1008 | 20283100 | 5/8          | 15.9 | 1/2-14          | 7/8               | 22 | 1.00               | 25.4 | 2.45               | 62.2 |
| PB-NPM-1012   | 22615-1012 | 20282759 | 5/8          | 15.9 | 3/4-14          | 1 1/16            | 27 | 1.00               | 25.4 | 2.45               | 62.2 |
| PB-NPM-1208   | 22615-1208 | 20283101 | 3/4          | 19.0 | 1/2-14          | 7/8               | 22 | 1.00               | 25.4 | 2.45               | 62.2 |
| PB-NPM-1212   | 22615-1212 | 20283102 | 3/4          | 19.0 | 3/4-14          | 1 1/16            | 27 | 1.00               | 25.4 | 2.45               | 62.2 |

## NPTF

### Male | 90° Elbow



| Descriptive # | Product #  | SAP #    | Hose Size ID |      | Thread Size (A) | Hex-1 Wrench Size |    | Cut-Off Length (C) |      | Drop Length (L) |      |
|---------------|------------|----------|--------------|------|-----------------|-------------------|----|--------------------|------|-----------------|------|
|               |            |          | in.          | mm   |                 | in.               | mm | in.                | mm   | in.             | mm   |
| PB-NPM90-0402 | 22625-0402 | 20283106 | 1/4          | 6.4  | 1/8-27          |                   |    | 0.08               | 2.1  | 0.75            | 19.1 |
| PB-NPM90-0404 | 22625-0404 | 20283107 | 1/4          | 6.4  | 1/4-18          |                   |    | 0.13               | 3.2  | 0.95            | 24.1 |
| PB-NPM90-0602 | 22625-0602 | 20289541 | 3/8          | 9.5  | 1/8-27          |                   |    | 0.11               | 2.7  | 0.75            | 19.1 |
| PB-NPM90-0604 | 22625-0604 | 20282779 | 3/8          | 9.5  | 1/4-18          |                   |    | 0.12               | 3.1  | 0.90            | 22.9 |
| PB-NPM90-0606 | 22625-0606 | 20282780 | 3/8          | 9.5  | 3/8-18          |                   |    | 0.17               | 4.2  | 0.87            | 22.1 |
| PB-NPM90-0806 | 22625-0806 | 20282782 | 1/2          | 12.7 | 3/8-18          |                   |    | 0.40               | 10.1 | 1.19            | 30.2 |
| PB-NPM90-0808 | 22625-0808 | 20283109 | 1/2          | 12.7 | 1/2-14          |                   |    | 0.40               | 10.1 | 1.19            | 30.2 |
| PB-NPM90-1008 | 22625-1008 | 20289542 | 5/8          | 15.9 | 1/2-14          |                   |    | 0.40               | 10.1 | 1.19            | 30.2 |
| PB-NPM90-1012 | 22625-1012 | 20289543 | 5/8          | 15.9 | 3/4-14          |                   |    | 0.47               | 11.8 | 1.28            | 32.5 |
| PB-NPM90-1212 | 22625-1212 | 20282784 | 3/4          | 19.0 | 3/4-14          |                   |    | 0.47               | 11.8 | 1.28            | 32.5 |

**“PB” Push-On Brass Fittings (for use with Insta-Grip™ 300, Insta-Grip™ HT 300, Insta-Grip™ TC & FLEXA-Grip™ Hose)**  
Continued

## NPTF

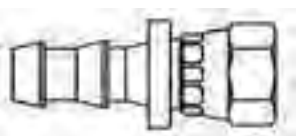
Male | Swivel



| Descriptive # | Product #  | SAP #    | Hose Size ID |      | Thread Size (A) | Hex-1 Wrench Size |    | Cut-Off Length (C) |      | Overall Length (L) |      |
|---------------|------------|----------|--------------|------|-----------------|-------------------|----|--------------------|------|--------------------|------|
|               |            |          | in.          | mm   |                 | in.               | mm | in.                | mm   | in.                | mm   |
| PB-NPMX-0404  | 22645-0404 | 20282762 | 1/4          | 6.4  | 1/4-18          | 9/16              | 14 | 1.15               | 29.2 | 2.02               | 51.3 |
| PB-NPMX-0604  | 22645-0604 | 20283103 | 3/8          | 9.5  | 1/4-18          | 9/16              | 14 | 1.15               | 29.2 | 2.12               | 53.9 |
| PB-NPMX-0606  | 22645-0606 | 20282764 | 3/8          | 9.5  | 3/8-18          | 11/16             | 17 | 1.15               | 29.2 | 2.12               | 53.9 |
| PB-NPMX-0806  | 22645-0806 | 20282765 | 1/2          | 12.7 | 3/8-18          | 11/16             | 17 | 1.15               | 29.2 | 2.12               | 53.9 |
| PB-NPMX-0808  | 22645-0808 | 20282766 | 1/2          | 12.7 | 1/2-14          | 7/8               | 22 | 1.36               | 34.5 | 2.33               | 59.2 |
| PB-NPMX-1212  | 22645-1212 | 20283104 | 3/4          | 19.0 | 3/4-14          | 1 1/16            | 27 | 1.35               | 34.3 | 2.80               | 71.1 |

## SAE 45° Flare

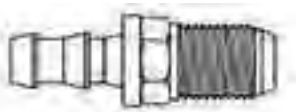
Female | Swivel



| Descriptive # | Product #  | SAP #    | Hose Size ID |      | Thread Size (A) | Hex-1 Wrench Size |    | Cut-Off Length (C) |      | Overall Length (L) |      |
|---------------|------------|----------|--------------|------|-----------------|-------------------|----|--------------------|------|--------------------|------|
|               |            |          | in.          | mm   |                 | in.               | mm | in.                | mm   | in.                | mm   |
| PB-SFFX-0405  | 22775-0405 | 20289551 | 1/4          | 6.4  | 1/2-20          | 5/8               | 16 | 0.60               | 15.1 | 1.57               | 39.9 |
| PB-SFFX-0406  | 22775-0406 | 20289552 | 1/4          | 6.4  | 5/8-18          | 3/4               | 19 | 0.65               | 16.4 | 1.63               | 41.4 |
| PB-SFFX-0506  | 22775-0506 | 20289553 | 5/16         | 7.9  | 5/8-18          | 3/4               | 19 | 0.65               | 16.4 | 1.63               | 41.4 |
| PB-SFFX-0606  | 22775-0606 | 20282722 | 3/8          | 9.5  | 5/8-18          | 3/4               | 19 | 0.65               | 16.4 | 1.73               | 43.9 |
| PB-SFFX-0608  | 22775-0608 | 20289554 | 3/8          | 9.5  | 3/4-16          | 7/8               | 22 | 0.75               | 19.0 | 1.85               | 47.0 |
| PB-SFFX-0806  | 22775-0806 | 20289555 | 1/2          | 12.7 | 5/8-18          | 7/8               | 22 | 0.81               | 20.5 | 1.92               | 48.8 |
| PB-SFFX-0808  | 22775-0808 | 20283083 | 1/2          | 12.7 | 3/4-16          | 7/8               | 22 | 0.64               | 16.2 | 1.72               | 43.7 |
| PB-SFFX-0810  | 22775-0810 | 20289556 | 1/2          | 12.7 | 7/8-14          | 1                 | 25 | 0.74               | 18.8 | 1.84               | 46.7 |
| PB-SFFX-1008  | 22775-1008 | 20289557 | 5/8          | 15.9 | 3/4-16          | 7/8               | 22 | 0.70               | 17.7 | 2.27               | 57.7 |
| PB-SFFX-1010  | 22775-1010 | 20283084 | 5/8          | 15.9 | 7/8-14          | 1                 | 25 | 0.75               | 19.0 | 2.33               | 59.2 |
| PB-SFFX-1212  | 22775-1212 | 20282725 | 3/4          | 19.0 | 1 1/16-14       | 1 1/4             | 32 | 0.82               | 20.9 | 2.42               | 61.5 |

## SAE 45° Flare

Male

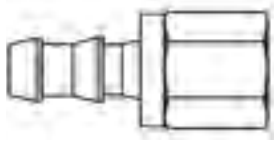


| Descriptive # | Product #  | SAP #    | Hose Size ID |     | Thread Size (A) | Hex-1 Wrench Size |    | Cut-Off Length (C) |      | Overall Length (L) |      |
|---------------|------------|----------|--------------|-----|-----------------|-------------------|----|--------------------|------|--------------------|------|
|               |            |          | in.          | mm  |                 | in.               | mm | in.                | mm   | in.                | mm   |
| PB-SFM-0606   | 22785-0606 | 20282770 | 3/8          | 9.5 | 5/8-18          | 5/8               | 16 | 0.86               | 21.8 | 1.83               | 46.5 |

**“PB” Push-On Brass Fittings (for use with Insta-Grip™ 300, Insta-Grip™ HT 300, Insta-Grip™ TC & FLEXA-Grip™ Hose)**  
Continued

## SAE 45° Inverted Flare

Female



| Descriptive # | Product #  | SAP #    | Hose Size ID |      | Thread Size (A) | Hex-1 Wrench Size |    | Cut-Off Length (C) |      | Overall Length (L) |      |
|---------------|------------|----------|--------------|------|-----------------|-------------------|----|--------------------|------|--------------------|------|
|               |            |          | in.          | mm   |                 | in.               | mm | in.                | mm   | in.                | mm   |
| PB-SIF-0403   | 22790-0403 | 20289544 | 1/4          | 6.4  | 3/8-24          | 1/2               | 13 | 0.25               | 6.4  | 1.12               | 28.5 |
| PB-SIF-0404   | 22790-0404 | 20283090 | 1/4          | 6.4  | 7/16-24         | 5/8               | 16 | 0.23               | 5.8  | 1.14               | 29.0 |
| PB-SIF-0405   | 22790-0405 | 20289545 | 1/4          | 6.4  | 1/2-20          | 9/16              | 14 | 0.26               | 6.7  | 1.18               | 30.0 |
| PB-SIF-0605   | 22790-0605 | 20289546 | 3/8          | 9.5  | 1/2-20          | 5/8               | 16 | 0.30               | 7.6  | 1.32               | 33.5 |
| PB-SIF-0606   | 22790-0606 | 20282734 | 3/8          | 9.5  | 5/8-18          | 3/4               | 19 | 0.32               | 8.2  | 1.35               | 34.3 |
| PB-SIF-0808   | 22790-0808 | 20283091 | 1/2          | 12.7 | 3/4-18          | 7/8               | 22 | 0.65               | 16.4 | 1.73               | 43.9 |

## SAE 45° Inverted Flare

Male



| Descriptive # | Product #  | SAP #    | Hose Size ID |      | Thread Size (A) | Hex-1 Wrench Size |    | Cut-Off Length (C) |      | Overall Length (L) |      |
|---------------|------------|----------|--------------|------|-----------------|-------------------|----|--------------------|------|--------------------|------|
|               |            |          | in.          | mm   |                 | in.               | mm | in.                | mm   | in.                | mm   |
| PB-SIM-0403   | 22795-0403 | 20289548 | 1/4          | 6.4  | 3/8-24          | 7/16              | 11 | 0.69               | 17.5 | 1.56               | 39.6 |
| PB-SIM-0404   | 22795-0404 | 20283085 | 1/4          | 6.4  | 7/16-24         | 7/16              | 11 | 0.69               | 17.5 | 1.56               | 39.6 |
| PB-SIM-0405   | 22795-0405 | 20283086 | 1/4          | 6.4  | 1/2-20          | 1/2               | 13 | 0.75               | 19.1 | 1.62               | 41.2 |
| PB-SIM-0505   | 22795-0505 | 20283087 | 5/16         | 7.9  | 1/2-20          | 1/2               | 13 | 0.75               | 19.1 | 1.62               | 41.2 |
| PB-SIM-0506   | 22795-0506 | 20283088 | 5/16         | 7.9  | 5/8-18          | 5/8               | 16 | 0.76               | 19.3 | 1.63               | 41.4 |
| PB-SIM-0605   | 22795-0605 | 20282730 | 3/8          | 9.5  | 1/2-20          | 1/2               | 13 | 0.75               | 19.1 | 1.72               | 43.7 |
| PB-SIM-0606   | 22795-0606 | 20282731 | 3/8          | 9.5  | 5/8-18          | 5/8               | 16 | 0.79               | 20.1 | 1.76               | 44.7 |
| PB-SIM-0808   | 22795-0808 | 20283089 | 1/2          | 12.7 | 3/4-18          | 3/4               | 19 | 0.87               | 22.1 | 1.84               | 46.7 |
| PB-SIM-1010   | 22795-1010 | 20289550 | 5/8          | 15.9 | 7/8-18          | 1                 | 25 | 0.90               | 22.9 | 2.35               | 59.7 |

# A/C Fitting Nomenclature

| Cool Clip® Fitting Style | Family | Fitting Family Description            | Gender | Swivel | Valve (V) | Attribute             |
|--------------------------|--------|---------------------------------------|--------|--------|-----------|-----------------------|
| CB12VS                   | CB     | Compressor Pad Block                  |        |        | R12       | S=Single              |
| CB12VSR                  | CB     |                                       |        |        | R12       | SR=Single Reversed    |
| COTF                     | COT    | Compressor O-Ring Tube                | F      | Yes    |           |                       |
| COTF134V                 | COT    |                                       | F      | Yes    | R134a     |                       |
| FTBO                     | FT     | Flareless Tube                        |        |        |           | BO=Brase On           |
| FTM                      | FT     |                                       | M      |        |           |                       |
| FTMM                     | FT     |                                       | M      |        |           | M=Metric              |
| FTN                      | FT     |                                       |        |        |           | N=Nut                 |
| FTS                      | FT     |                                       |        |        |           | S=Sleeve              |
| FTSM                     | FT     |                                       |        |        |           | S=Sleeve, M=Metric    |
| FSLF                     | FSL    | Ford Spring Lock                      | F      |        |           |                       |
| FSLM                     | FSL    |                                       | M      |        |           |                       |
| HM                       | HM     | Hose Mender                           |        |        |           |                       |
| HM12V                    | HM     |                                       |        |        | R12       |                       |
| HM134V                   | HM     |                                       |        |        | R134a     |                       |
| HMSG                     | HM     |                                       |        |        |           | SG=Sight Glass        |
| HMT                      | HM     |                                       |        |        |           | T=Tee                 |
| ILOTORA                  | ILOT   | Inline Orifice Tube                   |        |        |           | ORA=Orange            |
| ILOTRED                  | ILOT   |                                       |        |        |           | RED=Red               |
| ILOTBLU                  | ILOT   |                                       |        |        |           | BLU=Blue              |
| ILOTBLK                  | ILOT   |                                       |        |        |           | BLK=Black             |
| ILOTWHI                  | ILOT   |                                       |        |        |           | WHI=White             |
| OFFX                     | OF     | O-Ring Face Seal (SAE J1453 ORS/ORFS) | F      | X      |           |                       |
| OIM                      | OI     | O-Ring Insert                         | M      |        |           |                       |
| OIMB                     | OI     |                                       | M      |        |           | B=Bulkhead            |
| OIM134V                  | OI     |                                       | M      |        | R134a     |                       |
| OTF                      | OT     | O-Ring Tube                           | F      | Yes    |           |                       |
| OTF12V                   | OT     |                                       | F      | Yes    | R12       |                       |
| OTF134V                  | OT     |                                       | F      | Yes    | R134a     |                       |
| OTF134VHS                | OT     |                                       | F      | Yes    | R134a     | HS=High Pressure Side |
| OTM                      | OT     |                                       | M      | Yes    |           |                       |
| OTMLP                    | OT     |                                       | M      | Yes    |           | LP=Long Pilot         |
| OTM134V                  | OT     |                                       | M      | Yes    | R134a     |                       |
| SFFX                     | SF     | SAE 45° J512 Flare                    | F      | X      |           |                       |
| SFM                      | SF     |                                       | M      |        |           |                       |
| SWA                      | SW     | Sealing Washer                        |        |        |           | A=Accumulator         |
| SWCN                     | SW     |                                       |        |        |           | CN=Compressor Narrow  |
| SWCW                     | SW     |                                       |        |        |           | CW=Compressor Wide    |
| VC12V                    | VC     | Valve Cap                             |        |        | R12       |                       |
| VC134VHS                 | VC     |                                       |        |        | R134a     | HS=High Pressure Side |
| VC134VLS                 | VC     |                                       |        |        | R134a     | LS=Low Pressure Side  |

## Additional Prefix & Suffix:

45 = 45° Elbow  
 45B = 45° Block Elbow  
 90 = 90° Elbow  
 90B = 90° Block Elbow  
 180 = 180° Elbow  
 A = Aluminum

Part # GC-OTF134V45  
 134V=R134a Valve  
 45 = 45° Elbow



OTF = O-Ring Tube Female

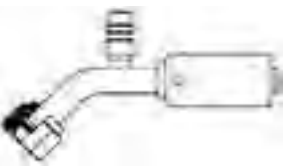
# How to Use the Fitting Tables

This section lists ALL fittings that are compatible with the following hoses:

| Hose Family | Hose Descriptive          |                                                                                                                                                                                                                                                                                                                                      |
|-------------|---------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| G4826       | GALAXY® G4826 (SAE J2064) | The Continental ContiTech hose, compatible with each fitting style in this section, is shown at the right, above the “Compatible Hose Family” heading.<br><br>The fitting styles are different for each hose family. The fittings listed in each “Compatible Hose Family” section are the only approved fittings for the hose shown. |
| G4867       | GALAXY® G4867 (SAE J2064) |                                                                                                                                                                                                                                                                                                                                      |
| G4890       | GALAXY® G4890 (SAE J2064) |                                                                                                                                                                                                                                                                                                                                      |

Be sure to use only those fittings shown for the hose families listed in the heading.

“AC” (Crimp) Fittings – For use with GALAXY® G4826 (5/16"-5/8") & G4867 (3/4") Hose

| Fitting Description                                                                |                   |            |          |              |       |             |          |    |             |    |           | Compatible Hose Family |  |
|------------------------------------------------------------------------------------|-------------------|------------|----------|--------------|-------|-------------|----------|----|-------------|----|-----------|------------------------|--|
|  | Descriptive #     | Product #  | SAP #    | Hose Size ID |       | Thread Size | Drop (D) |    | Cut-Off (R) |    | Valve (V) |                        |  |
|                                                                                    |                   |            |          | in.          | mm    |             | in.      | mm | in.         | mm | in.       | mm                     |  |
|                                                                                    | AC-OTF134V45-0606 | 50663-0606 | 20307056 | 5/16         | 7.90  | 5/8-18      | 0.55     | 14 | 1.61        | 41 | 0.63      | 16                     |  |
|                                                                                    | AC-OTF134V45-0808 | 50663-0808 | 20306728 | 13/32        | 10.30 | 3/4-16      | 0.63     | 16 | 1.61        | 41 | 0.63      | 16                     |  |
|                                                                                    | AC-OTF134V45-1010 | 50663-1010 | 20307057 | 1/2          | 12.70 | 7/8-14      | 0.87     | 22 | 1.73        | 44 | 0.51      | 13                     |  |
|                                                                                    | AC-OTF134V45-1210 | 50663-1210 | 20306729 | 5/8          | 15.90 | 7/8-14      | 0.94     | 24 | 1.89        | 48 | 0.51      | 13                     |  |
|                                                                                    | AC-OTF134V45-1212 | 50663-1212 | 20307058 | 5/8          | 15.90 | 1 1/16-14   | 0.94     | 24 | 1.89        | 48 | 0.51      | 13                     |  |
|                                                                                    | AC-OTF134V45-1412 | 50663-1412 | 20307059 | 3/4          | 19.05 | 1 1/16-14   | 0.94     | 24 | 1.89        | 48 | 0.51      | 13                     |  |

“AC” (Crimp) Fittings - For use with GALAXY® G4826 (5/16"-5/8") & G4867 (3/4") Hose

## Compressor O-Ring Tube

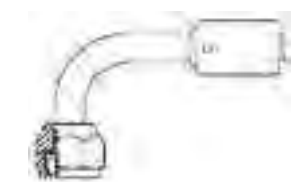
Female | 45° Elbow



| Descriptive #  | Product #  | SAP #    | Hose Size ID |       | Thread Size | Drop (D) |    | Cut-Off (R) |    | Valve (V) |    |
|----------------|------------|----------|--------------|-------|-------------|----------|----|-------------|----|-----------|----|
|                |            |          | in.          | mm    |             | in.      | mm | in.         | mm | in.       | mm |
| AC-COTF45-0810 | 50133-0810 | 20306551 | 13/32        | 10.30 | 1-14        | 1.10     | 28 | 2.01        | 51 |           |    |
| AC-COTF45-1010 | 50133-1010 | 20306545 | 1/2          | 12.70 | 1-14        | 1.26     | 32 | 1.38        | 35 |           |    |
| AC-COTF45-1210 | 50133-1210 | 20306546 | 5/8          | 15.90 | 1-14        | 0.67     | 17 | 1.26        | 32 |           |    |

## Compressor O-Ring Tube

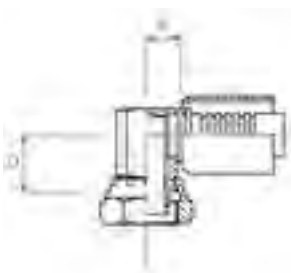
Female | 90° Elbow



| Descriptive #  | Product #  | SAP #    | Hose Size ID |       | Thread Size | Drop (D) |    | Cut-Off (R) |    | Valve (V) |    |
|----------------|------------|----------|--------------|-------|-------------|----------|----|-------------|----|-----------|----|
|                |            |          | in.          | mm    |             | in.      | mm | in.         | mm | in.       | mm |
| AC-COTF90-0810 | 50135-0810 | 20306547 | 13/32        | 10.30 | 1-14        | 1.93     | 49 | 1.77        | 45 |           |    |
| AC-COTF90-1010 | 50135-1010 | 20306548 | 1/2          | 12.70 | 1-14        | 2.20     | 56 | 1.77        | 45 |           |    |
| AC-COTF90-1210 | 50135-1210 | 20306549 | 5/8          | 15.90 | 1-14        | 2.72     | 69 | 2.36        | 60 |           |    |

## Compressor O-Ring Tube

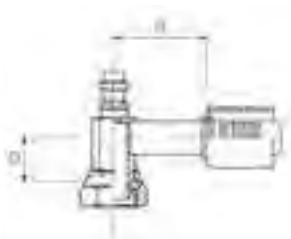
Female | 90° Block Elbow



| Descriptive #   | Product #  | SAP #    | Hose Size ID |       | Thread Size | Drop (D) |    | Cut-Off (R) |    | Valve (V) |    |
|-----------------|------------|----------|--------------|-------|-------------|----------|----|-------------|----|-----------|----|
|                 |            |          | in.          | mm    |             | in.      | mm | in.         | mm | in.       | mm |
| AC-COTF90B-0810 | 50137-0810 | 20306610 | 13/32        | 10.30 | 1-14        | 0.83     | 21 | 0.94        | 24 |           |    |
| AC-COTF90B-1010 | 50137-1010 | 20306611 | 1/2          | 12.70 | 1-14        | 0.83     | 21 | 0.94        | 24 |           |    |
| AC-COTF90B-1210 | 50137-1210 | 20306612 | 5/8          | 15.90 | 1-14        | 0.83     | 21 | 1.06        | 27 |           |    |

## Compressor O-Ring Tube

Female | R134a Valve | 90° Block Elbow



| Descriptive #       | Product #  | SAP #    | Hose Size ID |       | Thread Size | Drop (D) |    | Cut-Off (R) |    | Valve (V) |    |
|---------------------|------------|----------|--------------|-------|-------------|----------|----|-------------|----|-----------|----|
|                     |            |          | in.          | mm    |             | in.      | mm | in.         | mm | in.       | mm |
| AC-COTF134V90B-0810 | 50145-0810 | 20306990 | 13/32        | 10.30 | 1-14        | 0.83     | 21 | 0.94        | 24 | 0.63      | 16 |
| AC-COTF134V90B-1010 | 50145-1010 | 20306991 | 1/2          | 12.70 | 1-14        | 0.83     | 21 | 0.94        | 24 | 0.51      | 13 |
| AC-COTF134V90B-1210 | 50145-1210 | 20306992 | 5/8          | 15.90 | 1-14        | 0.83     | 21 | 1.06        | 27 | 0.51      | 13 |

“AC” (Crimp) Fittings - For use with GALAXY® G4826 (5/16"-5/8") & G4867 (3/4") Hose

Flareless Tube

Male



| Descriptive # | Product #  | SAP #    | Hose Size ID |       | Thread Size | Drop (D) |    | Cut-Off (R) |    | Valve (V) |    |
|---------------|------------|----------|--------------|-------|-------------|----------|----|-------------|----|-----------|----|
|               |            |          | in.          | mm    |             | in.      | mm | in.         | mm | in.       | mm |
| AC-FTM-0606   | 50230-0606 | 20306613 | 5/16         | 7.90  | 5/8-18      |          |    | 1.46        | 37 |           |    |
| AC-FTM-0608   | 50230-0608 | 20306614 | 5/16         | 7.90  | 3/4-16      |          |    | 1.61        | 41 |           |    |
| AC-FTM-0806   | 50230-0806 | 20306615 | 13/32        | 10.30 | 5/8-18      |          |    | 1.61        | 41 |           |    |
| AC-FTM-0808   | 50230-0808 | 20306616 | 13/32        | 10.30 | 3/4-16      |          |    | 1.61        | 41 |           |    |
| AC-FTM-0810   | 50230-0810 | 20306617 | 13/32        | 10.30 | 7/8-14      |          |    | 2.13        | 54 |           |    |
| AC-FTM-1008   | 50230-1008 | 20306618 | 1/2          | 12.70 | 3/4-16      |          |    | 2.13        | 54 |           |    |
| AC-FTM-1010   | 50230-1010 | 20306619 | 1/2          | 12.70 | 7/8-14      |          |    | 2.13        | 54 |           |    |
| AC-FTM-1210   | 50230-1210 | 20306620 | 5/8          | 15.90 | 7/8-14      |          |    | 2.36        | 60 |           |    |
| AC-FTM-1212   | 50230-1212 | 20306621 | 5/8          | 15.90 | 1 1/16-14   |          |    | 2.36        | 60 |           |    |

Flareless Tube

Male | 90° Block Elbow



| Descriptive #  | Product #  | SAP #    | Hose Size ID |       | Thread Size | Drop (D) |    | Cut-Off (R) |    | Valve (V) |    |
|----------------|------------|----------|--------------|-------|-------------|----------|----|-------------|----|-----------|----|
|                |            |          | in.          | mm    |             | in.      | mm | in.         | mm | in.       | mm |
| AC-FTM90B-0606 | 50235-0606 | 20306622 | 5/16         | 7.90  | 5/8-18      | 1.50     | 38 | 1.06        | 27 |           |    |
| AC-FTM90B-0808 | 50235-0808 | 20306623 | 13/32        | 10.30 | 3/4-16      | 1.73     | 44 | 1.26        | 32 |           |    |
| AC-FTM90B-0810 | 50235-0810 | 20306624 | 13/32        | 10.30 | 7/8-14      | 2.01     | 51 | 1.50        | 38 |           |    |
| AC-FTM90B-1008 | 50235-1008 | 20306625 | 1/2          | 12.70 | 3/4-16      | 2.01     | 51 | 1.50        | 38 |           |    |
| AC-FTM90B-1010 | 50235-1010 | 20306626 | 1/2          | 12.70 | 7/8-14      | 2.01     | 51 | 1.50        | 38 |           |    |
| AC-FTM90B-1210 | 50235-1210 | 20306627 | 5/8          | 15.90 | 7/8-14      | 2.36     | 60 | 2.36        | 60 |           |    |
| AC-FTM90B-1212 | 50235-1212 | 20306628 | 5/8          | 15.90 | 1 1/16-14   | 2.36     | 60 | 2.36        | 60 |           |    |

Flareless Tube

Male | Metric



| Descriptive # | Product #  | SAP #    | Hose Size ID |       | Thread Size | Drop (D) |    | Cut-Off (R) |    | Valve (V) |    |
|---------------|------------|----------|--------------|-------|-------------|----------|----|-------------|----|-----------|----|
|               |            |          | in.          | mm    |             | in.      | mm | in.         | mm | in.       | mm |
| AC-FTMM-0608  | 50240-0608 | 20306629 | 5/16         | 7.90  | 5/8-18      |          |    | 1.61        | 41 |           |    |
| AC-FTMM-0812  | 50240-0812 | 20306630 | 13/32        | 10.30 | 3/4-16      |          |    | 2.13        | 54 |           |    |
| AC-FTMM-1015  | 50240-1015 | 20306631 | 1/2          | 12.70 | 7/8-14      |          |    | 2.36        | 60 |           |    |



“AC” (Crimp) Fittings - For use with GALAXY® G4826 (5/16"-5/8") & G4867 (3/4") Hose

## Hose Mender



| Descriptive # | Product #  | SAP #    | Hose Size ID |       | Thread Size | Drop (D) |    | Cut-Off (R) |    | Valve (V) |    |
|---------------|------------|----------|--------------|-------|-------------|----------|----|-------------|----|-----------|----|
|               |            |          | in.          | mm    |             | in.      | mm | in.         | mm | in.       | mm |
| AC-HM-0606    | 50350-0606 | 20306643 | 5/16         | 7.90  |             |          |    | 1.73        | 44 |           |    |
| AC-HM-0608    | 50350-0608 | 20306644 | 5/16         | 7.90  |             |          |    | 1.73        | 44 |           |    |
| AC-HM-0808    | 50350-0808 | 20306645 | 13/32        | 10.30 |             |          |    | 1.61        | 41 |           |    |
| AC-HM-0810    | 50350-0810 | 20306646 | 13/32        | 10.30 |             |          |    | 1.73        | 44 |           |    |
| AC-HM-1010    | 50350-1010 | 20306647 | 1/2          | 12.70 |             |          |    | 1.73        | 44 |           |    |
| AC-HM-1210    | 50350-1210 | 20306648 | 5/8          | 15.90 |             |          |    | 1.73        | 44 |           |    |
| AC-HM-1212    | 50350-1212 | 20306649 | 5/8          | 15.90 |             |          |    | 2.01        | 51 |           |    |

## Hose Mender

90° Elbow



| Descriptive # | Product #  | SAP #    | Hose Size ID |       | Thread Size | Drop (D) |    | Cut-Off (R) |    | Valve (V) |    |
|---------------|------------|----------|--------------|-------|-------------|----------|----|-------------|----|-----------|----|
|               |            |          | in.          | mm    |             | in.      | mm | in.         | mm | in.       | mm |
| AC-HM90-0606  | 50355-0606 | 20306650 | 5/16         | 7.90  |             | 0.98     | 25 | 0.98        | 25 |           |    |
| AC-HM90-0808  | 50355-0808 | 20306651 | 13/32        | 10.30 |             | 1.73     | 44 | 1.73        | 44 |           |    |
| AC-HM90-1010  | 50355-1010 | 20306652 | 1/2          | 12.70 |             | 2.24     | 57 | 2.24        | 57 |           |    |
| AC-HM90-1212  | 50355-1212 | 20306653 | 5/8          | 15.90 |             | 2.64     | 67 | 2.64        | 67 |           |    |

## Hose Mender

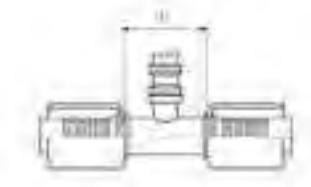
R12 Valve



| Descriptive # | Product #  | SAP #    | Hose Size ID |       | Thread Size | Drop (D) |    | Cut-Off (R) |    | Valve (V) |      |
|---------------|------------|----------|--------------|-------|-------------|----------|----|-------------|----|-----------|------|
|               |            |          | in.          | mm    |             | in.      | mm | in.         | mm | in.       | mm   |
| AC-HM12V-0606 | 50365-0606 | 20306658 | 5/16         | 7.90  |             |          |    | 1.61        | 41 | 1/4       | 6.35 |
| AC-HM12V-0808 | 50365-0808 | 20306659 | 13/32        | 10.30 |             |          |    | 1.73        | 44 | 1/4       | 6.35 |
| AC-HM12V-1010 | 50365-1010 | 20306670 | 1/2          | 12.70 |             |          |    | 1.61        | 41 | 1/4       | 6.35 |
| AC-HM12V-1212 | 50365-1212 | 20306671 | 5/8          | 15.90 |             |          |    | 1.73        | 44 | 1/4       | 6.35 |

## Hose Mender

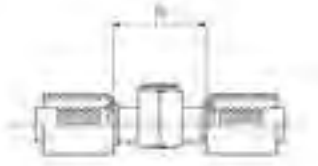
R134a Valve



| Descriptive #  | Product #  | SAP #    | Hose Size ID |       | Thread Size | Drop (D) |    | Cut-Off (R) |    | Valve (V) |    |
|----------------|------------|----------|--------------|-------|-------------|----------|----|-------------|----|-----------|----|
|                |            |          | in.          | mm    |             | in.      | mm | in.         | mm | in.       | mm |
| AC-HM134V-0606 | 50370-0606 | 20306672 | 5/16         | 7.90  |             |          |    | 1.73        | 44 | 0.63      | 16 |
| AC-HM134V-0808 | 50370-0808 | 20306673 | 13/32        | 10.30 |             |          |    | 1.73        | 44 | 0.63      | 16 |
| AC-HM134V-1010 | 50370-1010 | 20306674 | 1/2          | 12.70 |             |          |    | 1.73        | 44 | 0.51      | 13 |
| AC-HM134V-1212 | 50370-1212 | 20306675 | 5/8          | 15.90 |             |          |    | 2.01        | 47 | 0.51      | 13 |

"AC" (Crimp) Fittings - For use with GALAXY® G4826 (5/16"-5/8") & G4867 (3/4") Hose

## Hose Mender with Sight Glass



| Descriptive # | Product #  | SAP #    | Hose Size ID |      | Thread Size | Drop (D) |    | Cut-Off (R) |    | Valve (V) |    |
|---------------|------------|----------|--------------|------|-------------|----------|----|-------------|----|-----------|----|
|               |            |          | in.          | mm   |             | in.      | mm | in.         | mm | in.       | mm |
| AC-HMSG-0606  | 50375-0606 | 20306993 | 5/16         | 7.90 |             |          |    | 1.61        | 41 |           |    |

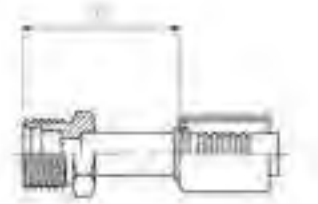
## Hose Mender, Tee



| Descriptive # | Product #  | SAP #    | Hose Size ID 1 & 2 |       | Hose ID 3 |       | Drop (D) |    | Cut-Off (R) |    | Valve (V) |    |
|---------------|------------|----------|--------------------|-------|-----------|-------|----------|----|-------------|----|-----------|----|
|               |            |          | in.                | mm    | in.       | mm    | in.      | mm | in.         | mm | in.       | mm |
| AC-HMT-0606   | 50380-0606 | 20306676 | 5/16               | 7.90  | 5/16      | 7.90  | 0.98     | 25 | 1.93        | 49 |           |    |
| AC-HMT-0808   | 50380-0808 | 20306677 | 13/32              | 10.30 | 13/32     | 10.30 | 1.26     | 32 | 2.05        | 52 |           |    |
| AC-HMT-1010   | 50380-1010 | 20306678 | 1/2                | 12.70 | 1/2       | 12.70 | 1.26     | 32 | 2.24        | 57 |           |    |
| AC-HMT-1210   | 50380-1210 | 20306994 | 5/8                | 15.90 | 1/2       | 12.70 | 1.38     | 35 | 2.05        | 52 |           |    |
| AC-HMT-1212   | 50380-1212 | 20306679 | 5/8                | 15.90 | 5/8       | 15.90 | 1.26     | 32 | 2.05        | 52 |           |    |

## O-Ring Insert

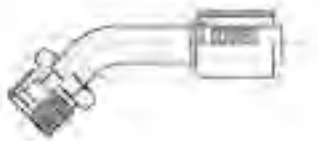
Male



| Descriptive # | Product #  | SAP #    | Hose Size ID |       | Thread Size | Drop (D) |    | Cut-Off (R) |    | Valve (V) |    |
|---------------|------------|----------|--------------|-------|-------------|----------|----|-------------|----|-----------|----|
|               |            |          | in.          | mm    |             | in.      | mm | in.         | mm | in.       | mm |
| AC-OIM-0606   | 50500-0606 | 20306684 | 5/16         | 7.90  | 5/8-18      |          |    | 1.46        | 37 |           |    |
| AC-OIM-0808   | 50500-0808 | 20306685 | 13/32        | 10.30 | 3/4-16      |          |    | 1.61        | 41 |           |    |
| AC-OIM-1010   | 50500-1010 | 20306686 | 1/2          | 12.70 | 7/8-14      |          |    | 2.13        | 54 |           |    |
| AC-OIM-1210   | 50500-1210 | 20306687 | 5/8          | 15.90 | 7/8-14      |          |    | 1.69        | 43 |           |    |
| AC-OIM-1212   | 50500-1212 | 20306688 | 5/8          | 15.90 | 1 1/16-14   |          |    | 2.36        | 60 |           |    |
| AC-OIM-1412   | 50500-1412 | 20307000 | 3/4          | 19.05 | 1 1/16-14   |          |    | 2.36        | 60 |           |    |

## O-Ring Insert

Male | 45° Elbow

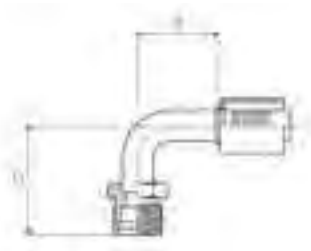


| Descriptive # | Product #  | SAP #    | Hose Size ID |       | Thread Size | Drop (D) |    | Cut-Off (R) |    | Valve (V) |    |
|---------------|------------|----------|--------------|-------|-------------|----------|----|-------------|----|-----------|----|
|               |            |          | in.          | mm    |             | in.      | mm | in.         | mm | in.       | mm |
| AC-OIM45-0606 | 50503-0606 | 20307001 | 5/16         | 7.90  | 5/8-18      | 0.75     | 19 | 0.83        | 21 |           |    |
| AC-OIM45-0808 | 50503-0808 | 20307002 | 13/32        | 10.30 | 3/4-16      | 0.98     | 25 | 0.94        | 24 |           |    |
| AC-OIM45-1010 | 50503-1010 | 20307003 | 1/2          | 12.70 | 7/8-14      | 1.26     | 32 | 1.26        | 32 |           |    |
| AC-OIM45-1212 | 50503-1212 | 20307004 | 5/8          | 15.90 | 1 1/16-14   | 1.38     | 35 | 1.50        | 38 |           |    |
| AC-OIM45-1412 | 50503-1412 | 20307005 | 3/4          | 19.05 | 1 1/16-14   | 1.38     | 35 | 1.50        | 38 |           |    |

“AC” (Crimp) Fittings - For use with GALAXY® G4826 (5/16"-5/8") & G4867 (3/4") Hose

## O-Ring Insert

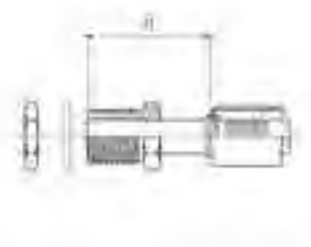
Male | 90° Elbow



| Descriptive # | Product #  | SAP #    | Hose Size ID |       | Thread Size | Drop (D) |    | Cut-Off (R) |    | Valve (V) |    |
|---------------|------------|----------|--------------|-------|-------------|----------|----|-------------|----|-----------|----|
|               |            |          | in.          | mm    |             | in.      | mm | in.         | mm | in.       | mm |
| AC-OIM90-0606 | 50505-0606 | 20306689 | 5/16         | 7.90  | 5/8-18      | 1.50     | 38 | 1.06        | 27 |           |    |
| AC-OIM90-0808 | 50505-0808 | 20306690 | 13/32        | 10.30 | 3/4-16      | 1.73     | 44 | 1.26        | 32 |           |    |
| AC-OIM90-1010 | 50505-1010 | 20306691 | 1/2          | 12.70 | 7/8-14      | 2.01     | 51 | 1.50        | 38 |           |    |
| AC-OIM90-1210 | 50505-1210 | 20307006 | 5/8          | 15.90 | 7/8-14      | 2.17     | 55 | 1.97        | 50 |           |    |
| AC-OIM90-1212 | 50505-1212 | 20307007 | 5/8          | 15.90 | 1 1/16-14   | 2.52     | 64 | 2.36        | 60 |           |    |
| AC-OIM90-1412 | 50505-1412 | 20307008 | 3/4          | 19.05 | 1 1/16-14   | 2.52     | 64 | 2.36        | 60 |           |    |

## O-Ring Insert

Male | Bulkhead



| Descriptive # | Product #  | SAP #    | Hose Size ID |       | Thread Size | Drop (D) |    | Cut-Off (R) |    | Valve (V) |    |
|---------------|------------|----------|--------------|-------|-------------|----------|----|-------------|----|-----------|----|
|               |            |          | in.          | mm    |             | in.      | mm | in.         | mm | in.       | mm |
| AC-OIMB-0606  | 50515-0606 | 20307009 | 5/16         | 7.90  | 5/8-18      |          |    | 2.52        | 64 |           |    |
| AC-OIMB-0808  | 50515-0808 | 20307010 | 13/32        | 10.30 | 3/4-16      |          |    | 2.76        | 70 |           |    |
| AC-OIMB-1010  | 50515-1010 | 20307011 | 1/2          | 12.70 | 7/8-14      |          |    | 2.95        | 75 |           |    |

## O-Ring Insert

Male | Bulkhead | 90° Elbow



| Descriptive #  | Product #  | SAP #    | Hose Size ID |       | Thread Size | Drop (D) |    | Cut-Off (R) |    | Valve (V) |    |
|----------------|------------|----------|--------------|-------|-------------|----------|----|-------------|----|-----------|----|
|                |            |          | in.          | mm    |             | in.      | mm | in.         | mm | in.       | mm |
| AC-OIMB90-0606 | 50520-0606 | 20307012 | 5/16         | 7.90  | 5/8-18      | 2.13     | 54 | 1.61        | 41 |           |    |
| AC-OIMB90-0808 | 50520-0808 | 20307013 | 13/32        | 10.30 | 3/4-16      | 2.44     | 62 | 1.73        | 44 |           |    |
| AC-OIMB90-1010 | 50520-1010 | 20307014 | 5/8          | 15.90 | 7/8-14      | 2.52     | 64 | 2.01        | 51 |           |    |

## O-Ring Insert

Male | R134a Valve

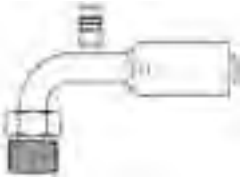


| Descriptive #   | Product #  | SAP #    | Hose Size ID |       | Thread Size | Drop (D) |    | Cut-Off (R) |    | Valve (V) |    |
|-----------------|------------|----------|--------------|-------|-------------|----------|----|-------------|----|-----------|----|
|                 |            |          | in.          | mm    |             | in.      | mm | in.         | mm | in.       | mm |
| AC-OIM134V-0606 | 50530-0606 | 20307015 | 5/16         | 7.90  | 5/8-18      |          |    | 2.44        | 62 | 0.63      | 16 |
| AC-OIM134V-0808 | 50530-0808 | 20307016 | 13/32        | 10.30 | 3/4-16      |          |    | 2.56        | 65 | 0.63      | 16 |
| AC-OIM134V-1010 | 50530-1010 | 20307017 | 1/2          | 12.70 | 7/8-14      |          |    | 1.77        | 45 | 0.51      | 13 |
| AC-OIM134V-1212 | 50530-1212 | 20307018 | 5/8          | 15.90 | 1 1/16-14   |          |    | 2.95        | 75 | 0.51      | 13 |

“AC” (Crimp) Fittings - For use with GALAXY® G4826 (5/16"-5/8") & G4867 (3/4") Hose

## O-Ring Insert

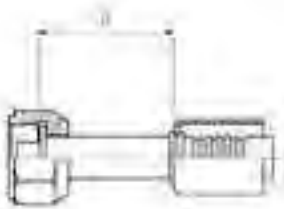
Male | R134a Valve | 90° Elbow



| Descriptive #     | Product #  | SAP #    | Hose Size ID |       | Thread Size | Drop (D) |    | Cut-Off (R) |    | Valve (V) |    |
|-------------------|------------|----------|--------------|-------|-------------|----------|----|-------------|----|-----------|----|
|                   |            |          | in.          | mm    |             | in.      | mm | in.         | mm | in.       | mm |
| AC-OIM134V90-0606 | 50535-0606 | 20307019 | 5/16         | 7.90  | 5/8-18      | 1.61     | 41 | 2.13        | 54 | 0.63      | 16 |
| AC-OIM134V90-0808 | 50535-0808 | 20307020 | 13/32        | 10.30 | 3/4-16      | 1.89     | 48 | 2.13        | 54 | 0.63      | 16 |
| AC-OIM134V90-1010 | 50535-1010 | 20307021 | 1/2          | 12.70 | 7/8-14      | 2.13     | 54 | 2.36        | 60 | 0.51      | 13 |

## O-Ring Tube

Female | Swivel



| Descriptive # | Product #  | SAP #    | Hose Size ID |       | Thread Size | Drop (D) |    | Cut-Off (R) |    | Valve (V) |    |
|---------------|------------|----------|--------------|-------|-------------|----------|----|-------------|----|-----------|----|
|               |            |          | in.          | mm    |             | in.      | mm | in.         | mm | in.       | mm |
| AC-OTF-0605   | 50600-0605 | 20307022 | 5/16         | 7.90  | 9/16-18     |          |    | 1.30        | 33 |           |    |
| AC-OTF-0606   | 50600-0606 | 20306692 | 5/16         | 7.90  | 5/8-18      |          |    | 1.38        | 35 |           |    |
| AC-OTF-0608   | 50600-0608 | 20306693 | 5/16         | 7.90  | 3/4-16      |          |    | 1.50        | 38 |           |    |
| AC-OTF-0806   | 50600-0806 | 20307023 | 13/32        | 10.30 | 5/8-18      |          |    | 1.50        | 38 |           |    |
| AC-OTF-0808   | 50600-0808 | 20306694 | 13/32        | 10.30 | 3/4-16      |          |    | 1.50        | 38 |           |    |
| AC-OTF-1008   | 50600-1008 | 20307024 | 1/2          | 12.70 | 3/4-16      |          |    | 1.69        | 43 |           |    |
| AC-OTF-1010   | 50600-1010 | 20306695 | 1/2          | 12.70 | 7/8-14      |          |    | 1.69        | 43 |           |    |
| AC-OTF-1012   | 50600-1012 | 20307025 | 1/2          | 12.70 | 1 1/16-14   |          |    | 1.81        | 46 |           |    |
| AC-OTF-1210   | 50600-1210 | 20306696 | 5/8          | 15.90 | 7/8-14      |          |    | 1.81        | 46 |           |    |
| AC-OTF-1212   | 50600-1212 | 20306697 | 5/8          | 15.90 | 1 1/16-14   |          |    | 1.81        | 46 |           |    |
| AC-OTF-1412   | 50600-1412 | 20307026 | 3/4          | 19.05 | 1 1/16-14   |          |    | 1.81        | 46 |           |    |

## O-Ring Tube

Female | Swivel | 45° Elbow

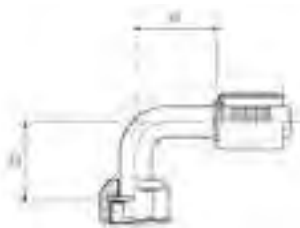


| Descriptive # | Product #  | SAP #    | Hose Size ID |       | Thread Size | Drop (D) |    | Cut-Off (R) |    | Valve (V) |    |
|---------------|------------|----------|--------------|-------|-------------|----------|----|-------------|----|-----------|----|
|               |            |          | in.          | mm    |             | in.      | mm | in.         | mm | in.       | mm |
| AC-OTF45-0606 | 50603-0606 | 20306698 | 5/16         | 7.90  | 5/8-18      | 0.55     | 14 | 0.83        | 21 |           |    |
| AC-OTF45-0806 | 50603-0806 | 20307027 | 13/32        | 10.30 | 5/8-18      | 0.63     | 16 | 0.94        | 24 |           |    |
| AC-OTF45-0808 | 50603-0808 | 20306699 | 13/32        | 10.30 | 3/4-16      | 0.63     | 16 | 0.94        | 24 |           |    |
| AC-OTF45-1010 | 50603-1010 | 20306700 | 1/2          | 12.70 | 7/8-14      | 0.87     | 22 | 1.26        | 32 |           |    |
| AC-OTF45-1210 | 50603-1210 | 20306701 | 5/8          | 15.90 | 7/8-14      | 0.94     | 24 | 1.50        | 38 |           |    |
| AC-OTF45-1212 | 50603-1212 | 20306702 | 5/8          | 15.90 | 1 1/16-14   | 0.94     | 24 | 1.50        | 38 |           |    |
| AC-OTF45-1412 | 50603-1412 | 20307028 | 3/4          | 19.05 | 1 1/16-14   | 0.94     | 24 | 1.50        | 38 |           |    |

“AC” (Crimp) Fittings - For use with GALAXY® G4826 (5/16"-5/8") & G4867 (3/4") Hose

## O-Ring Tube

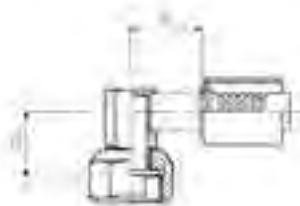
Female | Swivel | 90° Elbow



| Descriptive # | Product #  | SAP #    | Hose Size ID |       | Thread Size | Drop (D) |    | Cut-Off (R) |    | Valve (V) |    |
|---------------|------------|----------|--------------|-------|-------------|----------|----|-------------|----|-----------|----|
|               |            |          | in.          | mm    |             | in.      | mm | in.         | mm | in.       | mm |
| AC-OTF90-0605 | 50605-0605 | 20307029 | 5/16         | 7.90  | 9/16-18     | 1.10     | 28 | 1.26        | 32 |           |    |
| AC-OTF90-0606 | 50605-0606 | 20306703 | 5/16         | 7.90  | 5/8-18      | 1.10     | 28 | 1.06        | 27 |           |    |
| AC-OTF90-0608 | 50605-0608 | 20306704 | 5/16         | 7.90  | 3/4-16      | 1.30     | 33 | 1.26        | 32 |           |    |
| AC-OTF90-0806 | 50605-0806 | 20307030 | 13/32        | 10.30 | 5/8-18      | 1.30     | 33 | 1.26        | 32 |           |    |
| AC-OTF90-0808 | 50605-0808 | 20306705 | 13/32        | 10.30 | 3/4-16      | 1.30     | 33 | 1.26        | 32 |           |    |
| AC-OTF90-1008 | 50605-1008 | 20307031 | 1/2          | 12.70 | 3/4-16      | 1.50     | 38 | 1.50        | 38 |           |    |
| AC-OTF90-1010 | 50605-1010 | 20306706 | 1/2          | 12.70 | 7/8-14      | 1.50     | 38 | 1.50        | 38 |           |    |
| AC-OTF90-1012 | 50605-1012 | 20307032 | 1/2          | 12.70 | 1 1/16-14   | 1.77     | 45 | 1.77        | 45 |           |    |
| AC-OTF90-1210 | 50605-1210 | 20306707 | 5/8          | 15.90 | 7/8-14      | 1.77     | 45 | 1.77        | 45 |           |    |
| AC-OTF90-1212 | 50605-1212 | 20306708 | 5/8          | 15.90 | 1 1/16-14   | 1.77     | 45 | 1.77        | 45 |           |    |
| AC-OTF90-1412 | 50605-1412 | 20307033 | 3/4          | 19.05 | 1 1/16-14   | 1.77     | 45 | 1.77        | 45 |           |    |

## O-Ring Tube

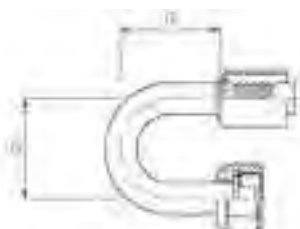
Female | Swivel | 90° Block Elbow



| Descriptive #  | Product #  | SAP #    | Hose Size ID |       | Thread Size | Drop (D) |    | Cut-Off (R) |    | Valve (V) |    |
|----------------|------------|----------|--------------|-------|-------------|----------|----|-------------|----|-----------|----|
|                |            |          | in.          | mm    |             | in.      | mm | in.         | mm | in.       | mm |
| AC-OTF90B-0808 | 50610-0808 | 20306709 | 13/32        | 10.30 | 3/4-16      | 0.75     | 19 | 0.94        | 24 |           |    |
| AC-OTF90B-1010 | 50610-1010 | 20306710 | 1/2          | 12.70 | 7/8-14      | 0.75     | 19 | 0.98        | 25 |           |    |
| AC-OTF90B-1210 | 50610-1210 | 20306711 | 5/8          | 15.90 | 7/8-14      | 0.75     | 19 | 0.98        | 25 |           |    |

## O-Ring Tube

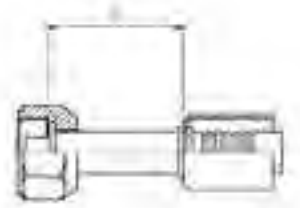
Female | Swivel | 180° Elbow



| Descriptive #  | Product #  | SAP #    | Hose Size ID |       | Thread Size | Drop (D) |    | Cut-Off (R) |    | Valve (V) |    |
|----------------|------------|----------|--------------|-------|-------------|----------|----|-------------|----|-----------|----|
|                |            |          | in.          | mm    |             | in.      | mm | in.         | mm | in.       | mm |
| AC-OTF180-0606 | 50615-0606 | 20307034 | 5/16         | 7.90  | 5/8-18      | 1.61     | 41 | 2.01        | 51 |           |    |
| AC-OTF180-0808 | 50615-0808 | 20307035 | 13/32        | 10.30 | 3/4-16      | 1.73     | 44 | 2.01        | 51 |           |    |
| AC-OTF180-1212 | 50615-1212 | 20307036 | 5/8          | 15.90 | 1 1/16-14   | 2.13     | 54 | 2.99        | 76 |           |    |

## O-Ring Tube

Female | Swivel | Metric



| Descriptive # | Product #  | SAP #    | Hose Size ID |       | Thread Size | Drop (D) |    | Cut-Off (R) |    | Valve (V) |    |
|---------------|------------|----------|--------------|-------|-------------|----------|----|-------------|----|-----------|----|
|               |            |          | in.          | mm    |             | in.      | mm | in.         | mm | in.       | mm |
| AC-OTFM-0616  | 50630-0616 | 20306712 | 5/16         | 7.90  | 16x1.5      |          |    | 1.54        | 39 |           |    |
| AC-OTFM-0618  | 50630-0618 | 20307037 | 5/16         | 7.90  | 18x1.5      |          |    | 1.54        | 39 |           |    |
| AC-OTFM-0620  | 50630-0620 | 20307038 | 5/16         | 7.90  | 20x1.5      |          |    | 1.54        | 39 |           |    |
| AC-OTFM-0820  | 50630-0820 | 20307039 | 13/32        | 10.30 | 20x1.5      |          |    | 1.69        | 43 |           |    |
| AC-OTFM-1022  | 50630-1022 | 20306713 | 1/2          | 12.70 | 22x1.5      |          |    | 1.69        | 43 |           |    |
| AC-OTFM-1024  | 50630-1024 | 20306714 | 1/2          | 12.70 | 24x2.0      |          |    | 1.69        | 43 |           |    |
| AC-OTFM-1227  | 50630-1227 | 20306715 | 5/8          | 15.90 | 27x2.0      |          |    | 1.81        | 46 |           |    |

"AC" (Crimp) Fittings - For use with GALAXY® G4826 (5/16"-5/8") & G4867 (3/4") Hose

## O-Ring Tube

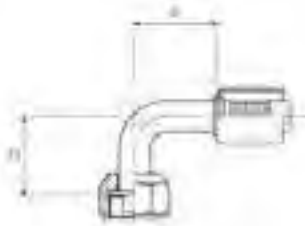
Female | Swivel | Metric | 45° Elbow



| Descriptive #  | Product #  | SAP #    | Hose Size ID |       | Thread Size | Drop (D) |    | Cut-Off (R) |    | Valve (V) |    |
|----------------|------------|----------|--------------|-------|-------------|----------|----|-------------|----|-----------|----|
|                |            |          | in.          | mm    |             | in.      | mm | in.         | mm | in.       | mm |
| AC-OTFM45-0614 | 50633-0614 | 20307040 | 5/16         | 7.90  | 14x1.5      | 0.55     | 14 | 0.98        | 25 |           |    |
| AC-OTFM45-0616 | 50633-0616 | 20307041 | 5/16         | 7.90  | 16x1.5      | 0.55     | 14 | 0.98        | 25 |           |    |
| AC-OTFM45-0618 | 50633-0618 | 20307042 | 5/16         | 7.90  | 18x1.5      | 0.55     | 14 | 0.98        | 25 |           |    |
| AC-OTFM45-0620 | 50633-0620 | 20307043 | 5/16         | 7.90  | 20x1.5      | 0.55     | 14 | 0.98        | 25 |           |    |
| AC-OTFM45-0820 | 50633-0820 | 20307044 | 13/32        | 10.30 | 20x1.5      | 0.63     | 16 | 0.98        | 25 |           |    |
| AC-OTFM45-1022 | 50633-1022 | 20307045 | 1/2          | 12.70 | 22x1.5      | 0.87     | 22 | 1.26        | 32 |           |    |
| AC-OTFM45-1024 | 50633-1024 | 20307046 | 1/2          | 12.70 | 24x2.0      | 0.87     | 22 | 1.26        | 32 |           |    |
| AC-OTFM45-1227 | 50633-1227 | 20307047 | 5/8          | 15.90 | 27x2.0      | 0.94     | 24 | 1.50        | 38 |           |    |

## O-Ring Tube

Female | Swivel | Metric | 90° Elbow



| Descriptive #  | Product #  | SAP #    | Hose Size ID |       | Thread Size | Drop (D) |    | Cut-Off (R) |    | Valve (V) |    |
|----------------|------------|----------|--------------|-------|-------------|----------|----|-------------|----|-----------|----|
|                |            |          | in.          | mm    |             | in.      | mm | in.         | mm | in.       | mm |
| AC-OTFM90-0616 | 50635-0616 | 20306716 | 5/16         | 7.90  | 16x1.5      | 1.10     | 28 | 1.06        | 27 |           |    |
| AC-OTFM90-0618 | 50635-0618 | 20307048 | 5/16         | 7.90  | 18x1.5      | 1.10     | 28 | 1.06        | 27 |           |    |
| AC-OTFM90-0620 | 50635-0620 | 20307049 | 5/16         | 7.90  | 20x1.5      | 1.10     | 28 | 1.06        | 27 |           |    |
| AC-OTFM90-0820 | 50635-0820 | 20307050 | 13/32        | 10.30 | 20x1.5      | 1.30     | 33 | 1.26        | 32 |           |    |
| AC-OTFM90-1022 | 50635-1022 | 20306717 | 1/2          | 12.70 | 22x1.5      | 1.50     | 38 | 1.50        | 38 |           |    |
| AC-OTFM90-1024 | 50635-1024 | 20306718 | 1/2          | 12.70 | 24x2.0      | 1.50     | 38 | 1.50        | 38 |           |    |
| AC-OTFM90-1227 | 50635-1227 | 20306719 | 5/8          | 15.90 | 27x2.0      | 1.77     | 45 | 1.77        | 45 |           |    |

## O-Ring Tube

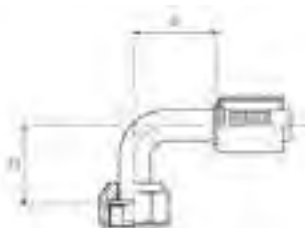
Female | Swivel | R12 Valve



| Descriptive #  | Product #  | SAP #    | Hose Size ID |       | Thread Size | Drop (D) |    | Cut-Off (R) |    | Valve (V) |      |
|----------------|------------|----------|--------------|-------|-------------|----------|----|-------------|----|-----------|------|
|                |            |          | in.          | mm    |             | in.      | mm | in.         | mm | in.       | mm   |
| AC-OTF12V-0606 | 50650-0606 | 20307051 | 5/16         | 7.90  | 5/8-18      |          |    | 1.89        | 48 | 1/4       | 6.35 |
| AC-OTF12V-0808 | 50650-0808 | 20307052 | 13/32        | 10.30 | 3/4-16      |          |    | 1.89        | 48 | 1/4       | 6.35 |
| AC-OTF12V-1010 | 50650-1010 | 20307053 | 1/2          | 12.70 | 7/8-14      |          |    | 2.13        | 54 | 1/4       | 6.35 |

## O-Ring Tube

Female | Swivel | R12 Valve | 90° Elbow



| Descriptive #    | Product #  | SAP #    | Hose Size ID |       | Thread Size | Drop (D) |    | Cut-Off (R) |    | Valve (V) |      |
|------------------|------------|----------|--------------|-------|-------------|----------|----|-------------|----|-----------|------|
|                  |            |          | in.          | mm    |             | in.      | mm | in.         | mm | in.       | mm   |
| AC-OTF12V90-0606 | 50655-0606 | 20306720 | 5/16         | 7.90  | 5/8-18      | 1.10     | 28 | 2.13        | 54 | 1/4       | 6.35 |
| AC-OTF12V90-0808 | 50655-0808 | 20306721 | 13/32        | 10.30 | 3/4-16      | 1.30     | 33 | 2.13        | 54 | 1/4       | 6.35 |
| AC-OTF12V90-1010 | 50655-1010 | 20306722 | 1/2          | 12.70 | 7/8-14      | 1.50     | 38 | 2.36        | 60 | 1/4       | 6.35 |
| AC-OTF12V90-1210 | 50655-1210 | 20306723 | 5/8          | 15.90 | 7/8-14      | 1.73     | 44 | 2.68        | 68 | 1/4       | 6.35 |

“AC” (Crimp) Fittings - For use with GALAXY® G4826 (5/16"-5/8") & G4867 (3/4") Hose

## O-Ring Tube

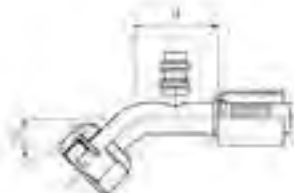
Female | Swivel | R134a Valve



| Descriptive #     | Product #  | SAP #    | Hose Size ID |       | Thread Size | Drop (D) |    | Cut-Off (R) |    | Valve (V) |    |
|-------------------|------------|----------|--------------|-------|-------------|----------|----|-------------|----|-----------|----|
|                   |            |          | in.          | mm    |             | in.      | mm | in.         | mm | in.       | mm |
| AC-OTF134V-0606   | 50660-0606 | 20306724 | 5/16         | 7.90  | 5/8-18      |          |    | 1.89        | 48 | 0.63      | 16 |
| AC-OTF134V-0808   | 50660-0808 | 20306725 | 13/32        | 10.30 | 3/4-16      |          |    | 1.89        | 48 | 0.63      | 16 |
| AC-OTF134V-1010   | 50660-1010 | 20306726 | 1/2          | 12.70 | 7/8-14      |          |    | 2.13        | 54 | 0.51      | 13 |
| AC-OTF134V-1210   | 50660-1210 | 20306727 | 5/8          | 15.90 | 7/8-14      |          |    | 2.24        | 57 | 0.51      | 13 |
| AC-OTF134V-1212   | 50660-1212 | 20307054 | 5/8          | 15.90 | 1 1/16-14   |          |    | 2.24        | 57 | 0.51      | 13 |
| AC-OTF134V-1412   | 50660-1412 | 20307055 | 3/4          | 19.05 | 1 1/16-14   |          |    | 2.24        | 57 | 0.51      | 13 |
| AC-OTF134VHS-1010 | 50675-1010 | 20307063 | 1/2          | 12.70 | 7/8-14      |          |    | 2.13        | 54 | 0.63      | 16 |

## O-Ring Tube

Female | Swivel | R134a Valve | 45° Elbow



| Descriptive #     | Product #  | SAP #    | Hose Size ID |       | Thread Size | Drop (D) |    | Cut-Off (R) |    | Valve (V) |    |
|-------------------|------------|----------|--------------|-------|-------------|----------|----|-------------|----|-----------|----|
|                   |            |          | in.          | mm    |             | in.      | mm | in.         | mm | in.       | mm |
| AC-OTF134V45-0606 | 50663-0606 | 20307056 | 5/16         | 7.90  | 5/8-18      | 0.55     | 14 | 1.61        | 41 | 0.63      | 16 |
| AC-OTF134V45-0808 | 50663-0808 | 20306728 | 13/32        | 10.30 | 3/4-16      | 0.63     | 16 | 1.61        | 41 | 0.63      | 16 |
| AC-OTF134V45-1010 | 50663-1010 | 20307057 | 1/2          | 12.70 | 7/8-14      | 0.87     | 22 | 1.73        | 44 | 0.51      | 13 |
| AC-OTF134V45-1210 | 50663-1210 | 20306729 | 5/8          | 15.90 | 7/8-14      | 0.94     | 24 | 1.89        | 48 | 0.51      | 13 |
| AC-OTF134V45-1212 | 50663-1212 | 20307058 | 5/8          | 15.90 | 1 1/16-14   | 0.94     | 24 | 1.89        | 48 | 0.51      | 13 |
| AC-OTF134V45-1412 | 50663-1412 | 20307059 | 3/4          | 19.05 | 1 1/16-14   | 0.94     | 24 | 1.89        | 48 | 0.51      | 13 |

## O-Ring Tube

Female | Swivel | R134a Valve | 90° Elbow

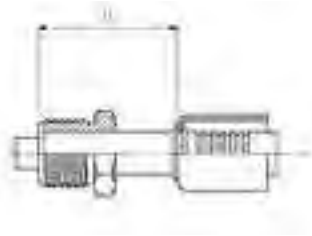


| Descriptive #     | Product #  | SAP #    | Hose Size ID |       | Thread Size | Drop (D) |    | Cut-Off (R) |    | Valve (V) |    |
|-------------------|------------|----------|--------------|-------|-------------|----------|----|-------------|----|-----------|----|
|                   |            |          | in.          | mm    |             | in.      | mm | in.         | mm | in.       | mm |
| AC-OTF134V90-0606 | 50665-0606 | 20306730 | 5/16         | 7.90  | 5/8-18      | 1.10     | 28 | 2.13        | 54 | 0.63      | 16 |
| AC-OTF134V90-0806 | 50665-0806 | 20307060 | 13/32        | 10.30 | 5/8-18      | 1.30     | 33 | 2.13        | 54 | 0.63      | 16 |
| AC-OTF134V90-0808 | 50665-0808 | 20306731 | 13/32        | 10.30 | 3/4-16      | 1.30     | 33 | 2.13        | 54 | 0.63      | 16 |
| AC-OTF134V90-1010 | 50665-1010 | 20306732 | 1/2          | 12.70 | 7/8-14      | 1.50     | 38 | 2.36        | 60 | 0.51      | 13 |
| AC-OTF134V90-1210 | 50665-1210 | 20306733 | 5/8          | 15.90 | 7/8-14      | 1.73     | 44 | 2.68        | 68 | 0.51      | 13 |
| AC-OTF134V90-1212 | 50665-1212 | 20307061 | 5/8          | 15.90 | 1 1/16-14   | 1.73     | 44 | 2.68        | 68 | 0.51      | 13 |
| AC-OTF134V90-1412 | 50665-1412 | 20307062 | 3/4          | 19.05 | 1 1/16-14   | 1.73     | 44 | 2.68        | 68 | 0.51      | 13 |

## “AC” (Crimp) Fittings - For use with GALAXY® G4826 (5/16"-5/8") &amp; G4867 (3/4") Hose

## O-Ring Tube

Male | Swivel



| Descriptive # | Product #  | SAP #    | Hose Size ID |       | Thread Size | Drop (D) |    | Cut-Off (R) |    | Valve (V) |    |
|---------------|------------|----------|--------------|-------|-------------|----------|----|-------------|----|-----------|----|
|               |            |          | in.          | mm    |             | in.      | mm | in.         | mm | in.       | mm |
| AC-OTM-0606   | 50700-0606 | 20306734 | 5/16         | 7.90  | 5/8-18      |          |    | 1.69        | 43 |           |    |
| AC-OTM-0607   | 50700-0607 | 20306735 | 5/16         | 7.90  | 11/16-16    |          |    | 1.69        | 43 |           |    |
| AC-OTM-0608   | 50700-0608 | 20306736 | 5/16         | 7.90  | 3/4-18      |          |    | 1.77        | 45 |           |    |
| AC-OTM-0808   | 50700-0808 | 20306737 | 13/32        | 10.30 | 3/4-18      |          |    | 1.77        | 45 |           |    |
| AC-OTM-1010   | 50700-1010 | 20306738 | 1/2          | 12.70 | 7/8-18      |          |    | 1.89        | 48 |           |    |
| AC-OTM-1012   | 50700-1012 | 20306739 | 1/2          | 12.70 | 1 1/16-16   |          |    | 2.36        | 60 |           |    |
| AC-OTM-1210   | 50700-1210 | 20306740 | 5/8          | 15.90 | 7/8-18      |          |    | 2.36        | 60 |           |    |
| AC-OTM-1212   | 50700-1212 | 20306741 | 5/8          | 15.90 | 1 1/16-16   |          |    | 2.36        | 60 |           |    |

## O-Ring Tube

Male | Swivel | 45° Elbow



| Descriptive # | Product #  | SAP #    | Hose Size ID |       | Thread Size | Drop (D) |    | Cut-Off (R) |    | Valve (V) |    |
|---------------|------------|----------|--------------|-------|-------------|----------|----|-------------|----|-----------|----|
|               |            |          | in.          | mm    |             | in.      | mm | in.         | mm | in.       | mm |
| AC-OTM45-0606 | 50703-0606 | 20306742 | 5/16         | 7.90  | 5/8-18      | 0.87     | 22 | 0.83        | 21 |           |    |
| AC-OTM45-0808 | 50703-0808 | 20306743 | 13/32        | 10.30 | 3/4-18      | 0.98     | 25 | 0.94        | 24 |           |    |
| AC-OTM45-1010 | 50703-1010 | 20306744 | 1/2          | 12.70 | 7/8-18      | 1.06     | 27 | 1.26        | 32 |           |    |
| AC-OTM45-1210 | 50703-1210 | 20306745 | 5/8          | 15.90 | 7/8-18      | 1.18     | 30 | 1.50        | 38 |           |    |
| AC-OTM45-1212 | 50703-1212 | 20306746 | 5/8          | 15.90 | 1 1/16-16   | 1.18     | 30 | 1.50        | 38 |           |    |

## O-Ring Tube

Male | Swivel | 90° Elbow



| Descriptive # | Product #  | SAP #    | Hose Size ID |       | Thread Size | Drop (D) |    | Cut-Off (R) |    | Valve (V) |    |
|---------------|------------|----------|--------------|-------|-------------|----------|----|-------------|----|-----------|----|
|               |            |          | in.          | mm    |             | in.      | mm | in.         | mm | in.       | mm |
| AC-OTM90-0606 | 50705-0606 | 20306747 | 5/16         | 7.90  | 5/8-18      | 1.61     | 41 | 1.06        | 27 |           |    |
| AC-OTM90-0608 | 50705-0608 | 20306748 | 5/16         | 7.90  | 3/4-18      | 1.89     | 48 | 1.26        | 32 |           |    |
| AC-OTM90-0806 | 50705-0806 | 20306749 | 13/32        | 10.30 | 5/8-18      | 1.89     | 48 | 1.26        | 32 |           |    |
| AC-OTM90-0808 | 50705-0808 | 20306750 | 13/32        | 10.30 | 3/4-18      | 1.89     | 48 | 1.26        | 32 |           |    |
| AC-OTM90-1010 | 50705-1010 | 20306751 | 1/2          | 12.70 | 7/8-18      | 2.13     | 54 | 1.50        | 38 |           |    |
| AC-OTM90-1012 | 50705-1012 | 20306752 | 1/2          | 12.70 | 1 1/16-16   | 2.24     | 57 | 1.77        | 45 |           |    |
| AC-OTM90-1210 | 50705-1210 | 20306753 | 5/8          | 15.90 | 7/8-18      | 2.24     | 57 | 1.77        | 45 |           |    |
| AC-OTM90-1212 | 50705-1212 | 20306754 | 5/8          | 15.90 | 1 1/16-16   | 2.24     | 57 | 1.77        | 45 |           |    |



“AC” (Crimp) Fittings - For use with GALAXY® G4826 (5/16"-5/8") & G4867 (3/4") Hose

## O-Ring Tube

Male | Swivel | Long Pilot



| Descriptive # | Product #  | SAP #    | Hose Size ID |       | Thread Size | Drop (D) |    | Cut-Off (R) |    | Valve (V) |    |
|---------------|------------|----------|--------------|-------|-------------|----------|----|-------------|----|-----------|----|
|               |            |          | in.          | mm    |             | in.      | mm | in.         | mm | in.       | mm |
| AC-OTMLP-0606 | 50720-0606 | 20307064 | 5/16         | 7.90  | 5/8-18      |          |    | 1.06        | 27 |           |    |
| AC-OTMLP-0808 | 50720-0808 | 20307065 | 13/32        | 10.30 | 3/4-18      |          |    | 1.26        | 32 |           |    |
| AC-OTMLP-1010 | 50720-1010 | 20307066 | 1/2          | 12.70 | 7/8-18      |          |    | 1.50        | 38 |           |    |
| AC-OTMLP-1210 | 50720-1210 | 20307067 | 5/8          | 15.90 | 7/8-18      |          |    | 1.77        | 45 |           |    |

## O-Ring Tube

Male | Swivel | R134a Valve



| Descriptive #   | Product #  | SAP #    | Hose Size ID |       | Thread Size | Drop (D) |    | Cut-Off (R) |    | Valve (V) |    |
|-----------------|------------|----------|--------------|-------|-------------|----------|----|-------------|----|-----------|----|
|                 |            |          | in.          | mm    |             | in.      | mm | in.         | mm | in.       | mm |
| AC-OTM134V-0606 | 50730-0606 | 20307068 | 5/16         | 7.90  | 5/8-18      |          |    | 1.69        | 43 | 0.63      | 16 |
| AC-OTM134V-0808 | 50730-0808 | 20307069 | 13/32        | 10.30 | 3/4-18      |          |    | 1.77        | 45 | 0.63      | 16 |
| AC-OTM134V-1010 | 50730-1010 | 20307070 | 1/2          | 12.70 | 7/8-18      |          |    | 2.36        | 60 | 0.51      | 13 |
| AC-OTM134V-1210 | 50730-1210 | 20306755 | 5/8          | 15.90 | 7/8-18      |          |    | 2.36        | 60 | 0.51      | 13 |
| AC-OTM134V-1212 | 50730-1212 | 20307071 | 5/8          | 15.90 | 1 1/16-16   |          |    | 2.52        | 64 | 0.51      | 13 |

## O-Ring Tube

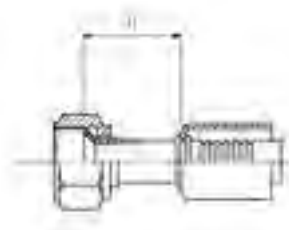
Male | Swivel | R134a Valve | 90° Elbow



| Descriptive #     | Product #  | SAP #    | Hose Size ID |       | Thread Size | Drop (D) |    | Cut-Off (R) |    | Valve (V) |    |
|-------------------|------------|----------|--------------|-------|-------------|----------|----|-------------|----|-----------|----|
|                   |            |          | in.          | mm    |             | in.      | mm | in.         | mm | in.       | mm |
| AC-OTM134V90-1010 | 50735-1010 | 20307072 | 1/2          | 12.70 | 7/8-18      | 2.13     | 54 | 2.36        | 60 | 0.51      | 13 |
| AC-OTM134V90-1210 | 50735-1210 | 20306756 | 5/8          | 15.90 | 7/8-18      | 2.13     | 54 | 2.36        | 60 | 0.51      | 13 |

## SAE 45° Flare

Female | Swivel



| Descriptive # | Product #  | SAP #    | Hose Size ID |       | Thread Size | Drop (D) |    | Cut-Off (R) |    | Valve (V) |    |
|---------------|------------|----------|--------------|-------|-------------|----------|----|-------------|----|-----------|----|
|               |            |          | in.          | mm    |             | in.      | mm | in.         | mm | in.       | mm |
| AC-SFFX-0606  | 50760-0606 | 20306757 | 5/16         | 7.90  | 5/8-18      |          |    | 1.38        | 35 |           |    |
| AC-SFFX-0608  | 50760-0608 | 20306758 | 5/16         | 7.90  | 3/4-16      |          |    | 1.18        | 30 |           |    |
| AC-SFFX-0806  | 50760-0806 | 20307073 | 13/32        | 10.30 | 5/8-18      |          |    | 1.18        | 30 |           |    |
| AC-SFFX-0808  | 50760-0808 | 20306759 | 13/32        | 10.30 | 3/4-16      |          |    | 1.18        | 30 |           |    |
| AC-SFFX-1008  | 50760-1008 | 20307074 | 1/2          | 12.70 | 3/4-16      |          |    | 1.50        | 38 |           |    |
| AC-SFFX-1010  | 50760-1010 | 20306760 | 1/2          | 12.70 | 7/8-14      |          |    | 1.50        | 38 |           |    |
| AC-SFFX-1210  | 50760-1210 | 20306761 | 5/8          | 15.90 | 7/8-14      |          |    | 1.73        | 44 |           |    |
| AC-SFFX-1212  | 50760-1212 | 20306762 | 5/8          | 15.90 | 1 1/16-14   |          |    | 1.73        | 44 |           |    |

“AC” (Crimp) Fittings - For use with GALAXY® G4826 (5/16"-5/8") & G4867 (3/4") Hose

## SAE 45° Flare

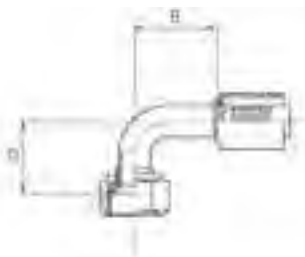
Female | Swivel



| Descriptive #  | Product #  | SAP #    | Hose Size ID |       | Thread Size | Drop (D) |    | Cut-Off (R) |    | Valve (V) |    |
|----------------|------------|----------|--------------|-------|-------------|----------|----|-------------|----|-----------|----|
|                |            |          | in.          | mm    |             | in.      | mm | in.         | mm | in.       | mm |
| AC-SFFX45-0606 | 50763-0606 | 20306763 | 5/16         | 7.90  | 5/8-18      | 0.55     | 14 | 0.83        | 21 |           |    |
| AC-SFFX45-0608 | 50763-0608 | 20306764 | 5/16         | 7.90  | 3/4-16      | 0.63     | 16 | 0.94        | 24 |           |    |
| AC-SFFX45-0806 | 50763-0806 | 20307075 | 13/32        | 10.30 | 5/8-18      | 0.63     | 16 | 0.94        | 24 |           |    |
| AC-SFFX45-0808 | 50763-0808 | 20306765 | 13/32        | 10.30 | 3/4-16      | 0.63     | 16 | 0.94        | 24 |           |    |
| AC-SFFX45-1008 | 50763-1008 | 20307076 | 1/2          | 12.70 | 3/4-16      | 0.87     | 22 | 1.26        | 32 |           |    |
| AC-SFFX45-1010 | 50763-1010 | 20306766 | 1/2          | 12.70 | 7/8-14      | 0.87     | 22 | 1.26        | 32 |           |    |
| AC-SFFX45-1210 | 50763-1210 | 20306767 | 5/8          | 15.90 | 7/8-14      | 0.98     | 25 | 1.50        | 38 |           |    |
| AC-SFFX45-1212 | 50763-1212 | 20306768 | 5/8          | 15.90 | 1 1/16-14   | 0.98     | 25 | 1.50        | 38 |           |    |

## SAE 45° Flare

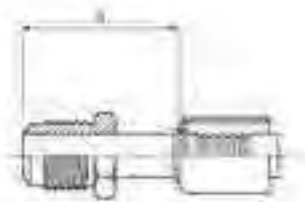
Female | Swivel | 90° Elbow



| Descriptive #  | Product #  | SAP #    | Hose Size ID |       | Thread Size | Drop (D) |    | Cut-Off (R) |    | Valve (V) |    |
|----------------|------------|----------|--------------|-------|-------------|----------|----|-------------|----|-----------|----|
|                |            |          | in.          | mm    |             | in.      | mm | in.         | mm | in.       | mm |
| AC-SFFX90-0606 | 50765-0606 | 20306769 | 5/16         | 7.90  | 5/8-18      | 1.06     | 27 | 1.06        | 27 |           |    |
| AC-SFFX90-0608 | 50765-0608 | 20306770 | 5/16         | 7.90  | 3/4-16      | 1.26     | 32 | 1.26        | 32 |           |    |
| AC-SFFX90-0806 | 50765-0806 | 20307077 | 13/32        | 10.30 | 5/8-18      | 1.26     | 32 | 1.26        | 32 |           |    |
| AC-SFFX90-0808 | 50765-0808 | 20306771 | 13/32        | 10.30 | 3/4-16      | 1.26     | 32 | 1.26        | 32 |           |    |
| AC-SFFX90-1008 | 50765-1008 | 20307078 | 1/2          | 12.70 | 3/4-16      | 1.50     | 38 | 1.50        | 38 |           |    |
| AC-SFFX90-1010 | 50765-1010 | 20306772 | 1/2          | 12.70 | 7/8-14      | 1.50     | 38 | 1.50        | 38 |           |    |
| AC-SFFX90-1210 | 50765-1210 | 20306773 | 5/8          | 15.90 | 7/8-14      | 1.50     | 38 | 1.73        | 44 |           |    |
| AC-SFFX90-1212 | 50765-1212 | 20306774 | 5/8          | 15.90 | 1 1/16-14   | 1.50     | 38 | 1.73        | 44 |           |    |

## SAE 45° Flare

Male



| Descriptive # | Product #  | SAP #    | Hose Size ID |       | Thread Size | Drop (D) |    | Cut-Off (R) |    | Valve (V) |    |
|---------------|------------|----------|--------------|-------|-------------|----------|----|-------------|----|-----------|----|
|               |            |          | in.          | mm    |             | in.      | mm | in.         | mm | in.       | mm |
| AC-SFM-0606A  | 50780-0606 | 20306775 | 5/16         | 7.90  | 5/8-18      |          |    | 1.89        | 48 |           |    |
| AC-SFM-0808A  | 50780-0808 | 20306776 | 13/32        | 10.30 | 3/4-16      |          |    | 2.01        | 51 |           |    |
| AC-SFM-1010A  | 50780-1010 | 20306777 | 1/2          | 12.70 | 7/8-14      |          |    | 2.32        | 59 |           |    |
| AC-SFM-1212A  | 50780-1212 | 20306778 | 5/8          | 15.90 | 1 1/16-14   |          |    | 2.52        | 64 |           |    |

“AC” (Crimp) Fittings - For use with GALAXY® G4826 (5/16"-5/8") & G4867 (3/4") Hose

## SAE 45° Flare

Male | 45° Elbow



| Descriptive #  | Product #  | SAP #    | Hose Size ID |       | Thread Size | Drop (D) |    | Cut-Off (R) |    | Valve (V) |    |
|----------------|------------|----------|--------------|-------|-------------|----------|----|-------------|----|-----------|----|
|                |            |          | in.          | mm    |             | in.      | mm | in.         | mm | in.       | mm |
| AC-SFM45-0606A | 50783-0606 | 20306779 | 5/16         | 7.90  | 5/8-18      | 1.50     | 38 | 1.06        | 27 |           |    |
| AC-SFM45-0808A | 50783-0808 | 20306780 | 13/32        | 10.30 | 3/4-16      | 1.73     | 44 | 1.26        | 32 |           |    |
| AC-SFM45-1010A | 50783-1010 | 20306781 | 1/2          | 12.70 | 7/8-14      | 2.01     | 51 | 1.50        | 38 |           |    |
| AC-SFM45-1212A | 50783-1212 | 20306782 | 5/8          | 15.90 | 1 1/16-14   | 2.52     | 64 | 2.36        | 60 |           |    |

## SAE 45° Flare

Male | 90° Elbow

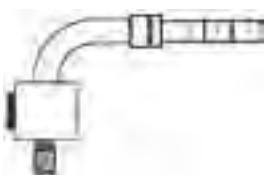


| Descriptive #  | Product #  | SAP #    | Hose Size ID |       | Thread Size | Drop (D) |    | Cut-Off (R) |    | Valve (V) |    |
|----------------|------------|----------|--------------|-------|-------------|----------|----|-------------|----|-----------|----|
|                |            |          | in.          | mm    |             | in.      | mm | in.         | mm | in.       | mm |
| AC-SFM90-0606A | 50785-0606 | 20306783 | 5/16         | 7.90  | 5/8-18      | 0.75     | 19 | 0.83        | 21 |           |    |
| AC-SFM90-0808A | 50785-0808 | 20306784 | 13/32        | 10.30 | 3/4-16      | 0.98     | 25 | 0.94        | 24 |           |    |
| AC-SFM90-1010A | 50785-1010 | 20306785 | 1/2          | 12.70 | 7/8-14      | 1.26     | 32 | 1.26        | 32 |           |    |
| AC-SFM90-1212A | 50785-1212 | 20306786 | 5/8          | 15.90 | 1 1/16-14   | 1.38     | 35 | 1.50        | 38 |           |    |

“GC” Cool Clip® Fittings - For use with GALAXY® G4890 Hose

## Compressor Pad Block

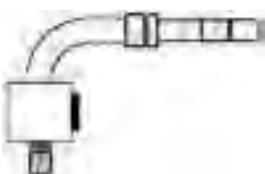
R12 Valve/Switch | 90° Block Elbow



| Descriptive #    | Product #  | SAP #    | Hose Size ID |       | Thread Size | Drop (D) |      | Cut-Off (R) |      | Valve (V) |      |
|------------------|------------|----------|--------------|-------|-------------|----------|------|-------------|------|-----------|------|
|                  |            |          | in.          | mm    |             | in.      | mm   | in.         | mm   | in.       | mm   |
| GC-CB12VS90-0808 | 54110-0808 | 20307089 | 13/32        | 10.30 |             | 2.63     | 66.8 | 3.00        | 76.2 | 1/4       | 6.35 |
| GC-CB12VS90-1008 | 54110-1008 | 20307090 | 1/2          | 12.70 |             | 2.63     | 66.8 | 3.00        | 76.2 | 1/4       | 6.35 |
| GC-CB12VS90-1208 | 54110-1208 | 20307091 | 5/8          | 15.90 |             | 2.63     | 66.8 | 3.00        | 76.2 | 1/4       | 6.35 |

## Compressor Pad Block

R12 Valve/Switch Reversed | 90° Elbow



| Descriptive #     | Product #  | SAP #    | Hose Size ID |       | Thread Size | Drop (D) |      | Cut-Off (R) |      | Valve (V) |      |
|-------------------|------------|----------|--------------|-------|-------------|----------|------|-------------|------|-----------|------|
|                   |            |          | in.          | mm    |             | in.      | mm   | in.         | mm   | in.       | mm   |
| GC-CB12VSR90-0808 | 54112-0808 | 20307092 | 13/32        | 10.30 |             | 2.63     | 66.8 | 1.88        | 47.6 | 1/4       | 6.35 |
| GC-CB12VSR90-1008 | 54112-1008 | 20307093 | 1/2          | 12.70 |             | 2.63     | 66.8 | 1.88        | 47.6 | 1/4       | 6.35 |
| GC-CB12VSR90-1208 | 54112-1208 | 20307094 | 5/8          | 15.90 |             | 2.63     | 66.8 | 1.88        | 47.6 | 1/4       | 6.35 |

"GC" Cool Clip® Fittings - For use with GALAXY® G4890 Hose

## Compressor O-Ring Tube

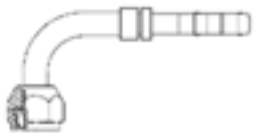
Female | 45° Elbow



| Descriptive #  | Product #  | SAP #    | Hose Size ID |       | Thread Size | Drop (D) |    | Cut-Off (R) |    | Valve (V) |    |
|----------------|------------|----------|--------------|-------|-------------|----------|----|-------------|----|-----------|----|
|                |            |          | in.          | mm    |             | in.      | mm | in.         | mm | in.       | mm |
| GC-COTF45-0810 | 54133-0810 | 20306806 | 13/32        | 10.30 | 1-14        | 0.39     | 10 | 2.01        | 51 |           |    |
| GC-COTF45-1010 | 54133-1010 | 20306807 | 1/2          | 12.70 | 1-14        | 0.39     | 10 | 2.01        | 51 |           |    |
| GC-COTF45-1210 | 54133-1210 | 20306808 | 5/8          | 15.90 | 1-14        | 0.39     | 10 | 2.01        | 51 |           |    |

## Compressor O-Ring Tube

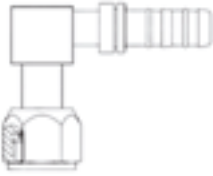
Female | 90° Elbow



| Descriptive #  | Product #  | SAP #    | Hose Size ID |       | Thread Size | Drop (D) |    | Cut-Off (R) |    | Valve (V) |    |
|----------------|------------|----------|--------------|-------|-------------|----------|----|-------------|----|-----------|----|
|                |            |          | in.          | mm    |             | in.      | mm | in.         | mm | in.       | mm |
| GC-COTF90-0810 | 54135-0810 | 20306809 | 13/32        | 10.30 | 1-14        | 0.91     | 23 | 2.13        | 54 |           |    |
| GC-COTF90-1010 | 54135-1010 | 20306810 | 1/2          | 12.70 | 1-14        | 0.91     | 23 | 2.13        | 54 |           |    |
| GC-COTF90-1210 | 54135-1210 | 20306811 | 5/8          | 15.90 | 1-14        | 0.91     | 23 | 2.13        | 54 |           |    |

## Compressor O-Ring Tube

Female | 90° Block Elbow



| Descriptive #   | Product #  | SAP #    | Hose Size ID |       | Thread Size | Drop (D) |    | Cut-Off (R) |    | Valve (V) |    |
|-----------------|------------|----------|--------------|-------|-------------|----------|----|-------------|----|-----------|----|
|                 |            |          | in.          | mm    |             | in.      | mm | in.         | mm | in.       | mm |
| GC-COTF90B-0810 | 54137-0810 | 20306812 | 13/32        | 10.30 | 1-14        | 0.91     | 23 | 2.32        | 59 |           |    |
| GC-COTF90B-1010 | 54137-1010 | 20306813 | 1/2          | 12.70 | 1-14        | 0.91     | 23 | 2.32        | 59 |           |    |
| GC-COTF90B-1210 | 54137-1210 | 20306814 | 5/8          | 15.90 | 1-14        | 0.91     | 23 | 2.32        | 59 |           |    |

## Compressor O-Ring Tube

Female | R134a Valve | 90° Block Elbow



| Descriptive #       | Product #  | SAP #    | Hose Size ID |       | Thread Size | Drop (D) |    | Cut-Off (R) |    | Valve (V) |    |
|---------------------|------------|----------|--------------|-------|-------------|----------|----|-------------|----|-----------|----|
|                     |            |          | in.          | mm    |             | in.      | mm | in.         | mm | in.       | mm |
| GC-COTF134V90B-0810 | 54145-0810 | 20307095 | 13/32        | 10.30 | 1-14        | 0.91     | 23 | 2.32        | 59 | 0.63      | 16 |
| GC-COTF134V90B-1010 | 54145-1010 | 20307096 | 1/2          | 12.70 | 1-14        | 0.91     | 23 | 2.32        | 59 | 0.51      | 13 |
| GC-COTF134V90B-1210 | 54145-1210 | 20307097 | 5/8          | 15.90 | 1-14        | 0.91     | 23 | 2.32        | 59 | 0.51      | 13 |

## Flareless Tube

Braze-On



| Descriptive # | Product #  | SAP #    | Hose Size ID |       | Fitting Size | Drop (D) |    | Cut-Off (R) |    | Valve (V) |    |
|---------------|------------|----------|--------------|-------|--------------|----------|----|-------------|----|-----------|----|
|               |            |          | in.          | mm    |              | in.      | mm | in.         | mm | in.       | mm |
| GC-FTBO-0606  | 54210-0606 | 20306815 | 5/16         | 7.90  | 3/8          |          |    | 1.81        | 46 |           |    |
| GC-FTBO-0808  | 54210-0808 | 20306816 | 13/32        | 10.30 | 1/2          |          |    | 1.81        | 46 |           |    |
| GC-FTBO-1010  | 54210-1010 | 20306817 | 1/2          | 12.70 | 5/8          |          |    | 1.81        | 46 |           |    |
| GC-FTBO-1210  | 54210-1210 | 20306818 | 5/8          | 15.90 | 5/8          |          |    | 1.81        | 46 |           |    |
| GC-FTBO-1212  | 54210-1212 | 20306819 | 5/8          | 15.90 | 3/4          |          |    | 1.81        | 46 |           |    |

“GC” Cool Clip® Fittings - For use with GALAXY® G4890 Hose

## Flareless Tube

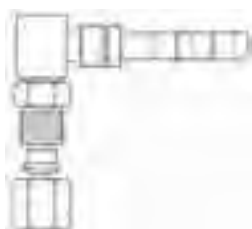
Male



| Descriptive # | Product #  | SAP #    | Hose Size ID |       | Thread Size | Drop (D) |    | Cut-Off (R) |    | Valve (V) |    |
|---------------|------------|----------|--------------|-------|-------------|----------|----|-------------|----|-----------|----|
|               |            |          | in.          | mm    |             | in.      | mm | in.         | mm | in.       | mm |
| GC-FTM-0606   | 54230-0606 | 20306820 | 5/16         | 7.90  | 5/8-18      |          |    | 2.80        | 71 |           |    |
| GC-FTM-0608   | 54230-0608 | 20306821 | 5/16         | 7.90  | 3/4-16      |          |    | 2.80        | 71 |           |    |
| GC-FTM-0806   | 54230-0806 | 20306822 | 13/32        | 10.30 | 5/8-18      |          |    | 2.80        | 71 |           |    |
| GC-FTM-0808   | 54230-0808 | 20306823 | 13/32        | 10.30 | 3/4-16      |          |    | 2.91        | 74 |           |    |
| GC-FTM-0810   | 54230-0810 | 20306824 | 13/32        | 10.30 | 7/8-14      |          |    | 2.91        | 74 |           |    |
| GC-FTM-1008   | 54230-1008 | 20306825 | 1/2          | 12.70 | 3/4-16      |          |    | 3.15        | 80 |           |    |
| GC-FTM-1010   | 54230-1010 | 20306826 | 1/2          | 12.70 | 7/8-14      |          |    | 3.15        | 80 |           |    |
| GC-FTM-1210   | 54230-1210 | 20306827 | 5/8          | 15.90 | 7/8-14      |          |    | 3.66        | 93 |           |    |
| GC-FTM-1212   | 54230-1212 | 20306828 | 5/8          | 15.90 | 1 1/16-14   |          |    | 3.66        | 93 |           |    |

## Flareless Tube

Male | 90° Block Elbow



| Descriptive #  | Product #  | SAP #    | Hose Size ID |       | Thread Size | Drop (D) |    | Cut-Off (R) |    | Valve (V) |    |
|----------------|------------|----------|--------------|-------|-------------|----------|----|-------------|----|-----------|----|
|                |            |          | in.          | mm    |             | in.      | mm | in.         | mm | in.       | mm |
| GC-FTM90B-0606 | 54235-0606 | 20306829 | 5/16         | 7.90  | 5/8-18      | 1.22     | 31 | 1.42        | 36 |           |    |
| GC-FTM90B-0608 | 54235-0608 | 20307098 | 5/16         | 7.90  | 3/4-16      | 1.22     | 31 | 1.42        | 36 |           |    |
| GC-FTM90B-0806 | 54235-0806 | 20307099 | 13/32        | 10.30 | 5/8-18      | 1.22     | 31 | 1.42        | 36 |           |    |
| GC-FTM90B-0808 | 54235-0808 | 20306830 | 13/32        | 10.30 | 3/4-16      | 1.73     | 44 | 1.61        | 41 |           |    |
| GC-FTM90B-0810 | 54235-0810 | 20306831 | 13/32        | 10.30 | 7/8-14      | 1.73     | 44 | 1.61        | 41 |           |    |
| GC-FTM90B-1008 | 54235-1008 | 20306832 | 1/2          | 12.70 | 3/4-16      | 1.73     | 44 | 1.61        | 41 |           |    |
| GC-FTM90B-1010 | 54235-1010 | 20306833 | 1/2          | 12.70 | 7/8-14      | 2.09     | 53 | 1.93        | 49 |           |    |
| GC-FTM90B-1210 | 54235-1210 | 20306834 | 5/8          | 15.90 | 7/8-14      | 2.52     | 64 | 2.64        | 67 |           |    |
| GC-FTM90B-1212 | 54235-1212 | 20306835 | 5/8          | 15.90 | 1 1/16-14   | 2.52     | 64 | 2.64        | 67 |           |    |

## Flareless Tube

Male | Metric

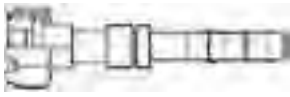


| Descriptive # | Product #  | SAP #    | Hose Size ID |       | Thread Size | Drop (D) |    | Cut-Off (R) |    | Valve (V) |    |
|---------------|------------|----------|--------------|-------|-------------|----------|----|-------------|----|-----------|----|
|               |            |          | in.          | mm    |             | in.      | mm | in.         | mm | in.       | mm |
| GC-FTMM-0608  | 54240-0608 | 20306836 | 5/16         | 7.90  | 5/8-18      |          |    | 2.80        | 71 |           |    |
| GC-FTMM-0812  | 54240-0812 | 20306837 | 13/32        | 10.30 | 3/4-16      |          |    | 2.91        | 74 |           |    |
| GC-FTMM-1015  | 54240-1015 | 20306838 | 1/2          | 12.70 | 7/8-14      |          |    | 3.66        | 93 |           |    |

## “GC” Cool Clip® Fittings – For use with GALAXY® G4890 Hose

## Ford Spring Lock

Female



| Descriptive # | Product #   | SAP #    | Hose Size ID |       | Thread Size | Drop (D) |    | Cut-Off (R) |    | Valve (V) |    |
|---------------|-------------|----------|--------------|-------|-------------|----------|----|-------------|----|-----------|----|
|               |             |          | in.          | mm    |             | in.      | mm | in.         | mm | in.       | mm |
| GC-FSLF-0606A | 54300-0606A | 20306839 | 5/16         | 7.90  | FSL-06      |          |    | 2.87        | 73 |           |    |
| GC-FSLF-0608A | 54300-0608A | 20306840 | 5/16         | 7.90  | FSL-08      |          |    | 2.87        | 73 |           |    |
| GC-FSLF-0808A | 54300-0808A | 20306841 | 13/32        | 10.30 | FSL-08      |          |    | 3.11        | 79 |           |    |
| GC-FSLF-1010A | 54300-1010A | 20306842 | 1/2          | 12.70 | FSL-10      |          |    | 3.31        | 84 |           |    |
| GC-FSLF-1210A | 54300-1210A | 20306843 | 5/8          | 15.90 | FSL-10      |          |    | 3.31        | 84 |           |    |
| GC-FSLF-1212A | 54300-1212A | 20306844 | 5/8          | 15.90 | FSL-12      |          |    | 3.31        | 84 |           |    |

## Ford Spring Lock

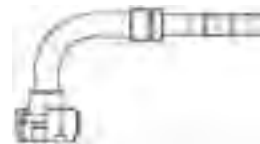
Female | 45° Elbow



| Descriptive #   | Product #   | SAP #    | Hose Size ID |       | Thread Size | Drop (D) |    | Cut-Off (R) |    | Valve (V) |    |
|-----------------|-------------|----------|--------------|-------|-------------|----------|----|-------------|----|-----------|----|
|                 |             |          | in.          | mm    |             | in.      | mm | in.         | mm | in.       | mm |
| GC-FSLF45-0606A | 54303-0606A | 20307100 | 5/16         | 7.90  | FSL-06      | 1.30     | 33 | 1.85        | 47 |           |    |
| GC-FSLF45-0608A | 54303-0608A | 20307101 | 5/16         | 7.90  | FSL-08      | 1.30     | 33 | 1.85        | 47 |           |    |
| GC-FSLF45-0808A | 54303-0808A | 20307102 | 13/32        | 10.30 | FSL-08      | 1.30     | 33 | 1.30        | 33 |           |    |
| GC-FSLF45-1210A | 54303-1210A | 20307104 | 5/8          | 15.90 | FSL-10      | 1.42     | 36 | 1.61        | 41 |           |    |
| GC-FSLF45-1212A | 54303-1212A | 20307105 | 5/8          | 15.90 | FSL-12      | 1.42     | 36 | 1.61        | 41 |           |    |

## Ford Spring Lock

Female | 90° Elbow



| Descriptive #   | Product #   | SAP #    | Hose Size ID |       | Thread Size | Drop (D) |    | Cut-Off (R) |    | Valve (V) |    |
|-----------------|-------------|----------|--------------|-------|-------------|----------|----|-------------|----|-----------|----|
|                 |             |          | in.          | mm    |             | in.      | mm | in.         | mm | in.       | mm |
| GC-FSLF90-0606A | 54305-0606A | 20306845 | 5/16         | 7.90  | FSL-06      | 2.13     | 54 | 1.97        | 50 |           |    |
| GC-FSLF90-0608A | 54305-0608A | 20307106 | 5/16         | 7.90  | FSL-08      | 2.13     | 54 | 1.97        | 50 |           |    |
| GC-FSLF90-0808A | 54305-0808A | 20306846 | 13/32        | 10.30 | FSL-08      | 2.44     | 62 | 2.09        | 53 |           |    |
| GC-FSLF90-1010A | 54305-1010A | 20306847 | 1/2          | 12.70 | FSL-10      | 2.52     | 64 | 2.36        | 60 |           |    |
| GC-FSLF90-1210A | 54305-1210A | 20307107 | 5/8          | 15.90 | FSL-10      | 2.52     | 64 | 2.36        | 60 |           |    |
| GC-FSLF90-1212A | 54305-1212A | 20306848 | 5/8          | 15.90 | FSL-12      | 2.52     | 64 | 2.36        | 60 |           |    |

## Ford Spring Lock

Male



| Descriptive # | Product #   | SAP #    | Hose Size ID |       | Thread Size | Drop (D) |    | Cut-Off (R) |    | Valve (V) |    |
|---------------|-------------|----------|--------------|-------|-------------|----------|----|-------------|----|-----------|----|
|               |             |          | in.          | mm    |             | in.      | mm | in.         | mm | in.       | mm |
| GC-FSLM-0606A | 54330-0606A | 20306849 | 5/16         | 7.90  | FSL-06      |          |    | 2.72        | 69 |           |    |
| GC-FSLM-0608A | 54330-0608A | 20307108 | 5/16         | 7.90  | FSL-08      |          |    | 2.72        | 69 |           |    |
| GC-FSLM-1010A | 54330-1010A | 20306851 | 1/2          | 12.70 | FSL-10      |          |    | 2.99        | 76 |           |    |
| GC-FSLM-1210A | 54330-1210A | 20306852 | 5/8          | 15.90 | FSL-10      |          |    | 2.99        | 76 |           |    |
| GC-FSLM-1212A | 54330-1212A | 20306853 | 5/8          | 15.90 | FSL-12      |          |    | 3.11        | 79 |           |    |

“GC” Cool Clip® Fittings – For use with GALAXY® G4890 Hose

## Ford Spring Lock

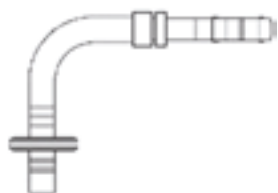
Male | 45° Elbow



| Descriptive #   | Product #   | SAP #    | Hose Size ID |       | Thread Size | Drop (D) |    | Cut-Off (R) |    | Valve (V) |    |
|-----------------|-------------|----------|--------------|-------|-------------|----------|----|-------------|----|-----------|----|
|                 |             |          | in.          | mm    |             | in.      | mm | in.         | mm | in.       | mm |
| GC-FSLM45-0606A | 54333-0606A | 20307109 | 5/16         | 7.90  | FSL-06      | 1.30     | 33 | 1.85        | 47 |           |    |
| GC-FSLM45-0608A | 54333-0608A | 20307110 | 5/16         | 7.90  | FSL-08      | 1.30     | 33 | 1.85        | 47 |           |    |
| GC-FSLM45-0808A | 54333-0808A | 20307111 | 13/32        | 10.30 | FSL-08      | 1.26     | 32 | 1.30        | 33 |           |    |
| GC-FSLM45-1010A | 54333-1010A | 20307112 | 1/2          | 12.70 | FSL-10      | 1.42     | 36 | 1.61        | 41 |           |    |
| GC-FSLM45-1210A | 54333-1210A | 20307113 | 5/8          | 15.90 | FSL-10      | 1.42     | 36 | 1.61        | 41 |           |    |
| GC-FSLM45-1212A | 54333-1212A | 20307114 | 5/8          | 15.90 | FSL-12      | 1.42     | 36 | 1.61        | 41 |           |    |

## Ford Spring Lock

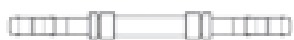
Male | 90° Elbow



| Descriptive #   | Product #   | SAP #    | Hose Size ID |       | Thread Size | Drop (D) |    | Cut-Off (R) |    | Valve (V) |    |
|-----------------|-------------|----------|--------------|-------|-------------|----------|----|-------------|----|-----------|----|
|                 |             |          | in.          | mm    |             | in.      | mm | in.         | mm | in.       | mm |
| GC-FSLM90-0606A | 54335-0606A | 20307115 | 5/16         | 7.90  | FSL-06      | 2.13     | 54 | 1.97        | 50 |           |    |
| GC-FSLM90-0608A | 54335-0608A | 20307116 | 5/16         | 7.90  | FSL-08      | 2.13     | 54 | 1.97        | 50 |           |    |
| GC-FSLM90-0808A | 54335-0808A | 20307117 | 13/32        | 10.30 | FSL-08      | 2.44     | 62 | 2.09        | 53 |           |    |
| GC-FSLM90-1010A | 54335-1010A | 20307118 | 1/2          | 12.70 | FSL-10      | 2.52     | 64 | 2.36        | 60 |           |    |
| GC-FSLM90-1210A | 54335-1210A | 20307119 | 5/8          | 15.90 | FSL-10      | 2.52     | 64 | 2.36        | 60 |           |    |
| GC-FSLM90-1212A | 54335-1212A | 20307120 | 5/8          | 15.90 | FSL-12      | 2.52     | 64 | 2.36        | 60 |           |    |

## Hose Mender

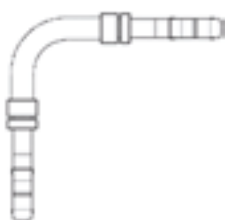
GC Cool Clip® Fittings



| Descriptive # | Product #  | SAP #    | Hose Size ID |       | Thread Size | Drop (D) |    | Cut-Off (R) |    | Valve (V) |    |
|---------------|------------|----------|--------------|-------|-------------|----------|----|-------------|----|-----------|----|
|               |            |          | in.          | mm    |             | in.      | mm | in.         | mm | in.       | mm |
| GC-HM-0606    | 54350-0606 | 20306854 | 5/16         | 7.90  |             |          |    | 2.17        | 55 |           |    |
| GC-HM-0608    | 54350-0608 | 20306855 | 5/16         | 7.90  |             |          |    | 2.17        | 55 |           |    |
| GC-HM-0808    | 54350-0808 | 20306856 | 13/32        | 10.30 |             |          |    | 2.17        | 55 |           |    |
| GC-HM-0810    | 54350-0810 | 20306857 | 13/32        | 10.30 |             |          |    | 2.17        | 55 |           |    |
| GC-HM-1010    | 54350-1010 | 20306858 | 1/2          | 12.70 |             |          |    | 2.17        | 55 |           |    |
| GC-HM-1210    | 54350-1210 | 20306859 | 5/8          | 15.90 |             |          |    | 2.17        | 55 |           |    |
| GC-HM-1212    | 54350-1212 | 20306860 | 5/8          | 15.90 |             |          |    | 2.17        | 55 |           |    |

## Hose Mender

90° Elbow

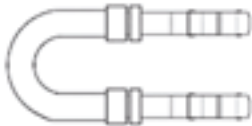


| Descriptive # | Product #  | SAP #    | Hose Size ID |       | Thread Size | Drop (D) |    | Cut-Off (R) |    | Valve (V) |    |
|---------------|------------|----------|--------------|-------|-------------|----------|----|-------------|----|-----------|----|
|               |            |          | in.          | mm    |             | in.      | mm | in.         | mm | in.       | mm |
| GC-HM90-0606  | 54355-0606 | 20306861 | 5/16         | 7.90  |             | 0.94     | 24 | 0.94        | 24 |           |    |
| GC-HM90-0808  | 54355-0808 | 20306862 | 13/32        | 10.30 |             | 1.14     | 29 | 1.14        | 29 |           |    |
| GC-HM90-1010  | 54355-1010 | 20306863 | 1/2          | 12.70 |             | 1.34     | 34 | 1.34        | 34 |           |    |
| GC-HM90-1212  | 54355-1212 | 20306864 | 5/8          | 15.90 |             | 1.54     | 39 | 1.54        | 39 |           |    |

“GC” Cool Clip® Fittings - For use with GALAXY® G4890 Hose

Hose Mender

180° Elbow



| Descriptive # | Product #  | SAP #    | Hose Size ID |       | Thread Size | Drop (D) |    | Cut-Off (R) |    | Valve (V) |    |
|---------------|------------|----------|--------------|-------|-------------|----------|----|-------------|----|-----------|----|
|               |            |          | in.          | mm    |             | in.      | mm | in.         | mm | in.       | mm |
| GC-HM180-0606 | 54360-0606 | 20306865 | 5/16         | 7.90  |             | 1.97     | 50 | 2.48        | 63 |           |    |
| GC-HM180-0808 | 54360-0808 | 20306866 | 13/32        | 10.30 |             | 2.36     | 60 | 2.48        | 63 |           |    |
| GC-HM180-1010 | 54360-1010 | 20306867 | 1/2          | 12.70 |             | 2.76     | 70 | 2.83        | 72 |           |    |
| GC-HM180-1212 | 54360-1212 | 20306868 | 5/8          | 15.90 |             | 3.15     | 80 | 3.50        | 89 |           |    |

Hose Mender

R12 Valve



Drawing has R134a Valve  
Fittings have R12 Valve

| Descriptive # | Product #  | SAP #    | Hose Size ID |       | Thread Size | Drop (D) |    | Cut-Off (R) |    | Valve (V) |      |
|---------------|------------|----------|--------------|-------|-------------|----------|----|-------------|----|-----------|------|
|               |            |          | in.          | mm    |             | in.      | mm | in.         | mm | in.       | mm   |
| GC-HM12V-0606 | 54365-0606 | 20306869 | 5/16         | 7.90  |             |          |    | 2.17        | 55 | 1/4       | 6.35 |
| GC-HM12V-0808 | 54365-0808 | 20306870 | 13/32        | 10.30 |             |          |    | 2.17        | 55 | 1/4       | 6.35 |
| GC-HM12V-1010 | 54365-1010 | 20306871 | 1/2          | 12.70 |             |          |    | 2.17        | 55 | 1/4       | 6.35 |
| GC-HM12V-1212 | 54365-1212 | 20306872 | 5/8          | 15.90 |             |          |    | 2.17        | 55 | 1/4       | 6.35 |

Hose Mender

R134a Valve



| Descriptive #  | Product #  | SAP #    | Hose Size ID |       | Thread Size | Drop (D) |    | Cut-Off (R) |    | Valve (V) |    |
|----------------|------------|----------|--------------|-------|-------------|----------|----|-------------|----|-----------|----|
|                |            |          | in.          | mm    |             | in.      | mm | in.         | mm | in.       | mm |
| GC-HM134V-0606 | 54370-0606 | 20306873 | 5/16         | 7.90  |             |          |    | 2.17        | 55 | 0.63      | 16 |
| GC-HM134V-0808 | 54370-0808 | 20306874 | 13/32        | 10.30 |             |          |    | 2.17        | 55 | 0.63      | 16 |
| GC-HM134V-1010 | 54370-1010 | 20306875 | 1/2          | 12.70 |             |          |    | 2.17        | 55 | 0.51      | 13 |
| GC-HM134V-1212 | 54370-1212 | 20306876 | 5/8          | 15.90 |             |          |    | 2.17        | 55 | 0.51      | 13 |

Hose Mender

with Sight Glass



Fitting has sight glass in place  
of R134a Valve

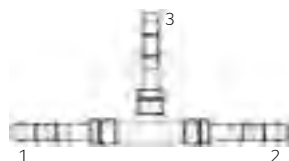
| Descriptive # | Product #  | SAP #    | Hose Size ID |      | Thread Size | Drop (D) |    | Cut-Off (R) |    | Valve (V) |    |
|---------------|------------|----------|--------------|------|-------------|----------|----|-------------|----|-----------|----|
|               |            |          | in.          | mm   |             | in.      | mm | in.         | mm | in.       | mm |
| GC-HMSG-0606  | 54375-0606 | 20307121 | 5/16         | 7.90 |             |          |    | 2.48        | 63 |           |    |



“GC” Cool Clip® Fittings - For use with GALAXY® G4890 Hose

## Hose Mender

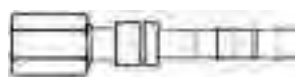
Tee



| Descriptive # | Product #  | SAP #    | Hose Size ID 1 & 2 |       | Hose ID 3 |       | Drop (D) |    | Cut-Off (R) |    | Valve (V) |    |
|---------------|------------|----------|--------------------|-------|-----------|-------|----------|----|-------------|----|-----------|----|
|               |            |          | in.                | mm    | in.       | mm    | in.      | mm | in.         | mm | in.       | mm |
| GC-HMT-0606   | 54380-0606 | 20306877 | 5/16               | 7.90  | 5/16      | 7.90  | 1.22     | 31 | 2.44        | 62 |           |    |
| GC-HMT-0808   | 54380-0808 | 20306878 | 13/32              | 10.30 | 13/32     | 10.30 | 1.30     | 33 | 2.60        | 66 |           |    |
| GC-HMT-1010   | 54380-1010 | 20306879 | 1/2                | 12.70 | 1/2       | 12.70 | 1.73     | 44 | 2.72        | 69 |           |    |
| GC-HMT-1210   | 54380-1210 | 20307122 | 5/8                | 15.90 | 1/2       | 12.70 | 1.73     | 44 | 2.72        | 69 |           |    |
| GC-HMT-1212   | 54380-1212 | 20306880 | 5/8                | 15.90 | 5/8       | 15.90 | 1.73     | 44 | 2.95        | 75 |           |    |

## O-Ring Face Seal

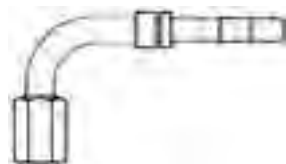
Female | Swivel



| Descriptive # | Product #  | SAP #    | Hose Size ID |       | Thread Size | Drop (D) |    | Cut-Off (R) |    | Valve (V) |    |
|---------------|------------|----------|--------------|-------|-------------|----------|----|-------------|----|-----------|----|
|               |            |          | in.          | mm    |             | in.      | mm | in.         | mm | in.       | mm |
| GC-OFFX-0606  | 54430-0606 | 20307123 | 5/16         | 7.90  | 11/16-16    |          |    | 1.77        | 45 |           |    |
| GC-OFFX-0808  | 54430-0808 | 20307124 | 13/32        | 10.30 | 13/16-16    |          |    | 1.97        | 50 |           |    |
| GC-OFFX-1010  | 54430-1010 | 20307125 | 1/2          | 12.70 | 1-14        |          |    | 2.48        | 63 |           |    |
| GC-OFFX-1212  | 54430-1212 | 20307126 | 5/8          | 15.90 | 1 3/16-12   |          |    | 2.72        | 69 |           |    |

## O-Ring Face Seal

Female | Swivel | 90° Elbow



| Descriptive #  | Product #  | SAP #    | Hose Size ID |       | Thread Size | Drop (D) |    | Cut-Off (R) |    | Valve (V) |    |
|----------------|------------|----------|--------------|-------|-------------|----------|----|-------------|----|-----------|----|
|                |            |          | in.          | mm    |             | in.      | mm | in.         | mm | in.       | mm |
| GC-OFFX90-0606 | 54435-0606 | 20306881 | 5/16         | 7.90  | 11/16-16    | 1.14     | 29 | 0.94        | 24 |           |    |
| GC-OFFX90-0808 | 54435-0808 | 20306882 | 13/32        | 10.30 | 13/16-16    | 1.34     | 34 | 1.14        | 29 |           |    |
| GC-OFFX90-1010 | 54435-1010 | 20307127 | 1/2          | 12.70 | 1-14        | 1.57     | 40 | 1.34        | 34 |           |    |
| GC-OFFX90-1212 | 54435-1212 | 20307128 | 5/8          | 15.90 | 1 3/16-12   | 1.81     | 46 | 1.54        | 39 |           |    |

## O-Ring Insert

Male



| Descriptive # | Product #  | SAP #    | Hose Size ID |       | Thread Size | Drop (D) |    | Cut-Off (R) |    | Valve (V) |    |
|---------------|------------|----------|--------------|-------|-------------|----------|----|-------------|----|-----------|----|
|               |            |          | in.          | mm    |             | in.      | mm | in.         | mm | in.       | mm |
| GC-OIM-0606   | 54500-0606 | 20306887 | 5/16         | 7.90  | 5/8-18      |          |    | 2.80        | 71 |           |    |
| GC-OIM-0808   | 54500-0808 | 20306888 | 13/32        | 10.30 | 3/4-16      |          |    | 2.91        | 74 |           |    |
| GC-OIM-1010   | 54500-1010 | 20306889 | 1/2          | 12.70 | 7/8-14      |          |    | 2.13        | 54 |           |    |
| GC-OIM-1210   | 54500-1210 | 20306890 | 5/8          | 15.90 | 7/8-14      |          |    | 2.13        | 54 |           |    |
| GC-OIM-1212   | 54500-1212 | 20306891 | 5/8          | 15.90 | 1 1/16-14   |          |    | 3.31        | 84 |           |    |

“GC” Cool Clip® Fittings – For use with GALAXY® G4890 Hose

O-Ring Insert

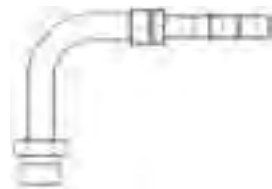
Male | 45° Elbow



| Descriptive # | Product #  | SAP #    | Hose Size ID |       | Thread Size | Drop (D) |    | Cut-Off (R) |    | Valve (V) |    |
|---------------|------------|----------|--------------|-------|-------------|----------|----|-------------|----|-----------|----|
|               |            |          | in.          | mm    |             | in.      | mm | in.         | mm | in.       | mm |
| GC-OIM45-0606 | 54503-0606 | 20307130 | 5/16         | 7.90  | 5/8-18      | 0.75     | 19 | 1.18        | 30 |           |    |
| GC-OIM45-0808 | 54503-0808 | 20307131 | 13/32        | 10.30 | 3/4-16      | 0.94     | 24 | 1.30        | 33 |           |    |
| GC-OIM45-1010 | 54503-1010 | 20307132 | 1/2          | 12.70 | 7/8-14      | 1.26     | 32 | 1.61        | 41 |           |    |
| GC-OIM45-1212 | 54503-1212 | 20307133 | 5/8          | 15.90 | 1 1/16-14   | 1.38     | 35 | 1.77        | 45 |           |    |

O-Ring Insert

Male | 90° Elbow



| Descriptive # | Product #  | SAP #    | Hose Size ID |       | Thread Size | Drop (D) |    | Cut-Off (R) |    | Valve (V) |    |
|---------------|------------|----------|--------------|-------|-------------|----------|----|-------------|----|-----------|----|
|               |            |          | in.          | mm    |             | in.      | mm | in.         | mm | in.       | mm |
| GC-OIM90-0606 | 54505-0606 | 20306892 | 5/16         | 7.90  | 5/8-18      | 1.38     | 35 | 2.13        | 54 |           |    |
| GC-OIM90-0808 | 54505-0808 | 20306893 | 13/32        | 10.30 | 3/4-16      | 1.73     | 44 | 1.61        | 41 |           |    |
| GC-OIM90-1010 | 54505-1010 | 20306894 | 1/2          | 12.70 | 7/8-14      | 2.17     | 55 | 2.32        | 59 |           |    |
| GC-OIM90-1210 | 54505-1210 | 20307134 | 5/8          | 15.90 | 7/8-14      | 2.17     | 55 | 2.32        | 59 |           |    |
| GC-OIM90-1212 | 54505-1212 | 20307135 | 5/8          | 15.90 | 1 1/16-14   | 2.76     | 70 | 2.32        | 59 |           |    |

O-Ring Insert

Male | Bulkhead



| Descriptive # | Product #  | SAP #    | Hose Size ID |       | Thread Size | Drop (D) |    | Cut-Off (R) |    | Valve (V) |    |
|---------------|------------|----------|--------------|-------|-------------|----------|----|-------------|----|-----------|----|
|               |            |          | in.          | mm    |             | in.      | mm | in.         | mm | in.       | mm |
| GC-OIMB-0606  | 54515-0606 | 20307136 | 5/16         | 7.90  | 5/8-18      |          |    | 3.15        | 80 |           |    |
| GC-OIMB-0808  | 54515-0808 | 20307137 | 13/32        | 10.30 | 3/4-16      |          |    | 3.15        | 80 |           |    |
| GC-OIMB-1010  | 54515-1010 | 20307138 | 1/2          | 12.70 | 7/8-14      |          |    | 3.15        | 80 |           |    |

O-Ring Insert

Male | Bulkhead | 90° Elbow



| Descriptive #  | Product #  | SAP #    | Hose Size ID |       | Thread Size | Drop (D) |    | Cut-Off (R) |    | Valve (V) |    |
|----------------|------------|----------|--------------|-------|-------------|----------|----|-------------|----|-----------|----|
|                |            |          | in.          | mm    |             | in.      | mm | in.         | mm | in.       | mm |
| GC-OIMB90-0606 | 54520-0606 | 20307139 | 5/16         | 7.90  | 5/8-18      | 2.13     | 54 | 1.97        | 50 |           |    |
| GC-OIMB90-0808 | 54520-0808 | 20307140 | 13/32        | 10.30 | 3/4-16      | 2.44     | 62 | 2.09        | 53 |           |    |
| GC-OIMB90-1010 | 54520-1010 | 20307141 | 5/8          | 15.90 | 7/8-14      | 2.52     | 64 | 2.36        | 60 |           |    |

“GC” Cool Clip® Fittings - For use with GALAXY® G4890 Hose

## O-Ring Insert

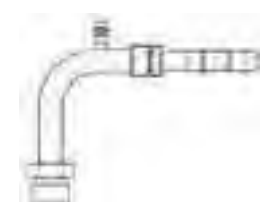
R134a Valve



| Descriptive #   | Product #  | SAP #    | Hose Size ID |       | Thread Size | Drop (D) |    | Cut-Off (R) |    | Valve (V) |    |
|-----------------|------------|----------|--------------|-------|-------------|----------|----|-------------|----|-----------|----|
|                 |            |          | in.          | mm    |             | in.      | mm | in.         | mm | in.       | mm |
| GC-OIM134V-0606 | 54530-0606 | 20307142 | 5/16         | 7.90  | 5/8-18      |          |    | 2.80        | 71 | 0.63      | 16 |
| GC-OIM134V-0808 | 54530-0808 | 20307143 | 13/32        | 10.30 | 3/4-16      |          |    | 2.91        | 74 | 0.63      | 16 |
| GC-OIM134V-1010 | 54530-1010 | 20307144 | 1/2          | 12.70 | 7/8-14      |          |    | 2.13        | 54 | 0.51      | 13 |
| GC-OIM134V-1212 | 54530-1212 | 20307145 | 5/8          | 15.90 | 1 1/16-14   |          |    | 3.31        | 84 | 0.51      | 13 |

## O-Ring Insert

R134a Valve | 90° Elbow



| Descriptive #     | Product #  | SAP #    | Hose Size ID |       | Thread Size | Drop (D) |    | Cut-Off (R) |    | Valve (V) |    |
|-------------------|------------|----------|--------------|-------|-------------|----------|----|-------------|----|-----------|----|
|                   |            |          | in.          | mm    |             | in.      | mm | in.         | mm | in.       | mm |
| GC-OIM134V90-0606 | 54535-0606 | 20307146 | 5/16         | 7.90  | 5/8-18      | 1.38     | 35 | 2.13        | 54 | 0.63      | 16 |
| GC-OIM134V90-0808 | 54535-0808 | 20307147 | 13/32        | 10.30 | 3/4-16      | 1.73     | 44 | 1.61        | 41 | 0.63      | 16 |
| GC-OIM134V90-1010 | 54535-1010 | 20307148 | 1/2          | 12.70 | 7/8-14      | 2.17     | 55 | 2.32        | 59 | 0.51      | 13 |

## O-Ring Tube

Female | Swivel



| Descriptive # | Product #  | SAP #    | Hose Size ID |       | Thread Size | Drop (D) |    | Cut-Off (R) |    | Valve (V) |    |
|---------------|------------|----------|--------------|-------|-------------|----------|----|-------------|----|-----------|----|
|               |            |          | in.          | mm    |             | in.      | mm | in.         | mm | in.       | mm |
| GC-OTF-0605   | 54600-0605 | 20307149 | 5/16         | 7.90  | 9/16-18     |          |    | 1.42        | 36 |           |    |
| GC-OTF-0606   | 54600-0606 | 20306895 | 5/16         | 7.90  | 5/8-18      |          |    | 1.42        | 36 |           |    |
| GC-OTF-0608   | 54600-0608 | 20306896 | 5/16         | 7.90  | 3/4-16      |          |    | 1.57        | 40 |           |    |
| GC-OTF-0806   | 54600-0806 | 20307150 | 13/32        | 10.30 | 5/8-18      |          |    | 1.57        | 40 |           |    |
| GC-OTF-0808   | 54600-0808 | 20306897 | 13/32        | 10.30 | 3/4-16      |          |    | 1.57        | 40 |           |    |
| GC-OTF-1008   | 54600-1008 | 20307151 | 1/2          | 12.70 | 3/4-16      |          |    | 1.57        | 40 |           |    |
| GC-OTF-1010   | 54600-1010 | 20306898 | 1/2          | 12.70 | 7/8-14      |          |    | 1.97        | 50 |           |    |
| GC-OTF-1012   | 54600-1012 | 20307152 | 1/2          | 12.70 | 1 1/16-14   |          |    | 2.09        | 53 |           |    |
| GC-OTF-1210   | 54600-1210 | 20306899 | 5/8          | 15.90 | 7/8-14      |          |    | 1.97        | 50 |           |    |
| GC-OTF-1212   | 54600-1212 | 20306900 | 5/8          | 15.90 | 1 1/16-14   |          |    | 2.09        | 53 |           |    |

## O-Ring Tube

Female | Swivel | 45° Elbow

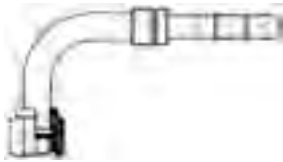


| Descriptive # | Product #  | SAP #    | Hose Size ID |       | Thread Size | Drop (D) |    | Cut-Off (R) |    | Valve (V) |    |
|---------------|------------|----------|--------------|-------|-------------|----------|----|-------------|----|-----------|----|
|               |            |          | in.          | mm    |             | in.      | mm | in.         | mm | in.       | mm |
| GC-OTF45-0606 | 54603-0606 | 20306901 | 5/16         | 7.90  | 5/8-18      | 0.55     | 14 | 1.02        | 26 |           |    |
| GC-OTF45-0806 | 54603-0806 | 20307153 | 13/32        | 10.30 | 5/8-18      | 0.55     | 14 | 1.02        | 26 |           |    |
| GC-OTF45-0808 | 54603-0808 | 20306902 | 13/32        | 10.30 | 3/4-16      | 0.59     | 15 | 2.13        | 54 |           |    |
| GC-OTF45-1008 | 54603-1008 | 20307154 | 1/2          | 12.70 | 3/4-16      | 0.59     | 15 | 2.13        | 54 |           |    |
| GC-OTF45-1010 | 54603-1010 | 20306903 | 1/2          | 12.70 | 7/8-14      | 0.67     | 17 | 2.13        | 54 |           |    |
| GC-OTF45-1210 | 54603-1210 | 20306904 | 5/8          | 15.90 | 7/8-14      | 0.67     | 17 | 2.13        | 54 |           |    |
| GC-OTF45-1212 | 54603-1212 | 20306905 | 5/8          | 15.90 | 1 1/16-14   | 1.18     | 30 | 2.13        | 54 |           |    |

“GC” Cool Clip® Fittings – For use with GALAXY® G4890 Hose

O-Ring Tube

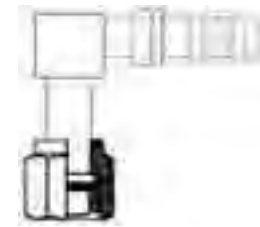
Female | Swivel | 90° Elbow



| Descriptive # | Product #  | SAP #    | Hose Size ID |       | Thread Size | Drop (D) |    | Cut-Off (R) |    | Valve (V) |    |
|---------------|------------|----------|--------------|-------|-------------|----------|----|-------------|----|-----------|----|
|               |            |          | in.          | mm    |             | in.      | mm | in.         | mm | in.       | mm |
| GC-OTF90-0605 | 54605-0605 | 20307155 | 5/16         | 7.90  | 9/16-18     | 1.26     | 32 | 1.46        | 37 |           |    |
| GC-OTF90-0606 | 54605-0606 | 20306906 | 5/16         | 7.90  | 5/8-18      | 1.26     | 32 | 1.46        | 37 |           |    |
| GC-OTF90-0608 | 54605-0608 | 20306907 | 5/16         | 7.90  | 3/4-16      | 1.42     | 36 | 1.77        | 45 |           |    |
| GC-OTF90-0806 | 54605-0806 | 20307156 | 13/32        | 10.30 | 5/8-18      | 1.65     | 42 | 2.17        | 55 |           |    |
| GC-OTF90-0808 | 54605-0808 | 20306908 | 13/32        | 10.30 | 3/4-16      | 1.42     | 36 | 1.77        | 45 |           |    |
| GC-OTF90-1008 | 54605-1008 | 20307157 | 1/2          | 12.70 | 3/4-16      | 1.42     | 36 | 1.77        | 45 |           |    |
| GC-OTF90-1010 | 54605-1010 | 20306909 | 1/2          | 12.70 | 7/8-14      | 1.65     | 42 | 2.17        | 55 |           |    |
| GC-OTF90-1012 | 54605-1012 | 20307158 | 1/2          | 12.70 | 1 1/16-14   | 1.77     | 45 | 2.40        | 61 |           |    |
| GC-OTF90-1210 | 54605-1210 | 20306910 | 5/8          | 15.90 | 7/8-14      | 1.65     | 42 | 2.17        | 55 |           |    |
| GC-OTF90-1212 | 54605-1212 | 20306911 | 5/8          | 15.90 | 1 1/16-14   | 1.77     | 45 | 2.40        | 61 |           |    |

O-Ring Tube

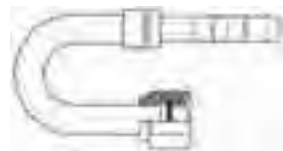
Female | Swivel | 90° Block Elbow



| Descriptive #  | Product #  | SAP #    | Hose Size ID |       | Thread Size | Drop (D) |    | Cut-Off (R) |    | Valve (V) |    |
|----------------|------------|----------|--------------|-------|-------------|----------|----|-------------|----|-----------|----|
|                |            |          | in.          | mm    |             | in.      | mm | in.         | mm | in.       | mm |
| GC-OTF90B-0808 | 54610-0808 | 20306912 | 13/32        | 10.30 | 3/4-16      | 0.91     | 23 | 2.32        | 59 |           |    |
| GC-OTF90B-1010 | 54610-1010 | 20306913 | 1/2          | 12.70 | 7/8-14      | 0.94     | 24 | 2.32        | 59 |           |    |
| GC-OTF90B-1210 | 54610-1210 | 20306914 | 5/8          | 15.90 | 7/8-14      | 0.94     | 24 | 2.32        | 59 |           |    |

O-Ring Tube

Female | Swivel | 180° Elbow



| Descriptive #  | Product #  | SAP #    | Hose Size ID |       | Thread Size | Drop (D) |    | Cut-Off (R) |    | Valve (V) |    |
|----------------|------------|----------|--------------|-------|-------------|----------|----|-------------|----|-----------|----|
|                |            |          | in.          | mm    |             | in.      | mm | in.         | mm | in.       | mm |
| GC-OTF180-0606 | 54615-0606 | 20307159 | 5/16         | 7.90  | 5/8-18      | 1.97     | 50 | 2.48        | 63 |           |    |
| GC-OTF180-0808 | 54615-0808 | 20307160 | 13/32        | 10.30 | 3/4-16      | 2.36     | 60 | 2.48        | 63 |           |    |
| GC-OTF180-1212 | 54615-1212 | 20307161 | 5/8          | 15.90 | 1 1/16-14   | 3.15     | 80 | 3.50        | 89 |           |    |

O-Ring Tube

Female | Swivel | R12 Valve



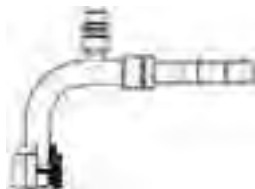
Drawing has R134a Valve  
Fittings have R12 Valve

| Descriptive #  | Product #  | SAP #    | Hose Size ID |       | Thread Size | Drop (D) |    | Cut-Off (R) |    | Valve (V) |      |
|----------------|------------|----------|--------------|-------|-------------|----------|----|-------------|----|-----------|------|
|                |            |          | in.          | mm    |             | in.      | mm | in.         | mm | in.       | mm   |
| GC-OTF12V-0606 | 54650-0606 | 20307162 | 5/16         | 7.90  | 5/8-18      |          |    | 1.42        | 36 | 1/4       | 6.35 |
| GC-OTF12V-0808 | 54650-0808 | 20307163 | 13/32        | 10.30 | 3/4-16      |          |    | 1.57        | 40 | 1/4       | 6.35 |
| GC-OTF12V-1010 | 54650-1010 | 20307164 | 1/2          | 12.70 | 7/8-14      |          |    | 1.97        | 50 | 1/4       | 6.35 |

“GC” Cool Clip® Fittings - For use with GALAXY® G4890 Hose

## O-Ring Tube

Female | Swivel, R12 Valve | 90° Elbow



Drawing has R134a Valve  
Fittings have R12 Valve

| Descriptive #    | Product #  | SAP #    | Hose Size ID |       | Thread Size | Drop (D) |    | Cut-Off (R) |    | Valve (V) |      |
|------------------|------------|----------|--------------|-------|-------------|----------|----|-------------|----|-----------|------|
|                  |            |          | in.          | mm    |             | in.      | mm | in.         | mm | in.       | mm   |
| GC-OTF12V90-0606 | 54655-0606 | 20306915 | 5/16         | 7.90  | 5/8-18      | 1.26     | 32 | 1.46        | 37 | 1/4       | 6.35 |
| GC-OTF12V90-0808 | 54655-0808 | 20306916 | 13/32        | 10.30 | 3/4-16      | 1.42     | 36 | 1.77        | 45 | 1/4       | 6.35 |
| GC-OTF12V90-1010 | 54655-1010 | 20306917 | 1/2          | 12.70 | 7/8-14      | 1.65     | 42 | 2.17        | 55 | 1/4       | 6.35 |
| GC-OTF12V90-1210 | 54655-1210 | 20306918 | 5/8          | 15.90 | 7/8-14      | 1.50     | 38 | 1.85        | 47 | 1/4       | 6.35 |

## O-Ring Tube

Female | Swivel | R134a Valve



| Descriptive #     | Product #  | SAP #    | Hose Size ID |       | Thread Size | Drop (D) |    | Cut-Off (R) |    | Valve (V) |    |
|-------------------|------------|----------|--------------|-------|-------------|----------|----|-------------|----|-----------|----|
|                   |            |          | in.          | mm    |             | in.      | mm | in.         | mm | in.       | mm |
| GC-OTF134V-0606   | 54660-0606 | 20306919 | 5/16         | 7.90  | 5/8-18      |          |    | 1.42        | 36 | 0.63      | 16 |
| GC-OTF134V-0808   | 54660-0808 | 20306920 | 13/32        | 10.30 | 3/4-16      |          |    | 1.57        | 40 | 0.63      | 16 |
| GC-OTF134V-1010   | 54660-1010 | 20306921 | 1/2          | 12.70 | 7/8-14      |          |    | 1.97        | 50 | 0.51      | 13 |
| GC-OTF134V-1210   | 54660-1210 | 20306922 | 5/8          | 15.90 | 7/8-14      |          |    | 1.97        | 50 | 0.51      | 13 |
| GC-OTF134V-1212   | 54660-1212 | 20307165 | 5/8          | 15.90 | 1 1/16-14   |          |    | 2.09        | 53 | 0.51      | 13 |
| GC-OTF134VHS-1010 | 54675-1010 | 20307172 | 1/2          | 12.70 | 7/8-14      |          |    | 1.97        | 50 | 0.63      | 16 |

## O-Ring Tube

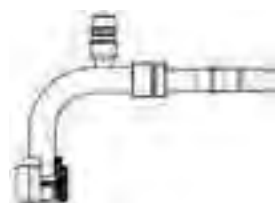
Female | Swivel | R134a Valve | 45° Elbow



| Descriptive #     | Product #  | SAP #    | Hose Size ID |       | Thread Size | Drop (D) |    | Cut-Off (R) |    | Valve (V) |    |
|-------------------|------------|----------|--------------|-------|-------------|----------|----|-------------|----|-----------|----|
|                   |            |          | in.          | mm    |             | in.      | mm | in.         | mm | in.       | mm |
| GC-OTF134V45-0606 | 54663-0606 | 20307166 | 5/16         | 7.90  | 5/8-18      | 0.55     | 14 | 1.34        | 34 | 0.63      | 16 |
| GC-OTF134V45-0808 | 54663-0808 | 20307167 | 13/32        | 10.30 | 3/4-16      | 0.59     | 15 | 1.38        | 35 | 0.63      | 16 |
| GC-OTF134V45-1010 | 54663-1010 | 20307168 | 1/2          | 12.70 | 7/8-14      | 0.67     | 17 | 1.42        | 36 | 0.51      | 13 |
| GC-OTF134V45-1210 | 54663-1210 | 20306923 | 5/8          | 15.90 | 7/8-14      | 0.67     | 17 | 1.42        | 36 | 0.51      | 13 |
| GC-OTF134V45-1212 | 54663-1212 | 20307169 | 5/8          | 15.90 | 1 1/16-14   | 0.94     | 24 | 2.13        | 54 | 0.51      | 13 |

## O-Ring Tube

Female, Swivel | R134a Valve | 90° Elbow

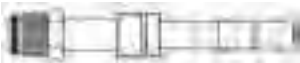


| Descriptive #     | Product #  | SAP #    | Hose Size ID |       | Thread Size | Drop (D) |    | Cut-Off (R) |    | Valve (V) |    |
|-------------------|------------|----------|--------------|-------|-------------|----------|----|-------------|----|-----------|----|
|                   |            |          | in.          | mm    |             | in.      | mm | in.         | mm | in.       | mm |
| GC-OTF134V90-0606 | 54665-0606 | 20306924 | 5/16         | 7.90  | 5/8-18      | 1.26     | 32 | 1.46        | 37 | 0.63      | 16 |
| GC-OTF134V90-0806 | 54665-0806 | 20307170 | 13/32        | 10.30 | 5/8-18      | 1.26     | 32 | 1.46        | 37 | 0.63      | 16 |
| GC-OTF134V90-0808 | 54665-0808 | 20306925 | 13/32        | 10.30 | 3/4-16      | 1.42     | 36 | 1.77        | 45 | 0.63      | 16 |
| GC-OTF134V90-1010 | 54665-1010 | 20306926 | 1/2          | 12.70 | 7/8-14      | 1.65     | 42 | 2.17        | 55 | 0.51      | 13 |
| GC-OTF134V90-1210 | 54665-1210 | 20306927 | 5/8          | 15.90 | 7/8-14      | 1.65     | 42 | 2.17        | 55 | 0.51      | 13 |
| GC-OTF134V90-1212 | 54665-1212 | 20307171 | 5/8          | 15.90 | 1 1/16-14   | 1.77     | 45 | 2.40        | 61 | 0.51      | 13 |

“GC” Cool Clip® Fittings - For use with GALAXY® G4890 Hose

O-Ring Tube

Male | Swivel



| Descriptive # | Product #  | SAP #    | Hose Size ID |       | Thread Size | Drop (D) |    | Cut-Off (R) |    | Valve (V) |    |
|---------------|------------|----------|--------------|-------|-------------|----------|----|-------------|----|-----------|----|
|               |            |          | in.          | mm    |             | in.      | mm | in.         | mm | in.       | mm |
| GC-OTM-0606   | 54700-0606 | 20306928 | 5/16         | 7.90  | 5/8-18      |          |    | 1.50        | 38 |           |    |
| GC-OTM-0607   | 54700-0607 | 20306929 | 5/16         | 7.90  | 11/16-16    |          |    | 1.50        | 38 |           |    |
| GC-OTM-0608   | 54700-0608 | 20306930 | 5/16         | 7.90  | 3/4-18      |          |    | 1.54        | 39 |           |    |
| GC-OTM-0806   | 54700-0806 | 20307173 | 13/32        | 10.30 | 5/8-18      |          |    | 1.54        | 39 |           |    |
| GC-OTM-0808   | 54700-0808 | 20306931 | 13/32        | 10.30 | 3/4-18      |          |    | 2.09        | 53 |           |    |
| GC-OTM-1010   | 54700-1010 | 20306932 | 1/2          | 12.70 | 7/8-18      |          |    | 2.17        | 55 |           |    |
| GC-OTM-1012   | 54700-1012 | 20306933 | 1/2          | 12.70 | 1 1/16-16   |          |    | 2.17        | 55 |           |    |
| GC-OTM-1210   | 54700-1210 | 20306934 | 5/8          | 15.90 | 7/8-18      |          |    | 2.17        | 55 |           |    |
| GC-OTM-1212   | 54700-1212 | 20306935 | 5/8          | 15.90 | 1 1/16-16   |          |    | 2.40        | 61 |           |    |

O-Ring Tube

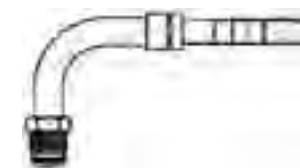
Male | Swivel | 45° Elbow



| Descriptive # | Product #  | SAP #    | Hose Size ID |       | Thread Size | Drop (D) |    | Cut-Off (R) |    | Valve (V) |    |
|---------------|------------|----------|--------------|-------|-------------|----------|----|-------------|----|-----------|----|
|               |            |          | in.          | mm    |             | in.      | mm | in.         | mm | in.       | mm |
| GC-OTM45-0606 | 54703-0606 | 20306936 | 5/16         | 7.90  | 5/8-18      | 0.87     | 22 | 1.14        | 29 |           |    |
| GC-OTM45-0608 | 54703-0608 | 20307174 | 5/16         | 7.90  | 3/4-18      | 0.87     | 22 | 1.14        | 29 |           |    |
| GC-OTM45-0806 | 54703-0806 | 20307175 | 13/32        | 10.30 | 5/8-18      | 0.87     | 22 | 1.14        | 29 |           |    |
| GC-OTM45-0808 | 54703-0808 | 20306937 | 13/32        | 10.30 | 3/4-18      | 0.98     | 25 | 1.42        | 36 |           |    |
| GC-OTM45-1010 | 54703-1010 | 20306938 | 1/2          | 12.70 | 7/8-18      | 1.06     | 27 | 1.65        | 42 |           |    |
| GC-OTM45-1210 | 54703-1210 | 20306939 | 5/8          | 15.90 | 7/8-18      | 1.18     | 30 | 1.81        | 46 |           |    |
| GC-OTM45-1212 | 54703-1212 | 20306940 | 5/8          | 15.90 | 1 1/16-16   | 1.18     | 30 | 1.81        | 46 |           |    |

O-Ring Tube

Male | Swivel | 90° Elbow



| Descriptive # | Product #  | SAP #    | Hose Size ID |       | Thread Size | Drop (D) |    | Cut-Off (R) |    | Valve (V) |    |
|---------------|------------|----------|--------------|-------|-------------|----------|----|-------------|----|-----------|----|
|               |            |          | in.          | mm    |             | in.      | mm | in.         | mm | in.       | mm |
| GC-OTM90-0606 | 54705-0606 | 20306941 | 5/16         | 7.90  | 5/8-18      | 1.46     | 37 | 1.38        | 35 |           |    |
| GC-OTM90-0608 | 54705-0608 | 20306942 | 5/16         | 7.90  | 3/4-18      | 1.46     | 37 | 1.38        | 35 |           |    |
| GC-OTM90-0806 | 54705-0806 | 20306943 | 13/32        | 10.30 | 5/8-18      | 1.46     | 37 | 1.38        | 35 |           |    |
| GC-OTM90-0808 | 54705-0808 | 20306944 | 13/32        | 10.30 | 3/4-18      | 1.77     | 45 | 1.69        | 43 |           |    |
| GC-OTM90-1010 | 54705-1010 | 20306945 | 1/2          | 12.70 | 7/8-18      | 2.05     | 52 | 2.01        | 51 |           |    |
| GC-OTM90-1012 | 54705-1012 | 20306946 | 1/2          | 12.70 | 1 1/16-16   | 2.05     | 52 | 2.01        | 51 |           |    |
| GC-OTM90-1210 | 54705-1210 | 20306947 | 5/8          | 15.90 | 7/8-18      | 2.05     | 52 | 2.01        | 51 |           |    |
| GC-OTM90-1212 | 54705-1212 | 20306948 | 5/8          | 15.90 | 1 1/16-16   | 2.36     | 60 | 2.24        | 57 |           |    |

“GC” Cool Clip® Fittings - For use with GALAXY® G4890 Hose

## O-Ring Tube

Male | Swivel | Long Pilot



| Descriptive # | Product #  | SAP #    | Hose Size ID |       | Thread Size | Drop (D) |    | Cut-Off (R) |    | Valve (V) |    |
|---------------|------------|----------|--------------|-------|-------------|----------|----|-------------|----|-----------|----|
|               |            |          | in.          | mm    |             | in.      | mm | in.         | mm | in.       | mm |
| GC-OTMLP-0606 | 54720-0606 | 20307176 | 5/16         | 7.90  | 5/8-18      |          |    | 1.50        | 38 |           |    |
| GC-OTMLP-0808 | 54720-0808 | 20307177 | 13/32        | 10.30 | 3/4-18      |          |    | 2.09        | 53 |           |    |
| GC-OTMLP-1010 | 54720-1010 | 20307178 | 1/2          | 12.70 | 7/8-18      |          |    | 2.17        | 55 |           |    |
| GC-OTMLP-1210 | 54720-1210 | 20307179 | 5/8          | 15.90 | 7/8-18      |          |    | 2.17        | 55 |           |    |

## O-Ring Tube

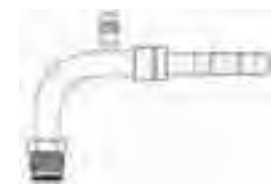
Male | Swivel | R134a Valve



| Descriptive #   | Product #  | SAP #    | Hose Size ID |       | Thread Size | Drop (D) |    | Cut-Off (R) |    | Valve (V) |    |
|-----------------|------------|----------|--------------|-------|-------------|----------|----|-------------|----|-----------|----|
|                 |            |          | in.          | mm    |             | in.      | mm | in.         | mm | in.       | mm |
| GC-OTM134V-0606 | 54730-0606 | 20307180 | 5/16         | 7.90  | 5/8-18      |          |    | 1.42        | 36 | 0.63      | 16 |
| GC-OTM134V-0808 | 54730-0808 | 20307181 | 13/32        | 10.30 | 3/4-18      |          |    | 1.57        | 40 | 0.63      | 16 |
| GC-OTM134V-1010 | 54730-1010 | 20307182 | 1/2          | 12.70 | 7/8-18      |          |    | 1.97        | 50 | 0.51      | 13 |
| GC-OTM134V-1210 | 54730-1210 | 20306949 | 5/8          | 15.90 | 7/8-18      |          |    | 2.09        | 53 | 0.51      | 13 |
| GC-OTM134V-1212 | 54730-1212 | 20307183 | 5/8          | 15.90 | 1 1/16-16   |          |    | 2.09        | 53 | 0.51      | 13 |

## O-Ring Tube

Male | Swivel | R134a Valve | 90° Elbow



| Descriptive #     | Product #  | SAP #    | Hose Size ID |       | Thread Size | Drop (D) |    | Cut-Off (R) |    | Valve (V) |    |
|-------------------|------------|----------|--------------|-------|-------------|----------|----|-------------|----|-----------|----|
|                   |            |          | in.          | mm    |             | in.      | mm | in.         | mm | in.       | mm |
| GC-OTM134V90-1010 | 54735-1010 | 20307184 | 1/2          | 12.70 | 7/8-18      | 2.05     | 52 | 2.01        | 51 | 0.51      | 13 |
| GC-OTM134V90-1210 | 54735-1210 | 20306950 | 5/8          | 15.90 | 7/8-18      | 2.05     | 52 | 2.01        | 51 | 0.51      | 13 |

## SAE 45° Flare

Female | Swivel



| Descriptive # | Product #  | SAP #    | Hose Size ID |       | Thread Size | Drop (D) |    | Cut-Off (R) |    | Valve (V) |    |
|---------------|------------|----------|--------------|-------|-------------|----------|----|-------------|----|-----------|----|
|               |            |          | in.          | mm    |             | in.      | mm | in.         | mm | in.       | mm |
| GC-SFFX-0606  | 54760-0606 | 20306951 | 5/16         | 7.90  | 5/8-18      |          |    | 1.73        | 44 |           |    |
| GC-SFFX-0608  | 54760-0608 | 20306952 | 5/16         | 7.90  | 3/4-16      |          |    | 1.73        | 44 |           |    |
| GC-SFFX-0806  | 54760-0806 | 20307185 | 13/32        | 10.30 | 5/8-18      |          |    | 2.13        | 54 |           |    |
| GC-SFFX-0808  | 54760-0808 | 20306953 | 13/32        | 10.30 | 3/4-16      |          |    | 2.13        | 54 |           |    |
| GC-SFFX-1008  | 54760-1008 | 20307186 | 1/2          | 12.70 | 3/4-16      |          |    | 2.13        | 54 |           |    |
| GC-SFFX-1010  | 54760-1010 | 20306954 | 1/2          | 12.70 | 7/8-14      |          |    | 2.32        | 59 |           |    |
| GC-SFFX-1210  | 54760-1210 | 20306955 | 5/8          | 15.90 | 7/8-14      |          |    | 2.32        | 59 |           |    |
| GC-SFFX-1212  | 54760-1212 | 20306956 | 5/8          | 15.90 | 1 1/16-14   |          |    | 2.52        | 64 |           |    |

## “GC” Cool Clip® Fittings – For use with GALAXY® G4890 Hose

## SAE 45° Flare

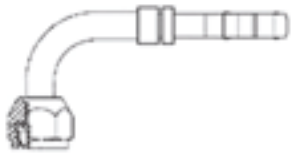
Female | Swivel | 45° Elbow



| Descriptive #  | Product #  | SAP #    | Hose Size ID |       | Thread Size | Drop (D) |    | Cut-Off (R) |    | Valve (V) |    |
|----------------|------------|----------|--------------|-------|-------------|----------|----|-------------|----|-----------|----|
|                |            |          | in.          | mm    |             | in.      | mm | in.         | mm | in.       | mm |
| GC-SFFX45-0606 | 54763-0606 | 20306957 | 5/16         | 7.90  | 5/8-18      | 0.79     | 20 | 2.52        | 64 | —         | —  |
| GC-SFFX45-0608 | 54763-0608 | 20306958 | 5/16         | 7.90  | 3/4-16      | 0.79     | 20 | 2.52        | 64 | —         | —  |
| GC-SFFX45-0806 | 54763-0806 | 20307187 | 13/32        | 10.30 | 5/8-18      | 0.79     | 20 | 2.52        | 64 | —         | —  |
| GC-SFFX45-0808 | 54763-0808 | 20306959 | 13/32        | 10.30 | 3/4-16      | 0.79     | 20 | 2.72        | 69 | —         | —  |
| GC-SFFX45-1008 | 54763-1008 | 20307188 | 1/2          | 12.70 | 3/4-16      | 0.79     | 20 | 2.72        | 69 | —         | —  |
| GC-SFFX45-1010 | 54763-1010 | 20306960 | 1/2          | 12.70 | 7/8-14      | 0.87     | 22 | 2.72        | 69 | —         | —  |
| GC-SFFX45-1210 | 54763-1210 | 20306961 | 5/8          | 15.90 | 7/8-14      | 0.87     | 22 | 2.72        | 69 | —         | —  |
| GC-SFFX45-1212 | 54763-1212 | 20306962 | 5/8          | 15.90 | 1 1/16-14   | 0.87     | 22 | 2.72        | 69 | —         | —  |

## SAE 45° Flare

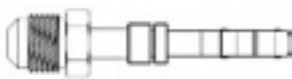
Female | Swivel | 90° Elbow



| Descriptive #  | Product #  | SAP #    | Hose Size ID |       | Thread Size | Drop (D) |    | Cut-Off (R) |    | Valve (V) |    |
|----------------|------------|----------|--------------|-------|-------------|----------|----|-------------|----|-----------|----|
|                |            |          | in.          | mm    |             | in.      | mm | in.         | mm | in.       | mm |
| GC-SFFX90-0606 | 54765-0606 | 20306963 | 5/16         | 7.90  | 5/8-18      | 1.18     | 30 | 1.73        | 44 | —         | —  |
| GC-SFFX90-0608 | 54765-0608 | 20306964 | 5/16         | 7.90  | 3/4-16      | 1.18     | 30 | 1.73        | 44 | —         | —  |
| GC-SFFX90-0806 | 54765-0806 | 20307189 | 13/32        | 10.30 | 5/8-18      | 1.18     | 30 | 1.73        | 44 | —         | —  |
| GC-SFFX90-0808 | 54765-0808 | 20306965 | 13/32        | 10.30 | 3/4-16      | 1.77     | 45 | 1.73        | 44 | —         | —  |
| GC-SFFX90-1008 | 54765-1008 | 20307190 | 1/2          | 12.70 | 3/4-16      | 1.77     | 45 | 1.73        | 44 | —         | —  |
| GC-SFFX90-1010 | 54765-1010 | 20306966 | 1/2          | 12.70 | 7/8-14      | 1.77     | 45 | 2.13        | 54 | —         | —  |
| GC-SFFX90-1210 | 54765-1210 | 20306967 | 5/8          | 15.90 | 7/8-14      | 1.77     | 45 | 2.13        | 54 | —         | —  |
| GC-SFFX90-1212 | 54765-1212 | 20306968 | 5/8          | 15.90 | 1 1/16-14   | 1.77     | 45 | 2.13        | 54 | —         | —  |

## SAE 45° Flare

Male



| Descriptive # | Product #  | SAP #    | Hose Size ID |       | Thread Size | Drop (D) |    | Cut-Off (R) |    | Valve (V) |    |
|---------------|------------|----------|--------------|-------|-------------|----------|----|-------------|----|-----------|----|
|               |            |          | in.          | mm    |             | in.      | mm | in.         | mm | in.       | mm |
| GC-SFM-0606A  | 54780-0606 | 20306969 | 5/16         | 7.90  | 5/8-18      | —        | —  | 1.73        | 44 | —         | —  |
| GC-SFM-0808A  | 54780-0808 | 20306970 | 13/32        | 10.30 | 3/4-16      | —        | —  | 1.73        | 44 | —         | —  |
| GC-SFM-1010A  | 54780-1010 | 20306971 | 1/2          | 12.70 | 7/8-14      | —        | —  | 1.85        | 47 | —         | —  |
| GC-SFM-1212A  | 54780-1212 | 20306972 | 5/8          | 15.90 | 1 1/16-14   | —        | —  | 2.09        | 53 | —         | —  |



“GC” Cool Clip® Fittings - For use with GALAXY® G4890 Hose

## SAE 45° Flare

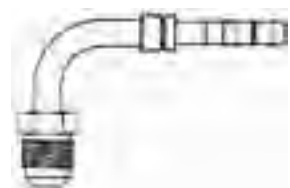
Male | 45° Elbow



| Descriptive #  | Product #  | SAP #    | Hose Size ID |       | Thread Size | Drop (D) |    | Cut-Off (R) |    | Valve (V) |    |
|----------------|------------|----------|--------------|-------|-------------|----------|----|-------------|----|-----------|----|
|                |            |          | in.          | mm    |             | in.      | mm | in.         | mm | in.       | mm |
| GC-SFM45-0606A | 54783-0606 | 20306973 | 5/16         | 7.90  | 5/8-18      | 0.75     | 19 | 1.73        | 44 |           |    |
| GC-SFM45-0808A | 54783-0808 | 20306974 | 13/32        | 10.30 | 3/4-16      | 0.94     | 24 | 1.73        | 44 |           |    |
| GC-SFM45-1010A | 54783-1010 | 20306975 | 1/2          | 12.70 | 7/8-14      | 1.26     | 32 | 2.13        | 54 |           |    |
| GC-SFM45-1212A | 54783-1212 | 20306976 | 5/8          | 15.90 | 1 1/16-14   | 1.38     | 35 | 2.13        | 54 |           |    |

## SAE 45° Flare

Male | 90° Elbow



| Descriptive #  | Product #  | SAP #    | Hose Size ID |       | Thread Size | Drop (D) |    | Cut-Off (R) |    | Valve (V) |    |
|----------------|------------|----------|--------------|-------|-------------|----------|----|-------------|----|-----------|----|
|                |            |          | in.          | mm    |             | in.      | mm | in.         | mm | in.       | mm |
| GC-SFM90-0606A | 54785-0606 | 20306977 | 5/16         | 7.90  | 5/8-18      | 1.18     | 30 | 1.73        | 44 |           |    |
| GC-SFM90-0808A | 54785-0808 | 20306978 | 13/32        | 10.30 | 3/4-16      | 1.77     | 45 | 1.73        | 44 |           |    |
| GC-SFM90-1010A | 54785-1010 | 20306979 | 1/2          | 12.70 | 7/8-14      | 1.77     | 45 | 2.13        | 54 |           |    |
| GC-SFM90-1212A | 54785-1212 | 20306980 | 5/8          | 15.90 | 1 1/16-14   | 1.77     | 45 | 2.13        | 54 |           |    |

## A/C Adapters

O-Ring Tube Compressor  
Female to O-Ring Insert

Male | 90° Elbow | with R134a Valve



| Descriptive #           | Product #  | SAP #    | Thread Size OTCF | Thread Size OIM |
|-------------------------|------------|----------|------------------|-----------------|
| AC-OTCF10-OIM08-90-134V | 50900-1008 | 20307079 | 1-14             | 3/4-16          |
| AC-OTCF10-OIM10-90-134V | 50900-1010 | 20307080 | 1-14             | 7/8-14          |

O-Ring Tube  
Female to O-Ring Insert

Male | with R12 Valve



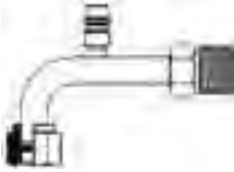
Drawing has R134a Valve  
Fittings have R12 Valve

| Descriptive #      | Product #  | SAP #    | Thread Size OTCF | Thread Size OIM |
|--------------------|------------|----------|------------------|-----------------|
| AC-OTF06-OIM06-12V | 50910-0606 | 20307081 | 5/8-18           | 5/8-18          |
| AC-OTF08-OIM08-12V | 50910-0808 | 20307082 | 3/4-16           | 3/4-16          |
| AC-OTF10-OIM10-12V | 50910-1010 | 20307083 | 7/8-14           | 7/8-14          |
| AC-OTF12-OIM12-12V | 50910-1212 | 20307084 | 1 1/16-14        | 1 1/16-14       |

## A/C Adapters

## O-Ring Tube Female to O-Ring Insert

Male | 90° Elbow | with R12 Valve

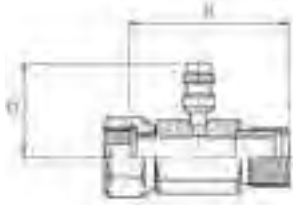


Drawing has R134a Valve  
Fittings have R12 Valve

| Descriptive #         | Product #  | SAP #    | Thread Size OTCF | Thread Size OIM |
|-----------------------|------------|----------|------------------|-----------------|
| AC-OTF06-OIM06-90-12V | 50915-0606 | 20307085 | 5/8-18           | 5/8-18          |
| AC-OTF08-OIM08-90-12V | 50915-0808 | 20307086 | 3/4-16           | 3/4-16          |
| AC-OTF10-OIM10-90-12V | 50915-1010 | 20307087 | 7/8-14           | 7/8-14          |
| AC-OTF12-OIM12-90-12V | 50915-1212 | 20307088 | 1 1/16-14        | 1 1/16-14       |

## O-Ring Tube Female to O-Ring Insert

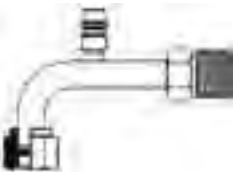
Male | with R134a Valve



| Descriptive #       | Product #  | SAP #    | Thread Size OTCF | Thread Size OIM |
|---------------------|------------|----------|------------------|-----------------|
| AC-OTF06-OIM06-134V | 50920-0606 | 20306798 | 5/8-18           | 5/8-18          |
| AC-OTF08-OIM08-134V | 50920-0808 | 20306799 | 3/4-16           | 3/4-16          |
| AC-OTF10-OIM10-134V | 50920-1010 | 20306800 | 7/8-14           | 7/8-14          |
| AC-OTF12-OIM12-134V | 50920-1212 | 20306801 | 1 1/16-14        | 1 1/16-14       |

## O-Ring Tube Female to O-Ring Insert

Male | 90° Elbow | with R134a Valve



| Descriptive #          | Product #  | SAP #    | Thread Size OTCF | Thread Size OIM |
|------------------------|------------|----------|------------------|-----------------|
| AC-OTF06-OIM06-90-134V | 50925-0606 | 20306802 | 5/8-18           | 5/8-18          |
| AC-OTF08-OIM08-90-134V | 50925-0808 | 20306803 | 3/4-16           | 3/4-16          |
| AC-OTF10-OIM10-90-134V | 50925-1010 | 20306804 | 7/8-14           | 7/8-14          |
| AC-OTF12-OIM12-90-134V | 50925-1212 | 20306805 | 1 1/16-14        | 1 1/16-14       |

## “AC” Crimp &amp; “GC” Cool Clip® Fitting Accessories

## Flareless Tube Nuts



| Descriptive # | Product #  | SAP #    | Thread Size | Tube OD |
|---------------|------------|----------|-------------|---------|
|               |            |          |             | in.     |
| AC-FTN-0006   | 50250-0006 | 20306632 | 5/8-18      | 3/8     |
| AC-FTN-0008   | 50250-0008 | 20306633 | 3/4-16      | 1/2     |
| AC-FTN-0010   | 50250-0010 | 20306634 | 7/8-14      | 5/8     |
| AC-FTN-0012   | 50250-0012 | 20306635 | 1 1/16-14   | 3/4     |

## “AC” Crimp &amp; “GC” Cool Clip® Fitting Accessories

## Flareless Tube Sleeves



| Descriptive # | Product #  | SAP #    | Tube OD |
|---------------|------------|----------|---------|
|               |            |          | in.     |
| AC-FTS-0006   | 50255-0006 | 20306636 | 3/8     |
| AC-FTS-0008   | 50255-0008 | 20306637 | 1/2     |
| AC-FTS-0010   | 50255-0010 | 20306638 | 5/8     |
| AC-FTS-0012   | 50255-0012 | 20306639 | 3/4     |

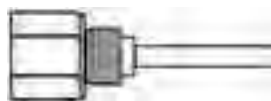
## Flareless Tube Sleeves

Metric



| Descriptive # | Product #  | SAP #    | Tube OD |
|---------------|------------|----------|---------|
|               |            |          | mm      |
| AC-FTSM-0008  | 50260-0008 | 20306640 | 8.0     |
| AC-FTSM-0012  | 50260-0012 | 20306641 | 12.0    |
| AC-FTSM-0015  | 50260-0015 | 20306642 | 14.5    |

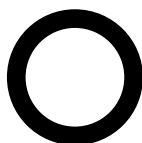
## Inline Orifice Tubes



| Descriptive #   | Product #  | SAP #    | Orifice Tube OD |     | Orifice Tube Length |      | Description                       |
|-----------------|------------|----------|-----------------|-----|---------------------|------|-----------------------------------|
|                 |            |          | in.             | mm  | in.                 | mm   |                                   |
| AC-ILOTORA-0057 | 50401-0057 | 20306995 | .057            | 1.4 | 3.50                | 88.9 | Inline Orifice Tube, Ford, Orange |
| AC-ILOTRED-0062 | 50401-0062 | 20306996 | .062            | 1.6 | 3.50                | 88.9 | Inline Orifice Tube, Ford, Red    |
| AC-ILOTBLU-0072 | 50401-0072 | 20306997 | .072            | 1.8 | 3.50                | 88.9 | Inline Orifice Tube, Ford, Blue   |
| AC-ILOTBLK-0072 | 50402-0072 | 20306998 | .072            | 1.8 | 3.50                | 88.9 | Inline Orifice Tube, GM, Black    |
| AC-ILOTWHI-0072 | 50403-0072 | 20306999 | .072            | 1.8 | 3.50                | 88.9 | Inline Orifice Tube, GM, White    |

## O-Ring

for Ford Spring Lock

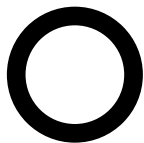


| Descriptive # | Product #  | SAP #    | O-Ring ID |      |
|---------------|------------|----------|-----------|------|
|               |            |          | in.       | mm   |
| GC-OFSL-0006  | 54450-0006 | 20306556 | 3/8       | 9.5  |
| GC-OFSL-0008  | 54450-0008 | 20306557 | 1/2       | 12.7 |
| GC-OFSL-0010  | 54450-0010 | 20306558 | 5/8       | 15.9 |
| GC-OFSL-0012  | 54450-0012 | 20306559 | 3/4       | 19.1 |

## “AC” Crimp & “GC” Cool Clip® Fitting Accessories

### O-Ring

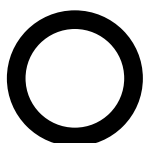
for Switch



| Descriptive # | Product #  | SAP #    | O-Ring ID |     |
|---------------|------------|----------|-----------|-----|
|               |            |          | in.       | mm  |
| GC-OSWCH-0006 | 54455-0006 | 20307200 | 3/8       | 9.5 |

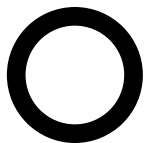
### O-Ring

for Tube Fittings



| Descriptive # | Product #  | SAP #    | O-Ring ID |      | O-Ring Thickness |     | Description |
|---------------|------------|----------|-----------|------|------------------|-----|-------------|
|               |            |          | in.       | mm   | in.              | mm  |             |
| AC-OTUBE-0006 | 50460-0006 | 20306552 | .30       | 7.6  | .07              | 1.8 |             |
| AC-OTUBE-0008 | 50460-0008 | 20306553 | .43       | 10.9 | .07              | 1.8 |             |
| AC-OTUBE-0010 | 50460-0010 | 20306554 | .55       | 14.0 | .07              | 1.8 |             |
| AC-OTUBE-0012 | 50460-0012 | 20306555 | .68       | 17.3 | .07              | 1.8 |             |

### Sealing Washers



| Descriptive # | Product #  | SAP #    | ID  | Product Description                |
|---------------|------------|----------|-----|------------------------------------|
|               |            |          | in. |                                    |
| AC-SWA-0012   | 50800-0012 | 20306787 | 3/4 | Sealing Washer, Accumulator        |
| AC-SWCN-0010  | 50803-0010 | 20306788 | 5/8 | Sealing Washer, Compressor, Narrow |
| AC-SWCN-0012  | 50803-0012 | 20306789 | 3/4 | Sealing Washer, Compressor, Narrow |
| AC-SWCW-0010  | 50805-0010 | 20306790 | 5/8 | Sealing Washer, Compressor, Wide   |

### Valve Adapters



| Descriptive #       | Product #  | SAP #    | R12 Thread Size | R134a | Product Description         |
|---------------------|------------|----------|-----------------|-------|-----------------------------|
|                     |            |          | in.             | mm    |                             |
| AC-VA12V3/16-134V16 | 50820-0001 | 20306791 | 3/8-24          | 16    | Converts R12 to R134a valve |
| AC-VA12V1/4-134V13  | 50820-0002 | 20306792 | 7/16-20         | 13    | Converts R12 to R134a valve |
| AC-VA12V1/4-134V16  | 50820-0003 | 20306793 | 7/16-20         | 16    | Converts R12 to R134a valve |

### Valve Caps



| Descriptive #    | Product #  | SAP #    | Valve Style |     |
|------------------|------------|----------|-------------|-----|
|                  |            |          | in.         | mm  |
| AC-VC12V-0001    | 50830-0001 | 20306794 | R12         | 1/4 |
| AC-VC134VHS-0002 | 50830-0002 | 20306795 | R134a H.S.  | 16  |
| AC-VC134VLS-0003 | 50830-0003 | 20306796 | R134a L.S.  | 13  |

## “AC” Crimp &amp; “GC” Cool Clip® Fitting Accessories

## Valve Core



| Descriptive # | Product #  | SAP #    | Thread Size |
|---------------|------------|----------|-------------|
| AC-VCORE-0001 | 50835-0001 | 20306797 | .210x36     |

## Metal Clip



| Descriptive # | Product #  | SAP #    | Hose ID |      |
|---------------|------------|----------|---------|------|
|               |            |          | in.     | mm   |
| GC-CLIP-0006  | 54850-0006 | 20306981 | 5/16    | 7.9  |
| GC-CLIP-0008  | 54850-0008 | 20306982 | 13/32   | 10.3 |
| GC-CLIP-0010  | 54850-0010 | 20306983 | 1/2     | 12.7 |
| GC-CLIP-0012  | 54850-0012 | 20306984 | 5/8     | 15.9 |

## Plastic Clip Holder



| Descriptive #    | Product #  | SAP #    | Hose ID |      |
|------------------|------------|----------|---------|------|
|                  |            |          | in.     | mm   |
| GC-CLIPHLDR-0006 | 54855-0006 | 20306985 | 5/16    | 7.9  |
| GC-CLIPHLDR-0008 | 54855-0008 | 20306986 | 13/32   | 10.3 |
| GC-CLIPHLDR-0010 | 54855-0010 | 20306987 | 1/2     | 12.7 |
| GC-CLIPHLDR-0012 | 54855-0012 | 20306988 | 5/8     | 15.9 |

## Clip Pliers

A/C Fitting Accessories



| Descriptive #  | Product #  | SAP #    | Product Description                             |
|----------------|------------|----------|-------------------------------------------------|
| GC-PLIERS-0001 | 54860-0001 | 20306989 | Clip Pliers for assembly of Cool Clip® Fittings |

## Hose Cutting Tool &amp; Replacement Blades

A/C Fitting Accessories



| Descriptive # | Product # | SAP #    | Product Description                          |
|---------------|-----------|----------|----------------------------------------------|
| 65090 HCT     | 65090     | 20038629 | Hose Cutting Tool for G4890 Hose             |
| 65091 HCTRB   | 65091     | 20052606 | Hose Cutting Tool Replacement Blades - 2/Pkg |

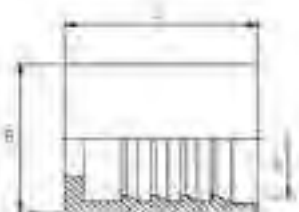
# Uni-Crimp™ and Dual-Grip™ Fitting Ferrules

This section lists dimensions and attributes for 11 Uni-Crimp™ and 2 Dual-Grip™ style ferrules.

The Uni-Crimp™ style ferrules can be non-skive or external skive, depending on the hose family. Uni-Crimp™ ferrules are to be used only with Uni-Crimp™ style stems.

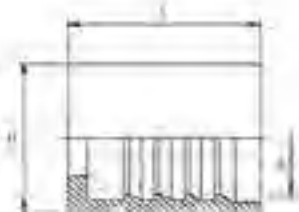
The Dual-Grip™ style ferrules are external and internal skive and are to be used only with Dual-Grip™ style stems.

## Uni-Crimp™ UCF1 Ferrule



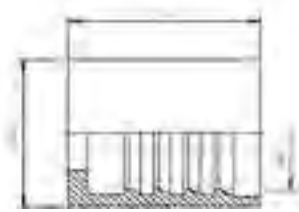
| Descriptive/<br>Product # | SAP #    | Hose Size ID |     | Ferrule Inside<br>Diameter (A) |       | Ferrule Outside<br>Diameter (B) |      | Ferrule Length (L) |      |
|---------------------------|----------|--------------|-----|--------------------------------|-------|---------------------------------|------|--------------------|------|
|                           |          | in.          | mm  | in.                            | mm    | in.                             | mm   | in.                | mm   |
| UCF1-03                   | 20242266 | 3/16         | 4.8 | 0.449                          | 431.6 | 0.669                           | 17.0 | 0.945              | 24.0 |

## Uni-Crimp™ UCF2 Ferrule



| Descriptive/<br>Product # | SAP #    | Hose Size ID |      | Ferrule Inside<br>Diameter (A) |      | Ferrule Outside<br>Diameter (B) |      | Ferrule Length (L) |      |
|---------------------------|----------|--------------|------|--------------------------------|------|---------------------------------|------|--------------------|------|
|                           |          | in.          | mm   | in.                            | mm   | in.                             | mm   | in.                | mm   |
| UCF2-03                   | 20242268 | 3/16         | 4.8  | 0.493                          | 12.5 | 0.750                           | 19.1 | 0.940              | 23.9 |
| UCF2-04                   | 20242276 | 1/4          | 6.4  | 0.551                          | 14.0 | 0.827                           | 21.0 | 1.035              | 26.3 |
| UCF2-05                   | 20242272 | 5/16         | 7.9  | 0.618                          | 15.7 | 0.866                           | 22.0 | 1.043              | 26.5 |
| UCF2-06                   | 20242273 | 3/8          | 9.5  | 0.713                          | 18.1 | 0.984                           | 25.0 | 1.122              | 28.5 |
| UCF2-08                   | 20242270 | 1/2          | 12.7 | 0.843                          | 21.4 | 1.142                           | 29.0 | 1.366              | 34.7 |
| UCF2-08S                  | 20575005 | 1/2          | 12.7 | 0.843                          | 21.4 | 1.142                           | 29.0 | 1.366              | 34.7 |
| UCF2-10                   | 20242275 | 5/8          | 15.9 | 0.984                          | 25.0 | 1.260                           | 32.0 | 1.476              | 37.5 |
| UCF2-12                   | 20242264 | 3/4          | 19.0 | 1.134                          | 28.8 | 1.417                           | 36.0 | 1.624              | 41.2 |
| UCF2-16                   | 20242267 | 1            | 25.4 | 1.437                          | 36.5 | 1.772                           | 45.0 | 1.874              | 47.6 |
| UCF2-32                   | 20309909 | 2            | 50.8 | 2.643                          | 67.1 | 3.228                           | 82.0 | 2.953              | 75.0 |

## Uni-Crimp™ UCF3 Ferrule



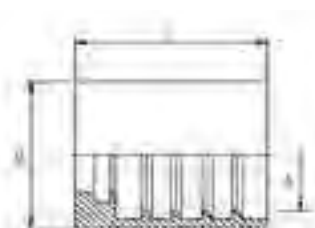
| Descriptive/<br>Product # | SAP #    | Hose Size ID |      | Ferrule Inside<br>Diameter (A) |      | Ferrule Outside<br>Diameter (B) |      | Ferrule Length (L) |      |
|---------------------------|----------|--------------|------|--------------------------------|------|---------------------------------|------|--------------------|------|
|                           |          | in.          | mm   | in.                            | mm   | in.                             | mm   | in.                | mm   |
| UCF3-04                   | 20241234 | 1/4          | 6.4  | 0.630                          | 16.0 | 0.866                           | 22.0 | 1.035              | 26.3 |
| UCF3-06                   | 20241235 | 3/8          | 9.5  | 0.724                          | 18.4 | 0.984                           | 25.0 | 1.122              | 28.5 |
| UCF3-08                   | 20671286 | 1/2          | 12.7 | 0.843                          | 21.4 | 1.142                           | 29.0 | 1.366              | 34.7 |
| UCF3-12                   | 20668542 | 3/8          | 19.0 | 1.172                          | 29.8 | 1.457                           | 37.0 | 1.642              | 41.7 |

## Uni-Crimp™ UCF4 Ferrule



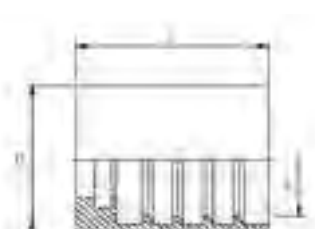
| Descriptive/<br>Product # | SAP #    | Hose Size ID |      | Ferrule Inside<br>Diameter (A) |      | Ferrule Outside<br>Diameter (B) |      | Ferrule Length (L) |      |
|---------------------------|----------|--------------|------|--------------------------------|------|---------------------------------|------|--------------------|------|
|                           |          | in.          | mm   | in.                            | mm   | in.                             | mm   | in.                | mm   |
| UCF4-20                   | 20241233 | 1¼           | 31.8 | 1.764                          | 44.8 | 2.165                           | 55.0 | 1.567              | 39.8 |

## Uni-Crimp™ UCF5 Ferrule



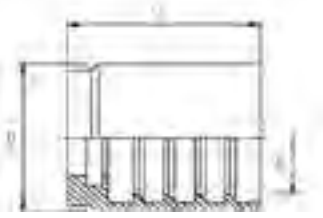
| Descriptive/<br>Product # | SAP #    | Hose Size ID |      | Ferrule Inside<br>Diameter (A) |      | Ferrule Outside<br>Diameter (B) |      | Ferrule Length (L) |      |
|---------------------------|----------|--------------|------|--------------------------------|------|---------------------------------|------|--------------------|------|
|                           |          | in.          | mm   | in.                            | mm   | in.                             | mm   | in.                | mm   |
| UCF5-32                   | 20350849 | 2            | 50.8 | 2.756                          | 70.0 | 3.228                           | 82.0 | 2.874              | 73.0 |

## Uni-Crimp™ UCF6 Ferrule



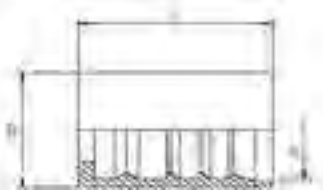
| Descriptive/<br>Product # | SAP #    | Hose Size ID |      | Ferrule Inside<br>Diameter (A) |      | Ferrule Outside<br>Diameter (B) |      | Ferrule Length (L) |      |
|---------------------------|----------|--------------|------|--------------------------------|------|---------------------------------|------|--------------------|------|
|                           |          | in.          | mm   | in.                            | mm   | in.                             | mm   | in.                | mm   |
| UCF6-03                   | 20288135 | 3/16         | 4.8  | 0.559                          | 14.2 | 0.787                           | 20.0 | 0.957              | 24.3 |
| UCF6-04                   | 20242277 | 1/4          | 6.4  | 0.638                          | 16.2 | 0.840                           | 21.3 | 1.035              | 26.3 |
| UCF6-05                   | 20241236 | 5/16         | 7.9  | 0.709                          | 18.0 | 0.984                           | 25.0 | 1.035              | 26.3 |
| UCF6-06                   | 20242282 | 3/8          | 9.5  | 0.823                          | 20.9 | 0.984                           | 25.0 | 1.071              | 27.2 |
| UCF6-08                   | 20242269 | 1/2          | 12.7 | 0.961                          | 24.4 | 1.142                           | 29.0 | 1.291              | 32.8 |
| UCF6-10                   | 20283401 | 5/8          | 15.9 | 1.091                          | 27.7 | 1.339                           | 34.0 | 1.402              | 35.6 |
| UCF6-12                   | 20242279 | 3/4          | 19.0 | 1.252                          | 31.8 | 1.496                           | 38.0 | 1.520              | 38.6 |
| UCF6-12S                  | 20777819 | 3/4          | 19.0 | 1.252                          | 31.8 | 1.496                           | 38.0 | 1.520              | 38.6 |
| UCF6-16                   | 20242280 | 1            | 25.4 | 1.654                          | 42.0 | 1.969                           | 50.0 | 1.787              | 45.4 |
| UCF6-16S                  | 20777819 | 1            | 25.4 | 1.654                          | 42.0 | 1.939                           | 49.3 | 1.787              | 45.4 |
| UCF6-20                   | 20242278 | 1¼           | 31.8 | 1.811                          | 46.0 | 2.008                           | 51.0 | 1.929              | 49.0 |
| UCF6-20S                  | 20676945 | 1¼           | 31.8 | 1.811                          | 46.0 | 2.008                           | 51.0 | 1.929              | 49.0 |
| UCF6-24                   | 20242274 | 1½           | 38.1 | 2.138                          | 54.3 | 2.374                           | 60.3 | 2.205              | 56.0 |
| UCF6-32                   | 20242271 | 2            | 50.8 | 2.720                          | 69.1 | 2.996                           | 76.1 | 2.717              | 69.0 |
| UCF6-32S                  | 20672344 | 2            | 50.8 | 2.720                          | 69.1 | 2.996                           | 76.1 | 2.717              | 69.0 |
| UCF6-40                   | 20242263 | 2½           | 63.5 | 3.189                          | 81.0 | 3.500                           | 88.9 | 3.347              | 85.0 |

## Uni-Crimp™ UCF7 Ferrule



| Descriptive/<br>Product # | SAP #    | Hose Size ID |      | Ferrule Inside<br>Diameter (A) |        | Ferrule Outside<br>Diameter (B) |      | Ferrule Length (L) |      |
|---------------------------|----------|--------------|------|--------------------------------|--------|---------------------------------|------|--------------------|------|
|                           |          | in.          | mm   | in.                            | mm     | in.                             | mm   | in.                | mm   |
| UCF7-08                   | 20263935 | 1/2          | 12.7 | 0.965                          | 24.511 | 1.339                           | 34.0 | 1.355              | 34.4 |
| UCF7-16                   | 20241237 | 1            | 25.4 | 1.535                          | 39.0   | 1.969                           | 50.0 | 1.866              | 47.4 |
| UCF7-20                   | 20318245 | 1¼           | 31.8 | 1.949                          | 49.5   | 2.402                           | 61.0 | 1.969              | 50.0 |

## Uni-Crimp™ UCF8 Ferrule



| Descriptive/<br>Product # | SAP #    | Hose Size ID |      | Ferrule Inside<br>Diameter (A) |      | Ferrule Outside<br>Diameter (B) |      | Ferrule Length (L) |      |
|---------------------------|----------|--------------|------|--------------------------------|------|---------------------------------|------|--------------------|------|
|                           |          | in.          | mm   | in.                            | mm   | in.                             | mm   | in.                | mm   |
| UCF8-32                   | 20289652 | 2            | 50.8 | 2.413                          | 61.3 | 2.795                           | 71.0 | 2.505              | 63.6 |

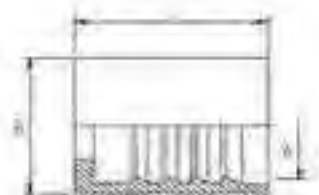
## Uni-Crimp™ UCF9 Ferrule



| Descriptive/<br>Product # | SAP #    | Hose Size ID |      | Ferrule Inside<br>Diameter (A) |      | Ferrule Outside<br>Diameter (B) |      | Ferrule Length (L) |      |
|---------------------------|----------|--------------|------|--------------------------------|------|---------------------------------|------|--------------------|------|
|                           |          | in.          | mm   | in.                            | mm   | in.                             | mm   | in.                | mm   |
| UCF9-03                   | 20318605 | 3/16         | 4.8  | 0.394                          | 10.0 | 0.551                           | 14.0 | 0.982              | 24.9 |
| UCF9-04                   | 20303300 | 1/4          | 6.4  | 0.433                          | 11.0 | 0.591                           | 15.0 | 1.142              | 29.0 |
| UCF9-04S                  | 20540398 | 1/4          | 6.4  | 0.433                          | 11.0 | 0.591                           | 15.0 | 1.142              | 29.0 |
| UCF9-05                   | 20303301 | 5/16         | 7.9  | 0.512                          | 13.0 | 0.669                           | 17.0 | 1.181              | 30.0 |
| UCF9-05S                  | 20540399 | 5/16         | 7.9  | 0.512                          | 13.0 | 0.669                           | 17.0 | 1.181              | 30.0 |
| UCF9-06                   | 20303302 | 3/8          | 9.5  | 0.669                          | 17.0 | 0.866                           | 22.0 | 1.220              | 31.0 |
| UCF9-06S                  | 20540680 | 3/8          | 9.5  | 0.669                          | 17.0 | 0.866                           | 22.0 | 1.220              | 31.0 |
| UCF9-08                   | 20303303 | 1/2          | 12.7 | 0.787                          | 20.0 | 0.984                           | 25.0 | 1.339              | 34.0 |
| UCF9-08S                  | 20540681 | 1/2          | 12.7 | 0.787                          | 20.0 | 0.984                           | 25.0 | 1.339              | 34.0 |
| UCF9-10                   | 20303304 | 5/8          | 15.9 | 0.984                          | 25.0 | 1.181                           | 30.0 | 1.417              | 36.0 |
| UCF9-10S                  | 20540682 | 5/8          | 15.9 | 0.984                          | 25.0 | 1.181                           | 30.0 | 1.417              | 36.0 |
| UCF9-12                   | 20303305 | 3/4          | 19.0 | 1.173                          | 29.8 | 1.378                           | 35.0 | 1.575              | 40.0 |
| UCF9-12S                  | 20540683 | 3/4          | 19.0 | 1.173                          | 29.8 | 1.378                           | 35.0 | 1.575              | 40.0 |
| UCF9-16                   | 20303306 | 1            | 25.4 | 1.449                          | 36.8 | 1.654                           | 42.0 | 1.811              | 46.0 |
| UCF9-16S                  | 20540684 | 1            | 25.4 | 1.449                          | 36.8 | 1.654                           | 42.0 | 1.811              | 46.0 |



## Uni-Crimp™ UCF10 Ferrule



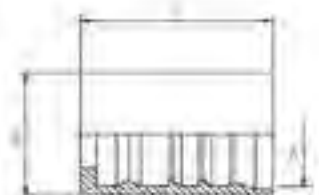
| Descriptive/<br>Product # | SAP #    | Hose Size ID |      | Ferrule Inside<br>Diameter (A) |      | Ferrule Outside<br>Diameter (B) |      | Ferrule Length (L) |      |
|---------------------------|----------|--------------|------|--------------------------------|------|---------------------------------|------|--------------------|------|
|                           |          | in.          | mm   | in.                            | mm   | in.                             | mm   | in.                | mm   |
| UCF10-04                  | 20646659 | 1/4          | 6.4  | 0.499                          | 12.7 | 0.747                           | 19.0 | 1.040              | 26.4 |
| UCF10-08                  | 20357071 | 1/2          | 12.7 | 0.824                          | 20.9 | 1.083                           | 27.5 | 1.291              | 32.8 |
| UCF10-10                  | 20676729 | 5/8          | 15.9 | 1.028                          | 26.1 | 1.339                           | 34.0 | 1.402              | 35.6 |
| UCF10-12                  | 20676720 | 3/4          | 19.0 | 1.189                          | 30.2 | 1.496                           | 38.0 | 1.520              | 38.6 |
| UCF10-16                  | 20675424 | 1            | 25.4 | 1.560                          | 39.6 | 2.008                           | 51.0 | 1.780              | 45.2 |

## Uni-Crimp™ UCF11 Ferrule



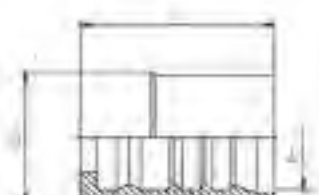
| Descriptive/<br>Product # | SAP #    | Hose Size ID |     | Ferrule Inside<br>Diameter (A) |      | Ferrule Outside<br>Diameter (B) |      | Ferrule Length (L) |      |
|---------------------------|----------|--------------|-----|--------------------------------|------|---------------------------------|------|--------------------|------|
|                           |          | in.          | mm  | in.                            | mm   | in.                             | mm   | in.                | mm   |
| UCF11-04                  | 20369170 | 1/4          | 6.4 | 0.606                          | 15.4 | 0.866                           | 22.0 | 1.035              | 26.3 |
| UCF11-06                  | 20706519 | 1/4          | 6.4 | 0.681                          | 17.3 | 0.967                           | 24.6 | 1.180              | 30.0 |

## Dual-Grip™ DGF1 Ferrule



| Descriptive/<br>Product # | SAP #    | Hose Size ID |      | Ferrule Inside<br>Diameter (A) |      | Ferrule Outside<br>Diameter (B) |      | Ferrule Length (L) |      |
|---------------------------|----------|--------------|------|--------------------------------|------|---------------------------------|------|--------------------|------|
|                           |          | in.          | mm   | in.                            | mm   | in.                             | mm   | in.                | mm   |
| DGF1-12                   | 20242262 | 3/4          | 19.0 | 1.18                           | 30.0 | 1.46                            | 37.1 | 2.36               | 59.9 |
| DGF1-16                   | 20242265 | 1            | 25.4 | 1.47                           | 37.3 | 1.81                            | 46.0 | 2.93               | 74.4 |
| DGF1-20                   | 20241238 | 1¼           | 31.8 | 1.74                           | 44.2 | 2.17                            | 55.1 | 3.46               | 87.9 |
| DGF1-24                   | 20254315 | 1½           | 38.1 | 2.02                           | 51.3 | 2.44                            | 62.0 | 3.70               | 94.0 |
| DGF1-32                   | 20254316 | 2            | 50.8 | 2.60                           | 66.0 | 3.07                            | 78.0 | 3.90               | 99.0 |

## Dual-Grip™ DGF2 Ferrule



| Descriptive/<br>Product # | SAP #    | Hose Size ID |      | Ferrule Inside<br>Diameter (A) |      | Ferrule Outside<br>Diameter (B) |      | Ferrule Length (L) |      |
|---------------------------|----------|--------------|------|--------------------------------|------|---------------------------------|------|--------------------|------|
|                           |          | in.          | mm   | in.                            | mm   | in.                             | mm   | in.                | mm   |
| DGF2-20                   | 20242260 | 1¼           | 31.8 | 1.95                           | 49.5 | 2.43                            | 61.7 | 3.46               | 87.9 |
| DGF2-24                   | 20242261 | 1½           | 38.1 | 2.20                           | 55.9 | 2.72                            | 69.1 | 3.70               | 94.0 |
| DGF2-32                   | 20241239 | 2            | 50.8 | 2.80                           | 71.1 | 3.43                            | 87.1 | 3.90               | 99.1 |

# Choosing the Correct Fittings

Choosing the correct Perma-Crimp™ fitting may be simply identifying the fitting to be replaced by measuring the fitting or in some other way, identifying its size and thread type. Care should be taken in using the correct fitting.

1. The correct fitting is chosen to match a replacement fitting and/or chosen on the basis of formal design and sound engineering practice.
2. Any questions or concerns involving fitting selection should be addressed with the local Sales Representative, Hydraulic Applications Group, or with our Customer Service Group at 800-235-4632.
3. Selecting the proper hose assembly – see assemblies section of this catalog. A helpful guide is the “S.T.A.M.P.E.D.” process, which requires the documentation of the following:

- S Size – ID, OD and length of the assembly
- T Temperature – Temperature of material conveyed and climatic conditions
- A Application – Conditions of use including abrasion, flexing and routing
- M Material – Type, concentration and composition
- P Pressure – Includes surge or impulse pressure
- E Ends – Style, type, orientation and attachment methods
- D Delivery – Includes testing, quality and packaging requirements

In completing the “S.T.A.M.P.E.D” process, “Ends” need to be further defined.

|                |                       |
|----------------|-----------------------|
| Thread Size    | Drop Length           |
| Thread Type    | Hose Type             |
| Male or Female | Hose Dash Size        |
| Angle of Elbow | Hose Working Pressure |

4. The Perma-Crimp™ fitting is available in four styles including Ultra-Crimp™, Uni-Crimp™, Field-Grip™ or Dual-Grip™. Each fitting consists of a stem and a ferrule. The stem fits into the hose ID. The ferrule attaches the fitting to the hose cover. The stem has two functional ends. The first is the hose end, which is used to attach the fitting to the hose. The hose end must be compatible with the ID of the hose. The other end is the thread end, which is used to attach the assembly to another port in the hydraulic system. The thread end will be determined from the fitting being replaced or by measuring the port or threads being attached.
5. Temperature range is important in both hose and fitting selection. Hose temperature ranges are shown on page 44 of this catalog. In general, fittings will be comparable with hose temperature ranges with the exception of O-ring fittings, which are limited to 212°F (100°C).
6. Flange identification requires additional information. Code 61 Flanges, Code 62 Flanges and Caterpillar® Flanges are commonly used to connect large sizes of hose and tubing. Code 61 Flanges are commonly used in applications of 3,000-5,000 psi working pressure, while Code 62 Flanges can be used in applications up to 6,000 psi working pressure. Code 62 and Caterpillar® Flanges are similar in application but Caterpillar® Flanges have a thicker flange head and are frequently found on Caterpillar® equipment. Flanges are identified by measuring the port hole diameter, the longest bolt hole spacing and the flange head thickness.
7. It is possible to have a fitting rated at a lower working pressure than the hose. Keep working pressure in mind when selecting a fitting. The hose assembly can be rated no greater than the lowest pressure rating of either hose or fitting. Reference working pressure tables can be found on pages 36-41.

Note: Dimensions in the catalog are listed as approximate and for reference only. Dimensions are subject to change.

## Fitting Working Pressure Charts

### Maximum Recommended Working Pressure (psi)

Choose fittings carefully, considering the working pressure of both hose and fitting. The **maximum** working pressure of the hose assembly is the lesser of the **rated** working pressure of the hose **and** the fitting.

Working pressures shown on the page are not applicable for the Field-Grip™ reattachable fittings (FG-\*). Please contact Continental ContiTech Customer Service for the working pressure of the FG fittings.

| Fitting Style           | JIC 37° Flare Male Non-Swivel | JIC 37° Flare Female Swivel | NPTF Male Swivel | NPTF Male Non-Swivel | NPTF Female Swivel | NPSM Female Swivel | Code 61 Flange | Code 62 Flange | CAT® Flange | Straight Thread O-Ring Boss male | O-Ring Face Seal Female |
|-------------------------|-------------------------------|-----------------------------|------------------|----------------------|--------------------|--------------------|----------------|----------------|-------------|----------------------------------|-------------------------|
| <b>Thread Dash Size</b> |                               |                             |                  |                      |                    |                    |                |                |             |                                  |                         |
| -02                     |                               |                             |                  |                      |                    |                    |                |                |             |                                  |                         |
| -04                     | 6000                          | 6000                        | 6000             | 6000                 | 6000               | 6000               |                |                |             | 5000                             | 6000                    |
| -05                     | 6000                          | 6000                        |                  |                      |                    |                    |                |                |             | 5000                             |                         |
| -06                     | 6000                          | 6000                        | 6000             | 6000                 | 6000               | 6000               |                |                |             | 5000                             | 6000                    |
| -08                     | 5000                          | 5000                        | 5000             | 5000                 | 5000               | 5000               | 5000           | 6000           |             | 4500                             | 6000                    |
| -10                     | 4000                          | 4000                        |                  |                      |                    |                    | 5000           | 6000           |             | 4000                             | 6000                    |
| -12                     | 4000                          | 4000                        | 2250             | 4000                 | 2250               | 2250               | 5000           | 6000           | 6000        | 4000                             | 6000                    |
| -14                     |                               |                             |                  |                      |                    |                    |                |                |             |                                  |                         |
| -16                     | 4000                          | 4000                        | 2000             | 4000                 | 2000               | 2000               | 5000           | 6000           | 6000        | 4000                             | 6000                    |
| -20                     | 3000                          | 3000                        |                  | 3000                 | 1625               | 1625               | 4000           | 6000           | 6000        | 3000                             | 4000                    |
| -24                     | 3000                          | 3000                        |                  | 2500                 |                    |                    | 3000           | 6000           | 6000        |                                  | 4000                    |
| -32                     | 3000                          | 3000                        |                  | 2500                 |                    |                    | 3000           | 6000           | 6000        |                                  |                         |

| Fitting Style           | SAE 45° Flare Female Swivel | SAE J514 Flareless Tube Fitting | BSPP O-Ring Female Swivel | BSPT Male Non-Swivel | BSPP Male Non-Swivel | DIN 24 Light Female Swivel | DIN 24 Light Male | DIN 24 Heavy Female Swivel | DIN 24 Heavy Male | JIS 30° Flare Female Swivel | JIS 30° Flareless Female Swivel | Komatsu® 30° Metric Thread Female Swivel |
|-------------------------|-----------------------------|---------------------------------|---------------------------|----------------------|----------------------|----------------------------|-------------------|----------------------------|-------------------|-----------------------------|---------------------------------|------------------------------------------|
| <b>Thread Dash Size</b> |                             |                                 |                           |                      |                      |                            |                   |                            |                   |                             |                                 |                                          |
| -02                     |                             |                                 |                           |                      |                      |                            |                   |                            |                   |                             |                                 |                                          |
| -04                     | 3000                        | 5000                            | 5800                      | 5800                 | 5800                 | 3625                       | 3625              |                            |                   | 5000                        | 5000                            | 5000                                     |
| -05                     |                             | 5000                            |                           |                      |                      | 3625                       | 3625              | 5800                       | 5800              |                             |                                 |                                          |
| -06                     | 3000                        | 4000                            | 5800                      | 5800                 | 5800                 | 3625                       | 3625              | 5800                       | 5800              | 5000                        | 5000                            | 5000                                     |
| -08                     | 3000                        | 3500                            | 5000                      | 5000                 | 5000                 | 3625                       | 3625              | 5800                       | 5800              | 5000                        | 5000                            | 5000                                     |
| -10                     | 2750                        | 2750                            | 5000                      | 5000                 | 5000                 | 3625                       | 3625              | 5800                       | 5800              |                             |                                 |                                          |
| -12                     | 2250                        | 2250                            | 4500                      | 4500                 | 4500                 | 2320                       | 2320              | 5800                       | 5800              | 4000                        | 4000                            | 4000                                     |
| -14                     |                             |                                 |                           |                      |                      |                            |                   |                            |                   |                             |                                 |                                          |
| -16                     | 2000                        | 2000                            | 3500                      | 3500                 | 3500                 | 2320                       | 2320              | 5800                       | 5800              | 3000                        | 3000                            | 3000                                     |
| -20                     | 1625                        | 1625                            | 2850                      | 2850                 | 2850                 | 1450                       | 1450              | 5800                       | 5800              | 2500                        | 2500                            | 2500                                     |
| -24                     | 1250                        |                                 | 2250                      | 2250                 | 2250                 | 1450                       | 1450              | 3625                       | 3625              | 1500                        | 1500                            | 1500                                     |
| -32                     | 1125                        |                                 | 1800                      | 1800                 | 1800                 | 1450                       | 1450              | 3625                       | 3625              | 1500                        | 1500                            | 1500                                     |

Selection of the proper Continental ContiTech Brand fitting is essential to the proper operation and safe use of the hose assembly and related equipment. Inadequate attention to the selection of the proper fitting for the application can result in failure of the fitting which can cause serious bodily injury or property damage from spraying fluids or projectiles.

Thread Reference Chart

| Thread Type                                        | 02     | 03     | 04      | 05     | 06       | 08       | 10     | 12         | 14         | 15   | 16         | 18         | 20           |
|----------------------------------------------------|--------|--------|---------|--------|----------|----------|--------|------------|------------|------|------------|------------|--------------|
| JIC 37° Flare (SAE J514)                           |        | 3/8-24 | 7/16-20 | 1/2-20 | 9/16-18  | 3/4-16   | 7/8-14 | 1 1/16-12  | 1 3/16-12  |      | 1 5/16-12  |            | 1 5/8-12     |
| SAE 45° J512 Flare                                 |        |        | 7/16-20 | 1/2-20 | 5/8-18   | 3/4-16   | 7/8-14 | 1 1/16-14  |            |      |            |            |              |
| SAE 45° Inverted Flare                             |        | 3/8-24 | 7/16-24 | 1/2-20 | 5/8-18   | 3/4-18   | 7/8-18 |            |            |      |            |            |              |
| NPTF                                               | 1/8-27 |        | 1/4-18  |        | 3/8-18   | 1/2-14   |        | 3/4-14     |            |      | 1-11 1/2   |            | 1 1/4-11 1/2 |
| NPSM                                               |        |        | 1/4-18  |        | 3/8-18   | 1/2-14   |        | 3/4-14     |            |      | 1-11 1/2   |            | 1 1/4-11 1/2 |
| NPMAPI                                             |        |        |         |        |          |          |        |            |            |      | 1-11 1/2   |            | 1 1/4-11 1/2 |
| SAE J514 Flareless Tube Fittings                   |        |        | 7/16-20 | 1/2-20 | 9/16-18  | 3/4-16   | 7/8-14 | 1 1/16-12  |            |      | 1 5/16-12  |            |              |
| O-Ring Face Seal<br>(SAE J1453 ORS/ORFS)           |        |        | 9/16-18 |        | 11/16-16 | 13/16-16 | 1-14   | 1 3/16-12  |            |      | 1 7/16-12  |            | 1 11/16-12   |
| O-Ring Boss Straight Thread<br>(SAE J514)          |        |        | 7/16-20 | 1/2-20 | 9/16-18  | 3/4-16   | 7/8-14 | 1 1/16-12  |            |      | 1 5/16-12  |            | 1 5/8-12     |
| BSPP<br>(British Standard Pipe Parallel)           |        |        | 1/4-19  |        | 3/8-19   | 1/2-14   | 5/8-14 | 3/4-14     |            |      | 1-11       |            | 1 1/4-11     |
| BSPT<br>(British Standard Pipe Tapered)            |        |        | 1/4-19  |        | 3/8-19   | 1/2-14   |        | 3/4-14     |            |      | 1-11       |            |              |
| BSP Flat Seat<br>(British Standard Pipe)           |        |        |         |        | 3/8-19   | 1/2-14   |        | 3/4-14     |            |      |            |            |              |
| JIS 30° (Parallel Pipe Threads)                    |        |        | 1/4-19  |        | 3/8-19   | 1/2-14   |        | 3/4-14     |            |      | 1-11       |            | 1 1/4-11     |
| Code 61 Flange<br>(SAE J518) - Dia.                |        |        |         |        |          | 1.19     |        | 1.5        |            |      | 1.75       |            | 2            |
| Code 62 Flange<br>(SAE J518) - Dia.                |        |        |         |        |          | 1.25     |        | 1.63       |            |      | 1.87       |            | 2.13         |
| Caterpillar® Flange - Dia.                         |        |        |         |        |          |          |        | 1.63       |            |      | 1.87       |            | 2.13         |
| Komatsu® Flange - Dia.                             |        |        |         |        |          |          | 1.34   |            |            |      |            |            |              |
| Standpipe - OD                                     |        |        |         |        |          | 8mm      | 10mm   | 12mm       |            | 15mm | 16mm       | 18mm       | 20mm         |
| DIN 24° Light                                      |        |        |         |        |          |          |        | 12 x 1 1/2 | 14 x 1 1/2 |      | 16 x 1 1/2 | 18 x 1 1/2 |              |
| DIN 24° Heavy                                      |        |        |         |        |          |          |        |            |            |      | 16 x 1 1/2 | 18 x 1 1/2 | 20 x 1 1/2   |
| DIN 60°                                            |        |        |         |        |          |          |        |            | 14 x 1 1/2 |      | 16 x 1 1/2 | 18 x 1 1/2 |              |
| Japanese Komatsu® 30° Flare<br>with Metric Threads |        |        |         |        |          |          |        |            | 14 x 1 1/2 |      |            | 18 x 1 1/2 |              |

All measurements in inches unless otherwise stated.

## Thread Reference Chart

| Thread Type                                       | 22      | 24      | 26      | 28   | 30      | 32    | 33       | 36      | 40   | 42      | 45     | 52     |
|---------------------------------------------------|---------|---------|---------|------|---------|-------|----------|---------|------|---------|--------|--------|
| JIC 37° Flare (SAE J514)                          |         | 1⅞-12   |         |      |         | 2½-12 |          |         |      |         |        |        |
| SAE 45° J512 Flare                                |         |         |         |      |         |       |          |         |      |         |        |        |
| SAE 45° Inverted Flare                            |         |         |         |      |         |       |          |         |      |         |        |        |
| NPTF                                              |         | 1½-11½  |         |      |         | 2-11½ |          |         |      |         |        |        |
| NPSM                                              |         |         |         |      |         |       |          |         |      |         |        |        |
| NPMAPI                                            |         | 1½-11½  |         |      |         | 2-11½ |          |         |      |         |        |        |
| SAE J514 Flareless Tube Fittings                  |         |         |         |      |         |       |          |         |      |         |        |        |
| O-Ring Face Seal<br>(SAE J1453 ORS/ORFS)          |         | 2-12    |         |      |         |       |          |         |      |         |        |        |
| O-Ring Boss Straight Thread<br>(SAE J514)         |         | 1⅞-12   |         |      |         |       |          |         |      |         |        |        |
| BSPP<br>(British Standard Pipe Parallel)          |         | 1½-11   |         |      |         | 2-11  |          |         |      |         |        |        |
| BSPT<br>(British Standard Pipe Tapered)           |         |         |         |      |         |       |          |         |      |         |        |        |
| BSP Flat Seat<br>(British Standard Pipe)          |         |         |         |      |         |       |          |         |      |         |        |        |
| JIS 30° (Parallel Pipe Threads)                   |         |         |         |      |         |       |          |         |      |         |        |        |
| Code 61 Flange<br>(SAE J518) - Dia.               |         | 2.37    |         |      |         | 2.81  |          |         | 3.31 |         |        |        |
| Code 62 Flange<br>(SAE J518) - Dia.               |         | 2.5     |         |      |         | 3.13  |          |         |      |         |        |        |
| Caterpillar® Flange - Dia.                        |         | 2.5     |         |      |         |       |          |         |      |         |        |        |
| Komatsu® Flange - Dia.                            |         |         |         |      |         |       |          |         |      |         |        |        |
| Standpipe - OD.                                   | 22mm    |         |         | 28mm |         |       |          |         |      |         |        |        |
| DIN 24° Light                                     | 22 x 1½ |         | 26 x 1½ |      | 30 x 2  |       |          | 36 x 2  |      |         | 45 x 2 |        |
| DIN 24° Heavy                                     | 22 x 1½ | 24 x 1½ |         |      | 30 x 2  |       |          | 36 x 2  |      | 42 x 2  |        | 52 x 2 |
| DIN 60°                                           | 22 x 1½ |         | 26 x 1½ |      |         |       |          |         |      |         |        |        |
| Japanese Komatsu® 30° Flare<br>with Metric Thread | 22 x 1½ | 24 x 1½ |         |      | 30 x 1½ |       | 33 x 1.5 | 36 x 1½ |      | 42 x 1½ |        |        |

All measurements in inches unless otherwise stated.

# Fitting Accessories (O-Rings)



Material: NBR  
Hardness: 90 Shore A  
Temperature Range: -25°C to 125°C  
(-13°F to 257°C)

## BSPB (British Standard Pipe Parallel) O-Rings

| Descriptive # | Product #  | SAP #    | ID (in.) | Width (W) | Thread Dash Size |
|---------------|------------|----------|----------|-----------|------------------|
| OBSPP-04      | 60505-0004 | 20245720 | 0.256    | 0.039     | -04              |
| OBSPP-06      | 60505-0006 | 20245723 | 0.319    | 0.063     | -06              |
| OBSPP-08      | 60505-0008 | 20245539 | 0.476    | 0.063     | -08              |
| OBSPP-10      | 60505-0010 | 20245724 | 0.516    | 0.063     | -10              |
| OBSPP-12      | 60505-0012 | 20245722 | 0.673    | 0.063     | -12              |
| OBSPP-16      | 60505-0016 | 20245536 | 0.870    | 0.063     | -16              |
| OBSPP-20      | 60505-0020 | 20245538 | 1.146    | 0.063     | -20              |
| OBSPP-24      | 60505-0024 | 20245537 | 1.382    | 0.063     | -24              |
| OBSPP-32      | 60505-0032 | 20245721 | 1.890    | 0.059     | -32              |

## DIN 24° Light O-Rings

| Descriptive # | Product #  | SAP #    | ID (in.) | Width (W) | Thread Dash Size |
|---------------|------------|----------|----------|-----------|------------------|
| ODIN24L-14    | 60520-0014 | 20245731 | 0.236    | 0.059     | -14              |
| ODIN24L-16    | 60520-0016 | 20245732 | 0.295    | 0.059     | -16              |
| ODIN4L-18     | 60520-0018 | 20245733 | 0.354    | 0.059     | -18              |
| ODIN4L-22     | 60520-0022 | 20245734 | 0.472    | 0.079     | -22              |
| ODIN4L-26     | 60520-0026 | 20245735 | 0.591    | 0.079     | -26              |
| ODIN4L-30     | 60520-0030 | 20245736 | 0.787    | 0.079     | -30              |
| ODIN4L-36     | 60520-0036 | 20245737 | 1.024    | 0.079     | -36              |
| ODIN4L-45     | 60520-0045 | 20245738 | 1.260    | 0.098     | -45              |
| ODIN24L-52    | 60520-0052 | 20245739 | 1.496    | 0.098     | -52              |

## DIN 24° Heavy O-Rings

| Descriptive # | Product #  | SAP #    | ID (in.) | Width (W) | Thread Dash Size |
|---------------|------------|----------|----------|-----------|------------------|
| ODIN24H-22    | 60515-0022 | 20245740 | 0.394    | 0.079     | -22              |
| ODIN24H-30    | 60515-0030 | 20245741 | 0.642    | 0.094     | -30              |
| ODIN24H-36    | 60515-0036 | 20245742 | 0.799    | 0.094     | -36              |
| ODIN24H-42    | 60515-0042 | 20245743 | 0.984    | 0.098     | -42              |
| ODIN24H-52    | 60515-0052 | 20245744 | 1.311    | 0.094     | -52              |

## Fitting Accessories (O-Rings)



Material: NBR  
 Hardness: 90 Shore A  
 Temperature Range: -25°C to 125°C  
 (-13°F to 257°C)

### O-Ring Face Seal (SAE J1453 ORS/ORFS) O-Rings

| Descriptive # | Product #  | SAP #    | ID (in.) | Width (W) | Thread Dash Size |
|---------------|------------|----------|----------|-----------|------------------|
| OORFS-04      | 60525-0004 | 20245751 | 0.301    | 0.07      | -04              |
| OORFS-06      | 60525-0006 | 20245749 | 0.364    | 0.07      | -06              |
| OORFS-08      | 60525-0008 | 20245750 | 0.488    | 0.07      | -08              |
| OORFS-10      | 60525-0010 | 20245746 | 0.614    | 0.07      | -10              |
| OORFS-12      | 60525-0012 | 20245747 | 0.739    | 0.07      | -12              |
| OORFS-16      | 60525-0016 | 20245748 | 0.926    | 0.07      | -16              |
| OORFS-20      | 60525-0020 | 20245745 | 1.176    | 0.07      | -20              |
| OORFS-24      | 60525-0024 | 20431832 | 1.489    | 0.07      | -24              |

### O-Ring Boss Straight Thread (SAE J514) O-Rings

| Descriptive # | Product #  | SAP #    | ID (in.) | Width (W) | Thread Dash Size |
|---------------|------------|----------|----------|-----------|------------------|
| ORB-02        | 60530-0002 | 20431833 | 0.239    | 0.062     | -02              |
| ORB-04        | 60530-0004 | 20245756 | 0.351    | 0.072     | -04              |
| ORB-05        | 60530-0005 | 20245754 | 0.414    | 0.072     | -05              |
| ORB-06        | 60530-0006 | 20245758 | 0.468    | 0.078     | -06              |
| ORB-08        | 60530-0008 | 20245755 | 0.644    | 0.087     | -08              |
| ORB-10        | 60530-0010 | 20245757 | 0.755    | 0.097     | -10              |
| ORB-12        | 60530-0012 | 20245752 | 0.924    | 0.116     | -12              |
| ORB-16        | 60530-0016 | 20245753 | 1.171    | 0.116     | -16              |
| ORB-20        | 60530-0020 | 20431834 | 1.475    | 0.119     | -20              |
| ORB-24        | 60530-0024 | 20431835 | 1.720    | 0.119     | -24              |
| ORB-32        | 60530-0032 | 20431836 | 2.337    | 0.120     | -32              |

### Code 61 & 62 Flange (SAE J518) O-Rings & Caterpillar® Flange O-Rings

| Descriptive # | Product #  | SAP #    | ID (in.) | Width (W) | Thread Dash Size |
|---------------|------------|----------|----------|-----------|------------------|
| O6162-08      | 60500-0008 | 20245728 | 0.734    | 0.139     | -08              |
| O6162-10      | 60500-0010 | 20431831 | 0.859    | 0.139     | -10              |
| O6162-12      | 60500-0012 | 20245730 | 0.984    | 0.139     | -12              |
| O6162-16      | 60500-0016 | 20245727 | 1.296    | 0.139     | -16              |
| O6162-20      | 60500-0020 | 20245726 | 1.484    | 0.139     | -20              |
| O6162-24      | 60500-0024 | 20245725 | 1.859    | 0.139     | -24              |
| O6162-32      | 60500-0032 | 20245729 | 2.234    | 0.139     | -32              |
| O6162-40      | 60500-0040 | 20246508 | 2.734    | 0.139     | -40              |

## Split Flanges, Code 61 and Code 62 (SAE J518)

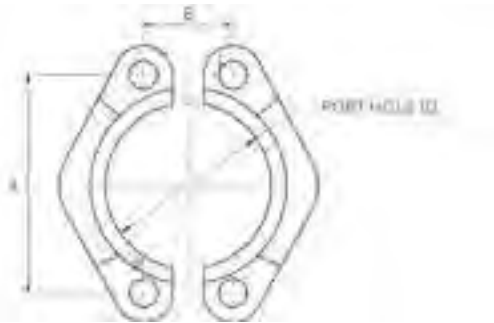
Flanges are commonly used to connect large sizes of hose and tubing. An O-ring in the flange head seals on a smooth face, female port. The male flange head and female port are held in place with two clamp halves and four bolts. Flanges conform to SAE J518 standard and are identified as Code 61 or the “standard series” and Code 62 or “high pressure series”. The two flanges are not interchangeable as Code 61 is used in applications of up to 5,000 psi working pressure. Code 62 is designed for 6,000 psi working pressure. Code 61 and Code 62 are dimensionally different. Specifics on Code 61 and Code 62 flanges are found in the following charts.

### Determine Flange Size

- Method 1:** Measure the port hole inside diameter (ID).  
**Method 2:** Measure the “A” dimension on the flange, which is the longest bolt hole spacing from center-to-center.

### Assembly Procedure

1. Clean all mating services.
2. Replace O-ring. Lubricate before installation.
3. Partially tighten each bolt in rotation until all are fully tightened to the recommended torque value listed in the Appendix.



## Split Flange Clamp Kits for Code 61 (SAE J518)

Includes Clamp Halves, 4 Bolts, 4 Lockwashers, 1 O-Ring

| Descriptive # | Product #  | SAP #    | Port Hole ID | A     | B     | Max Working Pressure | Recommended Grade 8 Bolts |
|---------------|------------|----------|--------------|-------|-------|----------------------|---------------------------|
|               |            |          | in.          | in.   | in.   |                      |                           |
| FL61SC-08     | 60061-0008 | 20246512 | 1/2          | 1.500 | 0.685 | 5000                 | 5/16-18 x 1 1/4           |
| FL61SC-12     | 60061-0012 | 20246513 | 3/4          | 1.874 | 0.874 | 5000                 | 3/8-16 x 1 1/4            |
| FL61SC-16     | 60061-0016 | 20246514 | 1            | 2.063 | 1.031 | 5000                 | 3/8-16 x 1 1/4            |
| FL61SC-20     | 60061-0020 | 20246515 | 1 1/4        | 2.311 | 1.189 | 4000                 | 7/16-14 x 1 1/2           |
| FL61SC-24     | 60061-0024 | 20246516 | 1 1/2        | 2.752 | 1.409 | 3000                 | 1/2-13 x 1 1/2            |
| FL61SC-32     | 60061-0032 | 20246517 | 2            | 3.063 | 1.685 | 3000                 | 1/2-13 x 1 3/4            |
| FL61SC-40     | 60061-0040 | 20246467 | 2 1/2        | 3.504 | 2.008 | 2500                 | 1/2-13 x 1 3/4            |

## Split Flange Clamp Kits for Code 62 (SAE J518)

Includes Clamp Halves, 4 Bolts, 4 Lockwashers, 1 O-Ring

| Descriptive # | Product #  | SAP #    | Port Hole ID | A     | B     | Max Working Pressure | Recommended Grade 8 Bolts |
|---------------|------------|----------|--------------|-------|-------|----------------------|---------------------------|
|               |            |          | in.          | in.   | in.   |                      |                           |
| FL62SC-08     | 60062-0008 | 20246519 | 1/2          | 1.594 | 0.717 | 6000                 | 5/16-18 x 1 1/4           |
| FL62SC-12     | 60062-0012 | 20246520 | 3/4          | 2.000 | 0.937 | 6000                 | 3/8-16 x 1 1/2            |
| FL62SC-16     | 60062-0016 | 20246521 | 1            | 2.252 | 1.094 | 6000                 | 7/16-14 x 1 3/4           |
| FL62SC-20     | 60062-0020 | 20246522 | 1 1/4        | 2.626 | 1.252 | 6000                 | 1/2-13 x 1 3/4            |
| FL62SC-24     | 60062-0024 | 20246523 | 1 1/2        | 3.126 | 1.441 | 6000                 | 5/8-11 x 2 1/4            |
| FL62SC-32     | 60062-0032 | 20246524 | 2            | 3.811 | 1.748 | 6000                 | 3/4-10 x 2 3/4            |



# German Metric Thread ID Template

Ideal for counter and field identification of German Metric DIN threads

GBS Collateral Item #70086290575800

## Instructions

### Female Threads

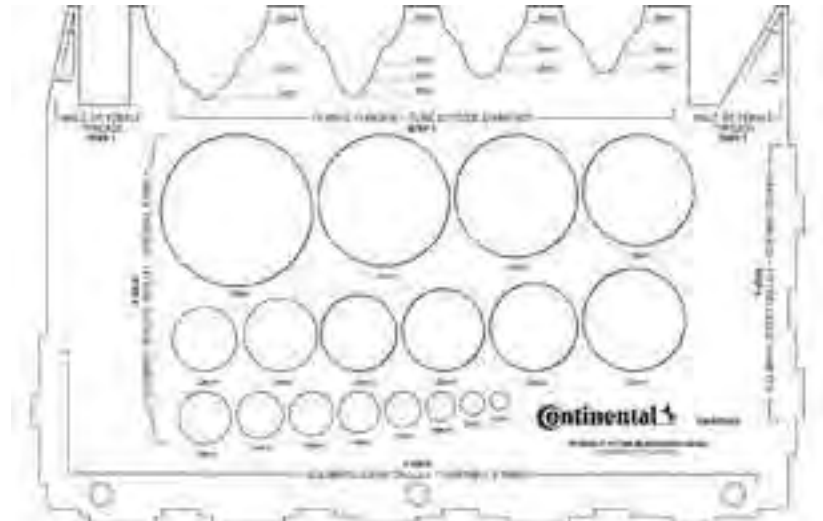
1. Use the 12° or 30° angle, as shown in the image to the right, to verify that the seat is 12° or 30° (see note)
2. Use the step gauge to determine Inside Diameter of female port
3. Measure Tube OD with the Tube Inside Diameter Gauge
4. Use Thread ID Table: DIN 2353 along with measured Tube OD to determine if tube is "Heavy" or "Light" Series

### Male Threads

1. Use the 12° or 30° angle, as shown in the image to the right, to verify that the seat is 12° or 30° (see note)
2. Use Fitting Inside Diameter Gauge to measure Inside Threads
3. Refer to Thread ID Table: DIN 3863 along with measured Thread OD to determine Metric Male Thread. Rule of thumb: On Male Thread, measure the ID of the machined surface and subtract 1mm to achieve tube OD. For example, when measuring a heavy-duty series Male on an M14 x 1½ thread, the caliper will measure 7mm (7mm - 1mm = 6mm)

Note: If measured angle is not 12° or 30°, use the Fitting Identification Section in our Hydraulic Hose Catalog Appendix to identify.

Inclusive Angle is the entire angle contained in the machined surface. Each side of the surface measures 1/2 of the total angle (e.g. 24° x .5 = 12°).



### German Metric Thread Types

**FEMALE THREADS—STEP 4**  
Thread Identification Table: DIN 2353 24° Cone

| Metric Thread (B x P) in | Female Thread ID mm | Male Thread OD mm | Tube OD mm | Light Series | Heavy Series |
|--------------------------|---------------------|-------------------|------------|--------------|--------------|
| M 12 x 1.5               | 10.5                | 12                | 6          | 6            |              |
| M 14 x 1.5               | 12.5                | 14                | 8          | 8            |              |
| M 16 x 1.5               | 14.5                | 16                | 10         | 10           |              |
| M 18 x 1.5               | 16.5                | 18                | 12         | 12           |              |
| M 20 x 1.5               | 18.5                | 20                | 14         | 14           |              |
| M 22 x 1.5               | 20.5                | 22                | 15         | 15           |              |
| M 24 x 1.5               | 22.5                | 24                | 16         | 16           |              |
| M 26 x 1.5               | 24.5                | 26                | 18         | 18           |              |
| M 30 x 2.0               | 28.5                | 30                | 22         | 22           |              |
| M 36 x 2.0               | 33.9                | 36                | 28         | 28           |              |
| M 42 x 2.0               | 39.9                | 42                | 35         | 35           |              |
| M 45 x 2.0               | 42.9                | 45                | 38         | 38           |              |
| M 52 x 2.0               | 49.9                | 52                | 42         | 42           |              |

**MALE THREADS—STEP 3**  
Thread Identification Table: DIN 3863 60° Cone

| Metric Thread (B x P) in | Female Thread ID mm | Male Thread OD mm | Tube OD mm |
|--------------------------|---------------------|-------------------|------------|
| M 12 x 1.5               | 10.5                | 12                | 6          |
| M 14 x 1.5               | 12.5                | 14                | 8          |
| M 16 x 1.5               | 14.5                | 16                | 10         |
| M 18 x 1.5               | 16.5                | 18                | 12         |
| M 22 x 1.5               | 20.5                | 22                | 15         |
| M 26 x 1.5               | 24.5                | 26                | 18         |
| M 30 x 2.0               | 28.5                | 30                | 22         |
| M 36 x 2.0               | 36.5                | 38                | 28         |
| M 45 x 2.0               | 43.5                | 45                | 35         |
| M 52 x 2.0               | 50.5                | 52                | 42         |

**Instructions**

**Female Threads**

1. Use the 12° or 30° angle, as shown in the image to the left, to verify that the seat is 12° or 30° (see note)
2. Use the step gauge to determine Inside Diameter of female port
3. Measure Tube OD with the Tube Outside Diameter Gauge
4. Use Thread ID Table: DIN 2353 along with measured Tube OD to determine if Tube is "Heavy" or "Light" Series

**Male Threads**

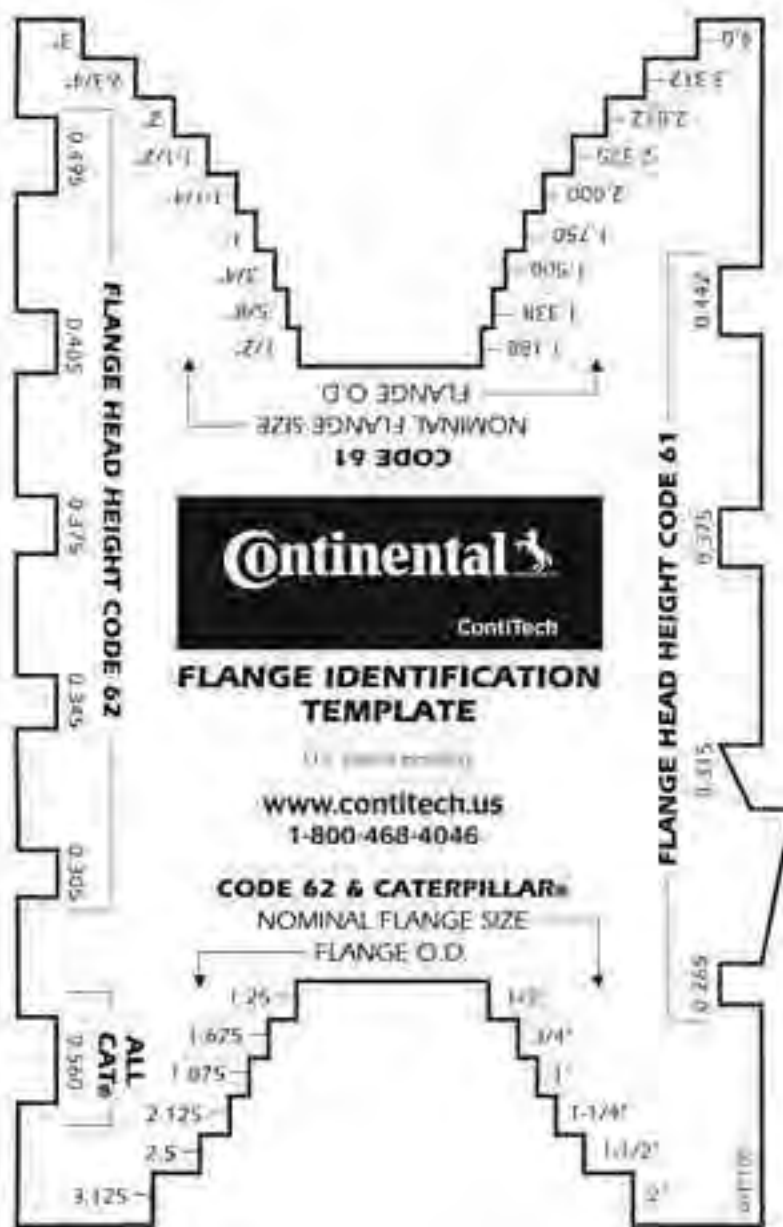
1. Use the 12° or 30° angle, as shown in the image to the right, to verify that the seat is 12° or 30° (see note)
2. Use Fitting Inside Diameter Gauge to measure Inside Threads
3. Refer to Thread ID Table: DIN 3863 along with measured Thread OD to determine Metric Male Thread. Rule of Thumb: On Male Thread, measure the ID of the machined surface and subtract 1mm to achieve tube OD. For example, when measuring a heavy-duty series Male on a M14 x 1½ thread, the caliper will measure 7mm (7mm - 1mm = 6mm).

**Note:** If measured angle is not 12° or 30°, use the Fitting Identification Section in our Hydraulic Hose Catalog Appendix to identify.

**Inclusive Angle** is the entire angle contained in the machined surface. Each side of the surface measures 1/2 of the total angle (e.g. 24° x .5 = 12°).

## Code 61/Code 62/CAT® Flange ID Template

## Ideal for counter and field identification of SAE Flanges



Part Number: GFIT100    SAP # 20243407    Weight: 1.4 oz    Dimensions: 4⅞" wide x 7⅞" high

Notes:

1. Reverse side of template shows dimensional chart for Code 61/Code 62/CAT® flanges.
2. Above not to scale.
3. As a connection on pumps and motors, the SAE Code 61 and Code 62 4-bolt flanges are used worldwide with three exceptions:
  - a. Although a common size outside of North America, the #10 size is not an SAE standard size.
  - b. Although Caterpillar® flanges have the same OD as SAE Code 62, they have a thicker flange head.
  - c. Porcelain flanges are completely different from SAE flanges.

## Thread Identification Kit

There are many types of North American threads, as well as British, German, French and Japanese threads. With all the thread types and styles available, it is important to properly identify a fitting so that an assembly can be connected correctly within the hydraulic system. This kit and the tools inside will help you identify a broad selection of different thread types.

The Thread Identification Kit includes:

- Fitting Identification Manual
- North American (NA) Thread Pitch Gauge
- International (INT) Thread Pitch Gauge
- Seat Angle Gauges 12°, 30°, 37°, 45°
- ID/OD 3.5" Calipers

Part Number: Fitting IID Pocket Guide

Dimensions: 4½" W x 5½" H



### Steps to Identify a Fitting

1. Select country of origin for the fitting. Use part number if available to determine thread type.
2. Identify the fitting visually using the illustrations in the proper section of the Continental ContiTech Hydraulic Hose and Fittings Catalog or the Hydraulic Fitting Identification Manual included with the identification kit.
3. Measure the inside diameter or the outside diameter of the fitting threads using the ID/OD Calipers.



4. Measure thread pitch using the North American or International Thread Pitch Gauge. The gauge will determine number of threads per inch or the distance between threads of a metric connection.



5. Measure the angle of the fitting's sealing surface using the Seat Angle Gauge.



6. Compare measurements above to the tables in the fitting catalog or identification manual to complete the identification of the fitting.

## Appendix



# Equipment & Accessories

# PC125M

Perma-Crimp™



PC125M

## Description

Carried to the job site with a handle and support stand, the PC125M is ideal for portable crimping requirements. Whether carried on-site or used in a vehicle or even stationary at the shop, the PC125M is designed as a low-volume crimper or for occasional use. Crimp diameter is set and controlled with an easy-to-read micrometer. This affordable crimper is packaged in component parts to fit the need of the user. The PC125M has three power options. No electrical power source is required if using the hand or pneumatic pump option. A 1/2-HP, 110V electric pump is available as well. The PC125M includes die ring pusher, stand, compression ring, pressure plate and a metric micrometer. Pumps and dies are purchased separately.

## Features

- › Easy-to-read, fully adjustable metric micrometer allows precise setting of crimp diameters to an accuracy of +/- .1mm
- › Open design with vertical feed for good operator visibility
- › Removable pusher and spring-loaded die set for easy loading
- › 60-ton cylinder
- › Two-piece, "slide in" die design for easy installation
- › Lightweight for portable field use
- › Color-coded die sets to speed die selection and setup
- › Attach hand, air or electric pump

## Capability

- › 1/4" through 1 1/4" ID, 2-braid hose and 1 1/4" ID 4-spiral hose with all coupling end styles including most bent tubes

## Power Source

- › Optional Two Stage Hand Pump, 10,000 psi (PC125-HPump)
- › Optional Air/Hydraulic Pump, 10,000 psi using 80 psi air (PC125-PPump)
- › Optional 1/2-HP, 110V AC, single phase, 50-60 Hz Electric Pump (PC125M-.5EPump) with foot switch

**Oil Capacity:** 1 gal.

**Mounting:** Stand included

**Dimensions:** 14" L x 11" W x 23 1/2" H

**Weight:** 45 lbs.

## Dies

| Part Number     | ID    | Part Number     | ID   |
|-----------------|-------|-----------------|------|
| PC125-8.5 Black | 8.5mm | PC125-27 Brown  | 27mm |
| PC125-12 Black  | 12mm  | PC125-31 Silver | 31mm |
| PC125-14 Red    | 14mm  | PC125-34 Purple | 34mm |
| PC125-16 Blue   | 16mm  | PC125-41 Orange | 41mm |
| PC125-19 Green  | 19mm  | PC125-45 Black  | 45mm |
| PC125-23 Yellow | 23mm  | PC125-50 Black  | 50mm |

## Options

- › PC125M-SKit includes the PC125M crimper and 7 die sets including 16mm, 19mm, 23mm, 27mm, 31mm, 34mm and 41mm dies for 1/4" to 1" 1-braid and 2-braid hose.
- › PC125-Shelf-Black Die Storage Shelf Unit 13" deep x 12 1/2" wide x 15" high, 12 lbs
- › PC125-HPump - Two Stage Hand Pump
- › PC125-PPump - Air/Hydraulic Pump
- › PC125M-.5EPump - 1/2 HP, 110V Electric Pump

## Replacement Parts

- › PC125M-Pusher - Die Ring Pusher
- › PC125-Cring - Compression Ring
- › PC125-Pplate - Pressure Plate
- › PC125-Die Screw - Die Screw
- › PC125-Die Spring - Die Spring
- › PC125-HPump - Optional Two Stage Hand Pump
- › PC125-PPump - Optional Air/Hydraulic Pump
- › PC125M-.5EPump - Optional 1/2 HP, 110V Electric Pump
- › PC900-Grease-3 oz. - High-pressure grease in a 3 oz. tube
- › PC900-Grease-1 lb. - High-pressure grease in a 1 lb. can
- › PC900-AerosolLube - High-pressure grease in an aerosol can



**Electric Pump  
(PC125M-.5EPump)**



Metric Micrometer



PC125 Die Set



PC125 Die Storage Shelf



Hand Pump (PC125 HPump)



**Air/Hydraulic  
Pump (PC125-PPump)**

# PC125RCD

Perma-Crimp™



PC125RCD

## Description

The PC125RCD portable crimper, with its open design, removable pusher and easy-to-use, rubber-cage die set, is designed for higher production volume and repetitive use. Crimp diameter is set and controlled with an easy-to-read micrometer. The PC125RCD is packaged for shop service and includes the crimper and 1-HP, 110V electric pump on a common base, pressure plate, magnetized die ring pusher, stop/start remote pendant switch, metric micrometer, adjustable coupling stop and adjustable retraction stop.

## Features

- › Easy-to-read, fully adjustable metric micrometer allows precise setting of crimp diameters to an accuracy of +/- .1mm
- › Open design with vertical feed for good operator visibility
- › Removable pusher and rubber-cage die set for easy loading
- › 60-ton cylinder
- › Automatic shut-off for precise crimps
- › Adjustable retraction stop limits ram retractions for quick repetitive crimps
- › Adjustable coupling stop for accurate, repetitive positioning of the assembly inside the dies
- › Two-piece, rubber-cage die design for easy installation and low maintenance
- › Common base for bench mounting
- › Color-coded die sets to speed die selection and setup
- › 1-HP, 110V pump
- › Pneumatic activation (no electric wires) of remote pendant switch

## Capability

- › 1/4" through 1 1/4" ID, 2-braid hose and 1 1/4" ID 4-spiral hose with all coupling end styles including most bent tubes

## Power Source

- › 1-HP, 110V AC, single phase, 50-60 Hz, Electric Pump (PC125RCD/150-E1PUMP) with pneumatic stop/start pendant switch

**Oil Capacity:** 1 gal.

**Mounting:** Crimper and pump installed on plate

**Dimensions:** 20" L x 11" W x 19" H

**Weight:** 125 lbs.

## Dies

| Part Number        | ID    | Part Number        | ID     |
|--------------------|-------|--------------------|--------|
| PC125RCD-8.5 BLACK | 8.5mm | PC125RCD-34 PURPLE | 34mm   |
| PC125RCD-12 BLACK  | 12mm  | PC125RCD-41 ORANGE | 41mm   |
| PC125RCD-14 RED    | 14mm  | PC125RCD-45 BLACK  | 45mm   |
| PC125RCD-16 BLUE   | 16mm  | PC125RCD-50 BLACK  | 50mm   |
| PC125RCD-19 GREEN  | 19mm  | PC125RCD-AC06      | 14mm   |
| PC125RCD-23 YELLOW | 23mm  | PC125RCD-AC08      | 18.5mm |
| PC125RCD-27 BROWN  | 27mm  | PC125RCD-AC12      | 22.4mm |
| PC125RCD-31 SILVER | 31mm  |                    |        |

## Options

- › PC125RCD SKit includes the PC125RCD crimper and 8 die sets including 16mm, 19mm, 23mm, 27mm, 31mm, 34mm, 41mm, and 50mm dies for 1/4" to 1-1/4" 1-braid, 2-braid, and 4-spiral hose"
- › PC125-Shelf-Black Die Storage Shelf 13" deep x 12 1/2" wide x 15" high, 12 lbs.

## Replacement Parts

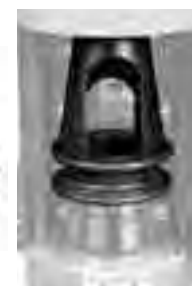
- › PC125-Pusher - Die Ring Pusher With Magnets
- › PC125RCD Press Plate
- › PC125-Cstop - Adjustable Coupling Stop
- › PC125/150-Switch - Pneumatic Start/Stop Pendant Switch for 1 HP Pump
- › PC125/150-E1Pump - 1 HP 110V Electric Pump
- › PC900-Grease-3 oz. - High-pressure grease in a 3 oz. tube
- › PC900-Grease-1 lb. - High-pressure grease in a 1 lb. can
- › PC900-AerosolLube - High-pressure grease in an aerosol can



Metric Micrometer



PC125RCD Die Set



PC125 Magnetic Pusher



PC125 Die Storage Shelf



PC125 Coupling Stop



PC125 Retraction Stop



## PC150 Series

Including PC150-1 & PC150-2 | Perma-Crimp™



PC150-2

### Description

The PC150 is a stationary crimper with more power to manufacture factory-quality hose assemblies quickly and easily. Its open design with removable pusher and "slide in" die configuration allows for good visibility and easy loading of dies and hose assemblies. Crimp diameter is set and controlled with an easy-to-read micrometer. Designed to handle higher volumes in a shop environment, the PC150-2 includes the crimper and 2-HP pump on a common base, pressure plate, compression ring, die ring pusher, stop/start remote pendant switch, metric micrometer, adjustable coupling stop, adjustable retraction stop and work light. The optional PC150-1 includes all the components of the PC150-2 and a 1-HP pump.

### Features

- › Easy-to-read, fully adjustable metric micrometer allows precise setting of crimp diameters to an accuracy of +/- .1mm
- › Open design with vertical feed for good operator visibility
- › Removable pusher and spring-loaded die set for easy loading
- › 80-ton cylinder
- › Automatic shut-off for precise crimps
- › Adjustable retraction stop limits ram retractions for quick repetitive crimps
- › Adjustable coupling stop for accurate, repetitive positioning of the assembly inside the dies
- › Two-piece, "slide in" die set for easy installation
- › Common base for bench mounting
- › Color-coded die sets to speed die selection and setup
- › 2-HP, 220V pump
- › Pneumatic activation (no electric wires) of remote pendant switch

### Capability

- › 1/4" through 1½" ID, 2-braid hose and 4-spiral hose with all coupling styles and most bent tubes

### Power Source

- › 2-HP, 220V AC, single phase, 50-60 Hz Electric Pump (PC150-E2Pump) for PC150-2 crimper
- › Optional 1-HP, 110V AC, single phase, 50-60 Hz Electric Pump (PC125/150-E1Pump) for PC150-1 crimper

**Oil Capacity:** 1 gal.

**Mounting:** Crimper and pump installed on plate

**Dimensions:** 32" L x 16½" W x 29" H

**Weight:** 275 lbs.

### Dies

| Part Number     | ID    | Part Number     | ID   |
|-----------------|-------|-----------------|------|
| PC150-8.5 Black | 8.5mm | PC150-27 Brown  | 27mm |
| PC150-12 Black  | 12mm  | PC150-31 Silver | 31mm |
| PC150-14 Red    | 14mm  | PC150-34 Purple | 34mm |
| PC150-16 Blue   | 16mm  | PC150-41 Orange | 41mm |
| PC150-19 Green  | 19mm  | PC150-45 Black  | 45mm |
| PC150-23 Yellow | 23mm  | PC150-50 Black  | 50mm |
| PC150-27 Brown  | 27mm  | PC150-56 Black  | 56mm |

### Options

- › PC150-1 SKit includes PC150-1 crimper and 7 die sets including 16mm, 19mm, 23mm, 31mm, 41mm, 50mm, 56mm dies for 1/4" to 1½" 1-braid to 4-spiral hose
- › PC150-2 SKit includes PC150-2 crimper and 7 die sets including 16mm, 19mm, 23mm, 31mm, 41mm, 50mm, 56mm dies for 1/4" to 1½" 1-braid to 4-spiral hose
- › PC150-Shelf-Black Die Storage Shelf Unit 15" deep x 20½" wide x 16" high, 25 lbs.
- › PC150-Spacer-Spacer Kit for Elbows
- › PC150-1 with 1 HP Pump
- › PC150-2 with 2 HP Pump

### Replacement Parts

- › PC150-Pusher - Die Ring Pusher
- › PC150-Cring - Compression Ring
- › PC150-Pplate - Pressure Plate
- › PC150-Cstop - Adjustable Coupling Stop
- › PC150-Die Screw - Die Screw
- › PC150-Die Spring - Die Spring
- › PC125/150-Switch - Pneumatic Start/Stop Pendant Switch for 1-HP or 2-HP Pump
- › PC150-E2Pump - 2-HP Electric Pump for PC150-2 Crimper
- › PC125/150-E1Pump - 1-HP Electric Pump for PC150-1 Crimper
- › PC900-Grease-3oz - High-pressure grease in a 3 oz. tube
- › PC900-Grease-1lb - High-pressure grease in a 1 lb. can
- › PC900-AerosolLube - High-pressure grease in an aerosol can



PC150 Die Storage Shelf



Metric  
Micrometer



PC150 Die Set



PC150 Coupling Stop



PC150 Retraction Stop



## PC150H Series

Including PC150H-1 & PC150H-2 | Perma-Crimp™



PC150H

### Description

The PC150H offers the ease of use of a horizontal crimper with the power and precise adjustment capabilities usually found in more costly models. With the same crimping capability as the PC150 Series, the "H" model offers hose feed horizontally from either front or rear through a large 4.9 in. throat opening. The PC150H can be ordered with a 1-HP electric pump (PC150H-1) or a 2-HP electric pump (PC150H-2), producing maximum force in a small package. The PC150H makes repetitive crimps fast and easy to accomplish with a precise, direct-read digital adjustment and a built-in cylinder retraction stop. The PC150H also offers convenience features found in both our vertical and horizontal crimpers including a pneumatic start/stop pendant switch, a magnetic die change tool, an optional die rack for storing dies and master die grease fittings as a special feature for easy lubrication.

### Features

- › Easy-to-read micrometer provides precise crimp settings
- › Hose feed is horizontal from both front and rear
- › Easy die loading with magnetic die change tool
- › Max die size 56mm
- › 155-ton crimping force
- › Automatic shut-off for precise crimps
- › Retraction stop limits die travel for faster repetitive crimps
- › Large 13-quart oil reservoir to cool components during repetitive crimps
- › Pneumatic activation using remote pendant switch
- › 1-HP and 2-HP power options

### Capability

- › 1/4" through 1½" ID, 2-braid hose and 4-spiral hose with all coupling styles and most bent tubes

### Power Source

- › 1-HP, 110V AC, single phase (PC150H-1)
- › 2-HP, 220V AC, single phase (PC150H-2)

**Oil Capacity:** 13 qt.

**Mounting:** Bench or cabinet

**Dimensions:** 15" L x 23½" W x 20½" H

**Weight:** 245 lbs.

### Dies

| Part Number | ID    | Part Number | ID   |
|-------------|-------|-------------|------|
| PC150H-8.5  | 8.5mm | PC150H-31   | 31mm |
| PC150H-12   | 12mm  | PC150H-34   | 34mm |
| PC150H-14   | 14mm  | PC150H-41   | 41mm |
| PC150H-16   | 16mm  | PC150H-45   | 45mm |
| PC150H-19   | 19mm  | PC150H-50   | 50mm |
| PC150H-23   | 23mm  | PC150H-56   | 56mm |
| PC150H-27   | 27mm  |             |      |

### Options

- › PC150H-1 SKit includes the PC150H-1 crimper and 7 die sets including 16mm, 19mm, 23mm, 31mm, 41mm, 50mm and 56mm
- › PC150H-2 SKit includes the PC150H-2 crimper and 7 die sets including 16mm, 19mm, 23mm, 31mm, 41mm, 50mm and 56mm
- › PC150H-Rack - Black die cabinet 7" deep x 13" wide x 18" high, holds 9 dies

### Replacement Parts

- › PC900-Grease-1lb. - High-pressure grease in 1 lb. can
- › PC900-AerosolLube - High-pressure grease in an aerosol can
- › PC125/150 Switch - Pneumatic Start/Stop Pendant Switch for 1HP or 2 HP Pump
- › PC150H-DCT - Die Change Tool



PC150H Die Set



Die Change Tool



PC150H Die Rack



Digital Gauge

## PC200 Series

Including PC200-1 & PC200-2 & PC200-3 | Perma-Crimp™



PC200-1

### Description

The PC200 is a high-volume, high-capacity stationary crimper utilizing microprocessor control for the fastest, most accurate crimping system available. Crimp settings, dwell time, pre-set start positions and auto/manual operation are all easily set with electronic controls. This production crimper is a quick and easy way to make factory-quality hose assemblies. The standard package is the PC200-1 crimper which includes a 7.5-HP, 230V/3 phase pump and foot pedal. The optional PC200-2 crimper includes a 7.5-HP, 480V/3 phase pump and foot pedal. The optional PC200-3 (single phase) crimper includes a 5-HP, 220V/single phase pump and foot pedal.

### Features

- › Hose feed is horizontal from both front or rear
- › Accurate electronic PLC crimp diameter adjustment
- › Manual or automatic mode
- › Max die size +78mm
- › 340-ton cylinder
- › Automatic shut-off for precise crimps
- › Power return stroke and return limit control
- › Rapid retraction of die fingers through hydraulic system
- › Die sets easily changed using hand tool
- › Accommodates bent tube/elbow couplings with the ability of installing 2", 90 degree fittings on both ends

### Capability

- › 1/4" through 2" ID, 2-braid hose and 2" 6 spiral hose with all coupling end styles including most bent tubes

### Power Source

- › 7.5-HP, 230V AC, 3 phase, 60 Hz (PC200-E7.5-1Pump)
- › Optional 7.5-HP, 480V AC, 3 phase, 60 Hz (PC200-E7.5-2 Pump) for the PC200-2 crimper
- › Optional 5-HP, 220V AC, single phase, 60 Hz for the PC200-3 crimper

**Oil Capacity:** 8 gal.

**Mounting:** Bench or cabinet

**Dimensions:** 18½" L x 27½" W x 31½" H (without die cabinet)

**Weight:** 573 lbs. (excluding cabinet)

### Dies

| Part Number | ID    | Part Number | ID   |
|-------------|-------|-------------|------|
| PC200-8.5   | 8.5mm | PC200-41    | 41mm |
| PC200-12    | 12mm  | PC200-45    | 45mm |
| PC200-14    | 14mm  | PC200-50    | 50mm |
| PC200-16    | 16mm  | PC200-56    | 56mm |
| PC200-19    | 19mm  | PC200-62    | 62mm |
| PC200-23    | 23mm  | PC200-69    | 69mm |
| PC200-27    | 27mm  | PC200-74    | 74mm |
| PC200-31    | 31mm  | PC200-78    | 78mm |
| PC200-34    | 34mm  |             |      |

### Options

- › PC200-1 Skit includes the PC200-1 crimper and 10 die sets including 16mm, 19mm, 23mm, 31mm, 41mm, 50mm, 56mm, 62mm, 69mm, 78mm dies for 1/4" to 2" 1-braid to 6-spiral hose
- › PC200-2 Skit includes the PC200-2 crimper and 10 die sets including 16mm, 19mm, 23mm, 31mm, 41mm, 50mm, 56mm, 62mm, 69mm, 78mm dies for 1/4" to 2" 1-braid to 6-spiral hose
- › PC200-3 Skit includes the PC200-3 crimper and 10 die sets including 16mm, 19mm, 23mm, 27mm, 31mm, 34mm, 41mm, 50mm, 56mm, 69mm
- › PC200-Rack - Black Die Cabinet 20" deep x 30" wide x 29" high
- › PC200-MBS - Manual Back Stop
- › PC200-EBS - Electric Back Stop

### Replacement Parts

- › PC900-Grease-1lb. - High-pressure grease in a 1 lb. can
- › PC900-AerosolLube - High-pressure grease in an aerosol can



PC200 Die Set



Control Panel



Foot Switch



Optional Automatic Back Stop



Die Cabinet

## PC400 Series

Including PC400 & PC400-1 | Perma-Crimp™



PC400

### Description

The PC400 is a high-volume, high-capacity stationary crimper utilizing microprocessor control for the fastest, most accurate crimping system available. Crimp settings, dwell time, pre-set start positions and auto/manual operation are all easily set with electronic controls. This production crimper is a quick and easy way to make both hydraulic and industrial hose assemblies. The standard package is the PC400 crimper which includes a 7.5-HP, 230V/3 phase pump and foot pedal. The optional PC400-1 crimper includes a 5-HP, 230V/single phase pump and foot pedal.

### Features

- › Hose feed is horizontal from either front or rear
- › Accurate electronic PLC crimp diameter adjustment
- › Manual or automatic mode
- › Maximum die opening: die closed diameter + 78mm (hydraulic) and 122mm (industrial)
- › 265-ton cylinder
- › Automatic shut-off for precise crimps
- › Power return stroke and return limit control
- › Rapid retraction of die fingers through hydraulic system
- › Die sets easily changed using hand tool
- › Accommodates bent tube/elbow couplings with the ability of installing 2", 90 degree fittings on both ends

### Capability

- › 1/4" through 2" ID, 2-braid hose, and 2" 6-spiral hose, and 4" industrial hose with all coupling end styles including most bent tubes
- › 1/2" through 4" ID industrial hose

### Power Source

- › 7.5-HP, 230V AC, 3 phase, 60 Hz for the PC400 crimper
- › Optional 5-HP, 230V AC, single phase for the PC400-1 crimper

**Oil Capacity:** 8 gal.

**Mounting:** Bench or cabinet

**Dimensions:** 18½" L x 27½" W x 31½" H (without die cabinet)

**Weight:** 573 lbs. (excluding cabinet)

### Hydraulic Dies (PC400 utilizes PC200 dies)

| Part Number | ID    | Part Number | ID   |
|-------------|-------|-------------|------|
| PC200-8.5   | 8.5mm | PC200-34    | 34mm |
| PC200-12    | 12mm  | PC200-41    | 41mm |
| PC200-14    | 14mm  | PC200-45    | 45mm |
| PC200-16    | 16mm  | PC200-50    | 50mm |
| PC200-19    | 19mm  | PC200-56    | 56mm |
| PC200-23    | 23mm  | PC200-62    | 62mm |
| PC200-27    | 27mm  | PC200-69    | 69mm |
| PC200-31    | 31mm  | PC200-74    | 74mm |
|             |       | PC200-78    | 78mm |

### Industrial Dies

| Part Number   | ID   | Part Number    | ID    |
|---------------|------|----------------|-------|
| PC400-86-125L | 86mm | PC400-114-125L | 114mm |
| PC400-90-125L | 90mm | PC400-118-125L | 118mm |

### Options

- › PC400-SKit includes the PC400 crimper and 12 die sets including 16mm, 19mm, 23mm, 27mm, 31mm, 34mm, 41mm, 50mm, 56mm, 62mm, 69mm, 78mm dies for 1/4" to 2" 1-braid to 6-spiral hose
- › PC400-1 SKit includes the PC400-1 crimper and 12 die sets including 16mm, 19mm, 23mm, 27mm, 31mm, 34mm, 41mm, 50mm, 56mm, 62mm, 69mm, 78mm dies for 1/4" to 2" 1-braid to 6-spiral hose
- › PC200-Rack - Black Die Cabinet 20" deep x 30" wide x 29" high
- › PC200-MBS - Manual Back Stop
- › PC200-EB - Electric Back Stop

### Replacement Parts

- › PC900-Grease-1lb - High-pressure grease in a 1 lb. can
- › PC900-AerosolLube - High-pressure grease in an aerosol can



Foot Switch



Control Panel



Die Cabinet



Optional Automatic Back Stop

# PC600L Crimper

Perma-Crimp™

## Description

The PC600L is a high-volume, high-capacity stationary crimper utilizing the fully automatic ACT3™ microprocessor controller. The PC600L can produce 2,200 crimps per hour with 350 tons of crimping force to allow for both hydraulic and industrial hose assemblies, and it is ideal for production assembly applications. The standard PC600L crimper includes a 7.5-HP, 230 V AC, 3-phase hydraulic pump.

## Features

- › Fully automatic ACT3 controller
- › Manual & automatic operation
- › Utilizes the PC200/400 dies with easy-to-change die tool
- › 350-ton cylinder
- › Built-in heavy-duty base with die holders
- › Allows for 2,200 crimps per hour
- › Automatic shut-off for precise crimps
- › Power return stroke and return limit control

## Capability

- › 1/4" through 2½" ID, 2-braid and 6-spiral hydraulic hose
- › 3/16" through 6" ID industrial hose

## Power Source

- › 7.5-HP, 230V AC, 3 phase, 60 Hz

## Dimensions

- › Master die inside diameter - 145mm
- › Master die opening w/o dies - 273mm
- › Maximum swaging diameter - 192mm
- › Maximum die opening - Die+128mm
- › Pump size: 21" L x 34" W x 36½" H
- › Pump weight: 450 lbs (205 kg)
- › Machine size: 22" L x 36" W x 57" H

**Weight:** 4,500 lbs. (2,041kg) die base/cabinet (shipping weight)

The following dies are included in the standard PC600-P SKit

## Hydraulic Dies:

| SAP#     | Descriptive # | Description |
|----------|---------------|-------------|
| 20244976 | PC200-16      | 16MM DIE    |
| 20244977 | PC200-19      | 19MM DIE    |
| 20244978 | PC200-23      | 23MM DIE    |
| 20244980 | PC200-31      | 31MM DIE    |
| 20244982 | PC200-41      | 41MM DIE    |
| 20244984 | PC200-50      | 50MM DIE    |
| 20244985 | PC200-56      | 56MM DIE    |
| 20244986 | PC200-62      | 62MM DIE    |
| 20244987 | PC200-69      | 69MM DIE    |
| 20249890 | PC200-78      | 78MM DIE    |



Optional Automatic Back Stop

## Continental ContiTech Part Numbers:

| SAP#     | Descriptive #    | Description                                                                                                     |
|----------|------------------|-----------------------------------------------------------------------------------------------------------------|
| 20673598 | PC600-P SKit     | PC600-P SKit 16-23, 31, 41, 50, 56, 62, 69, 78                                                                  |
| 20673588 | PC600-P SKit H&I | Includes Hydraulic & Industrial Dies (Hyd: 16-23, 31, 41, 50, 56, 62, 69, 79) (Ind: 84, 92, 100, 125, 166, 178) |
| 20267266 | PC200/400-DCT    | Die Change Tool                                                                                                 |
| 20244972 | PC200-EBS        | Electric Back Stop (Optional)                                                                                   |
| 20244971 | PC200-MBS        | Manual Back Stop                                                                                                |

# PC1000 Crimper

Perma-Crimp™

## Description

The PC1000 is a high-volume, high-capacity stationary crimper utilizing the fully automatic ACT3™ microprocessor controller. The PC1000 can produce 1,415 crimps per hour with 450 tons of crimping force to allow for both Hydraulic and Industrial hose assemblies, ideal for production assembly applications. The standard PC1000 crimper includes a 7.5-HP, 230 V AC, 3-phase hydraulic pump.

## Features

- › Fully automatic ACT3™ controller
- › Manual & automatic operation
- › Utilizes the PC200/400 dies with easy-to-change die tool
- › 350-ton cylinder
- › Built-in, heavy-duty base with die holders
- › Allows for 1,415 crimps per hour
- › Automatic shut-off for precise crimps
- › Power return stroke and return limit control

## Capability

- › Up through 2½" ID, 2-braid, 4-spiral and 6-spiral hydraulic hose
- › 3/16" through 10" ID industrial hose

## Power Source

- › Standard: 7.5-HP, 230 V AC, 3 Phase, 60 Hz
- › Optional: 7.5-HP, 460 V AC, 3 Phase, 60 Hz

## Dimensions

- › Master Die Inside Diameter: 230mm
- › Master Die Opening w/o Dies: 350mm
- › Maximum Swaging Diameter: 192mm
- › Maximum Die Opening: Die +125mm
- › Machine Size: 30" L x 44" W x 74" H

**Weight:** 6,185 lbs. (2,806kg)

The following dies are included in the standard PC1000-PX SKit

## Hydraulic Dies:

| SAP#     | Descriptive # | Description |
|----------|---------------|-------------|
| 20244975 | PC200-14      | 14 MM DIE   |
| 20244976 | PC200-16      | 16 MM DIE   |
| 20244977 | PC200-19      | 19 MM DIE   |
| 20244978 | PC200-23      | 23 MM DIE   |
| 20244980 | PC200-31      | 31 MM DIE   |
| 20244982 | PC200-41      | 41 MM DIE   |
| 20244984 | PC200-50      | 50 MM DIE   |
| 20244985 | PC200-56      | 56 MM DIE   |
| 20244986 | PC200-62      | 62 MM DIE   |
| 20244987 | PC200-69      | 69 MM DIE   |
| 20249890 | PC200-78      | 78 MM DIE   |
| 20562098 | PC600-84      | 84 MM DIE   |
| 20562099 | PC600-92      | 92 MM DIE   |
| 20562650 | PC600-100     | 100 MM DIE  |
| 20562651 | PC600-108     | 108 MM DIE  |
| 20562652 | PC600-116     | 116 MM DIE  |
| 20562653 | PC600-126     | 126 MM DIE  |
| 20590712 | PC1000-166    | 166 MM DIE  |
| 20590713 | PC1000-178    | 178 MM DIE  |
| 20590714 | PC1000-215    | 215 MM DIE  |
| 20590715 | PC1000-245    | 245 MM DIE  |

## Continental ContiTech Part Numbers:

| SAP#     | Descriptive #  | Description    |
|----------|----------------|----------------|
| 20588181 | PC1000-PX SKit | PC1000-PX SKit |

(3 Phase 230V dies 14-245) PC1000 Utilizes PC200/400/600 Dies & Change Tool





## PCTB-1500 & PCTB-2500

### Test Benches

#### Description

Continental ContiTech PCTB Series Test Benches provide a safe and efficient method to test hose assemblies for burst or proof testing.

#### Features

- › Optional electronic model with programmable control including paper printout
- › 1/2" polycarbonate safety window
- › Safety lock to prevent operation when door is not closed
- › Standard garden hose inlet for water supply
- › Factory air inlet supply, 85 psi minimum required
- › Powder-coated finish for durability
- › Polyurethane bed liner material coating on interior
- › 7-port outlet manifold for multiple testing
- › Built-in work light for good visibility during testing

#### Capability

- › PCTB-1500 - Test pressure range to 21,500 psi (1500 bar)
- › PCTB-2500 - Test pressure range to 37,500 psi (2500 bar)

#### Power Source

Standard 110 V AC, Single Phase Grounded Outlet

#### Dimensions

- › Interior: 18" H x 35" W x 71" L
- › Includes test bench legs - test area at a convenient working height
- › Full opening allows for hose assemblies to be loaded on a skid

**Weight:** 750 lbs.



#### Continental ContiTech Part Numbers:

| SAP#     | Descriptive #            |
|----------|--------------------------|
| 20439763 | PCTB-1500 TEST BENCH     |
| 20439764 | PCTB-1500 PLC TEST BENCH |
| 20554088 | PCTB-2500 TEST BENCH     |
| 20554089 | PCTB-2500 PLC TEST BENCH |



## HS150

### Hose Saws



#### Description

Designed to cut 1 & 2 braid hydraulic hose up to 1-1/2" ID and up to 1 1/4" 4 Spiral Hose.

#### Features

- › 1-HP
- › Single Phase
- › 60 Hz
- › 115 V AC
- › 3450 RPM w/10" serrated blade
- › 85 lbs.

**SAP # 20614553**

## HS301



### Description

Designed to cut 1 & 2 braid hydraulic hose up to 2" ID and up to 1¼" 4 or 6 Spiral Hose.

### Features

- › 3-HP
- › Three Phase
- › 60 Hz
- › 230 V AC
- › 3450 RPM w/12" serrated blade
- › 150 lbs.

**SAP # 20614555**

## HS303

### Description

Designed to cut 1 & 2 braid hydraulic hose up to 2" ID and up to 1¼" 4 or 6 Spiral Hose.

### Features

- › 3-HP
- › Three Phase
- › 60 Hz
- › 230 V AC
- › 3450 RPM w/12" serrated blade
- › 150 lbs.

**SAP # 20614554**

## HS501



### Description

Designed to cut 1 & 2 braid hydraulic hose up to 2" ID and up to 2" 4 or 6 Spiral Hose.

### Features

- › 5-HP
- › Single Phase
- › 60 Hz
- › 230 V AC
- › 3450 RPM w/12" serrated blade
- › 156 lbs.

**SAP # 20614557**

## HS503

### Description

Designed to cut 1 & 2 braid hydraulic hose up to 2" ID and up to 2" 4 or 6 Spiral Hose.

### Features

- › 5-HP
- › Three Phase
- › 60 Hz
- › 230 V AC
- › 3450 RPM w/12" serrated blade
- › 156 lbs.

**SAP # 20614556**

## CB102 & CB103

### Fitting Cabinets

#### Features

- › Stackable 12" deep cabinets
- › Durable powder-coated textured charcoal gray finish
- › Optional base stand provides 8 inches more of height for comfortable access to lower shelves

#### Highlights

- › Stackable - up to 3 units high
- › Durable - High impact Polystyrene, Blue Bins
- › No assembly - Cabinets ship assembled (except optional stand)
- › Capacity - weight capacity is 120 lbs., combined stacked capacity weight not to exceed 200 lbs.
- › Overall cabinet dimensions: 35"W x 11"D x 22"H (excludes base stand)

#### CB103 as shipped. Dividers Included



#### Hydraulic Dies:

| SAP#                                   | Descriptive # | Industrial Standard/Activevent | Color  | Description                              | Weight (lb) | Shelf Dimensions (in) |        |         | Bin Dimensions (in.) |        |       |
|----------------------------------------|---------------|--------------------------------|--------|------------------------------------------|-------------|-----------------------|--------|---------|----------------------|--------|-------|
|                                        |               |                                |        |                                          |             | D                     | L      | H       | D                    | W      | H     |
| 20754797                               | CB102         | 93103                          | Grey   | Stackable Cabinet w/o Bins               | 64          | 11                    | 34     | 4 11/16 |                      |        |       |
| 20754796                               | CB103         | 93102                          | Grey   | Stackable Cabinet w/5.5" Bins & Dividers | 40          | 11                    | 34     | 4 11/16 | 11 5/8               | 11 5/8 | 4 5/8 |
| 20754798                               | CB303         | 93303                          | Grey   | Base Stand for 11" Stackable Cabinet     | 16          | 11 1/4                | 35 1/4 | 8       |                      |        |       |
| 20754799                               | CB203         | 93203                          | Blue   | CB203 - Blue 3" Bins 6 pack              | 5           |                       |        |         | 11 5/8               | 3 3/4  | 4 5/8 |
| 20754883                               | C8203-DIV     | 93203-DIV                      | Black  | CB203 - Div 3" Dividers 6 pack           | 1           |                       |        |         |                      |        |       |
| 20754880                               | CB204         | 93204                          | Blue   | CB204 - Blue 5.5" Bin 6 pack             | 6           |                       |        |         | 11 5/8               | 5 9/16 | 4 5/8 |
| 20754884                               | CB204-DIV     | 93204-DIV                      | Black  | CB204 - Div 5.5" Dividers 6 pack         | 1           |                       |        |         |                      |        |       |
| 20754881                               | CB205         | 93205                          | Blue   | CB205 - Blue 8" Bin 4 pack               | 6           |                       |        |         | 11 5/8               | 8 3/8  | 4 5/8 |
| 20754885                               | CB205-DIV     | 93205-DIV                      | Black  | CB205 - Div 8" Dividers 6 pack           | 1.5         |                       |        |         |                      |        |       |
| 20754882                               | C8206         | 93206                          | Blue   | CB206 - Blue 11" Bins 4 pack             | 8           |                       |        |         | 11 5/8               | 11 1/8 | 4 5/8 |
| 20754886                               | CB206-DIV     | 93206-DIV                      | Black  | CB206 - Div 11" Dividers 8 pack          | 2           |                       |        |         |                      |        |       |
| 20759232                               | CB213         | 93211                          | Yellow | CB213 Yellow 3" Bins 6 Pack              | 5           |                       |        |         | 11 5/8               | 3 3/4  | 4 5/8 |
| 20759233                               | CB214         | 93212                          | Yellow | CB214 Yellow 5.5" Bins 6 Pack            | 6           |                       |        |         | 11 5/8               | 5 9/16 | 4 5/8 |
| 20759234                               | CB215         | 93213                          | Yellow | CB215 Yellow 8" Bins 4 Pack              | 6           |                       |        |         | 11 5/8               | 8 3/8  | 4 5/8 |
| 20759235                               | CB216         | 93214                          | Yellow | CB216 Yellow 11" Bins 4 Pack             | 8           |                       |        |         | 11 5/8               | 11 1/8 | 4 5/8 |
| <b>Replacement for C8200 and C8201</b> |               |                                |        |                                          |             |                       |        |         |                      |        |       |
| 20766037                               | CB200A        | 93200A                         | Yellow | CB200A - Replacment for CB200 8" bin     | 8           |                       |        |         | 11 5/8               | 8      | 4 1/8 |
| 20766038                               | CB201A        | 93201A                         | Yellow | CB201A - Replacment for CB201 4" bin     | 9           |                       |        |         | 11 5/8               | 4      | 4 1/8 |
| 20766039                               | CB201A-DIV    | 93201A-DIV                     | Black  | CB201 A-DIV divider for DB201 A          | 1           |                       |        |         |                      |        |       |
| 20766090                               | CB200A-DIV    | 93200A-DIV                     | Black  | CB200A-DIV divider for DB200A            | 1           |                       |        |         |                      |        |       |



## Selecting the Proper Hose Assembly

In order to obtain the best service from any particular hose application, two important conditions must be fulfilled.

- 1) Select the right hose for the job.
- 2) Make sure that it is fitted correctly and used in the proper manner.

Carefully consider the application requirements. A helpful guide is the S.T.A.M.P.E.D. process. S.T.A.M.P.E.D. is an acronym and stands for the seven major information areas required to provide a quality hose assembly

- S SIZE** - ID, OD, and length of the assembly
- T TEMPERATURE** - includes temperature of fluid conveyed and the climatic conditions
- A APPLICATION** - the conditions of use, including abrasion, flexing and routing
- M MATERIAL** - type of material conveyed, including composition and concentration
- P PRESSURE** - hose assembly working pressure and surge or back pressure
- E ENDS** - definition of the fitting, including thread type, gender, bent tube, swivel and orientation
- D DELIVERY** - time allowed for delivery, including testing, quality assurance and packaging

To assist in obtaining and conveying information regarding the application, a copy of the S.T.A.M.P.E.D. application form is included in this catalog. This inquiry sheet can be sent to any Continental ContiTech authorized distributor for a hose recommendation.

### Please Note:

A hose should always be selected based on its **rated working pressure**. Do not use **minimum burst pressure** as a guideline in selecting the hose. Minimum burst pressure decreases over the use and life of the hose. A hose should be selected based on its rated working pressure to provide a normal service life. In addition, always select a hose by giving consideration to its recommended temperature limits. Hose service life is reduced if the temperatures of the fluids being conveyed or ambient temperatures exceed the recommended limits.

# S.T.A.M.P.E.D. Form

|                                                                            |  |
|----------------------------------------------------------------------------|--|
| <b>Size</b>                                                                |  |
| ID                                                                         |  |
| OD                                                                         |  |
| Hose Length (OAL or unclpd. lgth.)                                         |  |
| Tolerances                                                                 |  |
| <b>Temperature</b>                                                         |  |
| of Material Being Conveyed                                                 |  |
| (high, low, ambient)                                                       |  |
| of Outside Exposure (high, low, ambient)                                   |  |
| Intermittent?                                                              |  |
| Constant?                                                                  |  |
| Sub-Zero Exposure                                                          |  |
| <b>Application(s)</b>                                                      |  |
| Indoor and/or Outdoor Use                                                  |  |
| Intermittent or Continuous Use                                             |  |
| Flexibility Required (min. bend radius)                                    |  |
| Movement (static, vibrations, flexing)                                     |  |
| <b>External Conditions:</b>                                                |  |
| Abrasion                                                                   |  |
| Oil                                                                        |  |
| Solvents                                                                   |  |
| Acid                                                                       |  |
| Ozone                                                                      |  |
| Electrical/Static Conductive                                               |  |
| <b>Oil Resistance:</b>                                                     |  |
| Tube                                                                       |  |
| Cover                                                                      |  |
| Flame Resistance                                                           |  |
| Noncontaminating Materials                                                 |  |
| Hose Currently in Use                                                      |  |
| Current Hose Service Life/Failure Description                              |  |
| Service Life Desired                                                       |  |
| <b>Material(s) Being Conveyed</b>                                          |  |
| Solids (size, description)                                                 |  |
| Gaseous (volatility, inert)                                                |  |
| Liquids (flammability, causticity, acid, alkaline, solution/concentration) |  |
| Chemical Names (generic)                                                   |  |

|                                     |       |
|-------------------------------------|-------|
| <b>Pressures(s)</b>                 |       |
| Working Pressure (including surges) |       |
| Burst Pressure                      |       |
| Suction or Vacuum Requirements      |       |
| Velocity                            |       |
| Impulse                             |       |
| <b>Ends &amp; Fittings</b>          |       |
| Type of Threads                     |       |
| Male/Female                         |       |
| Reusable/Nonreusable                |       |
| Material for Fittings               |       |
| Swivel or Non-Swivel                |       |
| Straight or Bent Tube               |       |
| Fitting 1 & 2 Orientation           |       |
| Other                               |       |
| Cut to Length                       |       |
| Crimp Specs or Crimper Used         |       |
| <b>Delivery</b>                     |       |
| Lead Time                           |       |
| Quantity                            |       |
| Stock/Nonstock                      |       |
| Special Print                       |       |
| Special Packaging                   |       |
| <b>Other Information</b>            |       |
| Customer:                           | Date: |
| Customer No:                        |       |
| Ship To:                            |       |
| Bill To:                            |       |
| Telephone:                          | Fax:  |

Bolded block areas MUST be filled out on all inquiries.

## Defining Hose and Assembly Length

### Identifying Hose ID

In the case of a hose assembly replacement, the inside diameter (ID) of the hose can be obtained from the existing assembly. The ID may be printed on the layline of the hose or may have to be measured. Before cutting the assembly, measure the overall assembly length and record the orientation of the fittings. See the following sections on how to measure overall assembly length and the offset angle between the two fittings. If the ID of the hose has not been determined, utilize the Hose ID Selection Nomograph in the Appendix. The chart will yield a hose ID recommendation based on flow capacity and flow velocity.

Hydraulic hose size or inside diameter is sometimes referred to as the "Dash Size." The Dash number is the ID of the hose in sixteenths of an inch. For example, a 1/4" ID hose, is equivalent to 4/16". The "Dash Size" would be "-4." A listing of the Dash sizes is shown below. Note that the Dash number applies to the hose ID for all hoses except SAE 100R5. In the case of SAE 100R5, the Dash number is equal to a relevant tube outside diameter (OD).

| Dash # | Hose ID<br>(Except SAE 100R5) |       | SAE Dash Size*<br>(SAE 100R5) |      |
|--------|-------------------------------|-------|-------------------------------|------|
|        | in.                           | mm    | in.                           | mm   |
| -2     | 1/8                           | 3.2   |                               |      |
| -3     | 3/16                          | 4.8   |                               |      |
| -4     | 1/4                           | 6.4   | 3/16                          | 4.8  |
| -5     | 5/16                          | 7.9   | 1/4                           | 6.4  |
| -6     | 3/8                           | 9.5   | 5/16                          | 7.9  |
| -8     | 1/2                           | 12.7  | 13/32                         | 10.3 |
| -10    | 5/8                           | 15.9  | 1/2                           | 12.7 |
| -12    | 3/4                           | 19.0  | 5/8                           | 15.9 |
| -14    | 7/8                           | 22.2  |                               |      |
| -16    | 1                             | 25.4  | 7/8                           | 22.2 |
| -20    | 1 1/4                         | 31.8  | 1 1/8                         | 28.6 |
| -24    | 1 1/2                         | 38.1  | 1 3/8                         | 35.0 |
| -32    | 2                             | 50.8  | 1 13/16                       | 46.0 |
| -36    | 2 1/4                         | 57.6  |                               |      |
| -40    | 2 1/2                         | 63.5  | 2 3/8                         | 60.3 |
| -48    | 3                             | 76.2  |                               |      |
| -56    | 3 1/2                         | 88.9  |                               |      |
| -64    | 4                             | 101.6 |                               |      |
| -72    | 4 1/2                         | 115.2 |                               |      |

\*SAE Dash Size equals OD of the tubing, which has approximately the same ID as the hose, expressed in 1/16".

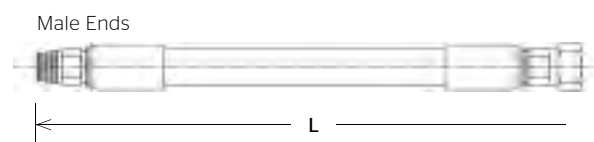
### Identifying Overall Assembly Length

Unless otherwise specified by the customer, the assembly's overall length is measured from the extreme end of one fitting to the extreme end of the other except for the O-ring face seal fittings, which shall be measured from the sealing face. Where elbow fittings are used, measurement shall be to the centerline of the sealing surface of the elbow end.

### Assembly Length Measurements

#### Overall Assembly Length

Female Swivel Ends (except O-ring Face Seal)  
Measure to sealing surface.



#### Bent Stem Swivel Female Ends



#### Flange Ends



#### Swivel O-Ring Face Seal Ends



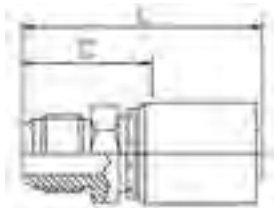
# Defining Hose and Assembly Length

## Determining Hose Cut Length

The hose cut length for a hose assembly is calculated by subtracting the cut-off factor (distance from the bottom of the ferrule or collar to the end of the fitting or an internal sealing surface), denoted as "C" cut-off in the tables, from the actual assembly length required.

The "C" cut-off factor can be obtained from the fitting product tables. An example is shown below:

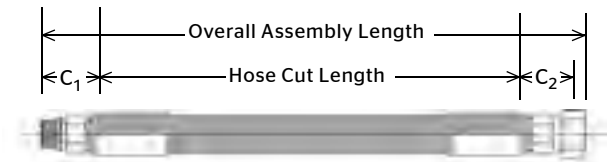
| Part #               | Hose ID<br>(in.) (mm) |     | Hose<br>Dash<br>Size | Thread<br>Size<br>(in.-TPI) | Thread<br>Dash<br>Size | "C" Cut-Off<br>Factor (mm) | Stem<br>Hex<br>(mm) |
|----------------------|-----------------------|-----|----------------------|-----------------------------|------------------------|----------------------------|---------------------|
| JIC Solid<br>Male 37 | 3/8                   | 9.5 | -6                   | 9/16-18                     | -6                     | 26.3                       | 17                  |



Knowing the overall length of the assembly desired, you subtract the "C" cut-off factor for each fitting from the overall length to obtain the hose cut length.

## Cut Hose Length = Assembly Overall Length - (C1+C2)

C1 and C2 are cut-off factors for each end. The "C" dimension may differ for each end, depending on the fitting. In certain situations, the sealing surface of JIC swivels and O-ring face seals should be considered when calculating overall length.



Hose assemblies should be manufactured to the following length tolerances.

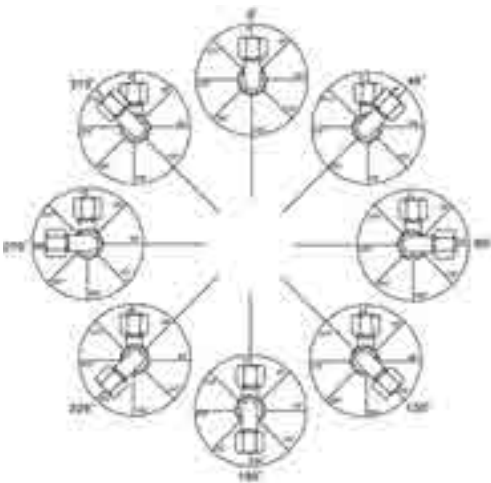
| Assembly Length                                | Tolerance (+/- in.) | Tolerance (+/- in.) | Tolerance (+/- mm) |
|------------------------------------------------|---------------------|---------------------|--------------------|
| Up through 12 in. (304.8mm)                    | 0.13                | 1/8                 | 3.2                |
| Over 12 through 18 in. (304.8 through 457.2mm) | 0.19                | 3/16                | 4.8                |
| Over 18 through 36 in. (457.2 through 914.4mm) | 0.25                | 1/4                 | 6.4                |
| Over 36 in. (914.4mm)                          | 1%                  | 1%                  | 1%                 |

\*SAE Dash Size equals OD of the tubing, which has approximately the same ID as the hose, expressed in 1/16".

## Measuring the Offset Angle

The offset angle between two fittings is the number of degrees measured in a clockwise direction between the fitting nearest the viewer and the farthest end fitting. Tolerances on the offset angle are +/- 3 degrees for assemblies up to 24 inches long and +/- 5 degrees for assemblies 24 inches and longer.

The following illustration shows the clockwise angle separation between a "close" fitting and a "far" fitting. The "close" fitting would be defined as the fitting closer when looking at an assembly end to end. The "far" fitting would be defined as the fitting on the far end of the assembly when looking at an assembly end to end. The far end is used as the reference point and the "close" end establishes the angular difference.



## Far End Reference Measuring Clockwise



## Clockwise Measurement (Degrees)



## Steps in Hose Assembly



### Hose Assembly Instructions Ultra-Crimp™ 1-Piece Crimped Fittings

1. Determine correct hose length from desired hose assembly length and "C" dimension. The "C" dimension, or cut-off factor, can be found in the fitting tables. More information on using the "C" dimension can be found in the previous subtopic, "Defining Hose and Assembly Length."
2. Cut hose to required length using a cut-off saw or a circular abrasive cut-off wheel. The preferred choice would be the steel wheel with a cooling agent. Care should be taken in not overheating the hose, which can cause deformation of the hose and create difficulty when inserting the hose fittings. For textile-reinforced hose, a guillotine-style cutter may be used.



Cut-off saw. Use caution when operating power equipment. Follow the proper safety measures per manufacturer suggestions.

3. Ensure hose is cut squarely.
4. Contaminated hose may reduce the service life of hydraulic systems. Always clean the hose bore after cutting, using air and/or flush with a compatible fluid.

5. In certain situations, skiving may be required. Skiving is the process of removing the portion of hose cover that lies directly under the coupling ferrule. This allows the metal fitting to be coupled directly on the hose reinforcement. Skiving is further discussed in the following section under the subtopic of "Internal and External Skiving."
6. Push and seat hose into the fitting. It is essential that the fitting be mated with a compatible hose style. Check fitting compatibility in hose or fitting product tables. To determine the insertion depth of the hose coupling, first measure the distance from the bottom of the fitting to the end of the ferrule where the hose is to be inserted. Mark a line on the hose cover at the distance from the end of the hose that equals the insertion depth. This becomes the visual check to determine if the hose was fully inserted in the fitting.



Mark insertion depth.

It is sometimes difficult to insert a fitting into hydraulic hose. If necessary, it is recommended using a liquid soap or a water/soap solution as a lubricant. Use the lubricant sparingly. When installing elbow fittings, point elbow towards curvature of the hose, unless specified otherwise. When installing elbow fittings on both ends, see the previous section on "Measuring the Offset Angle." If the insertion mark was correctly applied, you should now be able to determine if the coupling has been completely inserted. The depth mark will be aligned with the end of the ferrule. In the case of a skived assembly, check that no skive shows and that couplings are on straight.



Hose with square cut.

## Steps in Hose Assembly



Fitting inserted on hose.

7. Before crimping hose fitting, verify the tooling setup and install the proper die set. Read the Crimp Chart, per Continental ContiTech recommendations, and dial in the correct crimp diameter.



Always verify proper die set.



Insert die set in crimper.



Set crimp diameter.

8. Place hose and fitting into the crimp machine. Crimp ferrule to predetermined diameter. Refer to the Continental ContiTech Crimp Specifications Manual for proper crimp diameters and the crimper operator's manual for further instructions on how to properly and safely operate the crimper.



Insert hose assembly into crimper die set.



Insert hose assembly into crimper die set.

9. Remove assembled end and check crimp diameter with caliper or micrometer. Crimp diameter should be measured at the center of the ferrule. Measure the smooth portion of the ferrule and not the ridges. Visually check for cracked, cocked or damaged fittings.



Verify crimp diameter with calipers.

## Steps in Hose Assembly

10. Some applications require the addition of a protective outer sleeving or strain reliefs. If this is a requirement, the most appropriate time to assemble is before the second end fitting is applied. Choose the appropriate product for the specific application. When cutting product to length, allow for flexing and bending of the hose.
11. Even if not required, it is a good practice to examine and audit the assembly before delivery or use. Records should be maintained. The level of inspection should be in compliance with the quality plan.
  - a) Inspection - Visual, dimensional and proof pressure testing in accordance with SAE J517 or SAE J343.
  - b) Clean or flush of the assembly to remove plating dust, rubber chips, etc.
  - c) Apply caps, if required, to protect fitting threads and keep out contamination.
  - d) Apply labels or specific markings, if required.
  - e) Package the assembly properly.

### Final Inspection Checklist

- › Bulge behind the fitting
- › Cocked fittings
- › Cracked fittings
- › Rusted fittings
- › Exposed reinforcement
- › Freedom of swivels
- › General appearance of the assembly
- › Internal contaminants
- › Restriction of the tube

### Recommended Inspection Equipment

- › Worktable suitable for inspection
- › Tape measure to measure overall length
- › Calipers for measuring crimp diameter
- › Pi tape to measure outside diameter
- › Plug gauges for measuring inside diameter
- › Protractor device for measuring angle orientation of bent tube fittings
- › Magnifying glass and light to view inside of assemblies
- › Burst and proof pressure tester



### Hose Assembly Instructions

#### Uni-Crimp™ 2-Piece Crimped Fittings

1. Determine correct hose length from desired hose assembly length and "C" dimension. The "C" dimension, or cut-off factor, can be found in the fitting tables. More information on using the "C" dimension can be found in the previous subtopic, "Defining Hose and Assembly Length."
2. Cut hose to required length using a cut-off saw or a circular abrasive cut-off wheel. The preferred choice would be the steel wheel with a cooling agent. Care should be taken in not overheating the hose, which can cause deformation of the hose and create difficulty when inserting the hose fittings. For textile-reinforced hose, a guillotine-style cutter may be used.



Cut-off saw. Use caution when operating power equipment. Follow the proper safety measures per manufacturer suggestions.

3. Ensure hose is cut squarely.



Hose with square cut.



## Steps in Hose Assembly

4. Contaminated hose may reduce the service life of hydraulic systems. Always clean the hose bore after cutting, using air and/or flush with a compatible fluid.

5. In certain situations, skiving may be required. Skiving is the process of removing the portion of hose cover that lies directly under the coupling ferrule. This allows the metal fitting to be coupled directly on the hose reinforcement. Skiving is further discussed in the following section under the subtopic of "Internal and External Skiving."

6. The 2-piece crimped fitting consists of a ferrule and a stem insert. It is essential that the fitting be mated with a compatible hose style. Check fitting compatibility in hose or fitting product tables. Screw and/or push ferrule onto the hose until hose bottoms into the ferrule.



Push ferrule onto hose.

7. Push the stem insert into the hose ID. Shoulder of the stem should make contact with ferrule. It is sometimes difficult to insert the stem into hydraulic hose. If necessary, it is recommended using a liquid soap or a water/soap solution as a lubricant. Use the lubricant sparingly. When installing elbow fittings, point elbow towards curvature of the hose, unless specified otherwise. When installing elbow fittings on both ends, see the previous subtopic on "Measuring the Offset Angle."



Push stem into hose ID.

8. Before crimping hose fitting, verify the tooling setup and install the proper die set. Read the Crimp Chart, per Continental ContiTech recommendations, and dial in the correct crimp diameter.



Always verify proper die set.



Install the proper die set..



Set crimp diameter.

9. Place hose and fitting into the crimp machine. Refer to the Continental ContiTech Crimp Specifications Manual for proper crimp diameters and the crimper operator's manual for further instructions on how to properly and safely operate the crimper.



Insert hose assembly into crimper die set.



## Steps in Hose Assembly



Crimp the hose/fitting assembly..

10. Remove assembled end and check crimp diameter with caliper or micrometer. Crimp diameter should be measured at the center of the ferrule. Measure the smooth portion of the ferrule and not the ridges. Visually check for cracked, cocked or damaged fittings.



Verify crimp diameter with calipers.

11. Even if not required, it is a good practice to examine and audit the assembly before delivery or use. Records should be maintained. The level of inspection should be in compliance with the quality plan.
  - a) Inspection - Visual, dimensional and proof pressure testing in accordance with SAE J517 or SAE J343.
  - b) Clean or flush of the assembly to remove plating dust, rubber chips, etc.
  - c) Apply caps, if required, to protect fitting threads and keep out contamination.
  - d) Apply labels or specific markings, if required.
  - e) Package the assembly properly.

Refer to the Final Inspection Checklist and Recommended Inspection Equipment previously listed in "Hose Assembly Instructions Using a 1-Piece Crimped Fitting."

### Hose Assembly Instructions Field-Grip™ Fittings

Continental ContiTech Field-Grip™ reusable hose fittings must be carefully matched to Continental ContiTech hose. Use Field-Grip™ fittings only designed specifically for Continental ContiTech hose. Use the correct socket with a given hose. Specific fittings and their hose application can be found in the fitting tables.

1. Determine correct hose length from desired hose assembly length and "C" dimension. The "C" dimension, or cut-off factor, can be found in the fitting tables. More information on using the "C" dimension can be found in the previous subtopic, "Defining Hose and Assembly Length."
2. Cut hose to the required length using a cut-off saw or a circular abrasive cut-off wheel. The preferred choice would be a steel wheel with a cooling agent. Care should be taken in not overheating the hose, which can cause deformation of the hose, creating difficulty when inserting the hose fittings.



Cut-off saw. Use caution when operating power equipment. Follow the proper safety measures per manufacturer suggestions.

3. Ensure hose is cut squarely.



Hose with square cut.

## Steps in Hose Assembly

4. Contaminated hose may reduce the service life of hydraulic systems. Always clean the hose bore after cutting, using air and/or flush with a compatible fluid.
5. A Field-Grip™ fitting consists of a socket and stem



Field-Grip™ fitting consists of a stem and a socket.

assembly. It is essential the fitting be mated with a compatible hose style. Check fitting compatibility in hose or fitting product tables. Place the socket in a vice. The socket will fit over the hose cover. To determine the insertion depth for the hose, first measure the distance from the bottom of the socket to the end of the socket where the hose is to be inserted. Transfer this insertion depth to the hose cover by measuring from the end of the hose. Mark a line on the hose cover at the distance from the end of the hose that equals the insertion depth. This becomes the visual check to determine if the hose was fully inserted in the socket.



Socket positioned in vice.



Mark Insertion depth.

6. Lightly lubricate hose cover with a mild soap solution. Screw end of hose counterclockwise until hose reaches the marked insertion depth and then back off 1/2 turn. If the insertion mark was correctly applied to the hose, you should now be able to determine if the socket has been correctly applied to the hose by using the insertion depth mark on the hose cover as a reference along with a visual check inside the socket.



Apply lubricant to hose cover.



Visually check hose position inside socket.

7. Lightly lubricate the inside of the hose and stem threads with a mild soap solution. Using a wrench, screw the stem assembly into the socket until the stem hex shoulders against the socket.



Apply lubricant to stem and hose tube.



Screw stem into socket.



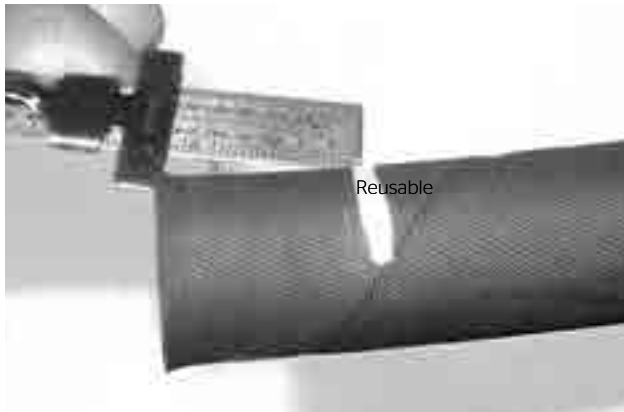
Stem properly seated against socket.

8. If disassembly is necessary, reverse the process.

## Internal and External Skiving

Skiving is the process of stripping and removing the hose cover to allow the proper installation of crimped hose ends and to ensure the best possible hose assembly.

1. At the point of skiving, the hose has been cut to the proper length. See Steps 1 and 2 in the previous hose assembly instructions.
2. Obtain length of skive per Continental ContiTech specifications. Mark hose with skive length.



Mark skive on hose cover.

3. Remove the hose cover to the wire, using care not to burn, fray or damage reinforcement wires. The cover of wire-braided hoses can be removed with a buffing wheel or a hand skiver. A manual, external skiving tool that uses a knife must be used with spiral hose. Mark the length of the cover to be removed, as noted in the Continental ContiTech Crimp Specifications Manual, and set skiving depth on the manual skiving tool. Make sure the manual skiver is rotated in the counterclockwise direction for external skiving. Follow specific instructions on external skiving that would accompany the manual skiver.

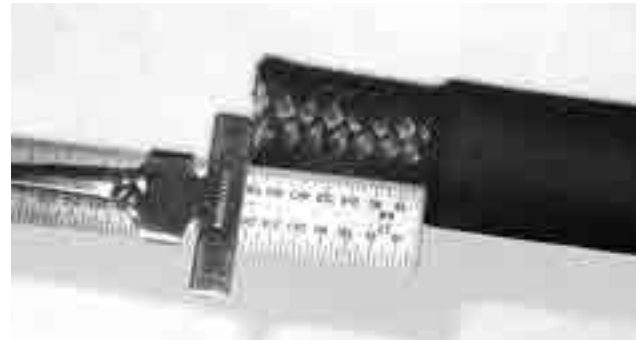


Cutting skive with buffing wheel. Follow manufacturer's recommendation for the safe and proper use of the skiver.

4. With the hose cover removed, check that the wire braid or spiral reinforcement has not been displaced, damaged or cut in the skiving process.



Check skived hose.



Measure skive.

5. Check for the proper skive length.
6. Hoses should be checked for 100% of cover removal. If necessary, rebuff skived area to clean and remove hose cover.
7. A manual, internal skiving tool that uses a knife is to be used to remove the tube material of spiral hose for installation of the Dual-Grip™ fittings. Note the correct length of tube material to be removed from the Continental ContiTech Crimp Specification Manual. Set the desired skiving depth on the internal skiving tool. Make sure the tool rotates in the clockwise direction for internal skiving. Verify that the correct length of tube material has been removed. Follow specific instructions on internal skiving that would accompany the manual skiver.
8. It is important to clean hose ID by brushing, blowing compressed air or flushing to remove any contaminants.

**Warning:** Failure to completely remove the cover may result in serious personal injury or property damage due to hose ends blowing off, leakage or other failures.

## Steps in SR14A Hose Assembly

In order to make a quality assembly with SR14A hose, the following instruction must be followed:

1. Tape hose before cutting as shown.

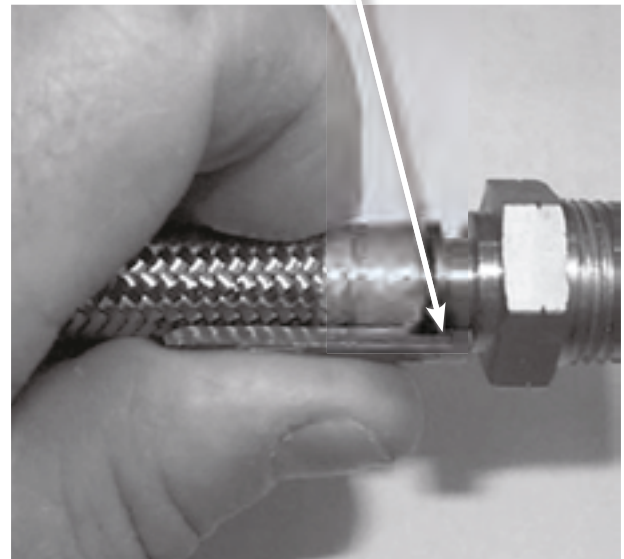
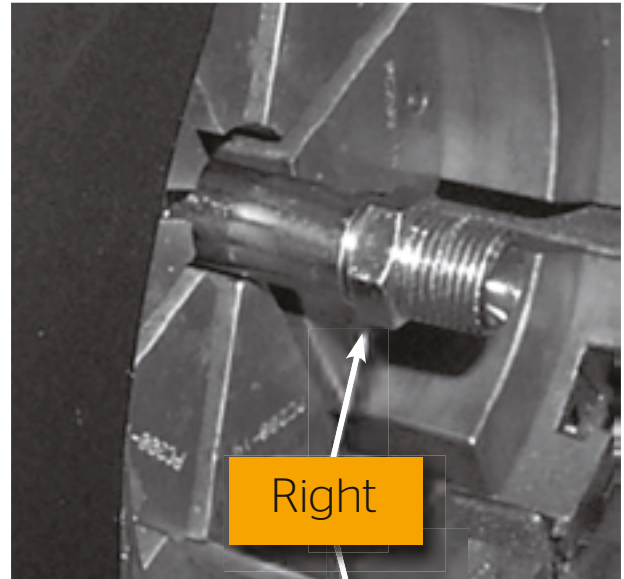
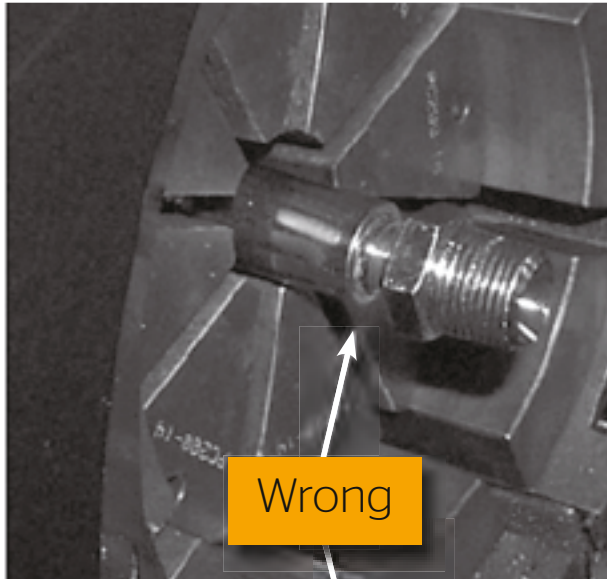
This will prevent the wire from flaring once the cut is made. If wire flare is allowed to occur, the ferrule will not slide onto the hose.

2. Slip ferrules on. Be sure they are in the correct direction (i.e. flange side aims to the outside of the hose).
3. Push in on stem on each end.
4. Remove the tape and slide the ferrule onto the stem.



## Steps in SR14A Hose Assembly

5. Crimp the fitting using proper die selection and setting. Be sure not to allow the ferrule to slip back onto the hose or ride up on the hub of the stem. The groove of the ferrule must line up with flange of the stem.



6. Check finished crimp diameter.





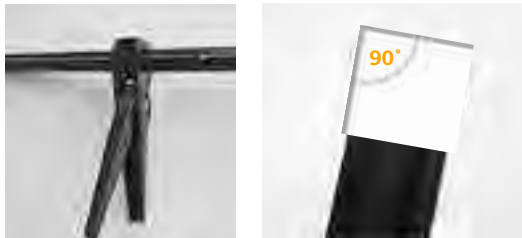
## Steps in Cool Clip® A/C Hose Assembly

Special care should be taken when selecting the proper refrigerant hose and fittings. Continental ContiTech Cool Clip® fittings should only be used with Continental ContiTech Galaxy® 4890 hose.

Special care must be taken when working with refrigerant systems. Sudden escape of refrigerant gases may result in blindness or severe injury. Continental ContiTech recommends adherence to guidelines and general practices as defined in SAE J2211 for the service containment of HFC-134a as well as all applicable EPA guidelines and procedures concerning the service of refrigerant systems.

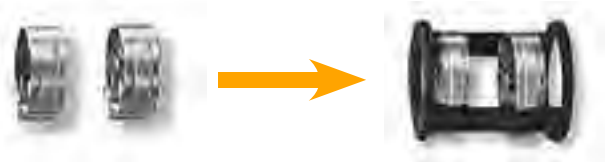
### Steps in Cool Clip® A/C Hose Assembly

1. Cut the hose to proper length with the Continental ContiTech hose cutter PN 65090.



The cut must be made squarely to the hose length.

2. Install two proper-sized clips into the clipholder. For ease of assembly, both clips should have the same orientation.



3. Place the clipholder with the two clips on the hose. Install the clipholder so that the end with the smallest hole touches the end of the hose.
4. Lubricate the fitting with a generous amount of the A/C system's lubricator oil. This is to lower the force of the insertion.



5. Insert the fitting into the hose. Ensure that the fitting is fully inserted so that there is no gap between the end of the hose, the clip retainer and the shoulder of the fitting.



6. Close both clips with the Continental ContiTech clip pliers, PN GC-Pliers-0001. The pliers will automatically release when the clips have been completely closed. Start with the clip closer to the end of the hose.



7. Now you have realized a durable hose/fitting connection.



### Warning - Selection of Fitting

Selection of the proper Continental ContiTech hose and fittings for the application is essential to the proper operation and safe use of the hose and related equipment. Inadequate attention to the selection of the hose and fitting for the application can result in hose leakage, bursting or other failures which can cause serious bodily injury or property damage from spraying fluids or flying projectiles. Some of the factors involved in the selection of the proper hose and fittings are:

#### Hose

- › Size › Refrigerant › Pressure › Length › Bends
- › Original Equipment

#### Fittings

- › Compatibility › Pressure › Temperature › Hose Size
- › Installation Design › Corrosion Requirements

If there are any questions as to what fitting should be used, Continental ContiTech recommends that you consult the local Sales Representative or Continental ContiTech Hydraulics Application Group for assistance.

## A/C Fitting Crimping Procedure for PC125 Crimper

1. Insert the pressure plate into the bottom flange of the crimper, making sure that it is seated completely into the bottom flange.



2. Select the correct die set for the Galaxy® hose dash size/ID and "AC" fitting being crimped. Insert the two halves of the die set onto the pressure plate, making sure both halves are flat and level.

| Galaxy® Hose # ID | PC125 Die Set |
|-------------------|---------------|
| G4826-06 5/16"    | PC125-AC06    |
| G4826-08 13/32"   | PC125-AC08    |
| G4826-10 1/2"     | PC125-AC12    |
| G4826-12 5/8"     | PC125-AC12    |
| G4867-14 3/4"     | PC125-AC12    |



### Be Sure To:

Lubricate the contact surfaces: both bottom and outside edges of the die fingers, the inside of the compression ring and the pressure plate with the die lubricant provided with the crimper. Only use a molybdenum/graphite high-pressure grease applied sparingly to the contact surfaces. Die lubricant can be obtained from Continental ContiTech using part numbers PC900-Grease (3 oz.) or PC900-Grease (1 lb.) An aerosol lubricant, PC900-AerosolLube, can also be used.

**Failure to lubricate the contact surfaces with the correct lubricant will cause the dies to seize in the compression ring, causing damage to the die set as well as possibly damaging the crimper.**

3. Place the compression ring loosely but evenly over the die set. Make sure die set is correctly aligned.

4. Slide the pusher in place.



5. Set the micrometer to the setting as shown in the Continental ContiTech Crimp Specification Manual for the combination of hose and fitting being crimped. The metric micrometer (readings of 0 to 10) is a direct reading micrometer. The setting on the micrometer is added to the number in millimeters etched on the die ring to obtain the final crimp diameter. The adjuster, set at "0," is the setting for the die set fully closed. For example, with a 34mm die and the micrometer set at 3.0mm, the finished crimp diameter would be 37.0mm (34mm + 3.0mm).

6. Attach the coupling stop, included with your crimper, to the base of the crimper.



7. Select the appropriate Galaxy® hose size and cut to the correct length using Continental ContiTech Hose Cutting Tool (part #65090). Be sure the hose is cut squarely at a 90-degree angle to the hose.
8. Insert the hose end fully into the ferrule of the corresponding fitting. When completely inserted, the hose should be visible through the witness hole on the side of the ferrule.



## A/C Fitting Crimping Procedure for PC125 Crimper

9. Insert the hose and fitting through the crimp dies. Align the foot on the coupling stop so that the foot rests on the top of the crimp die and also against the end of the fitting ferrule. Be sure the foot on the coupling stop is against the end of the ferrule and not resting on the bump of the tube above the ferrule.

10. Manually depress the compression ring, closing the die set until the hose and fitting are held loosely in the die set. Seat the compression ring evenly on the die set



Each die set has a limited range of diameters for which a satisfactory crimp can be obtained. Always consult the

**CAUTION:** The notches on the die set must be completely covered by the compression ring prior to starting the crimp. If the notches are showing, you must go to a larger die set. Crimping with an incorrect die size could result in personal injury.



Continental ContiTech Crimp Specification Manual for selecting the correct die set.

11. Recheck the fitting for the correct alignment in the die set and depress the start/stop switch. Hold the start/stop switch until the automatic stop switch shuts the pump off. Release the start/stop switch and allow the pusher to return to the retracted position.



12. Check the crimp diameter of the finished assembly with a caliper or micrometer to be certain that it is within the specifications as outlined in the Continental ContiTech Crimp Specification Manual. The caliper measurement should be taken in the crimp groove between the ridges as shown.

NOTE: To properly measure the crimp diameter on "AC" style fittings, your caliper should be a style having notched blades as shown here:



13. Check the completed assembly to be sure that the hose is still visible through the witness hole on the fitting. Also, the crimp grooves should be centered on the fitting ferrule.



If the crimp grooves are too near the fitting end of the ferrule, or too near the hose end of the ferrule, the fitting may not seal properly and the assembly could leak. If your finished crimp assembly resembles either of the two examples shown below, the end of the ferrule was not properly positioned against the coupling stop foot, or the coupling stop foot was not resting on the top of the die set when crimped. A new assembly should be crimped, being sure to follow the procedures in Step 9.







# **Installation & Maintenance**

## Service Life Factors

Hose and hose assemblies have a finite life. There are a number of factors that will reduce hose life. Consideration should be given to the following factors.

1. **Operating Pressure** - The maximum operating pressure within the hose should not exceed the recommended working pressure as specified by Continental ContiTech as shown in the catalog specifications. Hose selection must be made so that the recommended maximum operating pressure is equal to or greater than the system pressure. Burst pressure, which is four times the working pressure, should not be used as the operating pressure of the hose. Exposing the hose to pressures higher than the working pressure is dangerous and will shorten hose life.
2. **Exposing the hose to a surge pressure**, above the working pressure of the hose, will shorten hose life. If surges are severe, select a hose with a higher recommended working pressure.
3. **Burst Pressure** - The burst pressure should never be considered in a hydraulic system design. The burst pressure is for test purposes only. Burst pressure is detrimental to the hose.
4. **Operating Temperatures** - High heat conditions may have an adverse affect on hose due to the degradation of the rubber and the affect on fitting retention. Continuous use at or above the maximum operating temperature of the hose will cause deterioration of the tube, cover and reinforcement, reducing the hose life. Care should be taken to ensure that fluid and ambient temperatures, both static and transient, do not exceed the limitations of the hose. It is important to operate a hose assembly within the specified temperature range of the specific hose.
5. **Bend Radius** - Flexing the hose to less than its recommended minimum bend radius will decrease hose life. Optimize routing to minimize inherent problems.
6. **Excessive external forces** such as flexing, twisting or kinking will reduce hose life. Use the correct fitting or adapter to prevent any unnecessary external force.
7. **Chemical Resistance** - Consider the chemical resistance of the tube, cover and the fitting, including the O-ring, to maximize hose performance and life. Hose selection must assure compatibility of the hose, tube, cover and fittings with the fluid used.
8. The size of the hose assembly components must be adequate to keep pressure losses to a minimum and avoid damage to the hose due to heat generation or excessive turbulence.
9. Extend hose assembly life by making sure hose and fittings are compatible with the environment or sufficiently protected from the elements, such as ultraviolet light, ozone, salt water or chemicals that can cause degradation of assembly components and shorten hose life.
10. A hose is designed with a certain level of abrasion resistance, but care should be taken to avoid excessive abrasion, which can damage the hose cover, accelerating hose failure.
11. Use the proper end fittings and crimp or install to the proper crimp specification to ensure a safe and proper hose assembly. Make sure that hose fittings are compatible with the hose.

## Safety Considerations

Fabricators, end users and installers should be aware of the safety factors when handling or when in proximity of hydraulic hose assemblies. The following are some potential conditions that can lead to personal injury and property damage.

1. As certain fluids may permeate the hose cover, the hose should always be used in well-ventilated areas.
2. Hydraulic systems generally operate at very high pressures. Any leak of pressurized fluid can penetrate the skin, causing severe tissue damage and burns. Consider the use of guards or shields around the hose assembly to reduce the risk of injury.
3. Whipping Hose - Under high operating pressures, the hose and/or fitting can come loose or blow, causing the end of the hose to whip with great force. Again, the hose assembly should be shielded or guarded, even possibly secured, to avoid injury or damage from this whipping action.
4. Hydraulic fluids are flammable and can explode with a source of ignition. To avoid possible injury or property damage, care should be taken to eliminate ignition sources and to properly route the hose assembly to minimize the chance of combustion.
5. Most all hose is conductive. In some cases a non-conductive hose is required. To avoid electrocution or other serious mishap, the correct hose specification, either conductive or nonconductive, should be used.
6. Should a hydraulic hose assembly fail, loss of hydraulic pressure will affect the operation of equipment. Care should be taken that a sudden power loss of the equipment will not cause personal injury.
7. When air or gaseous materials are being conveyed, the correct hose should be used. A pin-perforated cover may be required. Perforations in the cover will prevent permeated gases from accumulating and blistering the cover. Check Continental ContiTech for the correct hose specification.
8. Extreme care should be used when operating handheld hydraulic tools where the operator is in proximity to the hydraulic hose assembly. The following steps should be taken to avoid injury.
  - a. Use strain relievers on each end of the hose to prevent kinking, excessive bending or stress on the hose at the coupling.
  - b. Never use the hose assembly to pull or carry the tool.
  - c. Exposed hose near the operator should be guarded in case hose assembly fails, to prevent injury from high pressure or high temperature fluid.
  - d. Operators of the tool should be protected with the required safety clothing, considering the job and fluids being used.
  - e. The hose should be protected against any external damage.
9. Hose assemblies should be properly routed to avoid strain and the possibility of the hose bursting. Proper routing will also protect the assembly against flex fatigue, excessive heat or abrasion.
10. When selecting a hose style and assembly, check for hose compliance to all relevant government, industry and safety standards or regulations.

## Proper Installation & Hose Routing

### Proper Hose Installation

**Warning:** Improper selection, installation or maintenance of a hose assembly may result in premature failures, bodily injury or property damage.

The following practices should be used when replacing a hydraulic hose assembly or installing a new hydraulic assembly.

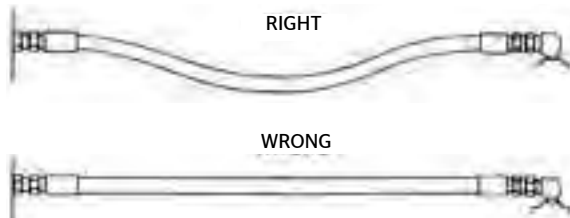
1. A pre-installation inspection should include the following:
  - a. Check to ensure the hose is the correct specification in style, size and length.
  - b. Check that the hose assembly has no visible non-conformity.
  - c. Check fittings for any damage including nicks or burrs.
  - d. Check that the hose is routed properly using suggested guidelines.
  - e. Check that the hose is not damaged (kinked, crushed, twisted).
2. Handle assembly with care. Avoid bending hose beyond the recommended bend radius.
3. Hose assemblies should not be installed in a torqued or twisted condition.
4. Use necessary restraints and protective devices when necessary to reduce wear and stress points on the assembly.

### Correct Assembly Installation & Routing

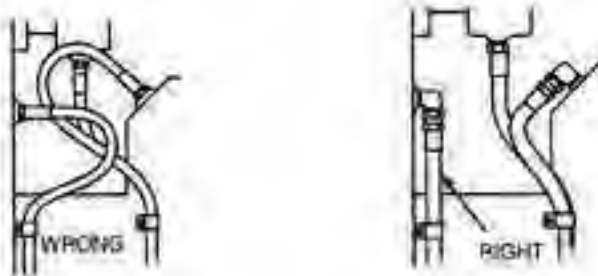
Satisfactory performance and appearance depend upon proper hose installation. Excessive length destroys the trim appearance of an installation and adds unnecessarily to the cost of the equipment. Hose assemblies of insufficient length to permit adequate flexing, expansion or contraction will cause poor power transmission and shorten the life of the hose.

The diagrams below offer suggestions for proper hose installations to obtain the maximum in performance and economy.

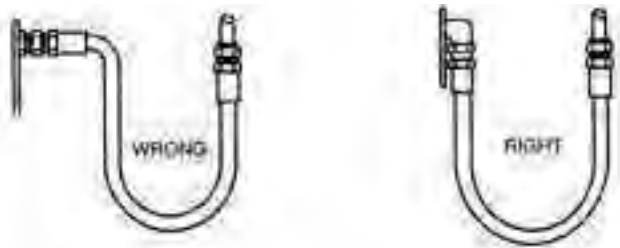
Since hose may change in length from +2% to -4% under the surge of high pressure, provide sufficient slack for expansion and contraction.



Obtain direct routing of the hose through use of 45° and 90° adapters and fittings. Improve appearance by avoiding excessive hose length.

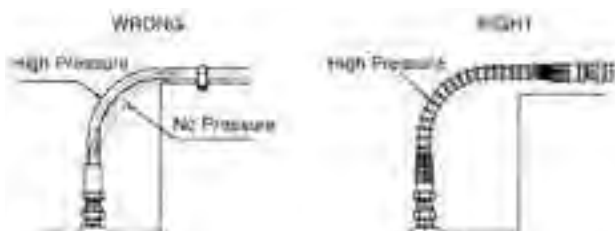


Avoid sharp twist or bend in hose by using proper angle adapters compatible with the hose.



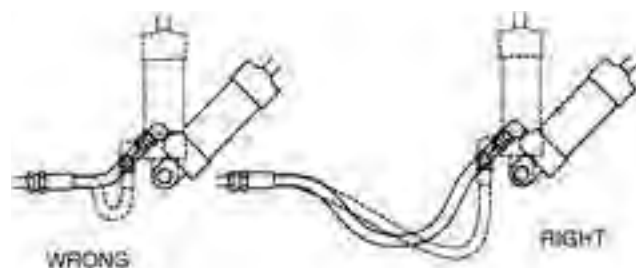
## Proper Installation & Hose Routing

Due to changes in length when the hose is pressurized, do not clamp at bends so the curves can absorb changes and protect the hose with a spring guard. Do not clamp high and low pressure lines together, and protect the hose with a spring guard.

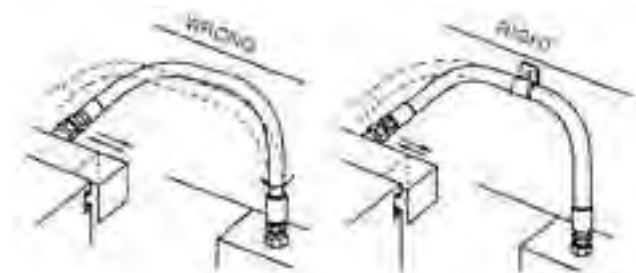


Where the radius falls below the required minimum, an angle adapter should be used as shown on previous page to avoid sharp bends in the hose.

Adequate hose length is most important to distribute movement on flexing applications and to avoid abrasion.



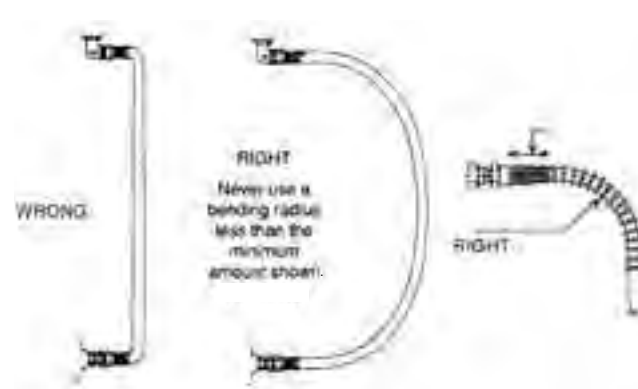
To avoid twisting in hose lines bent in two planes, clamp hose at change of plane, as shown.



Hose should not be twisted. Hose is weakened when installed in a twisted position. Also, pressure in twisted hoses tend to loosen fitting connections. Design so that machine motion produces bending rather than twisting.



To prevent twisting and distortion, the hose should be bent in the same plane as the motion of the boss to which the hose is connected.



Never use a bending radius less than the minimum shown in the hose specification tables. To reduce collapsing of line and restriction of flow, avoid a sharp bend in the hose by using proper spring guard. Exceeding minimum bend radius will greatly reduce hose assembly life.



# Hose Maintenance & Storage

## Hose Maintenance

A hose and fitting maintenance program can reduce equipment downtime and maintain peak operating performance of the hydraulic system. Here are a few maintenance reminders.

1. Hose assemblies should be inspected on a regular basis with frequency based on prior history of the equipment, a set maintenance/inspection program, and the severity of the application or risk potential.
2. Always use Safety Considerations (page 618) when inspecting hose assemblies. To avoid personal injury during system checkouts, do not touch the assembly and be aware of the potentially hazardous area surrounding the hose assembly.
3. Inspect hose and fittings for the following:
  - a. Exposed, broken or corroded reinforcement wires.
  - b. Leaks in the hose or at the fitting.
  - c. Cracked, damaged or corroded fittings.
  - d. Other signs of significant deterioration.

If any of the above conditions exist, the hose assembly should be replaced immediately.

4. The hydraulic system should also be inspected for the following:
  - a. Leaking ports.
  - b. Damaged or missing hose clamps, guards or shields.
  - c. Excessive dirt or grease on the assembly.
  - d. Condition of system fluid, fluid temperature, contamination and air entrapment.

If any of the above conditions are found, appropriate corrective action should be taken.
5. Functional tests should be conducted to determine if systems are leak-free and operating properly.

6. If hose assembly can be inspected and detached from the hydraulic system, additional steps can be taken to ensure a properly maintained assembly.
  - a. With hose assembly detached, clean assembly by blowing out with clean, compressed air or rinsed with a compatible cleaning fluid.
  - b. Inspect hose tube for cuts, obstructions and cleanliness.
  - c. Check layline of the hose to make sure the hose is not twisted.
  - d. Check fittings to ensure they are in good condition and properly crimped or attached to the assembly.

If any of the above conditions are found, the hose assembly should be replaced.

7. The hose assembly should be hydrostatically tested, using the approved test stands and procedures as outlined in SAE J517. Test at proof pressure, or twice the working pressure of the hose, for 30 seconds to one minute. When test pressure is reached, visually inspect the hose for any signs of weakness, leaks or any hose movement relative to the fitting that would indicate a loose fitting. If any of these conditions exist, the assembly should be replaced.
8. Specific hose assembly replacement intervals must be considered based on previous service life, government or industry recommendations, or when failures could result in injury risk or property damage.

## Hose Storage

Temperature, humidity, ozone, sunlight, oils, solvents, corrosive liquids, insects, rodents and radioactive materials can adversely effect hose products. Hose should be stored in a dark, dry atmosphere away from heat sources, electrical equipment and the above adverse elements. The ideal storage temperature for rubber hose is 50°F to 70°F (10°C to 21.1°C), with a maximum of 100°F (37.8°C).



# Appendix

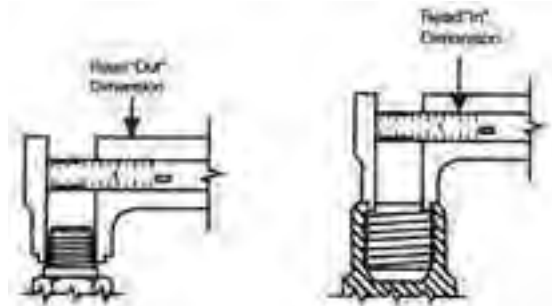
## Fitting Identification

### Measuring Threads and Seat Angles

Tools required: ID/OD Calipers, Seat Angle Gauge (English and Metric), Thread Pitch Gauge

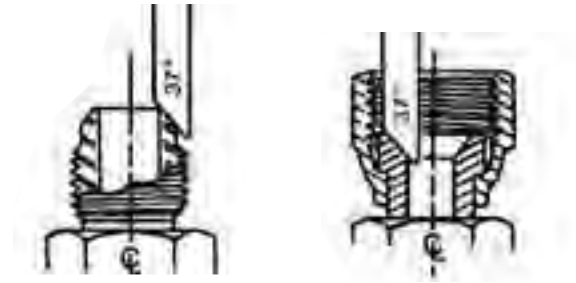
#### Measuring Threads

A caliper is used to measure the OD of male threads and the ID of female threads. Measure at the largest point. In some cases, threads may be worn, and the exact measurement taken may not match exactly to the thread charts. For accuracy, it is recommended the male thread be measured.



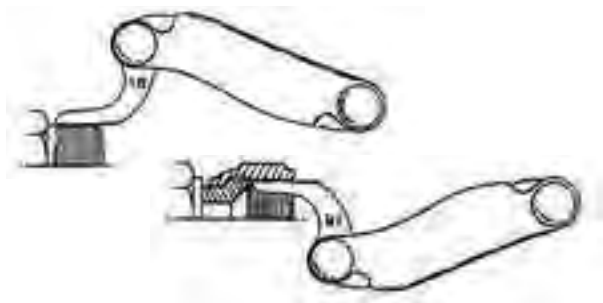
#### Measuring Seat Angle

A Seat Angle Gauge is used to measure the angle of the sealing surface. For either male or female fittings, place the gauge on the sealing surface. An accurate reading is taken when the gauge is parallel to the centerline of the coupling.



#### Measuring Thread Pitch

A Thread Pitch Gauge is used to determine the number of threads per inch or the distance between threads in a metric connection. To ensure an accurate reading, make sure the fit of the thread gauge is snug.



#### Comparing Measurements to the Tables

ID/OD measurements, thread pitch and seat angle will be used to identify the fitting. Measurements taken can be used to compare with the dimensions found on charts in the following pages.

As an example, a fitting will be defined as: Continental ContiTech B2-NPMX-0606 with 3/8-18 threads.

From the hydraulic catalog, the fitting can be identified as a NPTF/MALE/Swivel.

The -6 fitting has 3/8-18 threads, which can be identified using calipers, thread gauge and the following tables.



## Fitting Identification

### Fitting Standards

There are five basic fitting standards. They are identified as North American, British, French, German and Japanese.

### North American Thread Types

Also known as American Dryseal Pipe Threads, the thread types include NPTF, NPSF and NPSM.

**N** - National  
**F** - Fuels  
**T** - Tapered Thread  
**S** - Straight Thread  
**P** - Pipe  
**M** - Mechanical Joint

Pipe threads can be either straight or tapered. The first step in identifying this fitting is to determine if the thread is parallel (straight) or tapered.



**Parallel Threads**



**Tapered Threads**

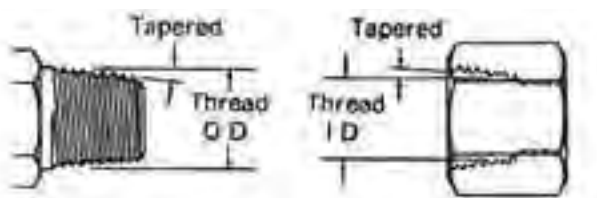
A straight thread is not used for sealing fluids. In this type of fitting, a seal is achieved with an O-ring, a metal seal, or a seat machined into the end of the fitting. A straight thread can be determined by laying a straightedge against the threads. If all the threads are parallel to the centerline of the fitting, then it is a straight thread.

A tapered thread seals by the interference in the engagement of the male and female threads. These threads deform when they are tightened, causing metal deformation and a pressure-tight joint. Thread sealants are commonly used in this connection. A tapered thread can be determined by laying a straightedge against the threads. If the straightedge is not parallel to the centerline of the fitting and the threads taper towards the centerline of the fitting, then it is a tapered thread.

A fitting may also be referred to by its Dash number. The Dash number is a universal abbreviation for sizing pipe systems. The following charts will show a Dash number for each fitting. The Dash number comes from the dimension of the port of the fitting. It is the dimension in 1/16 of an inch. A 3/8" port would be 6/16" or a Dash 6 (-6).

| Inch  | 1/16  | SAP # |
|-------|-------|-------|
| 1/8   | 2/16  | -2    |
| 1/4   | 4/16  | -4    |
| 3/8   | 6/16  | -6    |
| 1/2   | 8/16  | -8    |
| 3/4   | 12/16 | -12   |
| 1     | 16/16 | -16   |
| 1 1/4 | 20/16 | -20   |
| 1 1/2 | 24/16 | -24   |
| 2     | 32/16 | -32   |

### NPTF



**Male**

**Female**

### Identification

National Pipe Tapered Fuels. Tapered thread.

### Seal

The thread is tapered and sealing takes place with the deformation of the threads. The NPTF male has a 30-degree seat and will mate with the NPTF female, also with tapered threads, but no seat. A thread sealant is commonly used. An NPTF male with 30-degree seat will mate with an NPSM female, which has straight threads and a 30-degree inverted seat. The sealing takes place on the 30-degree seat.

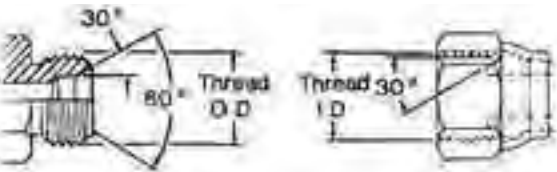
### Application

The NPTF fitting is a dryseal thread, commonly used in fluid power systems but not recommended by the National Fluid Power Association for hydraulic applications.

# Fitting Identification

## Fitting Standards

### NPSM



Male Female

**Identification**  
National Pipe Straight Mechanical. Straight thread.

**Seal**  
Both male and female have a straight thread and 30-degree seat and chamfer. The seal takes place by compression of the 30-degree seat on the chamfer. The threads hold the connection mechanically.

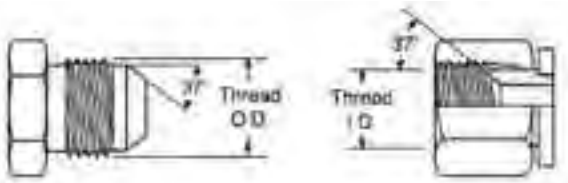
**Application**  
Used in fluid power systems.

**Thread Identification Table**  
NPTF/NPSF/NPSM

| Dash Size | Nominal Size | Thread Size    | Female Thread ID | Male Thread OD |
|-----------|--------------|----------------|------------------|----------------|
|           | in.          |                | in.              | in.            |
| -2        | 1/8          | 1/8 - 27       | 23/64            | 13/32          |
| -4        | 1/4          | 1/4 - 18       | 15/32            | 35/64          |
| -6        | 3/8          | 3/8 - 18       | 19/32            | 43/64          |
| -8        | 1/2          | 1/2 - 14       | 3/4              | 27/32          |
| -12       | 3/4          | 3/4 - 14       | 61/64            | 11/16          |
| -16       | 1            | 1 - 11 1/2     | 1 13/64          | 1 5/16         |
| -20       | 1 1/4        | 1 1/4 - 11 1/2 | 1 17/32          | 1 43/64        |
| -24       | 1 1/2        | 1 1/2 - 11 1/2 | 1 25/32          | 1 29/32        |
| -32       | 2            | 2 - 11 1/2     | 2 1/4            | 2 3/8          |

### SAE Thread Types

#### JIC 37° Flare (SAE J514)



Male Female

**Identification**  
Straight threads. Both male and female have 37-degree seat.

**Seal**  
The seal is made on the 37-degree flare seat. The threads hold the connection mechanically. Only connect male SAE 37 with female SAE 37.

**Application**  
SAE specifies use with high-pressure hydraulic tubing.

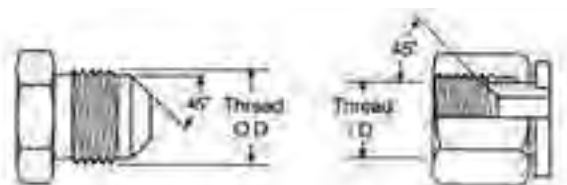
**Thread Identification Table**  
JIC 37° Flare

| Dash Size | Nominal Size | Thread Size | Female Thread ID | Male Thread OD |
|-----------|--------------|-------------|------------------|----------------|
|           | in.          |             | in.              | in.            |
| -2        | 1/8          | 5/16-24     | 17/64            | 5/16           |
| -3        | 3/16         | 3/8-24      | 21/64            | 3/8            |
| -4        | 1/4          | 7/16-20     | 25/64            | 7/16           |
| -5        | 5/16         | 1/2-20      | 29/64            | 1/2            |
| -6        | 3/8          | 9/16-18     | 1/2              | 9/16           |
| -8        | 1/2          | 3/4-16      | 11/16            | 3/4            |
| -10       | 5/8          | 7/8-14      | 13/16            | 7/8            |
| -12       | 3/4          | 1 1/16-12   | 31/32            | 1 1/16         |
| -14       | 7/8          | 1 3/16-12   | 1 7/64           | 1 3/16         |
| -16       | 1            | 1 5/16-12   | 1 15/64          | 1 5/16         |
| -20       | 1 1/4        | 1 5/8-12    | 1 35/64          | 1 5/8          |
| -24       | 1 1/2        | 1 7/8-12    | 1 51/64          | 1 7/8          |
| -32       | 2            | 2 1/2-12    | 2 27/64          | 2 1/2          |

## Fitting Identification

### Fitting Standards

#### SAE 45° Flare (SAE J512)



Male

Female

##### Identification

Straight threads. Both male and female have 45-degree seat.

##### Seal

The seal is made on the 45-degree flare seat. The threads hold the connection mechanically. Only connect male SAE 45 with female SAE 45.

##### Application

Commonly used in low-pressure, refrigeration and automotive piping systems and are frequently constructed of brass and connected to copper tubing.

##### Comments

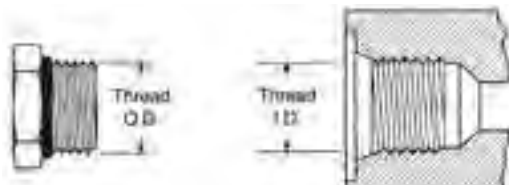
Use caution when identifying this fitting as the threads are the same as SAE J512 37-degree (JIC), in -2, -3, -4, -5, -8 and -10 sizes. The sealing surface angles are different, however.

#### Thread Identification Table

SAE 45° Flare

| Dash Size | Nominal Size | Thread Size | Female Thread ID | Male Thread OD |
|-----------|--------------|-------------|------------------|----------------|
|           | in.          |             | in.              | in.            |
| -2        | 1/8          | 5/16-24     | 17/64            | 5/16           |
| -3        | 3/16         | 3/8-24      | 21/64            | 3/8            |
| -4        | 1/4          | 7/16-20     | 25/64            | 7/16           |
| -5        | 5/16         | 1/2-20      | 29/64            | 1/2            |
| -6        | 3/8          | 5/8-18      | 9/16             | 5/8            |
| -7        | 7/16         | 1 1/16-16   | 5/8              | 1 1/16         |
| -8        | 1/2          | 3/4-16      | 11/16            | 3/4            |
| -10       | 5/8          | 7/8-14      | 13/16            | 7/8            |
| -12       | 3/4          | 1 1/16-14   | 63/64            | 1 1/16         |

#### O-Ring Boss Straight Thread (SAE J514)



Male

Female

##### Identification

Male fitting has a straight thread and an O-ring. The female port has a straight thread and a chamfer to accept the O-ring.

##### Seal

The seal takes place by compressing the O-ring into the chamfer. The threads hold the connection mechanically. Only connect O-ring boss male with O-ring boss female.

##### Application

Recommended by the National Fluid Power Association for optimal leakage control in medium- and high-pressure hydraulic systems.

#### Thread Identification Table

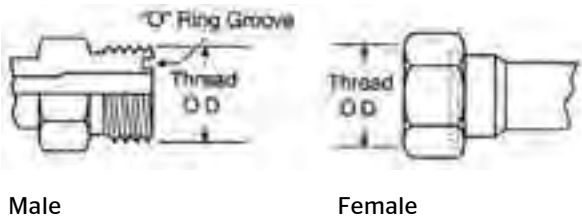
Straight Thread O-Ring Boss

| Dash Size | Nominal Size | Thread Size | Female Thread ID | Male Thread OD |
|-----------|--------------|-------------|------------------|----------------|
|           | in.          |             | in.              | in.            |
| -2        | 1/8          | 5/16-24     | 17/64            | 5/16           |
| -3        | 3/16         | 3/8-24      | 21/64            | 3/8            |
| -4        | 1/4          | 7/16-20     | 25/64            | 7/16           |
| -5        | 5/16         | 1/2-20      | 29/64            | 1/2            |
| -6        | 3/8          | 9/16-18     | 1/2              | 9/16           |
| -8        | 1/2          | 3/4-16      | 11/16            | 3/4            |
| -10       | 5/8          | 7/8-14      | 13/16            | 7/8            |
| -12       | 3/4          | 1 1/16-12   | 31/32            | 1 1/16         |
| -14       | 7/8          | 1 3/16-12   | 1 7/64           | 1 3/16         |
| -16       | 1            | 1 5/8-12    | 1 15/64          | 1 5/8          |
| -20       | 1 1/4        | 1 5/8-12    | 1 35/64          | 1 5/8          |
| -24       | 1 1/2        | 1 7/8-12    | 1 51/64          | 1 7/8          |
| -32       | 2            | 2 1/2-12    | 2 27/64          | 2 1/2          |

## Fitting Identification

### Fitting Standards

#### O-Ring Face Seal (SAE J1453 ORS/ORFS)



##### Identification

Male fitting has a straight thread and an O-ring. Female has a straight thread and a machined flat face.

##### Seal

The seal takes place by compressing the O-ring onto the flat face of the female. The threads hold the connection mechanically.

##### Application

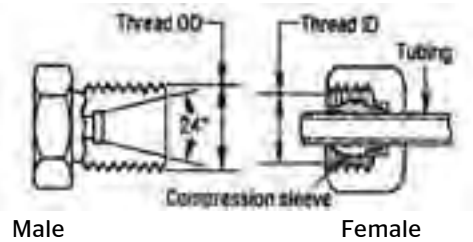
Fittings are intended for hydraulic systems where elastomeric seals are accepted to overcome leakage and leak resistance. This connection offers the very best leakage control.

##### Thread Identification Table

O-Ring Face Seal (ORFS)

| Dash Size | Nominal Size | Thread Size | Female Thread ID | Male Thread OD |
|-----------|--------------|-------------|------------------|----------------|
|           | in.          |             | in.              | in.            |
| -4        | 1/4          | 9/16-18     | 1/2              | 9/16           |
| -6        | 3/8          | 11/16-16    | 5/8              | 11/16          |
| -8        | 1/2          | 13/16-16    | 3/4              | 13/16          |
| -10       | 5/8          | 1-14        | 15/16            | 1              |
| -12       | 3/4          | 13/16-12    | 1 1/8            | 1 3/16         |
| -16       | 1            | 1 7/16-12   | 1 11/32          | 1 7/16         |
| -20       | 1 1/4        | 1 11/16-12  | 1 19/32          | 1 11/16        |
| -24       | 1 1/2        | 2-12        | 1 29/32          | 2              |

#### SAE J514 Flareless Tube Fitting



##### Identification

Male and female have straight threads. Male has 24-degree seat.

##### Seal

Female includes a compression sleeve for the sealing surface. A seal is formed with the compression sleeve as the female nut is tightened onto the male thread. A seal is formed between the compression sleeve, the male 24-degree seat and tubing.

##### Application

Used to adapt steel tubing to a hydraulic hose assembly.

##### Thread Identification Table

Flareless Tube Fitting

| Dash Size | Tube Size | Nominal Size | Thread Size | Female Thread ID | Male Thread OD |
|-----------|-----------|--------------|-------------|------------------|----------------|
|           | in.       |              | in.         | in.              | in.            |
| -2        | 1/8       | 5/16         | 5/16-24     | 17/64            | 5/16           |
| -3        | 3/16      | 3/8          | 3/8-24      | 21/64            | 3/8            |
| -4        | 1/4       | 7/16         | 7/16-20     | 25/64            | 7/16           |
| -5        | 5/16      | 1/2          | 1/2-20      | 29/64            | 1/2            |
| -6        | 3/8       | 9/16         | 9/16-18     | 1/2              | 9/16           |
| -8        | 1/2       | 3/4          | 3/4-16      | 11/16            | 3/4            |
| -10       | 5/8       | 7/8          | 7/8-14      | 13/16            | 7/8            |
| -12       | 3/4       | 1 1/16       | 1 1/16-12   | 31/32            | 1 1/16         |
| -14       | 7/8       | 1 3/16       | 1 3/16-12   | 17/64            | 1 3/16         |
| -16       | 1         | 1 5/16       | 1 5/16-12   | 1 15/64          | 1 5/16         |
| -20       | 1 1/4     | 1 5/8        | 1 5/8-12    | 1 35/64          | 1 5/8          |
| -24       | 1 1/2     | 1 7/8        | 1 7/8-12    | 1 51/64          | 1 7/8          |
| -32       | 2         | 2 1/2        | 2 1/2-12    | 2 27/64          | 2 1/2          |

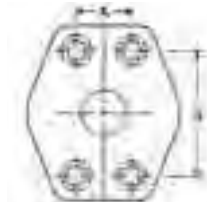
# Fitting Identification

## Fitting Standards

### Code 61/Code 62/Caterpillar® Flange (SAE J518)



Male



4-Bolt Split Flange

#### Identification

The female port is an unthreaded hole surrounded with 4 bolt holes in a rectangular pattern. The male consists of a flanged head, grooved for an O-ring and a flange with holes to match the port.

#### Seal

The seal takes place on the O-ring, which is compressed between the flanged head and the flat surface surrounding the port. The threaded bolts hold the connection mechanically.

#### Application

Commonly used in fluid power systems, worldwide, and usually in connection on pumps and motors. The fitting is available in two pressure ratings. Code 61, Form R, PN 35/350 bar, Type I is referred to as the "standard" series and can withstand an operating pressure of 3,000–5,000 psi depending on size. Code 62, Form S, PN 415 bar Type II is the heavy-duty, 6,000 psi series. While the design is the same, bolt hole spacing and flanged head diameters are larger for the higher pressure Code 62 fitting.

#### Comments

SAE J518, DIN 20066, ISO/DIS 6162 and JIS B 8363 are interchangeable except for the bolt sizes. The -10 is not available as an SAE standard size. Caterpillar® flanges, which have the same flange OD as SAE Code 62, have a thicker flange head, which is the "C" dimension in the table.

#### How to Measure

1. Measure port hole diameter [nominal flange size (in.)] using calipers.
2. Measure the longest bolt hole spacing from center to center, which is Dimension "B."
3. Or the flange OD for further identification.

### Thread Identification Table

Code 61/Code 62/CAT®

| Nominal Flange Size | Code 61   |       |       |       |
|---------------------|-----------|-------|-------|-------|
| in.                 | Flange OD | A     | B     | C     |
| 1/2                 | 1.188     | 0.688 | 1.500 | 0.265 |
| 5/8                 | 1.345     |       |       | 0.265 |
| 3/4                 | 1.500     | 0.875 | 1.875 | 0.265 |
| 1                   | 1.750     | 1.031 | 2.062 | 0.315 |
| 1¼                  | 2.000     | 1.188 | 2.312 | 0.315 |
| 1½                  | 2.375     | 1.406 | 2.750 | 0.315 |
| 2                   | 2.812     | 1.688 | 3.062 | 0.375 |
| 2½                  | 3.312     | 2.000 | 3.500 | 0.375 |
| 3                   | 4.000     | 2.438 | 4.188 | 0.375 |
| 3½                  | 4.500     | 2.750 | 4.750 | 0.422 |
| 4                   | 5.000     | 3.062 | 5.125 | 0.442 |
| 5                   | 6.000     | 3.625 | 6.000 | 0.442 |

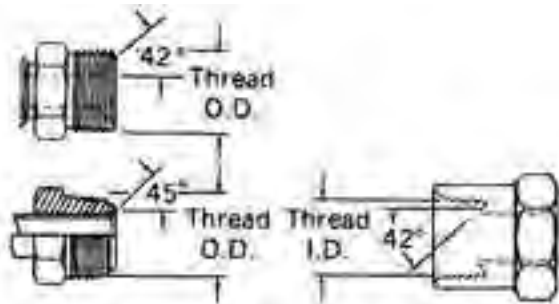
| Nominal Flange Size | Code 62   |       |       |       |
|---------------------|-----------|-------|-------|-------|
| in.                 | Flange OD | A     | B     | C     |
| 1/2                 | 1.250     | 0.718 | 1.594 | 0.305 |
| 3/4                 | 1.625     | 0.937 | 2.000 | 0.345 |
| 1                   | 1.875     | 1.093 | 2.250 | 0.375 |
| 1¼                  | 2.125     | 1.250 | 2.625 | 0.405 |
| 1½                  | 2.500     | 1.437 | 3.125 | 0.495 |
| 2                   | 3.125     | 1.750 | 3.812 | 0.495 |

| Nominal Flange Size | Caterpillar® Code 62 |       |       |       |
|---------------------|----------------------|-------|-------|-------|
| in.                 | Flange OD            | A     | B     | C     |
| 3/4                 | 1.625                | 0.938 | 2.000 | 0.560 |
| 1                   | 1.875                | 1.094 | 2.250 | 0.560 |
| 1¼                  | 2.125                | 1.250 | 2.625 | 0.560 |
| 1½                  | 2.500                | 1.438 | 3.125 | 0.560 |
| 2                   | 3.125                | 1.750 | 3.812 | 0.560 |

# Fitting Identification

## Fitting Standards

### SAE 45° Inverted Flare (SAE J512)



Male Female

#### Identification

Male fitting, with a straight thread, can either be a 45-degree flare as a tube fitting or a 42-degree seat as a machined adapter. The female has a straight thread and a 42-degree inverted flare.

#### Seal

The seal takes place on the flared surfaces. The threads hold the connection in place mechanically.

#### Application

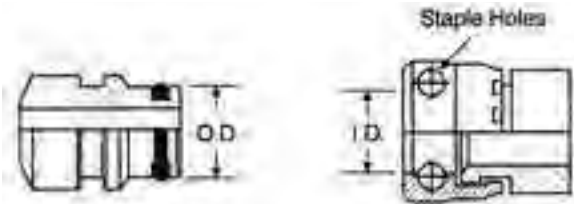
Fitting is frequently used in automotive systems.

#### Thread Identification Table

Table: SAE 45° Inverted Flare

| Dash Size | Nominal Size | Thread Size | Female Thread ID | Male Thread OD |
|-----------|--------------|-------------|------------------|----------------|
|           | in.          |             | in.              | in.            |
| -2        | 1/8          | 5/16-28     | 9/32             | 5/16           |
| -3        | 3/16         | 3/8-24      | 21/64            | 3/8            |
| -4        | 1/4          | 7/16-24     | 25/64            | 7/16           |
| -5        | 5/16         | 1/2-20      | 29/64            | 1/2            |
| -6        | 3/8          | 5/8-18      | 37/64            | 5/8            |
| -7        | 7/16         | 11/16-18    | 5/8              | 11/16          |
| -8        | 1/2          | 3/4-18      | 45/64            | 3/4            |
| -10       | 5/8          | 7/8-18      | 13/16            | 7/8            |
| -12       | 3/4          | 1 1/16-16   | 1                | 1 1/16         |

### SAE J1467 Clip Fastener



Male Female

#### Identification

The male has an external O-ring with a groove to accept a clip. The female has a smooth bore with two holes to accept a "U" shaped clip. With the male fitting inserted into the female fitting, a clip is inserted through the two holes, locking the connection together.

#### Seal

The seal is formed between the O-ring on the male fitting and the smooth bore of the female fitting.

#### Application

Commonly used for hydraulic application in underground mines.

#### Thread Identification Table

SAE J1467 Clip Fastener

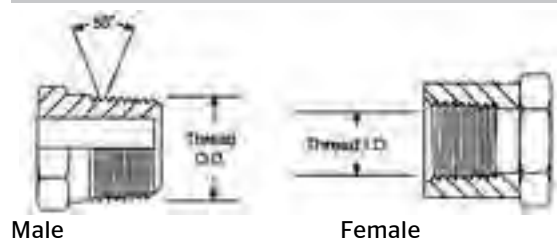
| Dash Size | Nominal Size | Female Thread ID | Male Thread OD |
|-----------|--------------|------------------|----------------|
|           | in.          | in.              | in.            |
| -4        | 1/4          | 19/32            | 19/32          |
| -6        | 3/8          | 51/64            | 25/32          |
| -8        | 1/2          | 61/64            | 15/16          |
| -12       | 3/4          | 19/64            | 19/64          |
| -16       | 1            | 135/64           | 17/32          |
| -20       | 1 1/4        | 113/16           | 113/16         |
| -24       | 1 1/2        | 211/64           | 25/32          |
| -32       | 2            | 217/32           | 233/64         |

## Fitting Identification

### Fitting Standards

#### British Thread Types

##### BSPT (British Standard Pipe Tapered)



##### Identification

The British Standard Pipe Tapered is very similar to the NPTF fitting. Male fitting has a tapered thread. BSP threads are also known as Whitworth threads.

##### Seal

The BSPT male can be connected with a BSPT female or BSPP female. In either case, the seal is made within the threads through thread distortion. A thread sealant is recommended.

##### Comments

The BSPT fitting, although similar to the NPTF fitting, is not interchangeable. The thread pitch is different in most cases and the thread angle is 55 degrees for the BSPT, versus the 60 degrees found on NPTF threads.

##### BSPP (British Standard Pipe Parallel)



##### Identification

The British Standard Pipe Parallel would be similar to the NPSM fitting. BSP threads are also known as Whitworth threads.

##### Seal

The BSPP male will connect with the BSPP female or female port. Both male and female have a straight thread and 30-degree seat and chamfer. The seal takes place by compression of the 30-degree seat on the chamfer. The threads hold the connection mechanically.

##### Comments

The BSPP fitting, although similar to the NPSM fitting, is not interchangeable. The thread pitch is different in most cases and the thread angle is 55 degrees for the BSPP, versus the 60 degrees found on NPSM threads.

##### Thread Identification Table

BSPT and BSPP

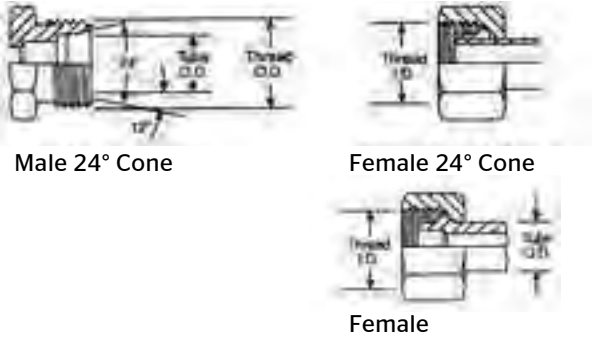
| Dash Size | Nominal Size | Thread Size | Female Thread ID | Male Thread OD |
|-----------|--------------|-------------|------------------|----------------|
|           | in.          |             | in.              | in.            |
| -2        | 1/8          | 1/8-28      | 11/32            | 3/8            |
| -4        | 1/4          | 1/4-19      | 15/32            | 17/32          |
| -6        | 3/8          | 3/8-19      | 19/32            | 21/32          |
| -8        | 1/2          | 1/2-14      | 3/4              | 13/16          |
| -10       | 5/8          | 5/8-14      | 13/16            | 29/32          |
| -12       | 3/4          | 3/4-14      | 31/32            | 1 1/32         |
| -16       | 1            | 1-11        | 1 7/32           | 1 11/32        |
| -20       | 1 1/4        | 1 1/4-11    | 1 17/32          | 1 21/32        |
| -24       | 1 1/2        | 1 1/2-11    | 1 25/32          | 1 7/8          |
| -32       | 2            | 2-11        | 2 7/32           | 2 11/32        |

## Fitting Identification

### Fitting Standards

## French Thread Types

### Millimetric and GAZ 24°



#### Identification

GAZ fittings have a 24-degree seat and straight, metric threads. While similar to DIN fittings, the French use fine threads on all sizes while the DIN fitting may have a coarse thread on the larger sizes.

#### Seal

The French Metric (GAZ) male with 24-degree seat will mate with the female, 24-degree cone or the female tube fitting.

#### Comments

The Millimetrique Series is used with whole number metric OD tubing and the GAZ Series is used with fractional number metric OD pipe size tubing.

#### Thread Identification Table

French Metric Millimetrique

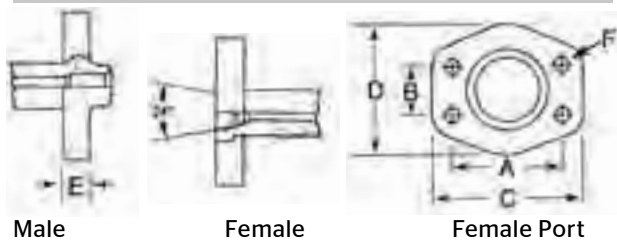
| Metric Thread | Female Thread ID |      | Male Thread OD |      | Tube OD |      |
|---------------|------------------|------|----------------|------|---------|------|
| Dia. x Pitch  | mm.              | in.  | mm             | in.  | mm      | in.  |
| M 12 x 1      | 11.0             | 0.43 | 12.0           | 0.47 | 6       | 0.24 |
| M 14 x 1½     | 12.5             | 0.49 | 14.0           | 0.55 | 8       | 0.31 |
| M 16 x 1½     | 14.5             | 0.57 | 16.0           | 0.63 | 10      | 0.39 |
| M 18 x 1½     | 16.5             | 0.65 | 18.0           | 0.71 | 12      | 0.47 |
| M 20 x 1½     | 18.5             | 0.73 | 20.0           | 0.79 | 14      | 0.55 |
| M 22 x 1½     | 20.5             | 0.81 | 22.0           | 0.87 | 15      | 0.59 |
| M 24 x 1½     | 22.5             | 0.89 | 24.0           | 0.94 | 16      | 0.63 |
| M 27 x 1½     | 25.5             | 1.00 | 27.0           | 1.06 | 18      | 0.71 |
| M 30 x 1½     | 28.5             | 1.12 | 30.0           | 1.18 | 22      | 0.87 |
| M 33 x 1½     | 31.5             | 1.24 | 33.0           | 1.30 | 25      | 0.98 |
| M 36 x 1½     | 34.5             | 1.36 | 36.0           | 1.42 | 28      | 1.10 |
| M 39 x 1½     | 37.5             | 1.48 | 39.0           | 1.54 | 30      | 1.18 |
| M 42 x 1½     | 40.5             | 1.59 | 42.0           | 1.65 | 32      | 1.26 |
| M 45 x 1½     | 43.5             | 1.71 | 45.0           | 1.77 | 35      | 1.38 |
| M 48 x 1½     | 46.5             | 1.83 | 48.0           | 1.89 | 38      | 1.50 |
| M 52 x 1½     | 50.5             | 1.99 | 52.0           | 2.05 | 40      | 1.57 |
| M 54 x 2      | 51.9             | 2.04 | 54.0           | 2.13 | 45      | 1.77 |

#### Thread Identification Table

French Metric GAZ 24° Cone

| Dash Size | Metric Thread | Female Thread ID |      | Male Thread OD |      | Tube OD |      |
|-----------|---------------|------------------|------|----------------|------|---------|------|
| Dash      | Dia. x Pitch  | mm               | in.  | mm             | in.  | mm      | in.  |
| -6        | M 20 X 1.5    | 18.5             | 0.73 | 20.0           | 0.78 | 13.25   | 0.52 |
| -8        | M 24 X 1.5    | 22.5             | 0.89 | 24.0           | 0.94 | 16.75   | 0.66 |
| -10       | M 30 X 1.5    | 28.5             | 1.12 | 30.0           | 1.18 | 21.25   | 0.83 |
| -12       | M 36 X 1.5    | 34.5             | 1.36 | 36.0           | 1.41 | 26.75   | 1.05 |
| -16       | M 45 X 1.5    | 43.5             | 1.71 | 45.0           | 1.77 | 33.50   | 1.32 |
| -20       | M 52 X 1.5    | 50.5             | 1.99 | 52.0           | 2.04 | 42.25   | 1.66 |

## GAZ Poclain 24° Flange



#### Identification

Usually found on Poclain equipment. The Poclain flange with a 24-degree seat is different from an SAE flange in that there is a lip that protrudes from the flange face.

#### Seal

The male flange will connect with a female flange or port. The seal is made on the 24-degree seat.

#### Thread Identification Table

GAZ Poclain 24° Flange

| Nominal Size |      |      |      |      |      |      |
|--------------|------|------|------|------|------|------|
| in.          | A    | B    | C    | D    | E    | F    |
| 1/2          | 1.57 | 0.72 | 2.20 | 1.89 | 0.55 | 0.35 |
| 5/8          | 1.57 | 0.72 | 2.20 | 1.89 | 0.55 | 0.35 |
| 3/4          | 2.00 | 0.94 | 2.75 | 2.38 | 0.71 | 0.43 |

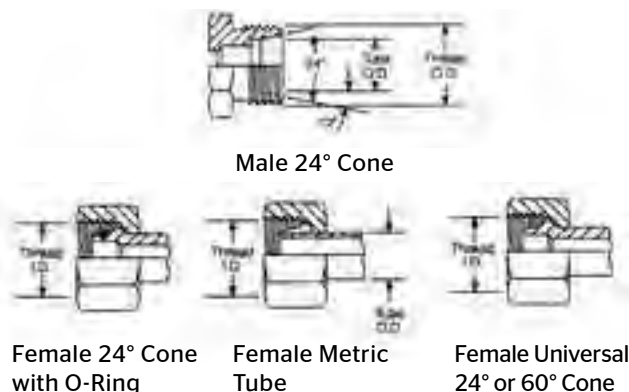


# Fitting Identification

## Fitting Standards

### German Thread Types

#### DIN 2353 24° Cone



#### Identification

Both male and female have straight metric threads. The male has a 24-degree seat and a recessed counter bore which matches the tube OD used with it. The female can be any of three styles including a 24-degree cone with an O-ring, a metric tube fitting, or a universal 24- or 60-degree cone. Use a 12-degree gauge to measure seat angle as the dimension is taken from the fitting centerline.

#### Seal

Sealing takes place between the 24-degree seat in the male end and the respective sealing area in the female end.

#### Comments

There is a light and heavy version of this coupling. Proper identification is made by measuring the thread size and tube OD. The heavy-duty version has a smaller tube OD than the light-duty version, but has a thicker wall section.

#### Thread Identification Table

DIN 2353 24° Cone

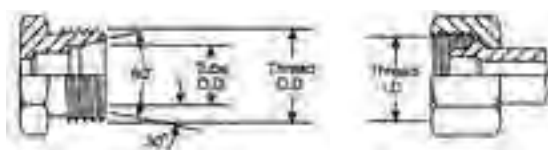
| Metric Thread | Female Thread ID |      | Male Thread OD |      | Tube OD Light Series |      | Tube OD Heavy Series |      |
|---------------|------------------|------|----------------|------|----------------------|------|----------------------|------|
| Dia. x Pitch  | mm               | in.  | mm             | in.  | mm                   | in.  | mm                   | in.  |
| M 12 x 1½     | 10.5             | 0.41 | 12             | 0.47 | 6                    | 0.24 |                      |      |
| M 14 x 1½     | 12.5             | 0.49 | 14             | 0.55 | 8                    | 0.31 | 6                    | 0.24 |
| M 16 x 1½     | 14.5             | 0.57 | 16             | 0.63 | 10                   | 0.39 | 8                    | 0.31 |
| M 18 x 1½     | 16.5             | 0.65 | 18             | 0.71 | 12                   | 0.47 | 10                   | 0.39 |
| M 20 x 1½     | 18.5             | 0.73 | 20             | 0.79 |                      |      | 12                   | 0.47 |
| M 22 x 1½     | 20.5             | 0.81 | 22             | 0.87 | 15                   | 0.59 | 14                   | 0.55 |
| M 24 x 1½     | 22.5             | 0.89 | 24             | 0.94 |                      |      | 16                   | 0.63 |
| M 26 x 1½     | 24.5             | 0.96 | 26             | 1.02 | 18                   | 0.71 |                      |      |

DIN 2353 24° Cone (Continued on next column)

#### DIN 2353 24° Cone (Continued)

| Metric Thread | Female Thread ID |      | Male Thread OD |      | Tube OD Light Series |      | Tube OD Heavy Series |      |
|---------------|------------------|------|----------------|------|----------------------|------|----------------------|------|
| Dia. x Pitch  | mm               | in.  | mm             | in.  | mm                   | in.  | mm                   | in.  |
| M 30 x 2      | 28.5             | 1.12 | 30             | 1.18 | 22                   | 0.87 | 20                   | 0.79 |
| M 36 x 2      | 33.9             | 1.33 | 36             | 1.42 | 28                   | 1.10 | 25                   | 0.98 |
| M 42 x 2      | 39.9             | 1.57 | 42             | 1.65 |                      |      | 30                   | 1.18 |
| M 45 x 2      | 42.9             | 1.69 | 45             | 1.77 | 35                   | 1.38 |                      |      |
| M 52 x 2      | 49.9             | 1.96 | 52             | 2.05 | 42                   | 1.65 | 38                   | 1.50 |

#### DIN 3863 60° Cone



#### Male 60° Cone

#### Female 24° or 60° Cone

#### Identification

Both male and female have straight metric threads. Use a 30-degree gauge to measure seat angle as this dimension is taken from the fitting centerline.

#### Seal

The male has a 60-degree seat. The female has a 24- or 60-degree seat. The seal takes place by contact between the 60-degree seat in the male end and the respective sealing area in the female end.

#### Thread Identification Table

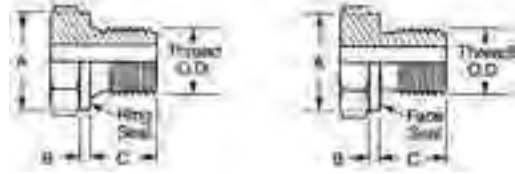
DIN 3863 60° Cone

| Metric Thread | Female Thread ID |      | Male Thread OD |      | Tube OD 60° Cone |      |
|---------------|------------------|------|----------------|------|------------------|------|
| Dia. x Pitch  |                  | in.  | mm             | in.  | mm               | in.  |
| M 12 x 1½     | 10.5             | 0.41 | 12             | 0.47 | 6                | 0.24 |
| M 14 x 1½     | 12.5             | 0.49 | 14             | 0.55 | 8                | 0.31 |
| M 16 x 1½     | 14.5             | 0.57 | 16             | 0.63 | 10               | 0.39 |
| M 18 x 1½     | 16.5             | 0.65 | 18             | 0.71 | 12               | 0.47 |
| M 22 x 1½     | 20.5             | 0.81 | 22             | 0.87 | 15               | 0.59 |
| M 26 x 1½     | 24.5             | 0.96 | 26             | 1.02 | 18               | 0.71 |
| M 30 x 2      | 28.5             | 1.12 | 30             | 1.18 | 22               | 0.87 |
| M 38 x 2      | 36.5             | 1.44 | 38             | 1.50 | 28               | 1.10 |
| M 45 x 2      | 43.5             | 1.71 | 45             | 1.77 | 35               | 1.38 |
| M 52 x 2      | 50.5             | 1.99 | 52             | 2.05 | 42               | 1.65 |

# Fitting Identification

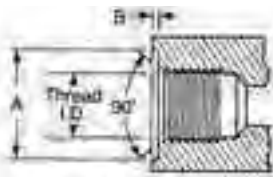
## Fitting Standards

### DIN 3852 Types A & B



Male Type A

Male Type B



Female Types A &amp; B

#### Identification

Both male and female, type A (light duty) and type B (heavy duty) have straight threads.

#### Seal

The seal occurs when the ring seal in type A or the face seal in type B connects with the face of the female port.

#### Thread Identification Tables

DIN 3852 Types A & B

Male Metric Thread Parallel

|         | Tube OD | Metric Thread Size | Thread OD | A  | B   | C  |
|---------|---------|--------------------|-----------|----|-----|----|
|         | mm      | mm                 | mm        | mm | mm  | mm |
| L Light | 6       | 10 x 1             | 10        | 14 | 1.5 | 8  |
|         | 8       | 12 x 1½            | 12        | 17 | 2.0 | 12 |
|         | 10      | 14 x 1½            | 14        | 19 | 2.0 | 12 |
|         | 12      | 16 x 1½            | 16        | 21 | 2.5 | 12 |
|         | 15      | 18 x 1½            | 18        | 23 | 2.5 | 12 |
|         | 18      | 22 x 1½            | 22        | 27 | 3.0 | 14 |
|         | 22      | 26 x 1½            | 26        | 31 | 3.0 | 16 |
|         | 28      | 33 x 2             | 33        | 39 | 3.0 | 18 |
|         | 35      | 42 x 2             | 42        | 49 | 3.0 | 20 |
| S Heavy | 42      | 48 x 2             | 48        | 55 | 3.0 | 22 |
|         | 6       | 12 x 1½            | 12        | 17 | 2.0 | 12 |
|         | 8       | 14 x 1½            | 14        | 19 | 2.0 | 12 |
|         | 10      | 16 x 1½            | 16        | 21 | 2.5 | 12 |
|         | 12      | 18 x 1½            | 18        | 23 | 2.5 | 12 |
|         | 14      | 20 x 1½            | 20        | 35 | 3.0 | 14 |
|         | 16      | 22 x 1½            | 22        | 27 | 3.0 | 14 |
|         | 20      | 27 x 2             | 27        | 32 | 3.0 | 16 |
|         | 25      | 33 x 2             | 33        | 39 | 3.0 | 18 |
|         | 30      | 42 x 2             | 42        | 49 | 3.0 | 20 |
|         | 38      | 48 x 2             | 48        | 55 | 3.0 | 22 |

DIN 3852 Types A & B (Continued on next column)

DIN 3852 Types A &amp; B (Continued)

Female Metric Thread Parallel

|         | Tube OD | Metric Thread Size | Thread ID | A  | B   |
|---------|---------|--------------------|-----------|----|-----|
|         | mm      | mm                 | mm        | mm | mm  |
| L Light | 6       | 10 x 1             | 8.5       | 15 | 1.0 |
|         | 8       | 12 x 1½            | 10.5      | 18 | 1.5 |
|         | 10      | 14 x 1½            | 12.5      | 20 | 1.5 |
|         | 12      | 16 x 1½            | 14.5      | 22 | 1.5 |
|         | 15      | 18 x 1½            | 16.5      | 24 | 2.0 |
|         | 18      | 22 x 1½            | 20.5      | 28 | 2.5 |
|         | 22      | 26 x 1½            | 24.5      | 32 | 2.5 |
|         | 28      | 33 x 2             | 31.5      | 40 | 2.5 |
|         | 35      | 42 x 2             | 40.5      | 50 | 2.5 |
| S Heavy | 42      | 48 x 2             | 46.5      | 56 | 2.5 |
|         | 6       | 12 x 1½            | 10.5      | 18 | 1.5 |
|         | 8       | 14 x 1½            | 12.5      | 20 | 1.5 |
|         | 10      | 16 x 1½            | 14.5      | 22 | 1.5 |
|         | 12      | 18 x 1½            | 16.5      | 24 | 2.0 |
|         | 14      | 20 x 1½            | 18.5      | 26 | 2.0 |
|         | 16      | 22 x 1½            | 20.5      | 28 | 2.5 |
|         | 20      | 27 x 2             | 25.5      | 33 | 2.5 |
|         | 25      | 33 x 2             | 31.5      | 40 | 2.5 |
|         | 30      | 42 x 2             | 40.5      | 50 | 2.5 |
|         | 38      | 48 x 2             | 46.5      | 56 | 2.5 |

Male Whitworth Thread Parallel (BSPP)

|         | Tube OD | Metric Thread Size | Thread OD | A  | B   | C  |
|---------|---------|--------------------|-----------|----|-----|----|
|         | mm      | mm                 | in.       | mm | mm  | mm |
| L Light | 6       | 1/8-28             | 3/8       | 14 | 1.5 | 8  |
|         | 8       | 1/4-19             | 1/2       | 17 | 2.0 | 12 |
|         | 10      | 1/4-19             | 1/2       | 19 | 2.0 | 12 |
|         | 12      | 3/8-19             | 21/32     | 21 | 2.5 | 12 |
|         | 15      | 1/2-14             | 13/16     | 23 | 2.5 | 12 |
|         | 18      | 1/2-14             | 13/16     | 27 | 3.0 | 14 |
|         | 22      | 3/4-14             | 11/32     | 31 | 3.0 | 16 |
|         | 28      | 1-11               | 15/16     | 39 | 3.0 | 18 |
|         | 35      | 1¼-11              | 121/32    | 49 | 3.0 | 20 |
|         | 42      | 1½-11              | 17/8      | 55 | 3.0 | 22 |
| S Heavy | 6       | 1/4-19             | 1/2       | 17 | 2.0 | 12 |
|         | 8       | 1/4-19             | 1/2       | 19 | 2.0 | 12 |
|         | 10      | 3/8-19             | 21/32     | 21 | 2.5 | 12 |
|         | 12      | 3/8-19             | 21/32     | 23 | 2.5 | 12 |
|         | 14      | 1/2-14             | 13/16     | 25 | 3.0 | 14 |
|         | 16      | 1/2-14             | 13/16     | 27 | 3.0 | 14 |
|         | 20      | 3/4-14             | 11/32     | 32 | 3.0 | 16 |
|         | 25      | 1-11               | 15/16     | 39 | 3.0 | 18 |
|         | 30      | 1¼-11              | 121/32    | 49 | 3.0 | 20 |
|         | 38      | 1½-11              | 17/8      | 55 | 3.0 | 22 |

DIN 3852 Types A & B (Continued on next page)

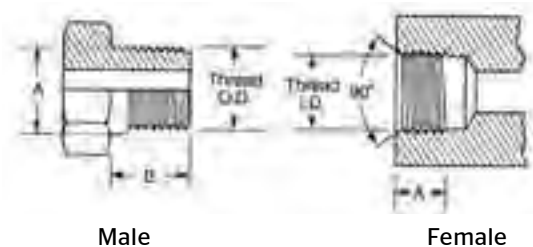
# Fitting Identification

## Fitting Standards

DIN 3852 Types A &amp; B (Continued)

| Female Whitworth Thread Parallel (BSPOR) |         |                    |           |    |     |
|------------------------------------------|---------|--------------------|-----------|----|-----|
|                                          | Tube OD | Metric Thread Size | Thread ID | A  | B   |
|                                          | mm      | mm                 | in.       | mm | mm  |
| L Light                                  | 6       | 1/8-28             | 11/32     | 15 | 1.0 |
|                                          | 8       | 1/4-19             | 15/32     | 19 | 1.5 |
|                                          | 10      | 1/4-19             | 15/32     | 19 | 1.5 |
|                                          | 12      | 3/8-19             | 19/32     | 23 | 2.0 |
|                                          | 15      | 1/2-14             | 3/4       | 27 | 2.5 |
|                                          | 18      | 1/2-14             | 3/4       | 27 | 2.5 |
|                                          | 22      | 3/4-14             | 31/32     | 33 | 2.5 |
|                                          | 28      | 1-11               | 1 7/32    | 40 | 2.5 |
|                                          | 35      | 1 1/4-11           | 1 17/32   | 50 | 2.5 |
|                                          | 42      | 1 1/2-11           | 1 25/32   | 56 | 2.5 |
| S Heavy                                  | 6       | 1/4-19             | 15/32     | 19 | 1.5 |
|                                          | 8       | 1/4-19             | 15/32     | 19 | 1.5 |
|                                          | 10      | 3/8-19             | 19/32     | 23 | 2.0 |
|                                          | 12      | 3/8-19             | 19/32     | 23 | 2.0 |
|                                          | 14      | 1/2-14             | 3/4       | 27 | 2.5 |
|                                          | 16      | 1/2-14             | 3/4       | 27 | 2.5 |
|                                          | 20      | 3/4-14             | 31/32     | 33 | 2.5 |
|                                          | 25      | 1-11               | 1 7/32    | 40 | 2.5 |
|                                          | 30      | 1 1/4-11           | 1 17/32   | 50 | 2.5 |
|                                          | 38      | 1 1/2-11           | 1 25/32   | 56 | 2.5 |

### DIN 3852 Type C



#### Identification

Both male and female have tapered threads, and are available in metric and Whitworth threads.

#### Seal

The male will only connect with the female as shown. The seal takes place on the threads.

#### Comments

Type C couplings are available in extra light (LL), light (L) and heavy (S).

### Thread Identification Table

DIN 3852 Type C

| Male Metric Tapered Threads |         |                    |       |    |           |
|-----------------------------|---------|--------------------|-------|----|-----------|
|                             | Tube OD | Metric Thread Size | A     | B  | Thread OD |
|                             | mm      | mm                 | mm    | mm | mm        |
| LL Extra Light              | 4       | 8 x 1              | 8.40  | 8  | 8         |
|                             | 5       | 8 x 1              | 8.40  | 8  | 8         |
|                             | 6       | 10 x 1             | 10.40 | 8  | 10        |
| L Light                     | 8       | 10 x 1             | 10.40 | 8  | 10        |
|                             | 6       | 10 x 1             | 10.40 | 8  | 10        |
|                             | 8       | 12 x 1.5           | 12.53 | 12 | 12        |
|                             | 10      | 14 x 1.5           | 14.53 | 12 | 14        |
|                             | 12      | 16 x 1 1/2         | 16.53 | 12 | 16        |
|                             | 15      | 18 x 1 1/2         | 18.53 | 12 | 18        |
| S Heavy                     | 18      | 22 x 1 1/2         | 22.65 | 14 | 22        |
|                             | 6       | 12 x 1 1/2         | 12.53 | 12 | 12        |
|                             | 8       | 14 x 1 1/2         | 14.53 | 12 | 14        |
|                             | 10      | 16 x 1 1/2         | 16.53 | 12 | 16        |
|                             | 12      | 18 x 1 1/2         | 18.53 | 12 | 18        |
|                             | 14      | 20 x 1 1/2         | 20.65 | 14 | 20        |
|                             | 16      | 22 x 1 1/2         | 22.65 | 14 | 22        |

| Female Metric Tapered Threads |         |                    |           |      |
|-------------------------------|---------|--------------------|-----------|------|
|                               | Tube OD | Metric Thread Size | Thread ID | A    |
|                               | mm      | mm                 | mm        | mm   |
| LL Extra Light                | 4       | 8 x 1              | 6.5       | 5.5  |
|                               | 5       | 8 x 1              | 6.5       | 5.5  |
|                               | 6       | 10 x 1             | 8.5       | 5.5  |
| L Light                       | 8       | 10 x 1             | 8.5       | 5.5  |
|                               | 6       | 10 x 1             | 8.5       | 5.5  |
|                               | 8       | 12 x 1 1/2         | 10.5      | 8.5  |
|                               | 10      | 14 x 1 1/2         | 12.5      | 8.5  |
|                               | 12      | 16 x 1 1/2         | 14.5      | 8.5  |
|                               | 15      | 18 x 1 1/2         | 16.5      | 8.5  |
| S Heavy                       | 18      | 22 x 1 1/2         | 20.5      | 10.5 |
|                               | 6       | 12 x 1 1/2         | 10.5      | 8.5  |
|                               | 8       | 14 x 1 1/2         | 12.5      | 8.5  |
|                               | 10      | 16 x 1 1/2         | 14.5      | 8.5  |
|                               | 12      | 18 x 1 1/2         | 16.5      | 8.5  |
|                               | 14      | 20 x 1 1/2         | 18.5      | 10.5 |
|                               | 16      | 22 x 1 1/2         | 20.5      | 10.5 |

DIN 3852 Type C (Continued on next page)

# Fitting Identification

## Fitting Standards

DIN 3852 Type C (Continued)

| Male Whitworth Tapered Threads |         |             |       |    |           |
|--------------------------------|---------|-------------|-------|----|-----------|
|                                | Tube OD | Thread Size | A     | B  | Thread OD |
|                                | mm      | in.         | in.   | mm | in.       |
| LL Extra Light                 | 4       | 1/8-28      | 0.392 | 8  | 1/8       |
|                                | 5       | 1/8-28      | 0.392 | 8  | 1/8       |
|                                | 6       | 1/8-28      | 0.392 | 8  | 1/8       |
|                                | 8       | 1/8-28      | 0.392 | 8  | 1/8       |
| L Light                        | 6       | 1/8-28      | 0.392 | 8  | 1/8       |
|                                | 8       | 1/4-19      | 0.532 | 12 | 1/4       |
|                                | 10      | 1/4-19      | 0.532 | 12 | 1/4       |
|                                | 12      | 3/8-19      | 0.670 | 12 | 3/8       |
|                                | 15      | 1/2-14      | 0.839 | 14 | 1/2       |
|                                | 18      | 1/2-14      | 0.839 | 14 | 1/2       |
| S Heavy                        | 6       | 1/4-19      | 0.532 | 12 | 1/4       |
|                                | 8       | 1/4-19      | 0.532 | 12 | 1/4       |
|                                | 10      | 3/8-19      | 0.670 | 12 | 3/8       |
|                                | 12      | 3/8-19      | 0.670 | 12 | 3/8       |
|                                | 14      | 1/2-14      | 0.839 | 14 | 1/2       |
|                                | 16      | 1/2-14      | 0.839 | 14 | 1/2       |

| Female Whitworth Tapered Threads |         |             |           |      |
|----------------------------------|---------|-------------|-----------|------|
|                                  | Tube OD | Thread Size | Thread ID | A    |
|                                  | mm      | in.         | in.       | mm   |
| LL Extra Light                   | 4       | 1/8-28      | 11/32     | 5.5  |
|                                  | 5       | 1/8-28      | 11/32     | 5.5  |
|                                  | 6       | 1/8-28      | 11/32     | 5.5  |
|                                  | 8       | 1/8-28      | 11/32     | 5.5  |
| L Light                          | 6       | 1/8-28      | 11/32     | 5.5  |
|                                  | 8       | 1/4-19      | 15/32     | 8.5  |
|                                  | 10      | 1/4-19      | 15/32     | 8.5  |
|                                  | 12      | 3/8-19      | 19/32     | 8.5  |
|                                  | 15      | 1/2-14      | 3/4       | 8.5  |
|                                  | 18      | 1/2-14      | 3/4       | 10.5 |
| S Heavy                          | 6       | 1/4-19      | 15/32     | 8.5  |
|                                  | 8       | 1/4-19      | 15/32     | 8.5  |
|                                  | 10      | 3/8-19      | 19/32     | 8.5  |
|                                  | 12      | 3/8-19      | 19/32     | 8.5  |
|                                  | 14      | 1/2-14      | 3/4       | 10.5 |
|                                  | 16      | 1/2-14      | 3/4       | 10.5 |

## Standpipe Assembly



### Identification

A metric standpipe is comprised of three components attached to a male fitting. The components are a standpipe, a bite sleeve and a metric nut.

### Comments

The bite sleeve and standpipe are selected on the basis of tube OD A DIN light metric nut or heavy metric nut can also be selected.

### Thread Identification Table

Metric Standpipe Assembly

| Metric DIN Tube OD | Bite Sleeve DIN Tube OD | Metric Nut Thread |          |
|--------------------|-------------------------|-------------------|----------|
| mm                 | mm                      | Light             | Heavy    |
| 6                  | 6                       | M 12x1½           |          |
| 8                  | 8                       | M 14x1½           | M 16x 1½ |
| 10                 | 10                      | M 16x1½           | M 18x 1½ |
| 12                 | 12                      | M 18x1½           | M 20x 1½ |
| 15                 | 15                      | M 22x1½           |          |
| 16                 | 16                      |                   | M 24x 1½ |
| 18                 | 18                      | M 26x 1½          |          |
| 20                 | 20                      |                   | M 30x2   |
| 22                 | 22                      | M 30x2            |          |
| 25                 | 25                      |                   | M 36x2   |
| 28                 | 28                      | M 36x2            |          |
| 30                 | 30                      |                   | M 42x2   |
| 35                 | 35                      | M 45x2            |          |
| 38                 | 38                      |                   | M 52x2   |
| 42                 | 42                      | M 52x2            |          |

# Fitting Identification

## Fitting Standards

### DIN 20066 4-Bolt Flange



Flange Head



4-Bolt Split Flange

#### Identification

The female port is an unthreaded hole surrounded with 4 bolt holes in a rectangular pattern. The male consists of a flanged head, grooved for an O-ring, and a flange with holes to match the port.

#### Seal

The seal takes place on the O-ring, which is compressed between the flanged head and the flat surface surrounding the port. The threaded bolts hold the connection mechanically.

#### Comments

There are two pressure ratings. Form R is similar to SAE Code 61 and is referred to as the "standard" series. Form S is similar to SAE Code 62 and is referred to as the "heavy duty" series. The design concept is the same, but bolt diameters and flange head diameters are larger for the Form S fitting. Both metric and inch bolts are used. DIN 20066 is interchangeable with both SAE J518 and JIS B 8363.

### Thread Identification Table

#### DIN 2066 4-Bolt Flange

| Nominal Flange Size | Form R    |       |       |       |
|---------------------|-----------|-------|-------|-------|
| in.                 | Flange OD | A     | B     | C     |
| 1/2                 | 1.188     | 0.688 | 1.500 | 0.265 |
| 5/8                 | 1.345     |       |       | 0.265 |
| 3/4                 | 1.500     | 0.875 | 1.875 | 0.265 |
| 1                   | 1.750     | 1.031 | 2.062 | 0.315 |
| 1¼                  | 2.000     | 1.188 | 2.312 | 0.315 |
| 1½                  | 2.375     | 1.406 | 2.750 | 0.315 |
| 2                   | 2.812     | 1.688 | 3.062 | 0.375 |
| 2½                  | 3.312     | 2.000 | 3.500 | 0.375 |
| 3                   | 4.000     | 2.438 | 4.188 | 0.375 |
| 3½                  | 4.500     | 2.750 | 4.750 | 0.422 |
| 4                   | 5.000     | 3.062 | 5.125 | 0.442 |
| 5                   | 6.000     | 3.625 | 6.000 | 0.442 |

| Nominal Flange Size | Form S    |       |       |       |
|---------------------|-----------|-------|-------|-------|
| in.                 | Flange OD | A     | B     | C     |
| 1/2                 | 1.250     | 0.718 | 1.594 | 0.305 |
| 3/4                 | 1.625     | 0.937 | 2.000 | 0.345 |
| 1                   | 1.875     | 1.093 | 2.250 | 0.375 |
| 1¼                  | 2.125     | 1.250 | 2.625 | 0.405 |
| 1½                  | 2.500     | 1.437 | 3.125 | 0.495 |
| 2                   | 3.125     | 1.750 | 3.812 | 0.495 |

## Fitting Identification

### Fitting Standards

## Japanese Thread Types

### JIS 30° (Parallel Pipe Threads)



Male

Female

#### Identification

The male and female have straight threads and a 30-degree seat.

#### Seal

The JIS 30-degree male will only connect with the JIS 30-degree female. The seal is made on the 30-degree seat. The threads hold the connection in place mechanically.

#### Comments

The JIC 37-degree flare is very similar to the JIS 30-degree flare. To determine the difference, carefully measure the seat angle. The threads on the JIS 30 conform to JIS B 0202. While the BSPP fitting has similar threads, and also has a 30-degree seat, the JIS 30 is not interchangeable with the BSPP fitting as the British seat is inverted.

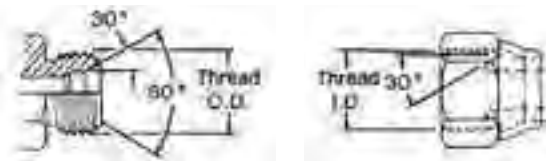
#### Thread Identification Table

JIS 30° Flare Parallel

| Dash Size | Nominal Size | Thread Size | Male Thread OD | Female Thread ID |
|-----------|--------------|-------------|----------------|------------------|
| in.       |              |             |                |                  |
| -2        | 1/8          | 1/8-28      | 3/8            | 11/32            |
| -4        | 1/4          | 1/4-19      | 17/32          | 7/16             |
| -6        | 3/8          | 3/8-19      | 21/32          | 19/32            |
| -8        | 1/2          | 1/2-14      | 13/16          | 3/4              |
| -10       | 5/8          | 5/8-14      | 29/32          | 13/16            |
| -12       | 3/4          | 3/4-14      | 11/32          | 15/16            |
| -16       | 1            | 1-11        | 15/16          | 13/16            |
| -20       | 1 1/4        | 1 1/4-11    | 1 21/32        | 1 17/32          |
| -24       | 1 1/2        | 1 1/2-11    | 1 7/8          | 1 25/32          |
| -32       | 2            | 2-11        | 2 11/32        | 2 7/32           |

### JIS 30° Male Inverted Seat

#### (Parallel Pipe Threads) (JIS B 0202)



Male

Female

#### Identification

The JIS 30 Parallel has straight threads, conforming to JIS B 0202.

#### Seal

Both male and female have a straight thread and 30-degree seat and chamfer. The seal takes place by compression of the 30-degree seat on the chamfer. The threads hold the connection mechanically.

#### Comments

The BSPP fitting is fully interchangeable with the JIS 30, male inverted seat.

#### Thread Identification Table

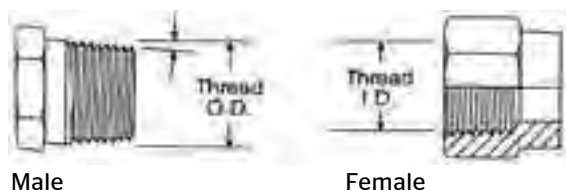
JIS 30° Male Inverted Seat

| Dash Size | Nominal Size | Thread Size | Male Thread OD | Female Thread ID |
|-----------|--------------|-------------|----------------|------------------|
| in.       |              |             |                |                  |
| -4        | 1/4          | 1/4-19      | 8/16           | 15/32            |
| -6        | 3/8          | 3/8-19      | 21/32          | 19/32            |
| -8        | 1/2          | 1/2-14      | 13/16          | 3/4              |
| -12       | 3/4          | 3/4-14      | 1 1/32         | 31/32            |
| -16       | 1            | 1-11        | 1 5/16         | 1 7/32           |
| -20       | 1 1/4        | 1 1/4-11    | 1 21/32        | 1 9/16           |
| -24       | 1 1/2        | 1 1/2-11    | 1 7/8          | 1 25/32          |
| -32       | 2            | 2-11        | 2 11/32        | 2 1/4            |

# Fitting Identification

## Fitting Standards

### JIS Tapered Pipe (JIS B 0203)



#### Identification

Both male and female have tapered threads that conform to JIS B 0203.

#### Seal

The seal is made within the threads through thread distortion. A thread sealant is recommended.

#### Comments

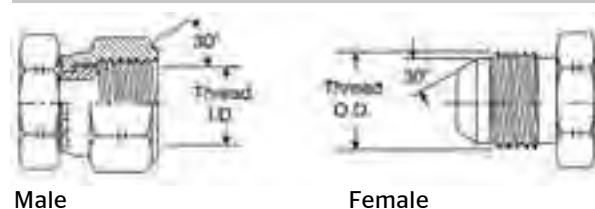
The JIS tapered pipe thread is similar to a BSPT fitting and is fully interchangeable.

#### Thread Identification Table

JIS Tapered Pipe

| Dash Size | Nominal Size | Thread Size | Male Thread OD | Female Thread ID |
|-----------|--------------|-------------|----------------|------------------|
|           | in.          |             | in.            | in.              |
| -2        | 1/8          | 1/8-28      | 3/8            | 11/32            |
| -4        | 1/4          | 1/4-19      | 17/32          | 7/16             |
| -6        | 3/8          | 3/8-19      | 21/32          | 19/32            |
| -8        | 1/2          | 1/2-14      | 13/16          | 3/4              |
| -12       | 3/4          | 3/4-14      | 11/32          | 15/16            |
| -16       | 1            | 1-11        | 15/16          | 13/16            |
| -20       | 1 1/4        | 1 1/4-11    | 1 21/32        | 1 17/32          |
| -24       | 1 1/2        | 1 1/2-11    | 1 7/8          | 1 25/32          |
| -32       | 2            | 2-11        | 2 11/32        | 2 7/32           |

### Japanese Komatsu® 30° Flare with Metric Threads (JIS B 0207)



#### Identification

Same as JIS B 0202, but conforms to JIS B 0207 with metric threads.

#### Seal

Both male and female have a straight thread and 30-degree seat and chamfer. The seal takes place by compression of the 30-degree seat on the chamfer. The threads hold the connection mechanically.

#### Comments

Also known as the Komatsu® style, it is used extensively on Komatsu® equipment.

#### Thread Identification Table

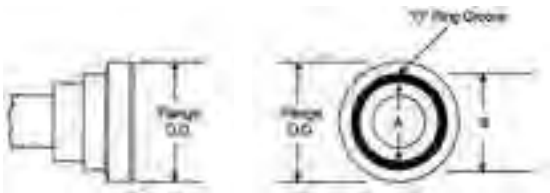
Komatsu® Style 30° Flare

| Dash Size | Nominal Size |     | Metric Thread Size | Male Thread OD | Female Thread ID |
|-----------|--------------|-----|--------------------|----------------|------------------|
|           | in.          | mm  |                    |                |                  |
| -6        | 3/8          | 9.5 | M 18 x 1 1/2       | 18             | 16.5             |
| -8        | 1/2          | 13  | M 22 x 1 1/2       | 22             | 20.5             |
| -10       | 5/8          | 16  | M 24 x 1 1/2       | 24             | 22.5             |
| -12       | 3/4          | 19  | M 30 x 1 1/2       | 30             | 28.5             |
| -16       | 1            | 25  | M 33 x 1 1/2       | 33             | 31.5             |
| -20       | 1 1/4        | 32  | M 36 x 1 1/2       | 36             | 34.5             |
| -24       | 1 1/2        | 38  | M 42 x 1.5         | 42             | 40.5             |

# Fitting Identification

## Fitting Standards

### Komatsu® Flange Fitting



Flange

Flange Head

#### Identification

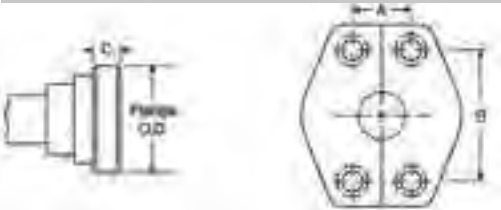
The Komatsu® Flange fitting is nearly identical to the SAE Code 61 flange fitting and fully interchangeable. As O-ring sizes are different, an SAE O-ring must be used when replacing the Komatsu® fitting with an SAE fitting.

#### Thread Identification Table

Komatsu®-Style Flange

| Dash Size | Nominal Size |      | Flange OD | A     | B     |
|-----------|--------------|------|-----------|-------|-------|
|           | in.          | mm   |           |       |       |
| -8        | 1/2          | 12.7 | 1.188     | 0.728 | 0.984 |
| -10       | 5/8          | 15.9 | 1.345     | 0.728 | 1.102 |
| -12       | 3/4          | 19.1 | 1.500     | 0.846 | 1.220 |
| -16       | 1            | 25.4 | 1.750     | 1.122 | 1.496 |
| -20       | 1¼           | 31.8 | 2.000     | 1.358 | 1.732 |
| -24       | 1½           | 38.1 | 2.375     | 1.750 | 2.125 |
| -32       | 2            | 50.8 | 2.812     | 2.225 | 2.559 |

### JIS B 8363 4 Bolt Flange



Male

Female

#### Identification

The female port is an unthreaded hole surrounded with 4 bolt holes in a rectangular pattern. The male consists of a flanged head, grooved for an O-ring, and a flange with holes to match the port.

#### Seal

The seal takes place on the O-ring, which is compressed between the flanged head and the flat surface surrounding the port. The threaded bolts hold the connection mechanically.

#### Comments

There are two pressure ratings. Type I is similar to SAE Code 61 and is referred to as the "standard" series. Type II is similar to SAE Code 62 and is referred to as the "heavy duty" series. The design concept is the same, but bolt diameters and flange head diameters are larger for the Type II fitting. Both metric and inch bolts are used. JIS B 8363 is interchangeable with both SAE J518 and DIN 20066.

#### Thread Identification Table

JIS B 8363 4-Bolt Flange

| Nominal Flange Size | Type I    |       |       |       |
|---------------------|-----------|-------|-------|-------|
| in.                 | Flange OD | A     | B     | C     |
| 1/2                 | 1.188     | 0.688 | 1.500 | 0.265 |
| 5/8                 | 1.345     |       |       | 0.265 |
| 3/4                 | 1.500     | 0.875 | 1.875 | 0.265 |
| 1                   | 1.750     | 1.031 | 2.062 | 0.315 |
| 1¼                  | 2.000     | 1.188 | 2.312 | 0.315 |
| 1½                  | 2.375     | 1.406 | 2.750 | 0.315 |
| 2                   | 2.812     | 1.688 | 3.062 | 0.375 |
| 2½                  | 3.312     | 2.000 | 3.500 | 0.375 |
| 3                   | 4.000     | 2.438 | 4.188 | 0.375 |
| 3½                  | 4.500     | 2.750 | 4.750 | 0.422 |
| 4                   | 5.000     | 3.062 | 5.125 | 0.442 |
| 5                   | 6.000     | 3.625 | 6.000 | 0.442 |

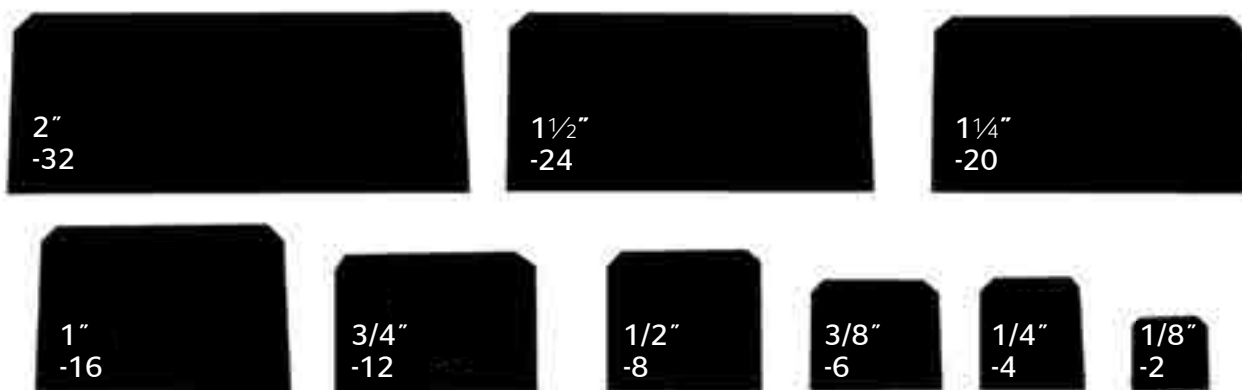
| Nominal Flange Size | Type II   |       |       |       |
|---------------------|-----------|-------|-------|-------|
| in.                 | Flange OD | A     | B     | C     |
| 1/2                 | 1.250     | 0.718 | 1.594 | 0.305 |
| 3/4                 | 1.625     | 0.937 | 2.000 | 0.345 |
| 1                   | 1.875     | 1.093 | 2.250 | 0.375 |
| 1¼                  | 2.125     | 1.250 | 2.625 | 0.405 |
| 1½                  | 2.500     | 1.437 | 3.125 | 0.495 |
| 2                   | 3.125     | 1.750 | 3.812 | 0.495 |



## Fitting Identification

### Templates

#### Male Pipe Thread Sizes



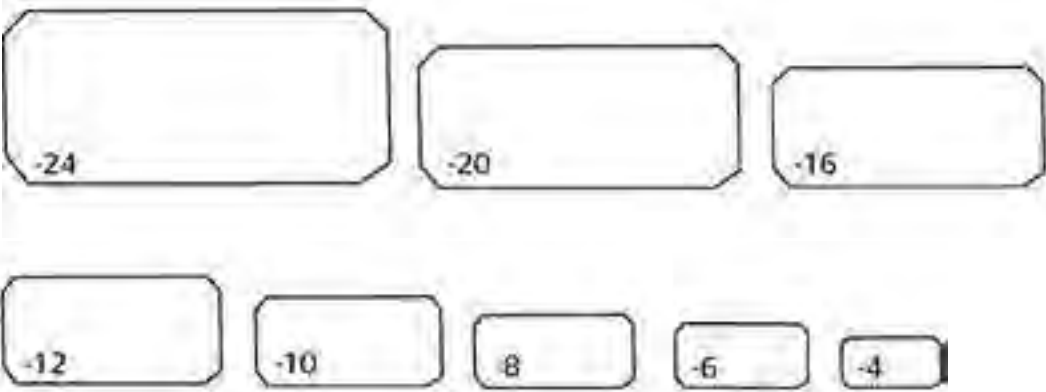
#### JIC 37° Flare (SAE J514) Thread Sizes



# Fitting Identification

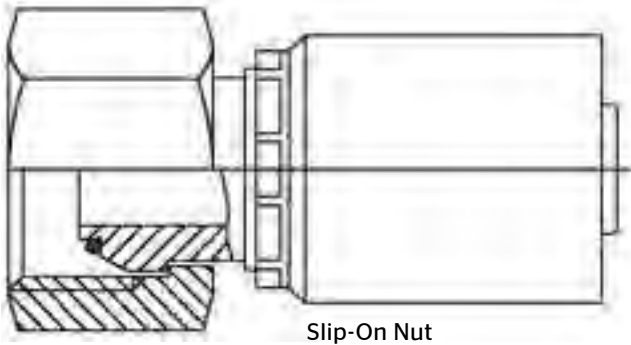
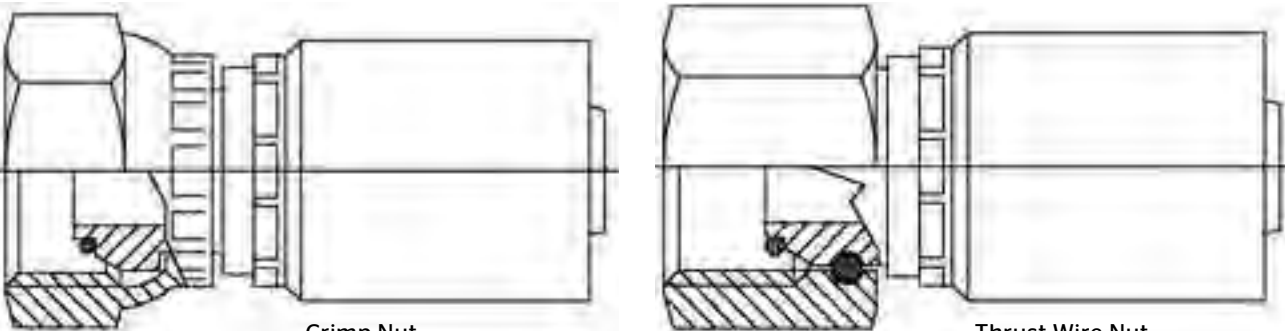
## Templates (Continued)

### O-Ring Face Seal (SAE J1453 ORS/ORFS)



### Fitting Nuts

Continental ContiTech® fittings can have three types of nuts: Crimp Nut, Thrust-Wire Nut, and Slip-On Nut. Shown below are sample images with the three types of nuts.



# Torque Values

|             | Dash Size | Thread Size | Swivel Nut Torque |         |
|-------------|-----------|-------------|-------------------|---------|
|             |           | in.         | ft./lbs.          | N/m     |
| O-Ring      | -4        | 9/16-18     | 10-12             | 14-16   |
| Face Seal   | -6        | 11/16-16    | 18-20             | 24-27   |
| (SAE J1453) | -8        | 13/16-16    | 32-35             | 43-47   |
|             | -10       | 1-14        | 46-50             | 62-68   |
|             | -12       | 1 3/16-12   | 65-70             | 88-95   |
|             | -16       | 1 7/16-12   | 92-100            | 125-136 |
|             | -20       | 1 11/16-12  | 125-140           | 170-190 |
|             | -24       | 2-12        | 150-165           | 204-224 |

|               | Dash Size | Thread Size | Jam Nut or Straight Fitting Torque |         |
|---------------|-----------|-------------|------------------------------------|---------|
|               |           | in.         | ft./lbs.                           | N/m     |
| O-Ring        | -3        | 3/8-24      | 8-9                                | 12-13   |
| Boss Straight | -4        | 7/16-20     | 13-15                              | 18-20   |
| Thread        | -5        | 1/2-20      | 14-15                              | 19-21   |
| (SAE J514)    | -6        | 9/16-18     | 23-24                              | 32-33   |
|               | -8        | 3/4-16      | 40-43                              | 55-57   |
|               | -10       | 7/8-14      | 43-48                              | 59-64   |
|               | -12       | 1 1/16-12   | 68-75                              | 93-101  |
|               | -14       | 1 3/16-12   | 83-90                              | 113-122 |
|               | -16       | 1 5/16-12   | 112-123                            | 152-166 |
|               | -20       | 1 5/8-12    | 146-161                            | 198-218 |
|               | -24       | 1 7/8-12    | 154-170                            | 209-230 |
|               | -32       | 2 1/2-12    | 218-240                            | 296-325 |

|               | Dash Size | Thread Size | Swivel Nut Torque |         |
|---------------|-----------|-------------|-------------------|---------|
|               |           | in.         | ft./lbs.          | N/m     |
| JIC 37° Flare | -4        | 7/16-20     | 11-12             | 15-16   |
| (SAE J514)    | -5        | 1/2-20      | 15-16             | 20-22   |
|               | -6        | 9/16-18     | 18-20             | 24-28   |
|               | -8        | 3/4-16      | 38-42             | 52-58   |
|               | -10       | 7/8-14      | 57-62             | 77-85   |
|               | -12       | 1 1/16-12   | 79-87             | 108-119 |
|               | -14       | 1 3/16-12   | 94-103            | 127-140 |
|               | -16       | 1 5/16-12   | 108-113           | 148-154 |
|               | -20       | 1 5/8-12    | 127-133           | 173-182 |
|               | -24       | 1 7/8-12    | 158-167           | 216-227 |
|               | -32       | 2 1/2-12    | 245-258           | 334-352 |

|             | Dash Size | Port Hole ID |          |         |
|-------------|-----------|--------------|----------|---------|
|             |           | in.          | ft./lbs. | N/m     |
| Code 61     | -8        | 1/2          | 15-19    | 20-25   |
| Flange Bolt | -12       | 3/4          | 21-29    | 28-40   |
| (SAE J518)  | -16       | 1            | 27-35    | 37-48   |
|             | -20       | 1 1/4        | 35-46    | 48-62   |
|             | -24       | 1 1/2        | 46-58    | 62-79   |
|             | -32       | 2            | 54-66    | 73-90   |
|             | -40       | 2 1/2        | 79-91    | 107-124 |
|             | -48       | 3            | 137-149  | 186-203 |

|             | Dash Size | Port Hole ID |          |         |
|-------------|-----------|--------------|----------|---------|
|             |           | in.          | ft./lbs. | N/m     |
| Code 62     | -8        | 1/2          | 15-19    | 20-25   |
| Flange Bolt | -12       | 3/4          | 25-33    | 34-45   |
| (SAE J518)  | -16       | 1            | 42-50    | 56-68   |
|             | -20       | 1 1/4        | 62-75    | 85-102  |
|             | -24       | 1 1/2        | 116-133  | 158-181 |
|             | -32       | 2            | 199-216  | 271-294 |

|             | Dash Size | Nominal Thread Size | Swivel Nut Torque |     |
|-------------|-----------|---------------------|-------------------|-----|
|             |           | in.                 | ft./lbs.          | N/m |
| JIS 30°     | -4        | 1/4-19              | 19                | 25  |
| (B83632000) | -6        | 3/8-19              | 25                | 34  |
|             | -8        | 1/2-14              | 49                | 64  |
|             | -10       | 5/8-14              | 100               | 132 |
|             | -12       | 3/4-14              | 100               | 132 |
|             | -16       | 1-11                | 149               | 196 |
|             | -20       | 1 1/4-11            | 171               | 225 |
|             | -24       | 1 1/2-11            | 194               | 255 |
|             | -32       | 2-11                | 240               | 316 |

|        | Thread Size | Swivel Nut Torque |         |
|--------|-------------|-------------------|---------|
|        | mm          | ft./lbs.          | N/m     |
| Metric | M 10 x 1    | 13-15             | 18-20   |
|        | M 12 x 1.5  | 15-19             | 20-25   |
|        | M 14 x 1.5  | 19-23             | 25-30   |
|        | M 16 x 1.5  | 33-40             | 45-55   |
|        | M 18 x 1.5  | 37-44             | 50-60   |
|        | M 20 x 1.5  | 52-66             | 70-90   |
|        | M 22 x 1.5  | 55-70             | 75-95   |
|        | M 26 x 1.5  | 81-96             | 110-130 |
|        | M 27 x 2    | 96-111            | 130-150 |
|        | M 33 x 2    | 162-184           | 220-250 |
|        | M 42 x 2    | 170-192           | 230-260 |
|        | M 48 x 2    | 258-347           | 350-470 |

Torque Values

|                | Dash Size |          |     |
|----------------|-----------|----------|-----|
|                | mm        | ft./lbs. | N/m |
| Maximum        | -2        | 20       | 25  |
| Recommended    | -4        | 25       | 35  |
| Torque for Dry | -6        | 35       | 45  |
| NPTF (Tapered) | -8        | 45       | 60  |
| Pipe Threads   | -12       | 55       | 75  |
|                | -16       | 65       | 90  |
|                | -20       | 80       | 110 |
|                | -24       | 95       | 130 |
|                | -32       | 120      | 160 |

|                  | Dash Size | Nominal Thread Size | With O-Ring |     | Without O-Ring |     |
|------------------|-----------|---------------------|-------------|-----|----------------|-----|
|                  |           |                     | ft./lbs.    | N/m | ft./lbs.       | N/m |
| BSPP             | -2        | G 1/8-28            | NA          | NA  | 7              | 10  |
| **G* denotes     | -4        | G 1/4-19            | 15          | 20  | 15             | 20  |
| parallel threads | -6        | G 3/8-19            | 26          | 35  | 26             | 35  |
|                  | -8        | G 1/2-14            | 37          | 50  | 44             | 60  |
|                  | -10       | G 5/8-14            | 44          | 60  | 52             | 70  |
|                  | -12       | G 3/4-14            | 63          | 85  | 85             | 115 |
|                  | -16       | G 1-11              | 85          | 115 | 103            | 140 |
|                  | -20       | G 1 1/4-11          | 140         | 190 | 155            | 210 |
|                  | -24       | G 1 1/2-11          | 177         | 240 | 214            | 290 |
|                  | -32       | G 2-11              | 221         | 300 | 295            | 400 |

\*\*Notes:

- 1. The torque values obtained from tightening pipe threads can vary considerably depending on thread condition. Adequate sealing can occur at values much lower than the maximum values listed above. Only enough torque to achieve adequate sealing should be used.
- 2. When using a male tapered pipe thread with a female straight or parallel pipe thread, maximum values are 50% of those listed in the table.
- 3. If thread sealant is used, maximum values shown should be decreased by 25%.

## Hose ID Selection Nomograph

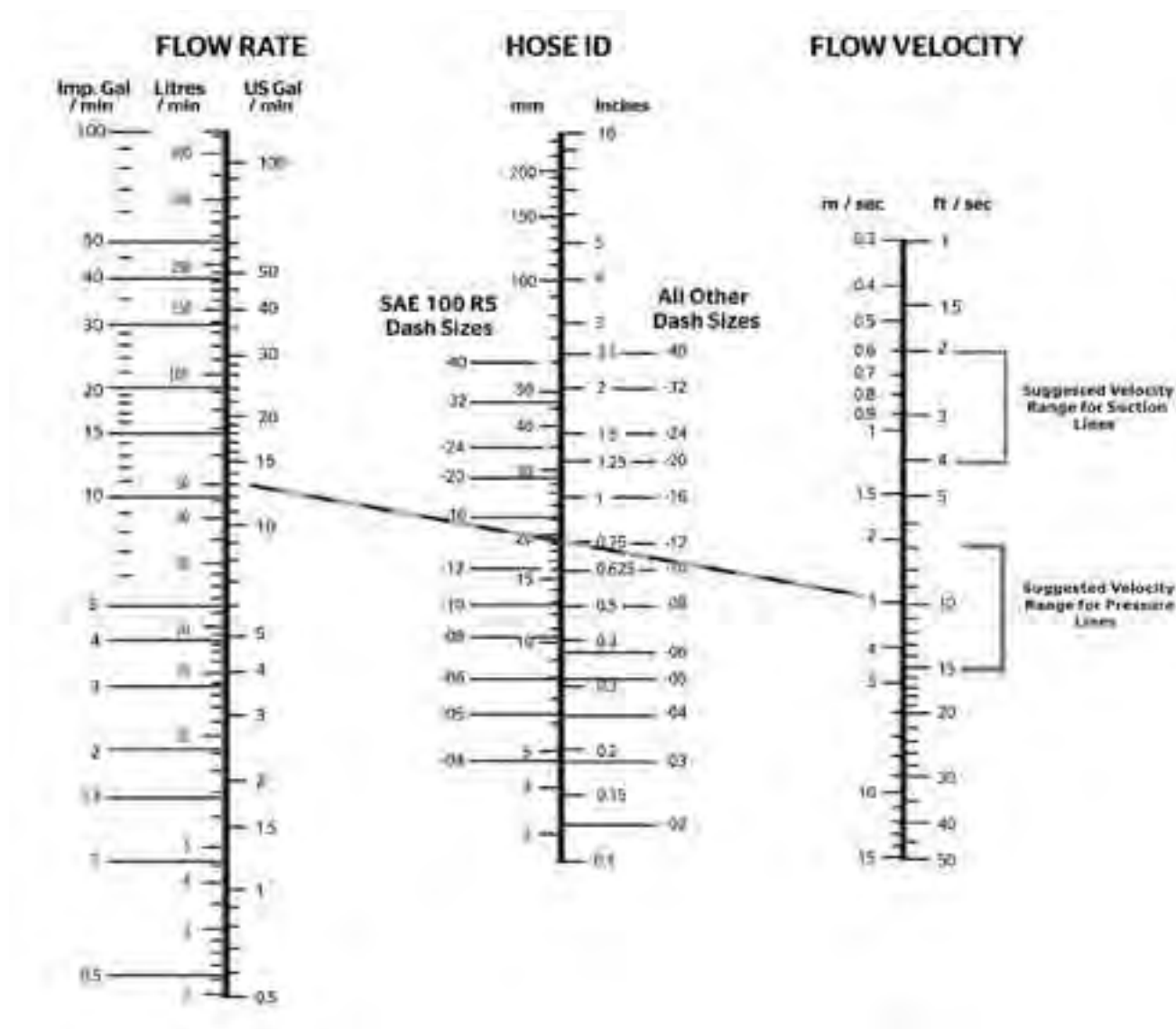
The chart below is intended to aid in the selection of the correct hose size. By choosing a flow rate and a flow velocity, the optimum hose ID can be determined. Selecting the correct hose ID is important to prevent an oversized assembly, which can be heavy and costly or an undersized assembly causing an excessive pressure drop.

### Selecting the Correct Hose ID

1. Choose flow rate and flow velocity. Locate each value on its grid.
2. Lay a straightedge to connect the two values.
3. The recommended hose ID is located on the ID scale, at the intersection of the line drawn between flow rate and flow velocity. Should the line intersect between two values, use the next highest ID.

**Example:** To find the correct hose ID for a system running at 13 gallons/minute and 10 feet/second, draw a line between the two values on each grid. The intersection of that line on the ID grid is 3/4" ID

Recommendations are based on an oil viscosity of 315 S.S.U., at 100°F, operating at a temperature of 65°F to 155°F.



## Hose ID Selection Nomograph

The following table represents the maximum flow rate in gallons per minute (GPM) by hose ID for pressure lines and suction lines. The recommended maximum fluid velocity for pressure systems is 15 feet per second (FPS).

| Hose ID | Recommended Maximum Flow (GPM) Pressure Lines | Recommended Maximum Flow (GPM) Suction Lines |
|---------|-----------------------------------------------|----------------------------------------------|
|         | in.                                           |                                              |
| 3/16    | 1.29                                          | 0.35                                         |
| 1/4     | 2.30                                          | 0.61                                         |
| 5/16    | 3.59                                          | 0.96                                         |
| 3/8     | 5.16                                          | 1.38                                         |
| 13/32   | 6.06                                          | 16.20                                        |
| 1/2     | 9.18                                          | 2.45                                         |
| 5/8     | 14.35                                         | 3.83                                         |
| 3/4     | 20.66                                         | 5.51                                         |
| 7/8     | 28.12                                         | 7.50                                         |
| 1       | 36.72                                         | 9.79                                         |
| 1 1/8   | 46.48                                         | 12.39                                        |
| 1 1/4   | 57.38                                         | 15.30                                        |
| 1 3/8   | 69.43                                         | 18.51                                        |
| 1 1/2   | 82.63                                         | 22.03                                        |
| 1 13/16 | 120.64                                        | 32.17                                        |
| 2       | 146.89                                        | 39.17                                        |

Use the following formulas for Velocity, Gallons per Minute, or Hose ID

$$V = \text{Velocity in Feet per Second (FPS)} = (.408 \times \text{GPM}) / D^2$$

$$\text{GPM} = \text{Flow rate in Gallons per Minute (GPM)} = V \times D^2 / .408$$

$$D = \text{Hose ID (inches)} = \sqrt{\frac{.408 \times \text{GPM}}{V}}$$

The recommended maximum velocity for hydraulic systems is 15 FPS. For higher velocity, contact Continental ContiTech Technical Support with specific system information.

$$\text{Imperial Gallon} = \text{U.S. Gallon} \times 0.83267$$

$$\text{U.S. Gallon} = \text{Imperial Gallon} \times 1.20095$$

$$\text{Liter} = \text{U.S. Gallon} \times 3.785$$

$$\text{U.S. Gallon} = \text{Liter} \times .2642$$

## Hose Pressure Drop

Pressure drop is defined as the difference in input pressure and output pressure of a hose assembly. There are many factors which can contribute to pressure drop including the length of the hose assembly, the type and temperature of the fluid, flow rate, the

inside diameter of the hose, and the type of couplings used.

If pressure drop is a concern, this chart can be used for a quick estimate for a hose assembly that is 10 feet long with a fluid specification of .85 specific

gravity, a viscosity of 20 centistokes (97 S.S.U.), and a temperature of 100°F (38°C). Differences in fluids, fluid temperature, and viscosity can increase or decrease actual pressure drop compared to the values listed.

### Pressure Drop (psi)

|      | Dash Size | -3   | -4  | -5   | -6  | -8  | -10 | -12 | -16 | -20 | -24 | -32 | -40 | -48 |
|------|-----------|------|-----|------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
|      | Hose ID   | 3/16 | 1/4 | 5/16 | 3/8 | 1/2 | 5/8 | 3/4 | 1   | 1¼  | 1½  | 2   | 2½  | 3   |
|      | in.       |      |     |      |     |     |     |     |     |     |     |     |     |     |
| U.S. | 0.25      | 10   | 3.1 |      |     |     |     |     |     |     |     |     |     |     |
|      | 0.50      | 19   | 6   | 2.7  |     |     |     |     |     |     |     |     |     |     |
| gpm  | 1         | 40   | 12  | 5.5  | 2.4 |     |     |     |     |     |     |     |     |     |
|      | 2         | 95   | 24  | 10   | 4.8 |     |     |     |     |     |     |     |     |     |
|      | 3         | 185  | 46  | 17   | 7   | 2.2 |     |     |     |     |     |     |     |     |
|      | 4         |      | 78  | 29   | 12  | 3   | 1.2 |     |     |     |     |     |     |     |
|      | 5         |      | 120 | 44   | 18  | 4.5 | 1.6 | 0.7 |     |     |     |     |     |     |
|      | 8         |      |     | 95   | 39  | 10  | 3.6 | 1.4 |     |     |     |     |     |     |
|      | 10        |      |     |      | 59  | 15  | 5.7 | 2   | 0.6 |     |     |     |     |     |
|      | 12        |      |     |      | 80  | 20  | 7.2 | 2.6 | 0.8 |     |     |     |     |     |
|      | 15        |      |     |      |     | 30  | 10  | 4.2 | 1.2 | 0.4 |     |     |     |     |
|      | 18        |      |     |      |     | 40  | 15  | 6.3 | 1.5 | 0.6 |     |     |     |     |
|      | 20        |      |     |      |     | 49  | 19  | 8   | 2   | 0.7 | 0.3 |     |     |     |
|      | 25        |      |     |      |     | 72  | 26  | 11  | 3   | 1   | 0.4 |     |     |     |
|      | 30        |      |     |      |     |     | 34  | 14  | 3.6 | 1.3 | 0.5 | 0.1 |     |     |
|      | 35        |      |     |      |     |     | 47  | 19  | 5   | 1.7 | 0.7 | 0.2 |     |     |
|      | 40        |      |     |      |     |     |     | 25  | 6.5 | 2.2 | 0.9 | 0.2 |     |     |
|      | 50        |      |     |      |     |     |     | 36  | 9   | 3.3 | 1.3 | 0.4 | 0.2 |     |
|      | 60        |      |     |      |     |     |     | 50  | 12  | 4.4 | 1.8 | 0.5 | 0.2 |     |
|      | 70        |      |     |      |     |     |     |     | 17  | 6   | 2.4 | 0.7 | 0.3 |     |
|      | 80        |      |     |      |     |     |     |     | 21  | 7.1 | 3   | 0.8 | 0.3 | 0.1 |
|      | 90        |      |     |      |     |     |     |     | 27  | 9   | 3.8 | 1   | 0.5 | 0.1 |
|      | 100       |      |     |      |     |     |     |     | 33  | 12  | 4.7 | 1.3 | 0.6 | 0.2 |
|      | 150       |      |     |      |     |     |     |     | 60  | 22  | 8.5 | 2.2 | 1   | 0.3 |
|      | 200       |      |     |      |     |     |     |     |     | 36  | 15  | 3.9 | 1.7 | 0.6 |
|      | 250       |      |     |      |     |     |     |     |     | 54  | 22  | 5.3 | 2.5 | 0.8 |
|      | 300       |      |     |      |     |     |     |     |     |     | 29  | 7.5 | 4   | 1.1 |
|      | 400       |      |     |      |     |     |     |     |     |     | 51  | 14  | 6.5 | 2.2 |
|      | 500       |      |     |      |     |     |     |     |     |     |     | 20  | 10  | 3   |
|      | 800       |      |     |      |     |     |     |     |     |     |     |     | 18  | 5   |
|      | 1000      |      |     |      |     |     |     |     |     |     |     |     |     | 10  |

## Chemical Resistance Tables

The following chemical resistance tables indicate the suitability of various elastomers and metals for use with fluids being conveyed. The ratings given are intended as a guide only and not a guarantee. Ratings are for tube compound only, unless otherwise stated. The final selection of the proper hose and fitting to use is further dependent on many factors including temperature, concentration, and length of exposure.

Hose ratings are for the effect on the polymer only. The degree of resistance of a rubber compound to a specific fluid depends on the variables of temperature, concentration, and length of exposure. When in doubt or when conditions vary, contact Continental ContiTech for assistance before using a specific product.

### Ratings and Definitions

- E** › The fluid is expected to have a minor or no effect on the hose and compound. Product may be used in continuous service. Changes in the substance, such as concentration or temperature, may affect hose product performance and cause degradation of the product.
- G** › The hose and compound may be used for continuous or intermittent service, however the product properties will be affected by the exposure of the chemical. Changes in the substance, such as concentration or temperature, may affect hose product performance and cause degradation of the product.
- X** › The hose and compound should not be used with this fluid.
- › Insufficient or no data is available for this fluid. Further testing is recommended to determine compatibility of the fluid with the hose and the compound.

**Blank** › No data is available.

Warning: Compatibility of hose fittings with the fluid is an essential factor in avoiding chemical reactions that may result in loss of fluid or failure of the hose connection, with the potential of causing personal injury or property damage.



## Chemical Resistance Tables

The following is a representative list of fluids and manufacturers and a general guideline for the use and compatibility of Continental ContiTech hose and fittings.

### Rating Scale

**E** = Excellent resistance      **X** = Not recommended      **Blank** = No Data  
**G** = Good resistance      **-** = Testing recommended

| Chemical Name                                | Hose              |                        |                  |                 |     |     |          |       | Fittings and Adapters |                        |                        |          |       |
|----------------------------------------------|-------------------|------------------------|------------------|-----------------|-----|-----|----------|-------|-----------------------|------------------------|------------------------|----------|-------|
|                                              | PTFE<br>(Teflon®) | CR<br>(Polychloropene) | NBR<br>(Nitrile) | Nitrile/<br>PVC | CPE | CSM | Urethane | Nylon | Carbon<br>Steel       | Stainless<br>Steel 304 | Stainless<br>Steel 316 | Aluminum | Brass |
| Absorption Oil                               |                   | G                      | E                | G               | -   | G   | -        | -     | -                     | -                      | -                      | -        | E     |
| Acetaldehyde                                 | E                 | X                      | X                | X               | -   | X   | E        | G     | E                     | E                      | E                      | E        | E     |
| Acetamide                                    | E                 | E                      | G                | -               | -   | -   | X        | -     | -                     | -                      | -                      | -        | -     |
| Acetate Solvent Crude                        | E                 |                        |                  |                 |     |     |          |       |                       |                        |                        |          |       |
| Acetate Solvent Pure                         | E                 |                        |                  |                 |     |     |          |       |                       |                        |                        |          |       |
| Acetic Acid, 100%                            | E                 | X                      | X                | -               | -   | -   | -        | X     | X                     | X                      | G                      | G        | X     |
| Acetic Acid, 100%<br>(Hot Vapors)(to 200 °F) | E                 | G                      | G                | -               | -   | -   | -        | X     | X                     | X                      | G                      | G        | X     |
| Acetic Acid, 100% Boiling                    |                   | X                      | X                | -               | -   | -   | X        | X     | X                     | X                      | G                      | -        | X     |
| Acetic Acid, 25%                             |                   | G                      | X                | G               | E   | G   | -        | X     | X                     | G                      | G                      | G        | X     |
| Acetic Acid, 30%                             | E                 | G                      | X                | -               | E   | -   | -        | G     | X                     | G                      | E                      | G        | X     |
| Acetic Acid, 50%                             |                   | G                      | X                | G               | E   | -   | -        | G     | X                     | G                      | G                      | G        | X     |
| Acetic Acid, 50% Boiling                     |                   | X                      | X                | -               | -   | -   | -        | X     | X                     | X                      | G                      | -        | -     |
| Acetic Acid, 5-20%                           |                   | G                      | X                | G               | E   | G   | X        | E     | X                     | G                      | G                      | G        | X     |
| Acetic Acid, 80%                             |                   | X                      | X                | -               | -   | -   | -        | X     | X                     | G                      | G                      | G        | X     |
| Acetic Acid, 80% Boiling                     |                   | X                      | X                | -               | -   | -   | -        | X     | X                     | X                      | G                      | X        | X     |
| Acetic Acid, Aerated                         |                   | -                      | -                | -               | -   | -   | -        | -     | X                     | X                      | X                      | -        | X     |
| Acetic Acid, Air Free                        |                   | -                      | -                | -               | -   | -   | -        | -     | X                     | X                      | X                      | -        | X     |
| Acetic Acid, Anhydride                       | E                 | X                      | X                | X               | E   | G   | -        | X     | X                     | G                      | G                      | G        | X     |
| Acetic Acid, Crude                           |                   | X                      | X                | -               | -   | -   | -        | E     | X                     | G                      | E                      | G        | X     |
| Acetic Acid, Glacial                         | E                 | X                      | X                | X               | E   | X   | X        | X     | X                     | G                      | G                      | G        | -     |
| Acetil Bromide                               |                   |                        |                  |                 |     |     |          |       |                       |                        |                        |          |       |
| Acetil Chloride                              |                   |                        |                  |                 |     |     |          |       |                       |                        |                        |          |       |
| Acetil Chromide                              |                   |                        |                  |                 |     |     |          |       |                       |                        |                        |          |       |
| Acetone (Dimethylketone)                     | E                 | X                      | X                | X               | E   | X   | X        | E     | E                     | E                      | E                      | E        | E     |
| Acetonitrile (Methyl Cyanide)                |                   | G                      | X                | G               | E   | G   | -        | -     | -                     | -                      | -                      | -        | -     |
| Acetophenone                                 |                   |                        |                  |                 |     |     |          |       |                       |                        |                        |          |       |
| Acetylene                                    | E                 | G                      | G                | E               | E   | -   | -        | E     | E                     | E                      | E                      | E        | G     |
| Acrylic Esters                               |                   |                        |                  |                 |     |     |          |       |                       |                        |                        |          |       |
| Acrylonitrile (Vinyl Cyanide)                | E                 | X                      | X                | X               | E   | X   | -        | -     | E                     | E                      | E                      | G        | E     |
| Adipic Acid                                  |                   |                        |                  |                 |     |     |          |       |                       |                        |                        |          |       |
| Aero Lubriplate                              |                   | E                      | E                | -               | -   | -   | -        | -     | E                     | E                      | E                      | E        | -     |
| Aero Safe 2300                               |                   | X                      | X                | -               | -   | -   | X        | -     | E                     | E                      | E                      | E        | E     |
| Aeroshell 17A Grease                         |                   | G                      | E                | -               | -   | -   | X        | -     | E                     | E                      | E                      | E        | -     |
| Aeroshell 750                                |                   | X                      | G                | -               | -   | -   | X        | -     | E                     | E                      | E                      | E        | -     |
| Aeroshell 7A Grease                          |                   | G                      | E                | -               | -   | -   | X        | -     | E                     | E                      | E                      | E        | -     |
| Aeroshell type 1A, 1AC, 4                    |                   | G                      | E                | -               | -   | -   | E        | -     | -                     | -                      | -                      | -        | -     |
| Air 150°F                                    |                   | E                      | E                | E               | E   | E   | E        | E     | E                     | E                      | E                      | E        | E     |
| Air 180°F                                    |                   | G                      | G                | G               | E   | G   | G        | E     | E                     | E                      | E                      | E        | E     |

Underline is cover compound rating only. Many factors, such as temperature, concentration and length of exposure, are relevant to how chemical exposure affects the tube and cover or fitting material. The fluid manufacturers recommended maximum operating temperature should be carefully observed. Exceeding the manufacturer's recommended maximum temperature can result in fluid breakdown and cause harm or shorten life of tube and cover materials. There may be instances where the hose cover could be adversely affected by fluids which would not chemically affect the hose tube. Conversely, some fluids with an adverse affect on the tube of the hose may not have a deteriorating effect on the hose cover. It is recommended that the user test the hose/fluid compatibility to their own standards. Since no industry standards exist for chemical resistance, the Compass Chemical Resistance Guide for Elastomers is used whenever possible. Teflon® is a registered trademark of Dupont.

Chemical Resistance Tables

The following is a representative list of fluids and manufacturers and a general guideline for the use and compatibility of Continental ContiTech hose and fittings.

Rating Scale

E = Excellent resistance      X = Not recommended      Blank = No Data  
G = Good resistance      - = Testing recommended

|                                       | Hose              |                        |                  |                 |     |     |          |       | Fittings and Adapters |                        |                        |          |       |
|---------------------------------------|-------------------|------------------------|------------------|-----------------|-----|-----|----------|-------|-----------------------|------------------------|------------------------|----------|-------|
| Chemical Name                         | PTFE<br>(Teflon®) | CR<br>(Polychloropene) | NBR<br>(Nitrile) | Nitrile/<br>PVC | CPE | CSM | Urethane | Nylon | Carbon<br>Steel       | Stainless<br>Steel 304 | Stainless<br>Steel 316 | Aluminum | Brass |
| Air 200°                              |                   | X                      | X                | X               | E   | X   | G        | G     | E                     | E                      | E                      | E        | E     |
| Air Ambient                           |                   | E                      | E                | E               | E   | E   | E        | E     | E                     | E                      | E                      | E        | E     |
| Aircraft Hydr Oil AA                  |                   | -                      | E                | -               | -   | -   | -        | -     | E                     | E                      | E                      | E        | E     |
| Alcohol                               | E                 | E                      | E                | -               | -   | -   | -        | -     | E                     | E                      | E                      | E        | E     |
| Alcohol, Amyl                         |                   | G                      | G                | -               | -   | -   | -        | E     | -                     | G                      | E                      | G        | -     |
| Alcohol, Benzyl                       |                   | X                      | X                | -               | E   | G   | G        | -     | E                     | E                      | E                      | -        | -     |
| Alcohol, Butyl                        |                   | G                      | X                | G               | -   | G   | E        | E     | E                     | E                      | E                      | E        | E     |
| Alcohol, Denatured                    |                   | E                      | E                | -               | -   | E   | -        | E     | E                     | E                      | E                      | E        | E     |
| Alcohol, Diacetone                    |                   | -                      | X                | -               | -   | G   | -        | -     | E                     | E                      | E                      | E        | E     |
| Alcohol, Ethyl (Ethanol)              |                   | E                      | E                | E               | E   | E   | G        | E     | E                     | E                      | E                      | E        | G     |
| Alcohol, Furfural                     |                   | G                      | X                | X               | E   | G   | -        | -     | G                     | E                      | E                      | E        | E     |
| Alcohol, Hexyl (Hexanol)              |                   | G                      | E                | -               | -   | X   | -        | -     | E                     | E                      | E                      | E        | G     |
| Alcohol, Isobutyl                     |                   | G                      | G                | -               | -   | E   | -        | E     | E                     | E                      | E                      | E        | G     |
| Alcohol, Isopropyl<br>(Isopropanol)   |                   | G                      | G                | G               | -   | G   | G        | E     | E                     | E                      | E                      | E        | G     |
| Alcohol, Methyl (100%)<br>(Methanol)1 |                   | E                      | E                | E               | E   | E   | -        | E     | E                     | E                      | E                      | E        | G     |
| Alcohol, Methyl (6%)                  |                   | E                      | E                | E               | -   | E   | -        | E     | E                     | E                      | E                      | E        | G     |
| Alcohol, Octyl                        |                   | G                      | G                | -               | -   | -   | -        | E     | E                     | E                      | E                      | E        | -     |
| Alcohol, Propyl                       |                   | E                      | E                | -               | -   | -   | -        | X     | G                     | E                      | E                      | E        | E     |
| Aliphatic (to 70°F)                   | E                 |                        |                  |                 |     |     |          |       |                       |                        |                        |          |       |
| Alkazene                              |                   | X                      | X                | X               | -   | X   | X        | -     | E                     | E                      | -                      | -        | -     |
| Alkyd Resins                          |                   |                        |                  |                 |     |     |          |       |                       |                        |                        |          |       |
| Aluminum Chloride                     | E                 | E                      | E                | E               | E   | E   | G        | X     | X                     | G                      | G                      | X        | X     |
| Aluminum Fluoride, 20%+A21            | E                 | E                      | E                | E               | E   | E   | G        | X     | X                     | G                      | G                      | G        | X     |
| Aluminum Hydroxide                    | E                 | E                      | E                | E               | E   | E   | -        | E     | -                     | E                      | E                      | -        | E     |
| Aluminum Hydroxide,<br>Saturated      |                   | E                      | E                | -               | -   | -   | -        | E     | -                     | E                      | E                      | -        | -     |
| Aluminum Nitrate                      | E                 | E                      | E                | E               | E   | E   | G        | -     | X                     | E                      | E                      | G        | -     |
| Aluminum Sulfate                      | E                 | E                      | E                | E               | E   | E   | X        | E     | X                     | X                      | G                      | X        | X     |
| Alums (Ammonium or<br>Potassium)      | E                 | E                      | E                | E               | E   | E   | -        | -     | X                     | G                      | G                      | X        | X     |
| Ammonia Gas Cold, Dry<br>(to 175 °F)  |                   |                        |                  |                 |     |     |          |       |                       |                        |                        |          |       |
| Ammonia Gas Cold, Wet<br>(to 480 °F)  |                   |                        |                  |                 |     |     |          |       |                       |                        |                        |          |       |
| Ammonia Liquid (Anhydrous)            |                   |                        |                  |                 |     |     |          |       |                       |                        |                        |          |       |
| Ammonia, Aqueous                      | E                 | E                      | G                | E               | -   | E   | -        | E     | -                     | E                      | E                      | -        | X     |
| Ammonium Acetate                      | E                 |                        |                  |                 |     |     |          |       |                       |                        |                        |          |       |

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## Chemical Resistance Tables

The following is a representative list of fluids and manufacturers and a general guideline for the use and compatibility of Continental ContiTech hose and fittings.

### Rating Scale

**E** = Excellent resistance      **X** = Not recommended      **Blank** = No Data  
**G** = Good resistance      **-** = Testing recommended

| Chemical Name                            | Hose              |                        |                  |                 |     |     |          |       | Fittings and Adapters |                        |                        |          |       |
|------------------------------------------|-------------------|------------------------|------------------|-----------------|-----|-----|----------|-------|-----------------------|------------------------|------------------------|----------|-------|
|                                          | PTFE<br>(Teflon®) | CR<br>(Polychloropene) | NBR<br>(Nitrile) | Nitrile/<br>PVC | CPE | CSM | Urethane | Nylon | Carbon<br>Steel       | Stainless<br>Steel 304 | Stainless<br>Steel 316 | Aluminum | Brass |
| Ammonium Carbonate                       |                   |                        |                  |                 |     |     |          |       |                       |                        |                        |          |       |
| Ammonium Chloride, 1%                    | E                 | X                      | G                | E               | E   | E   | E        | E     | X                     | G                      | G                      | X        | X     |
| Ammonium Chloride,<br>10% Boiling        | E                 | X                      | X                | -               | -   | -   | -        | X     | X                     | G                      | G                      | X        | X     |
| Ammonium Chloride,<br>28% Boiling        | E                 | X                      | X                | -               | -   | -   | -        | X     | X                     | G                      | G                      | X        | X     |
| Ammonium Chloride,<br>50% Boiling        | E                 | X                      | X                | -               | -   | -   | -        | X     | G                     | E                      | E                      | -        | X     |
| Ammonium Hydroxide                       | E                 | G                      | G                | G               | E   | E   | X        | E     | G                     | E                      | E                      | -        | X     |
| Ammonium Hydroxide,<br>3 Molar           |                   | E                      | X                | -               | -   | -   | G        | -     | X                     | G                      | G                      | X        | X     |
| Ammonium Hydroxide<br>Concentrated2      |                   | E                      | X                | -               | E   | -   | X        | E     | X                     | G                      | G                      | X        | X     |
| Ammonium Metaphosphate                   | E                 | G                      | G                | G               | -   | G   | -        | -     | E                     | E                      | E                      | X        | -     |
| Ammonium Nitrate, Fertilizer             | E                 | E                      | G                | E               | E   | E   | E        | X     | E                     | E                      | E                      | G        | X     |
| Ammonium Nitrite                         |                   | -                      | -                | -               | -   | -   | -        | E     | G                     | E                      | E                      | X        | -     |
| Ammonium Persulfate                      |                   | X                      | X                | X               | E   | -   | X        | X     | X                     | G                      | G                      | X        | X     |
| Ammonium Persulfate 10%                  |                   | E                      | X                | -               | -   | -   | X        | X     | X                     | G                      | G                      | X        | X     |
| Ammonium Persulfate 5%                   |                   | E                      | X                | -               | -   | -   | -        | X     |                       | G                      | G                      | X        | X     |
| AmmoniumPhosphate<br>(Mono,Di,Tri,Basic) | E                 | E                      | E                | E               | E   | E   | E        | G     | X                     | G                      | G                      | X        | -     |
| Ammonium Sulfate                         | E                 | E                      | G                | E               | E   | E   | E        | X     | X                     | X                      | G                      | X        | X     |
| Ammonium Sulfide                         | E                 | E                      | E                | E               | -   | E   | -        | E     | E                     | E                      | E                      | E        | G     |
| Ammonium Thiocyanate                     | E                 | E                      | E                | -               | E   | E   | -        | -     | E                     | E                      | E                      | -        | -     |
| Amyl Chloride                            | E                 | X                      | -                | X               | G   | X   | -        | G     | -                     | E                      | E                      | -        | -     |
| Amyl Chloronaphthalene                   | E                 | X                      | X                | X               | -   | X   | -        | -     | -                     | E                      | E                      | -        | -     |
| Amyl Naphthalene                         | E                 | X                      | X                | X               | -   | X   | -        | -     | -                     | E                      | E                      | -        | -     |
| Amyl Phenol                              |                   | -                      | -                | -               | -   | -   | -        | -     | -                     | E                      | E                      | -        | -     |
| Amyl Acetate                             | E                 | X                      | X                | X               | G   | X   | G        | E     | X                     | E                      | E                      | X        | G     |
| Amyl Alcohol                             | E                 | E                      | E                | E               | E   | E   | G        | X     | X                     | G                      | G                      | G        | X     |
| Amyl Borate                              |                   | G                      | G                | G               | -   | -   | -        | -     | -                     | -                      | -                      | -        | -     |
| AN-0-3 Grade M                           |                   | E                      | E                | -               | -   | -   | -        | -     | -                     | -                      | -                      | -        | -     |
| AN-0-366                                 |                   | E                      | E                | -               | -   | -   | -        | -     | -                     | -                      | -                      | -        | -     |
| AN-0-6                                   |                   | E                      | E                | -               | -   | -   | -        | -     | -                     | -                      | -                      | -        | -     |
| Anderol, L-774 (Diester)                 |                   | X                      | G                | -               | -   | -   | -        | X     | -                     | -                      | -                      | -        | -     |
| Anderol, L-826 (Diester)                 |                   | X                      | G                | -               | -   | -   | -        | X     | -                     | -                      | -                      | -        | -     |
| Anderol, L-829 (Diester)                 |                   | X                      | G                | -               | -   | -   | -        | X     | -                     | -                      | -                      | -        | -     |
| ANG-25 (Diester Base,TG749)              |                   | X                      | G                | -               | -   | -   | -        | X     | E                     | E                      | E                      | E        | -     |
| ANG-25 (Glyceral Ester)                  |                   | G                      | G                | -               | -   | -   | -        | G     | -                     | -                      | -                      | -        | -     |

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Chemical Resistance Tables

The following is a representative list of fluids and manufacturers and a general guideline for the use and compatibility of Continental ContiTech hose and fittings.

Rating Scale

E = Excellent resistance      X = Not recommended      Blank = No Data  
G = Good resistance      - = Testing recommended

| Hose                                          |                   |                        |                  |                 |     |     |          |       | Fittings and Adapters |                        |                        |          |       |
|-----------------------------------------------|-------------------|------------------------|------------------|-----------------|-----|-----|----------|-------|-----------------------|------------------------|------------------------|----------|-------|
| Chemical Name                                 | PTFE<br>(Teflon®) | CR<br>(Polychloropene) | NBR<br>(Nitrile) | Nitrile/<br>PVC | CPE | CSM | Urethane | Nylon | Carbon<br>Steel       | Stainless<br>Steel 304 | Stainless<br>Steel 316 | Aluminum | Brass |
| Aniline                                       | E                 | X                      | X                | X               | G   | X   | X        | G     | G                     | E                      | E                      | X        | X     |
| Aniline Dyes                                  | E                 |                        |                  |                 |     |     |          |       |                       |                        |                        |          |       |
| Animal Fat                                    | E                 |                        |                  |                 |     |     |          |       |                       |                        |                        |          |       |
| Animal Gelatin                                |                   | E                      | E                | -               | E   | -   | -        | -     | -                     | E                      | E                      | -        | -     |
| Animal Oil (Lard Oil)                         | E                 | G                      | E                | -               | E   | -   | -        | -     | E                     | E                      | E                      | E        | -     |
| Antifreeze, Alcohol Base                      |                   | G                      | G                | G               | G   | G   | -        | -     | E                     | E                      | E                      | E        | -     |
| Antifreeze, Glycol Base                       | E                 | G                      | E                | E               | E   | E   | -        | E     | E                     | E                      | E                      | E        | E     |
| Antimony Chloride,<br>50% (to 70°F)           | E                 | -                      | E                | -               | -   | -   | -        | X     | X                     | X                      | X                      | -        | -     |
| AN-VV-0-366B Hydraulic Fluid                  |                   | E                      | -                | -               | -   | -   | -        | G     | -                     | -                      | -                      | -        | -     |
| Aqua Regia (Concentrated)                     | E                 | X                      | X                | X               | G   | X   | X        | X     | X                     | X                      | X                      | X        | -     |
| Arco A.T.F.Dexron                             |                   | -                      | E                | -               | -   | -   | -        | -     | -                     | -                      | -                      | -        | -     |
| Arco C2, 100                                  |                   | -                      | E                | -               | -   | -   | -        | -     | -                     | -                      | -                      | -        | -     |
| Argon Gas                                     | E                 |                        |                  |                 |     |     |          |       |                       |                        |                        |          |       |
| Aromatic Fuel 30%, Mil                        |                   | -                      | -                | -               | -   | -   | -        | -     | -                     | -                      | -                      | -        | -     |
| Aromatic Fuel 50%                             |                   | X                      | G                | -               | -   | -   | -        | -     | -                     | -                      | -                      | -        | -     |
| Aromatic Hydrocarbons                         | E                 | X                      | X                | -               | -   | X   | G        | -     | G                     | E                      | G                      | G        | G     |
| Arsenic Salt (to 70°F)                        | E                 |                        |                  |                 |     |     |          |       |                       |                        |                        |          |       |
| Askarel, Transformer Oil                      | -                 | X                      | X                | X               | -   | X   | -        | -     | E                     | E                      | E                      | -        | E     |
| Asphalt, Cut Back<br>(Including Emulsions)    | E                 | X                      | G                | G               | -   | X   | E        | E     | E                     | E                      | E                      | G        | G     |
| Asphalt, Topping<br>(Including Emulsions)     | E                 | E                      | X                | -               | -   | -   | -        | -     | E                     | E                      | E                      | -        | -     |
| Asphalt, Under 180°F<br>(Including Emulsions) | E                 | G                      | G                | G               | X   | X   | E        | -     | E                     | E                      | E                      | -        | G     |
| ASTM Oil N° 1                                 | E                 | E                      | E                | E               | E   | G   | E        | E     | E                     | E                      | E                      | E        | E     |
| ASTM Oil N° 2                                 | E                 | G                      | E                | -               | G   | -   | E        | E     | E                     | E                      | E                      | E        | E     |
| ASTM Oil N° 3                                 | E                 | X                      | E                | X               | X   | X   | -        | E     | E                     | E                      | E                      | E        | E     |
| ASTM Oil N° 4                                 | E                 | X                      | G                | -               | -   | -   | -        | -     | E                     | E                      | E                      | E        | -     |
| ASTM Reference Fuel A<br>(to 300°F)           | E                 | G                      | E                | E               | E   | E   | -        | E     | E                     | E                      | E                      | E        | E     |
| ASTM Reference Fuel B<br>(to 300°F)           | E                 | G                      | E                | G               | G   | X   | -        | -     | E                     | E                      | E                      | E        | E     |
| ASTM Reference Fuel C<br>(to 300°F)           | E                 | X                      | G                | X               | G   | X   | -        | -     | E                     | E                      | E                      | -        | E     |
| ATL-857                                       |                   | X                      | G                | -               | -   | -   | -        | -     | -                     | -                      | -                      | -        | -     |
| Atlantic Dominion F                           |                   | G                      | E                | -               | -   | -   | -        | -     | -                     | -                      | -                      | -        | -     |
| Aurex 903R (Mobil)                            |                   | G                      | E                | -               | -   | -   | -        | -     | -                     | -                      | -                      | -        | -     |
| Automatic Brake Fluid                         |                   | G                      | X                | -               | -   | -   | -        | -     | E                     | E                      | E                      | E        | -     |

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### Rating Scale

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| Chemical Name                           | Hose              |                         |                  |                 |     |     |          |       | Fittings and Adapters |                        |                        |          |       |
|-----------------------------------------|-------------------|-------------------------|------------------|-----------------|-----|-----|----------|-------|-----------------------|------------------------|------------------------|----------|-------|
|                                         | PTFE<br>(Teflon®) | CR<br>(Polychloroprene) | NBR<br>(Nitrile) | Nitrile/<br>PVC | CPE | CSM | Urethane | Nylon | Carbon<br>Steel       | Stainless<br>Steel 304 | Stainless<br>Steel 316 | Aluminum | Brass |
| Automatic Transmission Fluid            |                   | G                       | E                | -               | E   | -   | -        | -     | E                     | E                      | E                      | E        | -     |
| Aviation Gasoline, Mil                  |                   | -                       | G                | -               | -   | -   | -        | -     | E                     | E                      | E                      | E        | -     |
| Baltic Types 100, 150, 200, 300, 500    |                   | -                       | E                | -               | -   | -   | -        | -     | -                     | -                      | -                      | -        | -     |
| Banvel Concentrated (Ag Spray)          |                   | -                       | -                | -               | -   | -   | -        | E     | -                     | -                      | E                      | -        | -     |
| Bardol B                                |                   | X                       | X                | X               | -   | X   | -        | -     | E                     | E                      | E                      | -        | -     |
| Barium Chloride                         | E                 | X                       | E                | E               | E   | E   | E        | E     | X                     | G                      | G                      | X        | E     |
| Barium Chloride, 5%                     | E                 | X                       | E                | -               | -   | -   | -        | X     | G                     | E                      | E                      | X        | G     |
| Barium Chloride, Aqueous Solution (Hot) |                   | X                       | E                | -               | -   | -   | -        | X     | G                     | G                      | G                      | X        | -     |
| Barium Concentrate                      |                   | E                       | E                | E               | E   | E   | -        | E     | G                     | E                      | E                      | X        | -     |
| Barium Hydroxide                        | E                 | E                       | E                | E               | E   | E   | X        | E     | X                     | E                      | E                      | X        | X     |
| Barium Sulfate                          | E                 | E                       | E                | -               | E   | G   | -        | E     | G                     | E                      | E                      | G        | G     |
| Barium Sulfate, Aqueous Solution (Hot)  | E                 | X                       | -                | -               | -   | -   | -        | X     | G                     | E                      | E                      | G        | X     |
| Barium Sulfide                          | E                 | G                       | E                | E               | E   | E   | -        | G     | X                     | E                      | E                      | X        | -     |
| Baygon                                  |                   |                         |                  |                 |     |     |          |       |                       |                        |                        |          | -     |
| Bayol 35                                |                   | -                       | E                | -               | -   | -   | -        | -     | -                     | -                      | -                      | -        | -     |
| Bayol D                                 |                   | -                       | E                | -               | -   | -   | -        | -     | -                     | -                      | -                      | -        | X     |
| Beer                                    | E                 |                         |                  |                 |     |     |          |       |                       |                        |                        |          | -     |
| Beet Sugar Liquors                      | E                 | X                       | E                | E               | E   | E   | X        | -     | G                     | G                      | G                      | G        | E     |
| Bellows 80-20 Hydraulic Oil             |                   | -                       | E                | -               | -   | -   | G        | -     | -                     | -                      | -                      | -        | E     |
| Benzaldehyde                            | E                 | X                       | X                | X               | G   | X   | E        | E     | E                     | E                      | E                      | E        | E     |
| Benzene, Benzo                          | E                 | X                       | X                | X               | X   | X   | G        | E     | E                     | E                      | E                      | E        | -     |
| Benzine, Petroleum Ether                |                   | X                       | G                | X               | E   | -   | G        | -     | E                     | E                      | E                      | E        | X     |
| Benzine, Petroleum Naphtha              | E                 |                         |                  |                 |     |     |          |       |                       |                        |                        |          | E     |
| Benzoic Acid                            |                   |                         |                  |                 |     |     |          |       |                       |                        |                        |          | G     |
| Benzyl Alcohol                          | E                 |                         |                  |                 |     |     |          |       |                       |                        |                        |          | X     |
| Black Point 77                          |                   | -                       | E                | -               | -   | -   | -        | -     | -                     | -                      | -                      | -        | X     |
| Black Sulfate Liquor                    | E                 | G                       | G                | G               | G   | G   | -        | E     | G                     | E                      | E                      | X        | -     |
| Blast Furnace Gas                       | E                 | X                       | X                | X               | -   | X   | X        | -     | E                     | E                      | E                      | G        | E     |
| Borax, Sodium Borate                    | E                 | X                       | G                | G               | E   | E   | E        | X     | G                     | E                      | E                      | X        | E     |
| Bordeaux Mixture                        | E                 | G                       | G                | G               | -   | -   | E        | E     | X                     | -                      | E                      | E        | -     |
| Boric Acid                              | E                 | E                       | E                | E               | -   | E   | E        | X     | X                     | G                      | G                      | E        | -     |
| Boron Fuels, HEF                        |                   | X                       | X                | -               | -   | -   | -        | -     | -                     | -                      | -                      | -        | -     |
| Brake Fluid, Petroleum Base (to 300°F)  | E                 | G                       | E                | G               | E   | X   | -        | -     | E                     | E                      | E                      | -        | -     |

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|                                            | Hose              |                        |                  |                 |     |     |          |       | Fittings and Adapters |                        |                        |          |       |
|--------------------------------------------|-------------------|------------------------|------------------|-----------------|-----|-----|----------|-------|-----------------------|------------------------|------------------------|----------|-------|
| Chemical Name                              | PTFE<br>(Teflon®) | CR<br>(Polychloropene) | NBR<br>(Nitrile) | Nitrile/<br>PVC | CPE | CSM | Urethane | Nylon | Carbon<br>Steel       | Stainless<br>Steel 304 | Stainless<br>Steel 316 | Aluminum | Brass |
| Brake Fluid, Synthetic Base                |                   | X                      | X                | X               | E   | X   | -        | -     | E                     | E                      | E                      | E        | -     |
| Bray GG-130                                |                   | X                      | G                | -               | -   | -   | -        | -     | -                     | -                      | -                      | -        | -     |
| Brayco 719-r (VV-H-910)                    |                   | G                      | X                | -               | -   | -   | -        | -     | -                     | -                      | -                      | -        | E     |
| Brayco 885 (MIL-L-6085A)                   |                   | X                      | G                | -               | -   | -   | -        | -     | -                     | -                      | -                      | -        | -     |
| Brayco 910                                 |                   | G                      | G                | -               | -   | -   | -        | -     | -                     | -                      | -                      | -        | E     |
| Brine                                      | E                 |                        |                  |                 |     |     |          |       |                       |                        |                        |          | E     |
| Brom-113                                   |                   | X                      | G                | -               | -   | -   | -        | -     | -                     | -                      | -                      | -        | -     |
| Brom-114                                   |                   | G                      | G                | -               | -   | -   | -        | -     | -                     | -                      | -                      | -        | X     |
| Bromine (Permiabie )                       | E                 |                        |                  |                 |     |     |          |       |                       |                        |                        |          | X     |
| Bunker Oil                                 | E                 | X                      | G                | G               | -   | X   | G        | -     | E                     | E                      | E                      | E        | X     |
| Butane                                     | E                 | X                      | X                | X               | -   | X   | X        | X     | X                     | -                      | -                      | -        | E     |
| Butanone, MEK                              |                   |                        |                  |                 |     |     |          |       |                       |                        |                        |          | -     |
| Butyl Acetate                              | E                 | X                      | X                | X               | G   | X   | -        | -     | G                     | E                      | E                      | E        | X     |
| Butyl Acetate                              | E                 |                        |                  |                 |     |     |          |       |                       |                        |                        |          | G     |
| Butyl Alcohol, Butanol                     | E                 |                        |                  |                 |     |     |          |       |                       |                        |                        |          | X     |
| Butyl Cellosolve                           | E                 |                        |                  |                 |     |     |          |       |                       |                        |                        |          | X     |
| Butyl Stearate                             | E                 |                        |                  |                 |     |     |          |       |                       |                        |                        |          | X     |
| Butylene ( Permiabie )                     | E                 |                        |                  |                 |     |     |          |       |                       |                        |                        |          | X     |
| Butyraldehyde                              | E                 |                        |                  |                 |     |     |          |       |                       |                        |                        |          | X     |
| Cadmium Salts (to 70°F)                    | E                 |                        |                  |                 |     |     |          |       |                       |                        |                        |          |       |
| Calcium Acetate                            | E                 | X                      | X                | X               | E   | X   | -        | -     | G                     | G                      | G                      | X        | E     |
| Calcium Arsenate                           |                   | -                      | -                | -               | -   | -   | E        | E     | -                     | -                      | -                      | -        | E     |
| Calcium Bisulfate                          | E                 | E                      | E                | G               | E   | E   | -        | -     | -                     | G                      | E                      | -        | E     |
| Calcium Bisulfide                          | E                 | E                      | E                | G               | E   | E   | E        | -     | -                     | G                      | G                      | X        | -     |
| Calcium Bisulfite                          | E                 | E                      | E                | E               | E   | E   | -        | E     | X                     | E                      | E                      | E        | G     |
| Calcium Carbonate                          | E                 | E                      | E                | E               | E   | E   | E        | E     | G                     | E                      | E                      | X        | X     |
| Calcium Chlorate                           | E                 | E                      | E                | E               | -   | E   | -        | -     | G                     | G                      | E                      | E        | E     |
| Calcium Chloride                           | E                 | E                      | E                | E               | E   | E   | E        | E     | X                     | G                      | G                      | X        | E     |
| Calcium Hydroxide                          | E                 | E                      | G                | G               | E   | E   | X        | -     | X                     | X                      | E                      | -        | X     |
| Calcium Hydroxide,<br>10% Boiling          |                   | -                      | G                | -               | -   | -   | -        | X     | G                     | E                      | E                      | X        | E     |
| Calcium Hydroxide,<br>20% Boiling          |                   | -                      | -                | -               | -   | -   | -        | X     | -                     | E                      | E                      | X        | -     |
| Calcium Hydroxide,<br>50% Boiling          |                   | -                      | -                | -               | -   | -   | -        | X     | -                     | X                      | G                      | X        | G     |
| Calcium Hypochlorite,<br>15% (Under 100°F) | E                 | X                      | -                | X               | E   | G   | -        | X     | -                     | X                      | G                      | X        | X     |
| Calcium Hypochlorite,<br>5% (Under 100°F)  | E                 | X                      | G                | X               | E   | G   | -        | X     | X                     | X                      | G                      | X        | E     |

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## Chemical Resistance Tables

The following is a representative list of fluids and manufacturers and a general guideline for the use and compatibility of Continental ContiTech hose and fittings.

### Rating Scale

**E** = Excellent resistance      **X** = Not recommended      **Blank** = No Data  
**G** = Good resistance      **-** = Testing recommended

| Chemical Name                                 | Hose              |                        |                  |                 |     |     |          |       | Fittings and Adapters |                        |                        |          |       |
|-----------------------------------------------|-------------------|------------------------|------------------|-----------------|-----|-----|----------|-------|-----------------------|------------------------|------------------------|----------|-------|
|                                               | PTFE<br>(Teflon®) | CR<br>(Polychloropene) | NBR<br>(Nitrile) | Nitrile/<br>PVC | CPE | CSM | Urethane | Nylon | Carbon<br>Steel       | Stainless<br>Steel 304 | Stainless<br>Steel 316 | Aluminum | Brass |
| Calcium Nitrate                               | E                 | E                      | E                | E               | E   | E   | -        | E     | X                     | G                      | G                      | X        | X     |
| Calcium Salts (to 70°F)                       | E                 |                        |                  |                 |     |     |          |       |                       |                        |                        |          |       |
| Calcium Silicate                              | E                 |                        | G                | -               | E   | G   | -        | -     | E                     | E                      | E                      | E        | X     |
| Calcium Sulfate                               | E                 | E                      | E                | E               | E   | E   | -        | -     | G                     | E                      | E                      | G        | -     |
| Calcium Sulfide                               | E                 | E                      | G                | -               | E   | -   | -        | G     | G                     | E                      | E                      | G        | X     |
| Caliche Liquors E                             | E                 |                        |                  |                 |     |     |          |       |                       |                        |                        |          |       |
| Cane Sugar Liquors                            | E                 | E                      | E                | G               | E   | E   | E        | -     | E                     | E                      | E                      | E        | G     |
| Carbitol                                      |                   |                        |                  |                 |     |     |          |       |                       |                        |                        |          |       |
| Carbolic Acid, Phenol                         | E                 | X                      | X                | X               | E   | X   | X        | X     | X                     | E                      | E                      | G        | X     |
| Carbon Bisulfide                              | E                 |                        |                  |                 |     |     |          |       |                       |                        |                        |          |       |
| Carbon Dioxide, Dry                           | E                 | G                      | E                | E               | E   | E   | E        | -     | E                     | E                      | E                      | E        | E     |
| Carbon Dioxide, Wet                           | E                 | G                      | E                | E               | E   | E   | -        | -     | E                     | E                      | E                      | E        | E     |
| Carbon Disulfide                              | -                 | X                      | X                | -               | -   | X   | G        | E     | G                     | E                      | E                      | G        | -     |
| Carbon Monoxide,<br>(Under 150°F) (Hot)       | E                 | G                      | G                | G               | E   | E   | -        | G     | E                     | E                      | E                      | E        | -     |
| Carbon Tetrachloride, 5-10%                   | E                 | -                      | -                | -               | -   | -   | -        | -     | -                     | X                      | -                      | -        | X     |
| Carbon Tetrachloride, Pure                    | E                 | X                      | X                | X               | G   | X   | X        | X     | X                     | X                      | G                      | G        | -     |
| Carbonic Acid                                 | E                 | E                      | E                | E               | E   | E   | X        | -     | X                     | E                      | E                      | G        | -     |
| Castor Oil                                    | E                 | G                      | G                | G               | E   | G   | G        | E     | G                     | E                      | E                      | E        | G     |
| Caustic Soda, 20%                             | E                 | G                      | X                | X               | E   | E   | X        | G     | G                     | E                      | E                      | X        | E     |
| Caustic Soda, 50%                             | E                 | G                      | X                | X               | E   | E   | X        | G     | G                     | E                      | E                      | X        | E     |
| Cellosolve Acetate,<br>Under 100°F            | E                 | X                      | X                | X               | G   | X   | -        | -     | G                     | G                      | G                      | E        | E     |
| Cellosolve Butyl,<br>Under 100°F              | E                 | X                      | X                | X               | -   | X   | -        | -     | G                     | G                      | G                      | G        | E     |
| Cellosolve Union Carbide,<br>Under 100°F      | E                 | X                      | X                | -               | -   | -   | -        | -     | G                     | G                      | G                      | G        | -     |
| Cellugard, Cellugard 200                      |                   | E                      | E                | -               | -   | -   | -        | -     | -                     | X                      | X                      | -        | X     |
| Cellulube 1000, 220A,<br>ST220, A60 (to 70°F) | E                 | X                      | X                | X               | -   | X   | -        | -     | E                     | E                      | E                      | E        | X     |
| Cellulube 90, 150, 220,300,<br>551 (to 70°F)  | E                 | X                      | X                | X               | -   | X   | -        | -     | E                     | E                      | E                      | E        | X     |
| Cellutherm 2505A                              | -                 | X                      | G                | -               | -   | -   | -        | -     | -                     | -                      | -                      | -        | X     |
| Chevron FR-10,13, 20, 8                       |                   |                        |                  |                 |     |     |          |       |                       |                        |                        |          |       |
| China wood Oil (Tung)                         | E                 |                        |                  |                 |     |     |          |       |                       |                        |                        |          |       |
| Chlor Acetone                                 |                   |                        |                  |                 |     |     |          |       |                       |                        |                        |          |       |
| Chlordane (to 70°F)                           | E                 | X                      | X                | X               | -   | X   | -        | E     | -                     | -                      | -                      | X        | X     |
| Chlorinated Paraffine                         |                   |                        |                  |                 |     |     |          |       |                       |                        |                        |          |       |
| Chlorinated Solvents - Dry<br>(to 212°F)      | E                 |                        |                  |                 |     |     |          |       |                       |                        |                        |          |       |

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## Chemical Resistance Tables

The following is a representative list of fluids and manufacturers and a general guideline for the use and compatibility of Continental ContiTech hose and fittings.

### Rating Scale

E = Excellent resistance      X = Not recommended      Blank = No Data  
G = Good resistance      - = Testing recommended

|                                         | Hose              |                         |                  |                 |     |     |          |       | Fittings and Adapters |                        |                        |          |       |
|-----------------------------------------|-------------------|-------------------------|------------------|-----------------|-----|-----|----------|-------|-----------------------|------------------------|------------------------|----------|-------|
| Chemical Name                           | PTFE<br>(Teflon®) | CR<br>(Polychloroprene) | NBR<br>(Nitrile) | Nitrile/<br>PVC | CPE | CSM | Urethane | Nylon | Carbon<br>Steel       | Stainless<br>Steel 304 | Stainless<br>Steel 316 | Aluminum | Brass |
| Chlorinated Solvents - Wet<br>(to 70°F) | E                 | -                       | -                | -               | -   | -   | -        | -     | -                     | -                      | -                      | -        | -     |
| Chlorine Gas, (Under 212°F)             | -                 | -                       | X                | -               | -   | -   | -        | -     | -                     | X                      | X                      | -        | -     |
| Chlorine Trifluoride (to 70°F)          | E                 | X                       | X                | -               | -   | -   | -        | -     | E                     | E                      | E                      | E        | -     |
| Chlorine Water, 25% Chlorine            | -                 | X                       | X                | X               | -   | G   | G        | X     | -                     | X                      | X                      | -        | E     |
| Chloroacetic Acid<br>(Under 100°F)      | E                 | X                       | X                | X               | -   | G   | -        | X     | X                     | X                      | X                      | X        | E     |
| Chlorobenzene                           | E                 | X                       | X                | X               | X   | X   | -        | X     | G                     | G                      | G                      | X        | E     |
| Chlorobromo Methane                     | E                 | X                       | X                | X               | -   | X   | -        | -     | G                     | G                      | G                      | X        | G     |
| Chloroform                              | E                 | X                       | X                | X               | X   | X   | -        | X     | G                     | E                      | E                      | X        | X     |
| Chlorosulphonic Acid                    | E                 | -                       | -                | -               | -   | -   | -        | -     | -                     | -                      | -                      | -        | -     |
| Chlorotoluene                           | E                 | X                       | X                | X               | X   | X   | X        | -     | G                     | G                      | G                      | X        | X     |
| Chlorox, Bleach                         | -                 | G                       | G                | -               | E   | G   | -        | E     | X                     | G                      | E                      | X        | X     |
| Chromic Acid, 10%                       | E                 | X                       | X                | X               | E   | G   | X        | X     | X                     | X                      | G                      | X        | X     |
| Chromic Acid, 100%                      | E                 | -                       | -                | -               | -   | -   | X        | -     | X                     | X                      | X                      | X        | X     |
| Chromic Acid, 25%                       | E                 | X                       | X                | X               | E   | G   | X        | X     | X                     | X                      | G                      | X        | X     |
| Chromic Acid, 5%                        | E                 | X                       | X                | -               | -   | -   | -        | X     | X                     | G                      | E                      | X        | X     |
| Chromic Acid, 50%                       | E                 | X                       | X                | X               | E   | G   | X        | X     | X                     | X                      | X                      | X        | X     |
| Chromium Potassium Sulfate              | -                 | -                       | -                | -               | -   | -   | -        | -     | -                     | -                      | -                      | -        | -     |
| Cider                                   | -                 | -                       | -                | -               | -   | -   | -        | -     | -                     | -                      | -                      | -        | -     |
| Circo Light Process Oil                 | -                 | E                       | E                | -               | -   | -   | -        | -     | E                     | E                      | E                      | E        | -     |
| Citgo FR Fluids                         | -                 | -                       | X                | -               | -   | -   | G        | -     | -                     | -                      | -                      | -        | -     |
| Citgo FR15, 20,25                       | -                 | -                       | -                | -               | -   | -   | -        | -     | -                     | -                      | -                      | -        | -     |
| Citgo Glycol FR-20XD                    | -                 | -                       | E                | -               | -   | -   | G        | -     | E                     | E                      | E                      | E        | E     |
| Citgo Pacemaker FR                      | -                 | -                       | -                | -               | -   | -   | -        | -     | -                     | -                      | -                      | -        | -     |
| Citgo Pacemaker Glicol                  | -                 | -                       | -                | -               | -   | -   | -        | -     | -                     | -                      | -                      | -        | -     |
| Citgo Sentry, (Under 100°F)             | -                 | G                       | G                | E               | -   | X   | G        | -     | E                     | E                      | E                      | -        | E     |
| Citgo Tractor Hydraulic Fluid           | -                 | -                       | E                | -               | -   | -   | G        | -     | E                     | E                      | E                      | -        | E     |
| Citric Acid, 15%                        | -                 | E                       | G                | -               | -   | -   | -        | E     | X                     | E                      | E                      | -        | X     |
| Citric Acid, 15% Boiling                | -                 | E                       | G                | -               | -   | -   | -        | X     | X                     | G                      | E                      | X        | X     |
| Citric Acid, 5%                         | -                 | -                       | G                | -               | -   | -   | -        | E     | X                     | E                      | E                      | E        | X     |
| Citric Acid, 5% @150°F                  | -                 | -                       | G                | -               | -   | -   | -        | X     | X                     | E                      | E                      | G        | X     |
| Citric Acid, Concentrated               | -                 | -                       | -                | -               | -   | -   | -        | -     | -                     | -                      | -                      | -        | -     |
| Boiling                                 | -                 | E                       | X                | E               | -   | E   | G        | X     | X                     | X                      | G                      | X        | X     |
| Coal Gas                                | -                 | E                       | X                | -               | E   | -   | E        | -     | -                     | -                      | -                      | -        | -     |
| Coal Tars                               | -                 | X                       | G                | X               | G   | G   | -        | -     | E                     | E                      | E                      | E        | E     |
| Codor 1000, 1002, 1004,<br>1006, 1008   | -                 | -                       | G                | -               | -   | -   | -        | -     | -                     | -                      | -                      | -        | -     |
| Coke Oven Gas<br>(Under 100°F)          | E                 | X                       | G                | X               | -   | G   | -        | -     | E                     | E                      | E                      | G        | -     |

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### Rating Scale

**E** = Excellent resistance      **X** = Not recommended      **Blank** = No Data  
**G** = Good resistance      **-** = Testing recommended

| Chemical Name                               | Hose              |                         |                  |                 |     |     |          |       | Fittings and Adapters |                        |                        |          |       |
|---------------------------------------------|-------------------|-------------------------|------------------|-----------------|-----|-----|----------|-------|-----------------------|------------------------|------------------------|----------|-------|
|                                             | PTFE<br>(Teflon®) | CR<br>(Polychloroprene) | NBR<br>(Nitrile) | Nitrile/<br>PVC | CPE | CSM | Urethane | Nylon | Carbon<br>Steel       | Stainless<br>Steel 304 | Stainless<br>Steel 316 | Aluminum | Brass |
| Conor 1008, 1010, 1012,<br>1014, 1016       |                   |                         | G                | -               | -   | -   | -        | -     | -                     | -                      | -                      | -        | -     |
| Convelex 10                                 |                   | X                       | X                | -               | -   | -   | -        | -     | -                     | -                      | -                      | -        | -     |
| Copper Arsenate,<br>Cupric Arsenate         |                   | -                       | -                | -               | -   | G   | -        | -     | E                     | E                      | E                      | -        | -     |
| Copper Chloride, 1%                         |                   | E                       | E                | -               | -   | -   | -        | X     | -                     | G                      | G                      | -        | -     |
| Copper Chloride, 5%                         | E                 | E                       | E                | -               | -   | -   | -        | X     | -                     | X                      | G                      | -        | -     |
| Copper Chloride,<br>Cupric Chloride         | E                 | G                       | G                | G               | G   | G   | E        | G     | X                     | X                      | E                      | -        | X     |
| Copper Cyanide,<br>Cupric Cyanide           | E                 | G                       | G                | G               | -   | G   | -        | X     | E                     | E                      | E                      | -        | X     |
| Copper Nitrate, 1% & 5%                     | E                 | E                       | E                | -               | -   | -   | -        | E     | X                     | E                      | E                      | X        | X     |
| Copper Nitrate, Cupric Nitrate              |                   | E                       | E                | E               | E   | E   | -        | -     | X                     | E                      | E                      | -        | X     |
| Copper Sulfate, 10%                         | E                 | E                       | E                | -               | -   | -   | -        | -     | X                     | G                      | G                      | X        | -     |
| Copper Sulfate, 50%                         | E                 | E                       | E                | -               | -   | -   | -        | -     | -                     | G                      | G                      | -        | -     |
| Copper Sulfate, Cupric Sulfate              |                   | E                       | E                | E               | E   | E   | E        | E     | X                     | E                      | E                      | X        | X     |
| Corn Oil                                    | E                 | X                       | G                | G               | G   | X   | X        | -     | E                     | E                      | E                      | E        | E     |
| Cosmolubric                                 |                   |                         |                  |                 |     |     |          |       |                       |                        |                        |          |       |
| Cottonseed Oil                              | E                 | G                       | G                | E               | G   | G   | X        | G     | E                     | E                      | E                      | E        | E     |
| Creosol                                     | E                 |                         |                  |                 |     |     |          |       |                       |                        |                        |          |       |
| Creosote, Wood or Coal Tar<br>(Under 100°F) | E                 | X                       | G                | X               | -   | X   | X        | X     | G                     | E                      | E                      | E        | X     |
| Cresol, Cresylic Acid<br>(Under 100°F)      | E                 | X                       | X                | X               | E   | X   | -        | X     | G                     | E                      | E                      | G        | -     |
| Crude Petroleum Oil                         | E                 | X                       | X                | G               | G   | G   | G        | -     | E                     | E                      | E                      | E        | E     |
| Cutting Oil                                 | E                 | G                       | E                | G               | E   | X   | -        | -     | E                     | E                      | E                      | -        | E     |
| Cutting Oil, Sulfur Base                    | E                 | X                       | E                | -               | -   | -   | -        | -     | E                     | E                      | E                      | E        | -     |
| Cutting Oil, Water Soluble                  | E                 | X                       | E                | -               | -   | -   | -        | -     | E                     | E                      | E                      | E        | -     |
| Cyclohexane                                 | E                 | X                       | G                | -               | E   | X   | E        | E     | G                     | G                      | G                      | G        | -     |
| Cyclohexanol                                | E                 |                         |                  |                 |     |     |          |       |                       |                        |                        |          |       |
| Cyclohexanone                               | E                 | X                       | X                | X               | G   | X   | E        | E     | G                     | G                      | G                      | G        | -     |
| Cymene                                      | E                 | X                       | X                | X               | G   | X   | -        | -     | E                     | E                      | E                      | E        | E     |
| Dasco FR 300                                |                   |                         |                  |                 |     |     |          |       |                       |                        |                        |          |       |
| Dasco FR150, FR200,<br>FR200B, FR310        |                   | -                       | E                | -               | -   | -   | -        | E     | -                     | -                      | -                      | -        | -     |
| Dasco IFR                                   |                   | -                       | E                | -               | -   | -   | -        | E     | E                     | -                      | -                      | E        | E     |
| DDT Preparation (to 70°F)<br>(in Kerosene)  | E                 |                         |                  |                 |     |     |          |       |                       |                        |                        |          |       |
| Decalin                                     | E                 | X                       | G                | -               | G   | X   | -        | E     | -                     | -                      | -                      | -        | E     |

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## Rating Scale

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G = Good resistance      - = Testing recommended

|                                       | Hose              |                        |                  |                 |     |     |          |       | Fittings and Adapters |                        |                        |          |       |
|---------------------------------------|-------------------|------------------------|------------------|-----------------|-----|-----|----------|-------|-----------------------|------------------------|------------------------|----------|-------|
| Chemical Name                         | PTFE<br>(Teflon®) | CR<br>(Polychloropene) | NBR<br>(Nitrile) | Nitrile/<br>PVC | CPE | CSM | Urethane | Nylon | Carbon<br>Steel       | Stainless<br>Steel 304 | Stainless<br>Steel 316 | Aluminum | Brass |
| Dectol R&O Oil                        |                   | X                      | E                | -               | -   | -   | G        | -     | -                     | -                      | -                      | -        | -     |
| Deionized Water                       |                   |                        |                  |                 |     |     |          |       |                       |                        |                        |          |       |
| Detergent / water Solution            | E                 |                        |                  |                 |     |     |          |       |                       |                        |                        |          |       |
| Developing Fluids, Photo              | E                 | G                      | -                | -               | E   | G   | -        | -     | -                     | E                      | E                      | -        | -     |
| Developing Solutions, Hypos           | E                 | G                      | -                | -               | E   | G   | -        | -     | -                     | E                      | E                      | -        | -     |
| Dextron AFT                           |                   |                        |                  |                 |     |     |          |       |                       |                        |                        |          |       |
| Diacetone                             | E                 | X                      | X                | X               | E   | X   | -        | E     | E                     | E                      | E                      | E        | E     |
| Diammonium Phosphate<br>(to 70°F)     | E                 |                        |                  |                 |     |     |          |       |                       |                        |                        |          |       |
| Dibenzyl Ether                        | E                 |                        |                  |                 |     |     |          |       |                       |                        |                        |          |       |
| Dibutyl Ether                         | E                 |                        |                  |                 |     |     |          |       |                       |                        |                        |          |       |
| Dibutyl Phthalate<br>(Under 120°F)    | E                 | X                      | X                | X               | G   | X   | G        | -     | E                     | E                      | E                      | E        | E     |
| Dichlorobenzene                       | E                 | X                      | X                | X               | X   | X   | X        | -     | E                     | E                      | E                      | X        | E     |
| Dichloroethylene                      | E                 |                        |                  |                 |     |     |          |       |                       |                        |                        |          |       |
| Dieldrin                              |                   |                        |                  |                 |     |     |          |       |                       |                        |                        |          |       |
| Diesel Oil, Fuel ASTM #2              | E                 | G                      | E                | G               | G   | X   | E        | E     | E                     | E                      | E                      | E        | E     |
| Diester Lubricant MIL-I-7809          |                   | X                      | G                | -               | -   | -   | -        | -     | E                     | E                      | E                      | E        | -     |
| Diester Synthetic Lubricants          |                   | X                      | G                | -               | -   | -   | -        | -     | E                     | E                      | E                      | E        | -     |
| Diethanolamine, 20%                   | E                 |                        |                  |                 |     |     |          |       |                       |                        |                        |          |       |
| Diethyl Ether (Permiabie)             | E                 |                        |                  |                 |     |     |          |       |                       |                        |                        |          |       |
| Diethyl Sebacate                      | E                 |                        |                  |                 |     |     |          |       |                       |                        |                        |          |       |
| Diethylamine (Under 120°F)            | E                 | G                      | G                | -               | G   | X   | -        | E     | E                     | E                      | E                      | E        | E     |
| Diethylene Glycol                     | E                 | E                      | E                | E               | E   | E   | E        | E     | E                     | E                      | E                      | E        | E     |
| Diisobutyl Ketone                     | E                 | X                      | X                | X               | G   | X   | -        | E     | E                     | E                      | E                      | E        | E     |
| Diisobutylene                         | E                 | X                      | G                | -               | E   | X   | -        | -     | G                     | E                      | E                      | G        | E     |
| Diisopropyl Ketone                    |                   | X                      | X                | X               | G   | X   | -        | E     | E                     | E                      | E                      | E        | E     |
| Dimethyk Benzol                       |                   |                        |                  |                 |     |     |          |       |                       |                        |                        |          |       |
| Dimethyl Aniline                      | E                 | X                      | X                | X               | G   | X   | -        | -     | -                     | -                      | -                      | -        | E     |
| Dimethyl Formamide<br>(Under 120°F)   | -                 | X                      | X                | X               | -   | -   | -        | -     | E                     | E                      | E                      | E        | -     |
| Dimethyl Phthalate                    | E                 | X                      | X                | X               | E   | X   | -        | -     | -                     | -                      | G                      | -        | E     |
| Diocetyl Phthalate (DOP)              | E                 | X                      | X                | X               | G   | X   | -        | -     | E                     | E                      | E                      | E        | E     |
| Diocetyl Sebacate                     |                   | X                      | X                | X               | X   | X   | -        | -     | E                     | E                      | E                      | E        | -     |
| Diocetylphospjate                     |                   |                        |                  |                 |     |     |          |       |                       |                        |                        |          |       |
| Dipentene                             | E                 | X                      | X                | -               | G   | -   | -        | -     | E                     | E                      | E                      | E        | E     |
| Dirco Oils                            |                   | -                      | E                | -               | -   | -   | -        | E     | E                     | E                      | E                      | E        | E     |
| Dispersing Oil #10                    |                   | X                      | X                | -               | -   | -   | -        | -     | E                     | E                      | E                      | E        | -     |
| Dow Corning<br>C200,DC510,DC550,DC560 | -                 |                        | E                | -               | -   | -   | -        | E     | -                     | E                      | E                      | E        | E     |

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## Chemical Resistance Tables

The following is a representative list of fluids and manufacturers and a general guideline for the use and compatibility of Continental ContiTech hose and fittings.

### Rating Scale

**E** = Excellent resistance      **X** = Not recommended      **Blank** = No Data  
**G** = Good resistance      **-** = Testing recommended

| Chemical Name                           | Hose              |                        |                  |                 |     |     |          |       | Fittings and Adapters |                        |                        |          |       |
|-----------------------------------------|-------------------|------------------------|------------------|-----------------|-----|-----|----------|-------|-----------------------|------------------------|------------------------|----------|-------|
|                                         | PTFE<br>(Teflon®) | CR<br>(Polychloropene) | NBR<br>(Nitrile) | Nitrile/<br>PVC | CPE | CSM | Urethane | Nylon | Carbon<br>Steel       | Stainless<br>Steel 304 | Stainless<br>Steel 316 | Aluminum | Brass |
| Dow HD 50-4                             |                   |                        |                  |                 |     |     |          |       |                       |                        |                        |          |       |
| Dow Therm 209                           |                   |                        |                  |                 |     |     |          |       |                       |                        |                        |          |       |
| Dowtherm A                              | E                 |                        | X                | X               | G   | X   | X        | -     | E                     | E                      | E                      | E        | E     |
| Dowtherm E                              |                   | X                      | X                | -               | G   | -   | -        | -     | E                     | E                      | E                      | E        | E     |
| DP47, 200 Flow-DOW                      |                   | -                      | E                | -               | -   | -   | -        | E     | E                     | E                      | E                      | E        | E     |
| Duro AW-16, 31                          |                   |                        |                  |                 |     |     |          |       |                       |                        |                        |          |       |
| Duro FR-HD                              |                   | -                      | E                | -               | -   | -   | X        | E     | -                     | -                      | -                      | -        | -     |
| Duro Oils                               |                   | -                      | E                | -               | -   | -   | -        | E     | E                     | E                      | E                      | E        | E     |
| Elco 28-EP, Lubricant                   |                   | X                      | E                | -               | -   | -   | -        | -     | E                     | E                      | E                      | E        | -     |
| Enamels                                 | -E                | -                      | -                | -               | -   | -   | E        | -     | -                     | -                      | -                      | E        |       |
| Energol HL 68                           |                   | -                      | E                | -               | -   | -   | -        | -     | E                     | E                      | E                      | E        | E     |
| Energol HLPC 68                         |                   | -                      | E                | -               | -   | -   | -        | -     | E                     | E                      | E                      | E        | E     |
| EP Hydraulic Oils, Chevron              |                   | -                      | E                | -               | -   | -   | -        | -     | E                     | E                      | E                      | E        | E     |
| Epichlorohydrin<br>(Under 120°F)        |                   | X                      | X                | -               | -   | -   | -        | -     | E                     | G                      | E                      | E        | -     |
| Esam-6 Fluid                            |                   | G                      | -                | -               | -   | -   | -        | -     | -                     | -                      | -                      | -        | -     |
| Ethanoic Acid                           | E                 |                        |                  |                 |     |     |          |       |                       |                        |                        |          |       |
| Ethanol                                 | E                 | E                      | E                | -               | E   | -   | X        | E     | -                     | -                      | -                      | -        | -     |
| Ethanolamine,<br>Aminoethanol           | E                 | G                      | G                | -               | E   | X   | X        | E     | E                     | E                      | E                      | E        | E     |
| Ethers (Under 120°F)                    | E                 | X                      | G                | X               | E   | G   | G        | E     | E                     | E                      | E                      | E        | E     |
| Ethyl Acetate                           | E                 | X                      | X                | X               | G   | X   | G        | E     | E                     | E                      | E                      | G        | G     |
| Ethyl Acetoacetate                      | E                 | X                      | X                | X               | E   | X   | X        | -     | E                     | E                      | E                      | E        | E     |
| Ethyl Acrylate                          | E                 | X                      | X                | X               | G   | X   | X        | -     | E                     | E                      | E                      | E        | -     |
| Ethyl Alcohol                           | E                 |                        |                  |                 |     |     |          |       |                       |                        |                        |          |       |
| Ethyl Amine, Monoethylamine             | E                 | X                      | X                | X               | E   | X   | X        | -     | G                     | E                      | E                      | G        | E     |
| Ethyl Benzene                           | E                 | X                      | X                | X               | G   | X   | E        | -     | E                     | E                      | E                      | E        | E     |
| Ethyl Bromide, Di                       | E                 | X                      | X                | X               | G   | X   | -        | -     | E                     | E                      | E                      | E        | E     |
| Ethyl Butyrate                          | E                 | X                      | X                | X               | -   | -   | -        | -     | -                     | E                      | E                      | E        | -     |
| Ethyl Cellulose                         | E                 | -                      | -                | -               | E   | -   | -        | -     | E                     | E                      | E                      | -        | E     |
| Ethyl Chloride                          | E                 | X                      | X                | X               | -   | X   | X        | -     | G                     | E                      | E                      | E        | G     |
| Ethyl Chloride, Dry                     | E                 | E                      | X                | -               | -   | -   | X        | E     | E                     | E                      | E                      | E        | -     |
| Ethyl Chloride, Wet                     | E                 | G                      | X                | -               | -   | -   | -        | E     | -                     | E                      | E                      | E        | E     |
| Ethyl Mercaptan                         | E                 | X                      | X                | X               | -   | X   | X        | -     | G                     | G                      | G                      | G        | -     |
| Ethyl Oxalate                           |                   | X                      | X                | -               | E   | -   | E        | -     | -                     | -                      | -                      | -        | -     |
| Ethyl Pentachlorobenzene                | E                 | -                      | X                | -               | X   | -   | E        | -     | -                     | -                      | -                      | -        | -     |
| Ethyl Silicate ( to 70°F)               | E                 | E                      | E                | E               | E   | -   | E        | -     | E                     | E                      | E                      | G        | E     |
| Ethylene Chlorohydrin,<br>(Under 100°F) | E                 | X                      | X                | X               | -   | -   | X        | X     | E                     | E                      | G                      | X        | -     |

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# Chemical Resistance Tables

The following is a representative list of fluids and manufacturers and a general guideline for the use and compatibility of Continental ContiTech hose and fittings.

## Rating Scale

E = Excellent resistance      X = Not recommended      Blank = No Data  
G = Good resistance      - = Testing recommended

|                                            | Hose              |                        |                  |                 |     |     |          |       | Fittings and Adapters |                        |                        |          |       |
|--------------------------------------------|-------------------|------------------------|------------------|-----------------|-----|-----|----------|-------|-----------------------|------------------------|------------------------|----------|-------|
| Chemical Name                              | PTFE<br>(Teflon®) | CR<br>(Polychloropene) | NBR<br>(Nitrile) | Nitrile/<br>PVC | CPE | CSM | Urethane | Nylon | Carbon<br>Steel       | Stainless<br>Steel 304 | Stainless<br>Steel 316 | Aluminum | Brass |
| Ethylene Diamine<br>(Under 100°F)          | E                 | G                      | G                | G               | E   | X   | X        | -     | E                     | E                      | E                      | X        | E     |
| Ethylene Dichloride<br>(Permeable)         | E                 | X                      | X                | -               | G   | -   | E        | E     | -                     | E                      | E                      | X        | -     |
| Ethylene Glycol                            | E                 | E                      | E                | E               | E   | E   | E        | E     | G                     | E                      | E                      | E        | E     |
| Ethylene Glycol, Ethyl Ether               | E                 |                        |                  |                 |     |     |          |       |                       |                        |                        |          |       |
| Ethylene Oxide                             | E                 |                        |                  |                 |     |     |          |       |                       |                        |                        |          |       |
| Exxon Univolt 60, N61                      |                   |                        |                  |                 |     |     |          |       |                       |                        |                        |          |       |
| Factovis 52                                |                   | -                      | E                | -               | -   | -   | -        | -     | E                     | E                      | E                      | E        | E     |
| Fatty Acids                                | E                 | G                      | G                | G               | G   | X   | E        | E     | X                     | G                      | E                      | E        | -     |
| Ferric Chloride                            | E                 | -                      | -                | -               | E   | G   | -        | -     | X                     | X                      | X                      | X        | X     |
| Ferric Chloride, 1%                        |                   | E                      | E                | -               | -   | -   | -        | E     | X                     | G                      | G                      | X        | X     |
| Ferric Chloride, 1% boiling                |                   | -                      | G                | -               | -   | -   | -        | E     | X                     | X                      | X                      | X        | X     |
| Ferric Chloride, 10%                       |                   | G                      | E                | -               | -   | -   | -        | E     | X                     | X                      | X                      | X        | X     |
| Ferric Chloride, 5% Agitated<br>or Aerated |                   | G                      | G                | -               | -   | -   | -        | E     | X                     | X                      | X                      | X        | X     |
| Ferric Chloride, 5% Still                  |                   | G                      | E                | -               | -   | -   | -        | E     | X                     | X                      | X                      | X        | X     |
| Ferric Sulfate                             | E                 | G                      | G                | G               | E   | G   | -        | E     | X                     | G                      | G                      | X        | X     |
| Ferrous Sulfate, Saturated                 | E                 | E                      | -                | -               | -   | -   | -        | E     | -                     | G                      | G                      | X        | -     |
| Ferrous Chloride                           | E                 | E                      | E                | -               | E   | G   | -        | E     | X                     | X                      | G                      | X        | X     |
| Ferrous Nitrate                            | E                 | G                      | G                | G               | -   | G   | -        | -     | -                     | E                      | E                      | -        | -     |
| Ferrous Salt Solutions                     | E                 |                        |                  |                 |     |     |          |       |                       |                        |                        |          |       |
| Ferrous Sulfate, 10%                       | E                 | E                      | E                | -               | -   | -   | -        | E     | X                     | G                      | G                      | X        | -     |
| Ferrous Sulfate, Copper Gas                | E                 | G                      | G                | G               | E   | G   | -        | -     | X                     | E                      | E                      | E        | G     |
| Fire Resistant Hydraulic<br>Fluid, Texaco  |                   | -                      | E                | -               | -   | -   | -        | -     | E                     | E                      | E                      | E        | E     |
| Fire Safe, 225, 211                        |                   |                        |                  |                 |     |     |          |       |                       |                        |                        |          |       |
| Fire Safe,<br>1090E,1150,1220,1300E,155    |                   |                        |                  |                 |     |     |          |       |                       |                        |                        |          |       |
| Firtec 290, MF                             |                   | -                      | -                | -               | -   | -   | -        | -     | -                     | -                      | -                      | -        | -     |
| Fixing Solution, Photo                     |                   | G                      | -                | -               | -   | G   | -        | -     | -                     | E                      | E                      | -        | -     |
| Flactid Acid                               |                   |                        |                  |                 |     |     |          |       |                       |                        |                        |          |       |
| Fluoboric Acid                             | E                 | E                      | E                | -               | E   | -   | -        | -     | E                     | -                      | E                      | X        | -     |
| Fluoboric Acid, 65%                        | E                 | G                      | -                | -               | E   | G   | X        | -     | -                     | E                      | E                      | -        | -     |
| Fluorine Gas, Dry or Wet                   | G                 |                        |                  |                 |     |     |          |       |                       |                        |                        |          |       |
| Fluosilic Acid                             |                   | G                      | E                | -               | -   | -   | -        | -     | X                     | X                      | X                      | X        | E     |
| Fluosilic Acid, 50%                        |                   | G                      | X                | X               | E   | G   | X        | X     | -                     | -                      | -                      | E        | -     |
| Formaldehyde                               | E                 | E                      | X                | -               | E   | -   | -        | G     | E                     | E                      | E                      | E        | X     |
| Formaldehyde, 37%                          |                   | G                      | -G               | -               | E   | G   | -G       | -     | -                     | E                      | E                      | E        | E     |
| Formaldehyde, Hot                          |                   | -                      | -                | -               | -   | -   | -        | E     | X                     | G                      | E                      | G        | E     |

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## Chemical Resistance Tables

The following is a representative list of fluids and manufacturers and a general guideline for the use and compatibility of Continental ContiTech hose and fittings.

### Rating Scale

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**G** = Good resistance      **-** = Testing recommended

| Chemical Name                               | Hose              |                        |                     |                 |     |     |          |       | Fittings and Adapters |                        |                        |          |       |
|---------------------------------------------|-------------------|------------------------|---------------------|-----------------|-----|-----|----------|-------|-----------------------|------------------------|------------------------|----------|-------|
|                                             | PTFE<br>(Teflon®) | CR<br>(Polychloropene) | NBR<br>(Nitrile)    | Nitrile/<br>PVC | CPE | CSM | Urethane | Nylon | Carbon<br>Steel       | Stainless<br>Steel 304 | Stainless<br>Steel 316 | Aluminum | Brass |
| Formic Acid (Under 120°F)                   | E                 | E                      | X                   | E               | E   | G   | X        | G     | X                     | G                      | E                      | E        | G     |
| Formic Acid, Dilute Hot                     |                   | E                      | X                   | -               | -   | -   | -        | X     | X                     | G                      | E                      | G        | X     |
| Freon 113 (Permiabie)                       |                   |                        | Use Freon Hose Only |                 |     |     |          |       |                       |                        |                        |          |       |
| Freon 114 (Permiabie)                       |                   |                        | Use Freon Hose Only |                 |     |     |          |       |                       |                        |                        |          |       |
| Freon 12 (Permiabie)                        | G                 |                        | Use Freon Hose Only |                 |     |     |          |       |                       |                        |                        |          |       |
| Freon 22 (Permiabie)                        | G                 |                        | Use Freon Hose Only |                 |     |     |          |       |                       |                        |                        |          |       |
| Freon 502 (Permiabie)                       |                   |                        | Use Freon Hose Only |                 |     |     |          |       |                       |                        |                        |          |       |
| Fuel Oil                                    | E                 | G                      | E                   | E               | E   | X   | G        | E     | G                     | G                      | G                      | E        | G     |
| Fumaric Acid                                | E                 | G                      | X                   | -               | -   | -   | X        | -     | E                     | E                      | E                      | -        | -     |
| Furan, Furfuran                             | E                 | X                      | X                   | X               | E   | -   | -        | -     | E                     | E                      | E                      | E        | E     |
| Furfural                                    | E                 |                        |                     |                 |     |     |          |       |                       |                        |                        |          |       |
| Furfural Alcohol, Ant Oil                   | E                 | G                      | X                   | X               | E   | G   | -        | E     | G                     | E                      | E                      | E        | E     |
| Fusel oil, Grain Oil                        |                   | X                      | X                   | -               | -   | -   | -        | -     | -                     | -                      | -                      | -        | -     |
| Fyran Resin                                 |                   | X                      | X                   | -               | -   | -   | -        | -     | -                     | -                      | E                      | -        | -     |
| Fyre Safe W/O                               |                   |                        |                     |                 |     |     |          |       |                       |                        |                        |          |       |
| Fyrguard 150, 200                           |                   | -                      | E                   | -               | -   | -   | -        | -     | E                     | E                      | E                      | E        | E     |
| Fyrquel 1000, 15R&O,<br>220R&O, 550R&O      |                   | X                      | X                   | -               | -   | -   | -        | -     | E                     | -                      | -                      | E        | -     |
| Fyrquel A60, 90, 100, 150,<br>220, 300, 500 |                   | X                      | X                   | -               | -   | -   | -        | -     | E                     | -                      | -                      | E        | -     |
| Gallic Acid                                 | E                 | X                      | X                   | X               | E   | -   | X        | G     | X                     | E                      | E                      | X        | -     |
| Gas Oil                                     | E                 |                        |                     |                 |     |     |          |       |                       |                        |                        |          |       |
| Gas, Natural                                | E                 | -                      | -                   | -               | X   | -   | -        | -     | E                     | E                      | E                      | -        | G     |
| Gasohol ( to 200°F)                         | E                 | G                      | X                   | X               | -   | X   | -        | -     | G                     | E                      | E                      | E        | E     |
| Gasoline Unleaded,<br>Under 50% Aromatics   | E                 | X                      | X                   | X               | -   | X   | X        | -     | G                     | E                      | E                      | E        | E     |
| Gasoline, Aviation                          | E                 | X                      | -                   | G               | -   | -   | -        | -     | -                     | E                      | E                      | E        | E     |
| Gasoline, Meter                             |                   | X                      | X                   | -               | -   | -   | -        | X     | E                     | E                      | E                      | E        | X     |
| Gasoline, Premium                           | E                 | G                      | X                   | X               | -   | X   | X        | -     | G                     | E                      | E                      | E        | E     |
| Gasoline, Sour                              | E                 | X                      | X                   | -               | -   | -   | -        | -     | G                     | E                      | E                      | X        | -     |
| Gasoline, Standard                          | E                 | E                      | X                   | X               | G   | X   | X        | -     | G                     | E                      | E                      | E        | E     |
| Gelatin                                     | E                 | E                      | E                   | -               | -   | -   | -        | E     | E                     | E                      | E                      | E        | X     |
| Glauber's Salt                              | -                 | G                      | X                   | -               | -   | -   | -        | -     | E                     | E                      | E                      | -        | -     |
| Glucose                                     | E                 | E                      | E                   | E               | -   | E   | E        | E     | E                     | E                      | E                      | E        | E     |
| Glue (Under 120°F)                          | E                 | G                      | G                   | G               | -   | E   | E        | G     | G                     | E                      | E                      | G        | X     |
| Glycerine, Glycol                           | E                 | E                      | E                   | E               | E   | E   | E        | E     | G                     | E                      | E                      | E        | G     |
| Glycol FR Fluids                            | E                 | -                      | E                   | -               | -   | -   | -        | -     | E                     | E                      | E                      | E        | E     |
| Glysantine                                  |                   |                        |                     |                 |     |     |          |       |                       |                        |                        |          |       |
| Grease, Ester Base                          |                   | -                      | -                   | -               | -   | -   | -        | E     | E                     | E                      | E                      | E        | E     |

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|                                                              | Hose              |                        |                  |                 |     |     |          |       | Fittings and Adapters |                        |                        |          |       |
|--------------------------------------------------------------|-------------------|------------------------|------------------|-----------------|-----|-----|----------|-------|-----------------------|------------------------|------------------------|----------|-------|
| Chemical Name                                                | PTFE<br>(Teflon®) | CR<br>(Polychloropene) | NBR<br>(Nitrile) | Nitrile/<br>PVC | CPE | CSM | Urethane | Nylon | Carbon<br>Steel       | Stainless<br>Steel 304 | Stainless<br>Steel 316 | Aluminum | Brass |
| Grease, Petroleum Base                                       | E                 | G                      | E                | G               | -   | G   | E        | E     | E                     | E                      | E                      | E        | E     |
| Grease, Silicone Base                                        |                   | -                      | -                | -               | -   | -   | -        | E     | E                     | E                      | E                      | E        | E     |
| Green Sulfate Liquor,<br>Under 120°F                         | E                 | G                      | G                | E               | G   | -   | -        | -     | E                     | E                      | E                      | -        | -     |
| Gulf FR Fluid G-200 (to 70°F)                                | E                 | -                      | E                | -               | -   | -   | X        | -     | E                     | E                      | E                      | E        | E     |
| Gulf FR Fluid P37, P40, P43,<br>P45, P47 (to 70°F)           | E                 | -                      | X                | -               | -   | -   | X        | -     | -                     | -                      | -                      | -        | -     |
| Gycols (Under 120°F)                                         |                   | E                      | E                | E               | E   | E   | E        | E     | G                     | E                      | E                      | E        | E     |
| H 515 (NATO)                                                 |                   |                        |                  |                 |     |     |          |       |                       |                        |                        |          |       |
| Halon                                                        |                   |                        |                  |                 |     |     |          |       |                       |                        |                        |          |       |
| Halowax Oil                                                  |                   | X                      | X                | X               | -   | X   | -        | -     | -                     | -                      | -                      | -        | -     |
| Helium                                                       | E                 |                        |                  |                 |     |     |          |       |                       |                        |                        |          |       |
| Hephtachlor, In Petroleum                                    |                   | -                      | G                | X               | -   | -   | -        | -     | -                     | -                      | -                      | -        | -     |
| Heptane (Under 100°F)                                        | E                 | G                      | E                | G               | E   | X   | E        | E     | E                     | E                      | E                      | E        | E     |
| Hexane (Under 120°F)                                         | E                 | G                      | E                | G               | G   | E   | E        | E     | E                     | E                      | E                      | E        | E     |
| Hexene                                                       | E                 | G                      | G                | -               | E   | -   | -        | -     | E                     | E                      | E                      | -        | E     |
| HF 20                                                        |                   |                        |                  |                 |     |     |          |       |                       |                        |                        |          |       |
| High Viscosity Lubricant, H2                                 |                   | G                      | E                | -               | -   | -   | -        | -     | -                     | -                      | -                      | -        | -     |
| High Viscosity Lubricant, U4                                 |                   | G                      | E                | -               | -   | -   | -        | -     | -                     | -                      | -                      | -        | -     |
| Hilo MS #1                                                   |                   | X                      | X                | -               | -   | -   | -        | -     | -                     | -                      | -                      | -        | -     |
| Houghto-Safe 1010, 1055,<br>(Phos, Ester) (to 70°F)          | E                 | X                      | X                | X               | E   | X   | -        | -     | E                     | E                      | E                      | E        | E     |
| Houghto-Safe 1115, 1120,<br>1130, (Phos, Ester) (to 70°F)    | E                 | X                      | X                | X               | E   | X   | -        | -     | E                     | E                      | E                      | E        | E     |
| Houghto-Safe 271, 416, 520,<br>616, (Water/Glycol) (to 70°F) | E                 | G                      | E                | E               | -   | -   | G        | -     | E                     | E                      | E                      | E        | E     |
| Hul-E-Mul                                                    |                   |                        |                  |                 |     |     |          |       |                       |                        |                        |          |       |
| Hy-Chock Oil                                                 |                   | -                      | G                | -               | -   | -   | -        | E     | E                     | E                      | E                      | -        | -     |
| Hydrafluid 760,<br>Texaco & Houghton                         |                   | -                      | E                | -               | -   | -   | -        | E     | E                     | E                      | E                      | E        | -     |
| Hydrafluid AZR&O, A, B, AA, C                                |                   | -                      | E                | -               | -   | -   | -        | E     | E                     | E                      | E                      | -        | -     |
| Hydrasol A                                                   |                   | -                      | E                | -               | -   | -   | -        | E     | E                     | E                      | E                      | -        | -     |
| Hydraulic Fluid HF-18, HF-20                                 |                   | -                      | E                | -               | -   | -   | G        | E     | E                     | E                      | E                      | E        | E     |
| Hydraulic Fluid HF-31                                        |                   | -                      | -                | -               | -   | -   | -        | E     | E                     | E                      | E                      | E        | E     |
| Hydraulic Fluid,<br>Phosphate Ester Base                     |                   | X                      | X                | X               | E   |     | X        | E     | E                     | E                      | E                      | -        | -     |
| Hydraulic Fluid,<br>Std Petroleum Oils                       |                   | G                      | E                | G               | E   | G   | G        | E     | E                     | E                      | E                      | E        | E     |

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## Chemical Resistance Tables

The following is a representative list of fluids and manufacturers and a general guideline for the use and compatibility of Continental ContiTech hose and fittings.

### Rating Scale

**E** = Excellent resistance      **X** = Not recommended      **Blank** = No Data  
**G** = Good resistance      **-** = Testing recommended

| Chemical Name                   | Hose              |                         |                  |                 |     |     |          |       | Fittings and Adapters |                        |                        |          |       |
|---------------------------------|-------------------|-------------------------|------------------|-----------------|-----|-----|----------|-------|-----------------------|------------------------|------------------------|----------|-------|
|                                 | PTFE<br>(Teflon®) | CR<br>(Polychloroprene) | NBR<br>(Nitrile) | Nitrile/<br>PVC | CPE | CSM | Urethane | Nylon | Carbon<br>Steel       | Stainless<br>Steel 304 | Stainless<br>Steel 316 | Aluminum | Brass |
| Hydraulic Fluid,                |                   |                         |                  |                 |     |     |          |       |                       |                        |                        |          |       |
| Water Glycol Base               |                   | E                       | E                | E               | -   | -   | E        | E     | E                     | E                      | E                      | E        | E     |
| Hydraulic Oils, Petroleum       | E                 | G                       | E                | -               | -   | -   | -        | E     | E                     | E                      | E                      | E        | E     |
| Hydraulic Oils, Synthetic       | E                 | -                       | X                | -               | -   | -   | -        | -     | E                     | E                      | E                      | E        | E     |
| Hydraulic Safety Fluid          |                   |                         |                  |                 |     |     |          |       |                       |                        |                        |          |       |
| 200&300 Texaco                  |                   | -                       | E                | -               | -   | -   | E        | -     | E                     | E                      | E                      | E        | E     |
| Hydrazine                       | E                 | X                       | X                | X               | -   | X   | -        | -     | X                     | E                      | E                      | E        | -     |
| Hydrobromic Acid                |                   | X                       | X                | -               | -   | -   | -        | -     | X                     | X                      | X                      | X        | X     |
| Hydrobromic Acid, 37%           |                   | X                       | X                | X               | E   | G   | X        | X     | X                     | X                      | X                      | X        | X     |
| Hydrochloric Acid ( Permiab)    | E                 | G                       | X                | -               | -   | -   | -        | X     | X                     | X                      | X                      | X        | X     |
| Hydrochloric Acid ,15%          | E                 | X                       | X                | X               | E   | G   | X        | X     | X                     | X                      | X                      | X        | X     |
| Hydrochloric Acid Concentrated  |                   | X                       | X                | -               | -   | -   | -        | X     | X                     | X                      | X                      | X        | X     |
| Hydrochloric Acid, 3 Molar      |                   | G                       | X                | -               | -   | -   | -        | X     | -                     | -                      | -                      | -        | X     |
| Hydrochloric Acid, 37%          | E                 | X                       | -                | X               | E   | G   | X        | X     | X                     | X                      | X                      | X        | X     |
| Hydrocyanic Acid, 20%           |                   |                         |                  |                 |     |     |          |       |                       |                        |                        |          |       |
| (Under 100°F)                   |                   | X                       | X                | X               | -   | G   | X        | E     | X                     | E                      | E                      | E        | X     |
| Hydrocyanic Acid, 98%           | E                 | -                       | -                | -               | -   | -   | -        | -     | -                     | -                      | -                      | -        | -     |
| Hydro-Drive Oil                 |                   | -                       | E                | -               | -   | -   | G        | -     | -                     | -                      | -                      | -        | -     |
| Hydro-Drive Oil Houghton        |                   | -                       | E                | -               | -   | -   | G        | -     | -                     | -                      | -                      | -        | -     |
| Hydrofluoric Acid, 10%          |                   | X                       | X                | X               | E   | E   | X        | X     | X                     | X                      | X                      | X        | X     |
| Hydrofluoric Acid, 20%          |                   |                         |                  |                 |     |     |          |       |                       |                        |                        |          |       |
| (Under 120°F)                   |                   | X                       | X                | X               | E   | G   | X        | X     | X                     | X                      | X                      | X        | X     |
| Hydrofluoric Acid, 48%          |                   |                         |                  |                 |     |     |          |       |                       |                        |                        |          |       |
| (Under 120°F)                   |                   | X                       | X                | X               | E   | G   | X        | X     | X                     | X                      | X                      | X        | X     |
| Hydrofluoric Acid, 70%          |                   |                         |                  |                 |     |     |          |       |                       |                        |                        |          |       |
| (Permiab)                       | E                 | -                       | X                | X               | -   | G   | X        | X     | X                     | X                      | X                      | X        | X     |
| Hydrofluoric Acid, Anhydrous    |                   | -                       | X                | -               | -   | -   | -        | -     | -                     | -                      | -                      | -        | -     |
| Hydrofluoric Acid, Concentrated | E                 | X                       | X                | X               | E   | G   | X        | X     | X                     | X                      | X                      | X        | X     |
| Hydrofluorosilic Acid           | E                 |                         |                  |                 |     |     |          |       |                       |                        |                        |          |       |
| Hydrogen ( Permiab )            | E                 | E                       | E                | -               | E   | -   | -        | -     | X                     | X                      | X                      | E        | -     |
| Hydrogen Chloride Gas           |                   |                         |                  |                 |     |     |          |       |                       |                        |                        |          |       |
| (Permiab )                      | E                 | -                       | -                | -               | E   | -   | -        | -     | -                     | E                      | E                      | -        | -     |
| Hydrogen Cyanide Gas            |                   |                         |                  |                 |     |     |          |       |                       |                        |                        |          |       |
| (Permiab - to 300°F)            | E                 | -                       | -                | -               | -   | -   | -        | -     | -                     | -                      | -                      | E        | -     |
| Hydrogen Fluoride               |                   |                         |                  |                 |     |     |          |       |                       |                        |                        |          |       |
| (Under 100°F)(Permiab)          | E                 | -                       | X                | -               | -   | -   | -        | -     | G                     | G                      | E                      | -        | -     |
| Hydrogen Perhydrol              |                   |                         |                  |                 |     |     |          |       |                       |                        |                        |          |       |
| Hydrogen Peroxide, 10%          | E                 | X                       | E                | X               | E   | G   | X        | X     | X                     | G                      | E                      | E        | X     |
| Hydrogen Peroxide, 30%          | E                 | X                       | G                | X               | E   | G   | X        | X     | X                     | G                      | E                      | E        | X     |
| Hydrogen Peroxide, 70%          | E                 | X                       | X                | X               | E   | -   | X        | X     | X                     | G                      | E                      | E        | X     |

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Chemical Resistance Tables

The following is a representative list of fluids and manufacturers and a general guideline for the use and compatibility of Continental ContiTech hose and fittings.

Rating Scale

E = Excellent resistance      X = Not recommended      Blank = No Data  
G = Good resistance      - = Testing recommended

| Chemical Name                               | Hose              |                        |                  |                 |     |     |          |       | Fittings and Adapters |                        |                        |          |       |
|---------------------------------------------|-------------------|------------------------|------------------|-----------------|-----|-----|----------|-------|-----------------------|------------------------|------------------------|----------|-------|
|                                             | PTFE<br>(Teflon®) | CR<br>(Polychloropene) | NBR<br>(Nitrile) | Nitrile/<br>PVC | CPE | CSM | Urethane | Nylon | Carbon<br>Steel       | Stainless<br>Steel 304 | Stainless<br>Steel 316 | Aluminum | Brass |
| Hydrogen Peroxide, 90%                      |                   | X                      | X                | -               | -   | -   | -        | -     | X                     | G                      | E                      | -        | X     |
| Hydrogen Peroxide, Dilute                   |                   | E                      | G                | -               | -   | -   | -        | E     | E                     | -                      | E                      | -        | X     |
| Hydrogen Sulfide,<br>Aqueous Solution       |                   | G                      | X                | -               | -   | -   | -        | -     | X                     | -                      | -                      | X        | -     |
| Hydrogen Sulfide, Dry, Cold                 |                   | E                      | E                | -               | -   | -   | -        | E     | -                     | -                      | -                      | G        | X     |
| Hydrogen Sulfide, Dry, Hot                  |                   | G                      | X                | -               | -   | -   | -        | E     | E                     | X                      | G                      | G        | X     |
| Hydrogen Sulfide, Gas                       | E                 | -                      | -                | -               | -   | -   | -        | -     | -                     | -                      | -                      | -        | -     |
| Hydrogen Sulfide, Wet, Cold<br>(Permiabie ) | E                 | E                      | X                | -               | -   | -   | -        | E     | G                     | G                      | G                      | G        | X     |
| Hydrogen Sulfide, Wet, Hot                  | E                 | G                      | X                | -               | -   | -   | -        | E     | G                     | G                      | E                      | -        | X     |
| Hydrogluosilic Acid                         |                   |                        |                  |                 |     |     |          |       |                       |                        |                        |          |       |
| Hydrolube, Water Glycol                     | E                 | G                      | E                | -               | -   | -   | X        | -     | X                     | -                      | E                      | -        | -     |
| Hydrolubric Oil, Houghton                   |                   | -                      | G                | -               | -   | -   | G        | E     | -                     | -                      | -                      | -        | -     |
| Hydroquinone                                | E                 | X                      | -                | -               | -   | X   | -        | -     | -                     | E                      | E                      | G        | -     |
| Hydroxy Quinoline                           |                   |                        |                  |                 |     |     |          |       |                       |                        |                        |          |       |
| Hykil N°6 (33%), Water (67%)                | E                 | -                      | G                | -               | -   | -   | -        | -     | E                     | -                      | -                      | -        | -     |
| Hypochlorous Acid,<br>(Under 120°F)         |                   | X                      | X                | X               | -   | G   | -        | E     | G                     | G                      | G                      | X        | -     |
| Hypoid Grease (Parapoid 10-C)               |                   | -                      | E                | -               | -   | -   | -        | -     | -                     | -                      | -                      | -        | -     |
| Imol, Imol S150, S220,<br>S300, S500        |                   | -                      | E                | -               | -   | -   | G        | E     | E                     | E                      | E                      | E        | -     |
| Industron 53                                |                   | -                      | E                | -               | -   | -   | -        | -     | -                     | -                      | -                      | -        | -     |
| Ink (Printers)                              | E                 | E                      | E                | -               | -   | -   | -        | E     | G                     | G                      | E                      | -        | G     |
| Ink Oil                                     | E                 | -                      | G                | -               | -   | -   | -        | -     | E                     | E                      | E                      | -        | E     |
| Insulating Oil (Transformer)                | E                 | G                      | E                | G               | -   | X   | -        | -     | E                     | E                      | E                      | -        | E     |
| Iodine (Under 100°F)<br>(Gas- Permiabie )   | E                 | X                      | X                | -               | E   | G   | X        | E     | G                     | G                      | G                      | X        | -     |
| Iodine Pentafluoride                        |                   | X                      | X                | -               | -   | -   | -        | -     | X                     | G                      | G                      | X        | -     |
| Iodine, in Alcohol                          | E                 | G                      | -                | -               | -   | -   | X        | -     | -                     | -                      | -                      | X        | -     |
| Irus Fluid 902                              |                   | -                      | E                | -               | -   | -   | E        | E     | E                     | E                      | E                      | E        | E     |
| Irus Fluid 905                              |                   | -                      | E                | -               | -   | -   | E        | E     | E                     | E                      | E                      | E        | E     |
| Isobutane                                   |                   | X                      | X                | -               | -   | -   | X        | X     | X                     | E                      | E                      | G        | E     |
| Isocyanates (at 70°F)                       |                   |                        |                  |                 |     |     |          |       |                       |                        |                        |          |       |
| Isooctane                                   |                   | E                      | E                | G               | G   | E   | G        | -     | E                     | E                      | E                      | G        | E     |
| Isooctyl Thioglucolate                      | E                 | -                      | -                | -               | -   | -   | -        | -     | -                     | -                      | -                      | -        | -     |
| Isopropyl Acetate                           | E                 | X                      | X                | X               | -   | X   | G        | E     | G                     | G                      | E                      | X        | E     |
| Isopropyl Alcohol<br>(Isoprooanol)          | E                 | G                      | G                | G               | E   | G   | G        | E     | E                     | E                      | E                      | E        | G     |
| Isopropyl Ether                             | E                 |                        |                  |                 |     |     |          |       |                       |                        |                        |          |       |
| Isopropylamine                              |                   |                        |                  |                 |     |     |          |       |                       |                        |                        |          |       |

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### Rating Scale

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**G** = Good resistance      **-** = Testing recommended

| Chemical Name                             | Hose              |                        |                  |                 |     |     |          |       | Fittings and Adapters |                        |                        |          |       |
|-------------------------------------------|-------------------|------------------------|------------------|-----------------|-----|-----|----------|-------|-----------------------|------------------------|------------------------|----------|-------|
|                                           | PTFE<br>(Teflon®) | CR<br>(Polychloropene) | NBR<br>(Nitrile) | Nitrile/<br>PVC | CPE | CSM | Urethane | Nylon | Carbon<br>Steel       | Stainless<br>Steel 304 | Stainless<br>Steel 316 | Aluminum | Brass |
| Jet Fuel JP-3 (Under 100°F)               | E                 | G                      | E                | G               | -   | X   | G        | E     | G                     | E                      | E                      | G        | E     |
| Jet Fuel JP-4                             | E                 | X                      | E                | G               | -   | X   | -        | E     | G                     | E                      | E                      | G        | E     |
| Jet Fuel JP-5                             | E                 | X                      | E                | X               | -   | X   | -        | E     | G                     | E                      | E                      | G        | E     |
| Jet Fuel JP-6                             | E                 | X                      | E                | X               | -   | X   | -        | E     | G                     | E                      | E                      | G        | E     |
| Jet Fuel JP-x (at 70°F)                   | E                 | G                      | E                | X               | -   | X   | -        | E     | G                     | E                      | E                      | G        | E     |
| Kerosene                                  | E                 | X                      | E                | G               | E   | X   | -        | E     | E                     | E                      | E                      | E        | E     |
| Ketchup                                   | E                 | E                      | E                | -               | -   | -   | -        | E     | -                     | E                      | E                      | -        | -     |
| Ketones                                   | E                 | X                      | X                | X               | -   | X   | X        | E     | E                     | E                      | E                      | G        | E     |
| Keystone #87Hx-<br>Grease+A334            |                   | X                      | E                | -               | -   | -   | -        | -     | E                     | E                      | E                      | E        | -     |
| Lacquer Solvents                          | E                 | X                      | X                | X               | -   | X   | G        | E     | X                     | G                      | E                      | E        | E     |
| Lacquers                                  | E                 | X                      | X                | X               | -   | X   | -        | E     | X                     | X                      | E                      | E        | E     |
| Lactic Acid                               | E                 | E                      | X                | X               | -   | E   | X        | -     | X                     | G                      | E                      | X        | G     |
| Lactic Acid 10% Boiling                   | E                 | X                      | X                | -               | -   | -   | -        | -     | X                     | G                      | E                      | X        | X     |
| Lactic Acid 5%                            | E                 | G                      | E                | -               | -   | -   | -        | E     | X                     | G                      | E                      | E        | X     |
| Lactic Acid 5% Boiling                    | E                 | X                      | X                | -               | -   | -   | -        | -     | X                     | G                      | E                      | G        | X     |
| Lactol                                    |                   | G                      | G                | G               | -   | -   | -        | -     | E                     | E                      | E                      | E        | E     |
| Lasso (Ag Spray)                          |                   | -                      | -                | -               | -   | -   | -        | E     | -                     | E                      | E                      | -        | -     |
| Latex                                     | E                 | E                      | E                | -               | -   | -   | -        | E     | E                     | E                      | E                      | E        | E     |
| Lead Acetate                              | E                 | X                      | X                | -               | E   | X   | -        | -     | G                     | G                      | G                      | X        | E     |
| Lead Arsenate (to 70°F)                   | E                 | G                      | G                | -               | -   | G   | E        | -     | E                     | E                      | E                      | -        | -     |
| Lead Nitrate (to 300°F)                   | E                 | G                      | G                | -               | -   | -   | -        | -     | E                     | G                      | G                      | -        | -     |
| Lead Sulfate (to 300°F)                   | E                 | E                      | E                | -               | E   | E   | E        | -     | E                     | E                      | E                      | -        | -     |
| Lead Sulphamate (to 125°F)                | E                 | G                      | G                | -               | -   | G   | -        | -     | -                     | -                      | -                      | -        | -     |
| Lead Tetramethyl                          | E                 | X                      | G                | X               | -   | X   | E        | -     | -                     | -                      | -                      | -        | -     |
| Lead, Tetraethyl (Under 100°F)            | E                 | X                      | G                | X               | -   | X   | -        | -     | -                     | -                      | -                      | -        | -     |
| Lecithin                                  | E                 | G                      | X                | -               | -   | -   | -        | -     | -                     | E                      | E                      | -        | -     |
| Ligroin (Petroleum Ether,<br>Under 120°F) | E                 | X                      | E                | -               | -   | X   | -        | -     | G                     | E                      | E                      | X        | -     |
| Lime (Chlorinated Free<br>Chlorine 20%)   |                   | -                      | E                | -               | E   | -   | E        | -     | -                     | -                      | G                      | -        | -     |
| Lime Bleach (Under 100°F)                 | -                 | X                      | G                | X               | -   | X   | -        | -     | X                     | G                      | E                      | -        | -     |
| Lime Sulphur                              |                   | E                      | X                | -               | -   | -   | -        | E     | G                     | E                      | E                      | X        | X     |
| Lime Sulphur (Under 135°F)                | E                 | E                      | X                | X               | -   | G   | -        | E     | G                     | E                      | E                      | X        | X     |
| Lindane (Ag Spray)                        |                   | -                      | -                | -               | -   | -   | -        | E     | -                     | E                      | E                      | -        | -     |
| Lindol HF (to 200°F)                      | E                 |                        |                  |                 |     |     |          |       |                       |                        |                        |          |       |
| Lindol, Hydraulic Fluid<br>(to 200°F)     | E                 | X                      | X                | -               | -   | -   | -        | -     | E                     | E                      | E                      | E        | -     |
| Linoleic Acid                             | E                 | X                      | G                | X               | -   | -   | -        | -     | X                     | G                      | E                      | E        | -     |

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| Chemical Name              | Hose           |                      |               |              |     |     |          |       | Fittings and Adapters |                     |                     |          |       |
|----------------------------|----------------|----------------------|---------------|--------------|-----|-----|----------|-------|-----------------------|---------------------|---------------------|----------|-------|
|                            | PTFE (Teflon®) | CR (Polychloroprene) | NBR (Nitrile) | Nitrile/ PVC | CPE | CSM | Urethane | Nylon | Carbon Steel          | Stainless Steel 304 | Stainless Steel 316 | Aluminum | Brass |
| Linseed Oil                | E              | X                    | E             | -            | -   | -   | -        | E     | E                     | E                   | E                   | G        | G     |
| Linseed Oil (Boiled)       |                | G                    | G             | E            | E   | E   | E        | -     | G                     | E                   | E                   | E        | G     |
| LPG                        |                |                      |               |              |     |     |          |       |                       |                     |                     |          |       |
| Lubricating Oil            |                |                      |               |              |     |     |          |       |                       |                     |                     |          |       |
| (Diester Under 135°F)      |                | X                    | G             | X            | -   | -   | X        | E     | E                     | E                   | E                   | E        | E     |
| Lubricating Oil            |                |                      |               |              |     |     |          |       |                       |                     |                     |          |       |
| (Petroleum Base)           | E              | G                    | E             | G            | E   | G   | G        | E     | E                     | E                   | E                   | E        | E     |
| Lubricating Oil            |                |                      |               |              |     |     |          |       |                       |                     |                     |          |       |
| (SAE 10, 20, 30, 40, 50)   | E              | G                    | G             | -            | -   | -   | -        | E     | E                     | E                   | E                   | E        | -     |
| Machine Oil (Under 135°F)  | E              | E                    | E             | G            | -   | G   | G        | -     | E                     | E                   | E                   | E        | E     |
| Magnesium Carbonate        | E              | E                    | E             | E            | -   | E   | E        | -     | G                     | G                   | G                   | E        | -     |
| Magnesium Chloride         | E              | E                    | E             | E            | E   | E   | E        | E     | X                     | G                   | E                   | X        | G     |
| Magnesium Hydroxide        | E              | G                    | G             | G            | E   | E   | X        | -     | E                     | E                   | E                   | X        | X     |
| Magnesium Nitrate          | E              | G                    | G             | G            | -   | E   | -        | -     | G                     | G                   | G                   | X        | E     |
| Magnesium Sulfate          | S              | G                    | G             | G            | E   | E   | E        | E     | G                     | G                   | G                   | G        | G     |
| Malation (Ag Spray Dilute) |                | -                    | G             | -            | -   | -   | -        | E     | E                     | E                   | E                   | -        | E     |
| Maleic Acid                | E              | G                    | X             | -            | -   | -   | -        | E     | -                     | E                   | E                   | G        | G     |
| Manganese Salts (to 70°F)  | E              | -                    | E             | E            | -   | E   | -        | -     | -                     | -                   | -                   | -        | -     |
| Maximul                    |                |                      |               |              |     |     |          |       |                       |                     |                     |          |       |
| (Penzoil Hydraulic Fluid)  |                | G                    | E             | G            | -   | -   | -        | -     | E                     | -                   | E                   | -        | -     |
| Mercuric Chloride          | E              | E                    | G             | G            | E   | E   | G        | X     | X                     | G                   | G                   | X        | X     |
| Mercuric Cyanide           | E              | E                    | G             | G            | -   | E   | -        | -     | G                     | G                   | G                   | X        | -     |
| Mercurous Nitrate          |                |                      |               |              |     |     |          |       |                       |                     |                     |          |       |
| (Under 120°F)              | E              | E                    | G             | G            | -   | E   | -        | -     | E                     | E                   | E                   | X        | -     |
| Mercury                    | E              | E                    | G             | G            | E   | E   | G        | E     | E                     | E                   | E                   | X        | X     |
| Mesityl Oxide              | E              | X                    | X             | X            | G   | X   | X        | -     | E                     | E                   | E                   | E        | E     |
| Methane (Gas or Liquid)    | E              | G                    | E             | -            | -   | -   | -        | -     | -                     | E                   | E                   | -        | -     |
| Methanol                   |                |                      |               |              |     |     |          |       |                       |                     |                     |          |       |
| Methoxychlor (Insecticide) |                | -                    | -             | -            | -   | -   | -        | X     | E                     | E                   | E                   | -        | -     |
| Methyl Acetate             | E              | X                    | X             | X            | E   | X   | -        | -     | E                     | E                   | E                   | E        | E     |
| Methyl Acrylate            | E              | X                    | X             | X            | -   | X   | -        | -     | E                     | E                   | E                   | E        | E     |
| Methyl Alcohol, Methanol   | E              |                      |               |              |     |     |          |       |                       |                     |                     |          |       |
| Methyl Amine               |                |                      |               |              |     |     |          |       |                       |                     |                     |          |       |
| (25% Aqueous Solution)     | E              | G                    | X             | -            | -   | -   | -        | -     | E                     | E                   | E                   | E        | -     |
| Methyl Amine (60%)         |                | G                    | G             | -            | -   | -   | -        | G     | E                     | E                   | E                   | E        | G     |
| Methyl Amine (99%)         |                | X                    | X             | -            | -   | -   | -        | -     | E                     | E                   | E                   | E        | X     |
| Methyl Amyl Carbinol       | E              | -                    | -             | -            | E   | -   | -        | -     | E                     | E                   | E                   | -        | -     |
| Methyl Bromide             | E              | X                    | X             | X            | -   | X   | X        | X     | E                     | E                   | E                   | X        | E     |
| Methyl Butyl Ketone (MBK)  | E              | X                    | X             | X            | G   | X   | -        | -     | E                     | E                   | E                   | E        | E     |

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## Chemical Resistance Tables

The following is a representative list of fluids and manufacturers and a general guideline for the use and compatibility of Continental ContiTech hose and fittings.

### Rating Scale

**E** = Excellent resistance      **X** = Not recommended      **Blank** = No Data  
**G** = Good resistance      **-** = Testing recommended

| Chemical Name                           | Hose              |                         |                  |                 |     |     |          |       | Fittings and Adapters |                        |                        |          |       |
|-----------------------------------------|-------------------|-------------------------|------------------|-----------------|-----|-----|----------|-------|-----------------------|------------------------|------------------------|----------|-------|
|                                         | PTFE<br>(Teflon®) | CR<br>(Polychloroprene) | NBR<br>(Nitrile) | Nitrile/<br>PVC | CPE | CSM | Urethane | Nylon | Carbon<br>Steel       | Stainless<br>Steel 304 | Stainless<br>Steel 316 | Aluminum | Brass |
| Methyl Cellusolve<br>(Under 100°F)      | E                 | G                       | X                | -               | E   | X   | -        | -     | G                     | G                      | G                      | G        | E     |
| Methyl Chloride                         |                   | X                       | X                | X               | X   | X   | -        | E     | G                     | E                      | E                      | X        | E     |
| Methyl Ethyl Ketone (MEK)               | E                 | X                       | X                | X               | G   | X   | X        | E     | E                     | E                      | E                      | G        | E     |
| Methyl Formate                          | E                 | G                       | X                | X               | -   | X   | -        | -     | G                     | E                      | E                      | E        | E     |
| Methyl Isobutyl Ketone<br>(MIBK, 100°F) | E                 | X                       | X                | X               | G   | X   | X        | G     | G                     | G                      | G                      | G        | E     |
| Methyl Isopropyl Ketone                 | E                 | X                       | X                | X               | G   | X   | X        | -     | G                     | E                      | E                      | E        | E     |
| Methyl Methacrylate                     | E                 | X                       | X                | X               | G   | G   | -        | -     | G                     | G                      | G                      | -        | -     |
| Methyl Methyl Ketone                    |                   |                         |                  |                 |     |     |          |       |                       |                        |                        |          |       |
| Methyl Salicylate                       | E                 | G                       | G                | G               | -   | -   | -        | -     | E                     | E                      | E                      | E        | E     |
| Methyl Sulfate                          |                   |                         |                  |                 |     |     |          |       |                       |                        |                        |          |       |
| (Dinethyl, Under 100°F)                 | E                 | X                       | X                | X               | -   | X   | E        | -     | -                     | -                      | -                      | -        | -     |
| Methylene Chloride                      | E                 | X                       | X                | X               | X   | X   | -        | G     | G                     | G                      | G                      | X        | E     |
| Methylene Dichloride                    | E                 | X                       | X                | X               | -   | -   | -        | E     | E                     | E                      | E                      | X        | E     |
| Methylhalides                           |                   |                         |                  |                 |     |     |          |       |                       |                        |                        |          |       |
| MIL-F-7083                              |                   |                         |                  |                 |     |     |          |       |                       |                        |                        |          |       |
| MIL-H 5606                              |                   |                         |                  |                 |     |     |          |       |                       |                        |                        |          |       |
| MIL-H-83282                             |                   |                         |                  |                 |     |     |          |       |                       |                        |                        |          |       |
| MIL-L2104 & 2104B                       |                   |                         |                  |                 |     |     |          |       |                       |                        |                        |          |       |
| MIL-L7808                               |                   |                         |                  |                 |     |     |          |       |                       |                        |                        |          |       |
| MIL-O-6083                              |                   |                         |                  |                 |     |     |          |       |                       |                        |                        |          |       |
| Mine Guard FR                           |                   |                         |                  |                 |     |     |          |       |                       |                        |                        |          |       |
| Mineral Oil (Under 120°F)               |                   |                         |                  |                 |     |     |          |       |                       |                        |                        |          |       |
| Mineral Spirit                          |                   | -                       | E                | G               | -   | X   | -        | -     | E                     | E                      | E                      | G        | E     |
| MLO-8220 Hydro                          |                   | E                       | G                | -               | -   | -   | -        | -     | E                     | E                      | E                      | E        | -     |
| MLO-7277 Hydro                          |                   | X                       | X                | -               | -   | -   | -        | -     | E                     | E                      | E                      | E        | -     |
| MLO-7557                                |                   | E                       | X                | -               | -   | -   | -        | -     | E                     | E                      | E                      | E        | -     |
| MLO-8515                                |                   | E                       | G                | -               | -   | -   | -        | E     | E                     | E                      | E                      | E        | -     |
| Mobil DTE                               |                   |                         |                  |                 |     |     |          |       |                       |                        |                        |          |       |
| Mobil HFA                               |                   |                         |                  |                 |     |     |          |       |                       |                        |                        |          |       |
| Mobil Rarus 824, 826, 827               |                   |                         |                  |                 |     |     |          |       |                       |                        |                        |          |       |
| Mobil SHC 600 Series                    |                   |                         |                  |                 |     |     |          |       |                       |                        |                        |          |       |
| Mobil SHC 800 Series                    |                   |                         |                  |                 |     |     |          |       |                       |                        |                        |          |       |
| Mobil Vectra Oil                        |                   |                         |                  |                 |     |     |          |       |                       |                        |                        |          |       |
| Mobile Hydraulic Oils                   |                   | -                       | E                | -               | -   | -   | G        | -     | E                     | E                      | E                      | E        | -     |
| Mobile Therm 603                        |                   | -                       | E                | -               | -   | -   | -        | -     | E                     | E                      | E                      | E        | E     |
| Mobilfluid 423                          |                   |                         |                  |                 |     |     |          |       |                       |                        |                        |          |       |
| Mobilmet S122                           |                   | -                       | E                | -               | -   | -   | G        | -     | -                     | -                      | -                      | -        | -     |

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Chemical Resistance Tables

The following is a representative list of fluids and manufacturers and a general guideline for the use and compatibility of Continental ContiTech hose and fittings.

Rating Scale

E = Excellent resistance      X = Not recommended      Blank = No Data  
G = Good resistance      - = Testing recommended

|                                              | Hose              |                        |                  |                 |     |     |          |       | Fittings and Adapters |                        |                        |          |       |
|----------------------------------------------|-------------------|------------------------|------------------|-----------------|-----|-----|----------|-------|-----------------------|------------------------|------------------------|----------|-------|
| Chemical Name                                | PTFE<br>(Teflon®) | CR<br>(Polychloropene) | NBR<br>(Nitrile) | Nitrile/<br>PVC | CPE | CSM | Urethane | Nylon | Carbon<br>Steel       | Stainless<br>Steel 304 | Stainless<br>Steel 316 | Aluminum | Brass |
| Mobilrama 525                                |                   |                        |                  |                 |     |     |          |       |                       |                        |                        |          |       |
| Molasses (Under 120°F)                       | E                 | G                      | G                | G               | -   | E   | E        | -     | G                     | E                      | E                      | G        | X     |
| Monochlorobenzene<br>(Permiabie)             | E                 | X                      | X                | X               | X   | X   | X        | X-    | E                     | E                      | E                      | X        | E     |
| Monoethanolamine                             | E                 | X                      | G                | -               | E   | X   | -        | -     | E                     | E                      | E                      | G        | E     |
| Morpholine (Pure Additive)                   | E                 |                        |                  |                 |     |     |          |       |                       |                        |                        |          |       |
| Motor Oils (Under 135°F)                     | E                 | G                      | E                | G               | E   | G   | G        | E     | E                     | E                      | E                      | E        | E     |
| Mould Oil                                    | -                 | -                      | -                | -               | -   | -   | -        | -     | E                     | E                      | E                      | -        | -     |
| Muriatic Acid (Permiabie)                    | E                 | X                      | X                | X               | E   | G   | X        | X     | X                     | X                      | X                      | X        | X     |
| Mustard                                      | E                 | E                      | G                | E               | -   | E   | -        | -     | X                     | E                      | E                      | G        | -     |
| NaK                                          |                   |                        |                  |                 |     |     |          |       |                       |                        |                        |          |       |
| Naphtenic Acid                               | E                 |                        |                  |                 |     |     |          |       |                       |                        |                        |          |       |
| Naphtha (Low<br>Aromatic Content)            | E                 | X                      | G                | X               | E   | X   | -        | E     | G                     | E                      | E                      | E        | E     |
| Naphthalene                                  | E                 | X                      | X                | X               | -   | X   | -        | -     | E                     | E                      | E                      | -        | E     |
| Naphthalene (Tar Camphor)                    | E                 | X                      | X                | X               | E   | X   | -        | E     | E                     | E                      | E                      | E        | E     |
| Natural Gas                                  |                   |                        |                  |                 |     |     |          |       |                       |                        |                        |          |       |
| Neon Gas                                     | E                 |                        |                  |                 |     |     |          |       |                       |                        |                        |          |       |
| N-Hexaldehyde                                | E                 | G                      | X                | G               | -   | -   | -        | -     | E                     | E                      | E                      | E        | E     |
| Nickel Acetate                               | E                 | G                      | G                | -               | -   | -   | -        | -     | E                     | G                      | G                      | E        | E     |
| Nickel Chloride                              | E                 | G                      | G                | G               | E   | G   | -        | E     | X                     | G                      | G                      | X        | X     |
| Nickel Nitrate                               | E                 | G                      | G                | G               | E   | G   | -        | E     | G                     | G                      | G                      | X        | -     |
| Nickel Plating Solution                      | -                 |                        | G                | -               | -   | G   | X        | -     | -                     | E                      | E                      | -        | -     |
| Nickel Salts                                 | E                 | G                      | -                | E               | -   | -   | -        | -     | -                     | -                      | -                      | -        | -     |
| Nickel Sulfate                               | E                 |                        |                  |                 |     |     |          |       |                       |                        |                        |          |       |
| Nicotine Salts                               | E                 | -                      | -                | -               | -   | -   | E        | -     | E                     | X                      | G                      | -        | -     |
| Nitric Acid                                  | E                 | X                      | X                | -               | -   | -   | -        | -     | X                     | E                      | E                      | -        | X     |
| Nitric Acid &<br>Hydrochloric Acid           |                   | -                      | X                | -               | -   | -   | -        | -     | X                     | X                      | X                      | X        | -     |
| Nitric Acid, 20%                             | E                 | X                      | X                | X               | E   | G   | X        | X     | X                     | G                      | G                      | X        | X     |
| Nitric Acid, 3 M                             |                   | X                      | X                | -               | -   | -   | -        | -     | X                     | E                      | E                      | -        | X     |
| Nitric Acid, 5% to 10%                       | E                 | X                      | X                | X               | E   | G   | X        | X     | X                     | G                      | G                      | E        | X     |
| Nitric Acid, 50% (Boiling)                   |                   | X                      | X                | X               | X   | X   | X        | X     | X                     | G                      | G                      | X        | X     |
| Nitric Acid, 65% (Boiling)                   |                   | X                      | X                | X               | X   | X   | X        | X     | X                     | G                      | G                      | X        | X     |
| Nitric Acid, Concentrated<br>(Boiling)       |                   | X                      | X                | -               | -   | -   | -        | X     | X                     | G                      | G                      | X        | X     |
| Nitric Acid, Inhibited RED<br>fuming (IRFNA) |                   | X                      | X                | -               | -   | -   | -        | -     | X                     | E                      | E                      | E        | X     |
| Nitric Acid, Red Fuming<br>(RNFA)            | E                 | X                      | X                | X               | -   | X   | X        | X     | X                     | G                      | G                      | G        | X     |

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| Chemical Name                               | Hose              |                         |                  |                 |     |     |          |       | Fittings and Adapters |                        |                        |          |       |
|---------------------------------------------|-------------------|-------------------------|------------------|-----------------|-----|-----|----------|-------|-----------------------|------------------------|------------------------|----------|-------|
|                                             | PTFE<br>(Teflon®) | CR<br>(Polychloroprene) | NBR<br>(Nitrile) | Nitrile/<br>PVC | CPE | CSM | Urethane | Nylon | Carbon<br>Steel       | Stainless<br>Steel 304 | Stainless<br>Steel 316 | Aluminum | Brass |
| Nitrobenzene (Under 100°F)                  | E                 | X                       | X                | X               | G   | X   | X        | -     | G                     | G                      | G                      | G        | E     |
| Nitroethane                                 | E                 | X                       | X                | X               | E   | G   | -        | -     | E                     | E                      | E                      | E        | E     |
| Nitrogen                                    | E                 | E                       | E                | G               | E   | E   | E        | E     | E                     | E                      | E                      | E        | E     |
| Nitrogen Fertilizer Solution                |                   |                         |                  |                 |     |     |          |       |                       |                        |                        |          |       |
| Nitrogen Oxide up to 50%<br>(Under 100°F)   |                   | E                       | E                | G               | E   | E   | -        | E     | E                     | E                      | E                      | -        | X     |
| Nitromethane (Permiabie)                    | E                 | X                       | X                | X               | -   | -   | -        | E     | E                     | E                      | E                      | E        | E     |
| Nitropropane                                |                   | X                       | X                | X               | -   | -   | -        | E     | E                     | E                      | E                      | E        | E     |
| Nitrous Oxide (Gas)                         | E                 |                         |                  |                 |     |     |          |       |                       |                        |                        |          |       |
| N-Octane                                    |                   | X                       | G                | -               | E   | X   | -        | -     | E                     | E                      | E                      | -        | E     |
| Nuto H                                      |                   |                         |                  |                 |     |     |          |       |                       |                        |                        |          |       |
| Nyvac 20 (WG), 30 (WG)                      |                   | -                       | E                | -               | -   | -   | -        | -     | E                     | E                      | E                      | E        | E     |
| Nyvac FR Fluid                              |                   | -                       | E                | -               | -   | -   | -        | -     | E                     | E                      | E                      | E        | E     |
| Nyvac FR200 Fluid                           |                   | -                       | E                | -               | -   | -   | -        | -     | E                     | E                      | E                      | E        | E     |
| O-148 (NATO)                                |                   |                         |                  |                 |     |     |          |       |                       |                        |                        |          |       |
| Octyl Alcohol                               | E                 |                         |                  |                 |     |     |          |       |                       |                        |                        |          |       |
| Oil (SAE, Under 100°F)                      | E                 | E                       | E                | E               | E   | G   | E        | E     | E                     | E                      | E                      | E        | E     |
| Oil Synthetic Blends                        |                   |                         |                  |                 |     |     |          |       |                       |                        |                        |          |       |
| Oils Crude                                  | E                 | X                       | G                | -               | -   | -   | -        | -     | -                     | E                      | E                      | -        | -     |
| Oleic Acid (Under 120°F)                    | E                 | G                       | G                | G               | E   | G   | E        | E     | G                     | G                      | E                      | E        | G     |
| Oleum 25%                                   |                   |                         |                  |                 |     |     |          |       |                       |                        |                        |          |       |
| Oleum Spirits ( to 70°F)                    | E                 |                         |                  |                 |     |     |          |       |                       |                        |                        |          |       |
| Olive Oil                                   | E                 | X                       | G                | G               | G   | X   | -        | -     | G                     | E                      | E                      | E        | G     |
| Orthodichlorobenzene                        |                   |                         |                  |                 |     |     |          |       |                       |                        |                        |          |       |
| OS 45 Type III (OS45)                       | E                 | E                       | G                | -               | -   | -   | -        | -     | -                     | -                      | -                      | -        | -     |
| OS 45 Type IV (OS45-1)                      | E                 | E                       | G                | -               | -   | -   | -        | -     | -                     | -                      | -                      | -        | -     |
| OS 70                                       |                   | E                       | G                | -               | -   | -   | -        | -     | -                     | -                      | -                      | -        | -     |
| Oxalic Acid (5%, Hot and Cold)              |                   | G                       | G                | -               | -   | -   | -        | G     | X                     | G                      | E                      | E        | X     |
| Oxalic Acid                                 | E                 | X                       | X                | X               | E   | G   | X        | X     | X                     | G                      | E                      | G        | X     |
| Oxalic Acid (10% Boiling)                   |                   | X                       | X                | -               | -   | -   | -        | -     | X                     | X                      | X                      | X        | X     |
| Oxalic Acid (10%)                           |                   | G                       | G                | -               | -   | -   | -        | G     | X                     | G                      | E                      | E        | X     |
| Oxygen (200°-400°F)                         |                   | X                       | X                | -               | -   | -   | -        | -     | -                     | -                      | -                      | -        | -     |
| Oxygen Cold                                 |                   | E                       | G                | -               | E   | -   | -        | E     | G                     | E                      | E                      | E        | E     |
| Oxygen Gaseous                              | E                 | -                       | -                | -               | -   | -   | -        | -     | -                     | -                      | -                      | E        | -     |
| Ozone (Dry)                                 | E                 | G                       | X                | G               | E   | G   | E        | G     | E                     | E                      | E                      | E        | E     |
| Ozone (Wet)                                 | E                 | -                       | X                | -               | -   | -   | -        | -     | X                     | G                      | E                      | G        | -     |
| Pacemaker Types 150T,<br>300T, 500T (Citgo) |                   | -                       | E                | -               | -   | -   | -        | -     | -                     | -                      | -                      | -        | -     |
| Paint                                       | E                 | X                       | -                | -               | -   | X   | X        | G     | -                     | E                      | E                      | E        | E     |

Underline is cover compound rating only. Many factors, such as temperature, concentration and length of exposure, are relevant to how chemical exposure affects the tube and cover or fitting material. The fluid manufacturers recommended maximum operating temperature should be carefully observed. Exceeding the manufacturer's recommended maximum temperature can result in fluid breakdown and cause harm or shorten life of tube and cover materials. There may be instances where the hose cover could be adversely affected by fluids which would not chemically affect the hose tube. Conversely, some fluids with an adverse affect on the tube of the hose may not have a deteriorating effect on the hose cover. It is recommended that the user test the hose/fluid compatibility to their own standards. Since no industry standards exist for chemical resistance, the Compass Chemical Resistance Guide for Elastomers is used whenever possible. Teflon® is a registered trademark of Dupont.

# Chemical Resistance Tables

The following is a representative list of fluids and manufacturers and a general guideline for the use and compatibility of Continental ContiTech hose and fittings.

## Rating Scale

E = Excellent resistance      X = Not recommended      Blank = No Data  
G = Good resistance      - = Testing recommended

|                                    | Hose              |                         |                  |                 |     |     |          |       | Fittings and Adapters |                        |                        |          |       |
|------------------------------------|-------------------|-------------------------|------------------|-----------------|-----|-----|----------|-------|-----------------------|------------------------|------------------------|----------|-------|
| Chemical Name                      | PTFE<br>(Teflon®) | CR<br>(Polychloroprene) | NBR<br>(Nitrile) | Nitrile/<br>PVC | CPE | CSM | Urethane | Nylon | Carbon<br>Steel       | Stainless<br>Steel 304 | Stainless<br>Steel 316 | Aluminum | Brass |
| Paint Solvents (Oil Base)          |                   | X                       | X                | -               | -   | X   | X        | G     | -                     | E                      | E                      | E        | E     |
| Paint Thinner, Duco                | E                 | G                       | E                | -               | -   | -   | -        | E     | G                     | G                      | E                      | G        | X     |
| Paints (Oil Base)                  | E                 | -                       | E                | -               | -   | E   | -        | E     | -                     | -                      | -                      | -        | -     |
| Palm Oil                           | E                 | G                       | E                | G               | -   | G   | -        | -     | E                     | E                      | E                      | E        | E     |
| Palmitic Acid                      | E                 | G                       | G                | G               | E   | X   | E        | E     | G                     | G                      | E                      | E        | X     |
| Paradichlorobenzene                |                   |                         |                  |                 |     |     |          |       |                       |                        |                        |          |       |
| Paraffin (Petroleum)               |                   | G                       | E                | G               | E   | X   | -        | E     | G                     | E                      | E                      | E        | E     |
| Paraformaldehyde                   | E                 | G                       | G                | G               | -   | G   | G        | -     | E                     | E                      | E                      | E        | -     |
| Peanut Oil (Under 100°F)           | E                 | G                       | E                | G               | -   | -   | -        | -     | E                     | E                      | E                      | E        | E     |
| Pentane ( Gas or Liquid )          | E                 |                         |                  |                 |     |     |          |       |                       |                        |                        |          |       |
| Pentasol                           |                   | G                       | G                | G               | -   | G   | -        | -     | E                     | E                      | E                      | E        | E     |
| Perchloric Acid                    | E                 | X                       | X                | -               | -   | G   | X        | X     | X                     | G                      | E                      | X        | -     |
| Perchloroethylene                  |                   |                         |                  |                 |     |     |          |       |                       |                        |                        |          |       |
| (Tetrachloroethylene)              | E                 | X                       | X                | X               | G   | X   | -        | G     | E                     | E                      | E                      | X        | X     |
| Petroleum Oil (Above 250°F)        | E                 | X                       | X                | -               | -   | -   | -        | -     | -                     | -                      | -                      | -        | -     |
| Petroleum Oil (Crude)              | E                 | G                       | E                | -               | -   | -   | -        | -     | -                     | -                      | -                      | -        | -     |
| Petroleum Oil (Under 250°F)        |                   | G                       | E                | -               | -   | -   | -        | -     | -                     | -                      | -                      | -        | -     |
| Petroleum Oils (Refined)           |                   | G                       | E                | G               | -   | G   | G        | E     | E                     | E                      | E                      | E        | E     |
| Petroleum Oils (Sour)              | E                 | G                       | G                | -               | -   | X   | G        | -     | G                     | E                      | E                      | E        | X     |
| Petroleum Oils (Under 100°F)       |                   | G                       | E                | G               | -   | G   | G        | -     | E                     | E                      | E                      | E        | E     |
| Phenol (70/30 Water)               |                   | X                       | X                | -               | -   | -   | -        | -     | -                     | E                      | E                      | E        | -     |
| Phenol (85/15 Water)               |                   | X                       | X                | -               | -   | -   | -        | -     | -                     | E                      | E                      | E        | -     |
| Phenol (Carbolic Acid)             | E                 | X                       | X                | X               | E   | X   | X        | X     | G                     | E                      | E                      | E        | X     |
| Phenylamine                        |                   |                         |                  |                 |     |     |          |       |                       |                        |                        |          |       |
| Phorone                            |                   |                         |                  |                 |     |     |          |       |                       |                        |                        |          |       |
| (Diisopropylidene Acetone)         | E                 | X                       | X                | -               | -   | X   | X        | -     | E                     | E                      | E                      | -        | E     |
| Phosphate Esters (3 Molar)         |                   | X                       | X                | -               | G   | G   | X        | G     | -                     | -                      | -                      | -        | -     |
| Phosphate Esters<br>(Concentrated) | E                 | X                       | X                | -               | X   | X   | X        | G     | -                     | -                      | -                      | -        | -     |
| Phosphate Esters (Dilute)          | E                 | X                       | X                | -               | E   | E   | X        | G     | -                     | -                      | -                      | -        | -     |
| Phosphoric Acid                    | E                 | G                       | G                | -               | -   | -   | -        | -     | -                     | -                      | G                      | -        | -     |
| Phosphoric Acid (1%)               |                   | G                       | -                | -               | -   | -   | -        | -     | -                     | E                      | E                      | -        | X     |
| Phosphoric Acid (10% Hot)          |                   | G                       | X                | -               | -   | -   | -        | -     | X                     | -                      | E                      | X        | X     |
| Phosphoric Acid (10%)              |                   | G                       | X                | -               | -   | -   | -        | -     | X                     | -                      | E                      | X        | X     |
| Phosphoric Acid (3 Molar)          |                   | X                       | X                | -               | -   | -   | -        | -     | -                     | -                      | -                      | -        | -     |
| Phosphoric Acid (5%)               |                   | G                       | X                | -               | -   | -   | -        | -     | -                     | E                      | E                      | -        | X     |
| Phosphoric Acid (50% Hot)          |                   | G                       | X                | -               | -   | -   | -        | -     | X                     | X                      | G                      | X        | X     |
| Phosphoric Acid (50%)              |                   | G                       | G                | G               | E   | E   | X        | X     | X                     | G                      | E                      | X        | G     |
| Phosphoric Acid (85% Hot)          |                   | G                       | X                | -               | -   | -   | -        | -     | X                     | X                      | X                      | X        | X     |

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## Chemical Resistance Tables

The following is a representative list of fluids and manufacturers and a general guideline for the use and compatibility of Continental ContiTech hose and fittings.

### Rating Scale

**E** = Excellent resistance      **X** = Not recommended      **Blank** = No Data  
**G** = Good resistance      **-** = Testing recommended

| Chemical Name                              | Hose              |                         |                  |                 |     |     |          |       | Fittings and Adapters |                        |                        |          |       |
|--------------------------------------------|-------------------|-------------------------|------------------|-----------------|-----|-----|----------|-------|-----------------------|------------------------|------------------------|----------|-------|
|                                            | PTFE<br>(Teflon®) | CR<br>(Polychloroprene) | NBR<br>(Nitrile) | Nitrile/<br>PVC | CPE | CSM | Urethane | Nylon | Carbon<br>Steel       | Stainless<br>Steel 304 | Stainless<br>Steel 316 | Aluminum | Brass |
| Phosphoric Acid (85%)                      |                   | G                       | X                | -               | E   | E   | X        | X     | X                     | G                      | G                      | X        | X     |
| Phosphoric Acid (Aerated)                  |                   | -                       | -                | -               | -   | -   | -        | -     | X                     | -                      | G                      | -        | -     |
| Phosphoric Acid<br>(Concentrated)          | E                 | X                       | X                | -               | -   | -   | -        | -     | -                     | -                      | -                      | -        | -     |
| Phosphoric Acid Air Free                   |                   | -                       | -                | -               | -   | -   | -        | -     | X                     | -                      | -                      | X        | -     |
| Phosphorous Trichlor                       | E                 |                         |                  |                 |     |     |          |       |                       |                        |                        |          |       |
| Photographic Developers                    | E                 | E                       | E                | -               | -   | -   | -        | -     | X                     | E                      | E                      | -        | -     |
| Photographic, Emulsions                    | E                 | -                       | -                | -               | -   | -   | -        | -     | -                     | -                      | -                      | -        | -     |
| Photographic, Fixing<br>Solutions          | E                 | G                       | -                | -               | -   | G   | -        | -     | -                     | E                      | E                      | -        | -     |
| Phthalic Acid                              |                   | -                       | -                | -               | -   | -   | -        | -     | G                     | G                      | E                      | G        | -     |
| Picric Acid (Water<br>Solution 100°F)      | E                 | G                       | G                | G               | -   | G   | G        | X     | X                     | E                      | E                      | X        | X     |
| Picric Acid Molten                         |                   |                         |                  |                 |     |     |          |       |                       |                        |                        |          |       |
| Pine Oil                                   | E                 | X                       | G                | -               | G   | X   | -        | E     | E                     | E                      | E                      | E        | -     |
| Pinene                                     | E                 | X                       | G                | -               | G   | -   | -        | -     | E                     | E                      | E                      | E        | E     |
| Piperazine Hydrochloride<br>Solution (34%) |                   | -                       | G                | -               | -   | -   | -        | -     | -                     | -                      | -                      | -        | -     |
| Pitch                                      |                   | G                       | E                | -               | -   | G   | G        | E     | -                     | -                      | -                      | -        | -     |
| Plating Solutions (Chrome)                 | E                 | X                       | X                | -               | -   | -   | X        | X     | -                     | X                      | X                      | -        | -     |
| Plating Solutions (Other)                  | E                 | -                       | E                | -               | -   | -   | -        | -     | -                     | -                      | -                      | -        | -     |
| Polyester Resin                            |                   | -                       | -                | -               | -   | -   | -        | G     | -                     | -                      | -                      | -        | -     |
| Polyol Ester                               |                   |                         |                  |                 |     |     |          |       |                       |                        |                        |          |       |
| Polyurethane Foam<br>(Under 125°F)         |                   | -                       | -                | -               | -   | -   | -        | -     | -                     | -                      | -                      | -        | -     |
| Potassium Acetate                          | E                 | G                       | G                | -               | E   | G   | X        | -     | G                     | E                      | E                      | X        | -     |
| Potassium Bicarbonate                      | E                 | E                       | E                | -               | -   | E   | -        | E     | E                     | G                      | G                      | E        | -     |
| Potassium Bisulfite                        | E                 | -                       | E                | -               | -   | -   | -        | E     | -                     | -                      | -                      | -        | -     |
| Potassium Bromate                          | E                 | -                       | -                | -               | -   | -   | -        | -     | -                     | -                      | -                      | -        | -     |
| Potassium Bromide                          | E                 | E                       | E                | -               | -   | E   | G        | E     | X                     | X                      | G                      | X        | -     |
| Potassium Carbonate<br>(Potash)            | E                 | E                       | E                | E               | E   | E   | G        | E     | G                     | E                      | E                      | X        | X     |
| Potassium Chlorate                         | E                 | E                       | E                | -               | -   | -   | G        | E     | G                     | G                      | G                      | G        | -     |
| Potassium Chloride (1% to 5%)              | E                 | E                       | E                | -               | E   | -   | G        | E     | E                     | G                      | G                      | X        | X     |
| Potassium Chloride (Boiling)               |                   | -                       | -                | -               | -   | -   | -        | -     | -                     | G                      | G                      | -        | X     |
| Potassium Cyanide                          | E                 | E                       | E                | -               | E   | -   | -        | E     | G                     | G                      | G                      | X        | X     |
| Potassium Dichromate                       | E                 | E                       | E                | -               | E   | -   | -        | G     | E                     | G                      | G                      | G        | -     |
| Potassium Ferrocyanide                     | E                 | -                       | -                | -               | -   | -   | -        | -     | G                     | E                      | E                      | G        | -     |
| Potassium Fluoride                         | E                 | -                       | -                | -               | -   | -   | -        | -     | -                     | -                      | -                      | -        | -     |

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Chemical Resistance Tables

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Rating Scale

E = Excellent resistance      X = Not recommended      Blank = No Data  
G = Good resistance      - = Testing recommended

|                                             | Hose              |                        |                  |                 |     |     |          |       | Fittings and Adapters |                        |                        |          |       |
|---------------------------------------------|-------------------|------------------------|------------------|-----------------|-----|-----|----------|-------|-----------------------|------------------------|------------------------|----------|-------|
| Chemical Name                               | PTFE<br>(Teflon®) | CR<br>(Polychloropene) | NBR<br>(Nitrile) | Nitrile/<br>PVC | CPE | CSM | Urethane | Nylon | Carbon<br>Steel       | Stainless<br>Steel 304 | Stainless<br>Steel 316 | Aluminum | Brass |
| Potassium Fluoride                          | E                 | -                      | -                | -               | -   | -   | -        | -     | -                     | -                      | -                      | -        | -     |
| Potassium Hydroxide                         | E                 | G                      | G                | -               | -   | -   | -        | -     | E                     | E                      | E                      | -        | -     |
| Potassium Hydroxide<br>(27%Boiling)         | -                 | -                      | -                | -               | -   | -   | -        | -     | G                     | G                      | E                      | X        | X     |
| Potassium Hydroxide (5%)                    | -                 | E                      | E                | -               | -   | -   | -        | E     | G                     | G                      | G                      | X        | X     |
| Potassium Hydroxide<br>(50% Boiling)        | -                 | -                      | -                | -               | -   | -   | -        | -     | G                     | G                      | G                      | X        | X     |
| Potassium Hydroxide<br>(70% Hot)            | -                 | -                      | -                | -               | -   | -   | -        | -     | X                     | -                      | -                      | X        | X     |
| Potassium Hydroxide (70%)                   | -                 | -                      | E                | -               | -   | -   | -        | -     | -                     | -                      | -                      | X        | X     |
| Potassium Hydroxide<br>(30% Caustic Potash) | -                 | -                      | -                | -               | E   | -   | -        | -     | -                     | -                      | -                      | -        | -     |
| Potassium Iodide                            | -                 | E                      | E                | -               | -   | E   | -        | E     | E                     | G                      | G                      | -        | -     |
| Potassium Nitrate                           | E                 | E                      | E                | -               | E   | -   | E        | E     | E                     | E                      | G                      | G        | G     |
| Potassium Nitrate (1% to 5%)                | -                 | E                      | E                | -               | -   | -   | -        | -     | E                     | E                      | E                      | E        | G     |
| Potassium Permanganate                      | E                 | E                      | G                | -               | -   | -   | -        | G     | E                     | G                      | G                      | G        | -     |
| Potassium Permanganate (5%)                 | -                 | E                      | E                | -               | -   | -   | -        | E     | E                     | E                      | E                      | E        | -     |
| Potassium Persulfate                        | E                 | -                      | -                | -               | -   | -   | -        | -     | -                     | -                      | -                      | -        | -     |
| Potassium Phosphate                         | E                 | E                      | -                | -               | -   | E   | -        | -     | X                     | G                      | G                      | X        | -     |
| Potassium Sulfate                           | E                 | E                      | E                | -               | E   | -   | E        | E     | E                     | G                      | G                      | E        | -     |
| Potassium Sulfate 1% & 5%                   | -                 | E                      | E                | -               | -   | -   | -        | E     | E                     | E                      | E                      | E        | X     |
| Potassium Sulfide                           | -                 | E                      | E                | -               | -   | -   | -        | -     | G                     | G                      | G                      | -        | -     |
| Potassium Sulfite ( to 300°F)               | E                 | E                      | E                | -               | E   | -   | -        | -     | E                     | E                      | E                      | E        | -     |
| Potassium Thiosulfate                       | E                 | E                      | -                | -               | -   | E   | -        | -     | -                     | -                      | -                      | -        | -     |
| Primatol A, S, P (Ag Spray)                 | -                 | -                      | -                | -               | -   | -   | -        | -     | -                     | -                      | -                      | -        | -     |
| PRL-High Temp Hydraulic Oil                 | -                 | G                      | E                | -               | -   | -   | -        | -     | E                     | E                      | E                      | E        | -     |
| Propane Gas                                 | E                 | X                      | X                | -               | -   | -   | X        | X     | X                     | E                      | E                      | E        | -     |
| Propionic Acid                              | E                 | X                      | X                | -               | -   | -   | -        | -     | E                     | -                      | G                      | G        | -     |
| Propyl Acetate                              | E                 | X                      | X                | -               | G   | -   | -        | -     | E                     | -                      | -                      | -        | -     |
| Propylene (Liquid or Gas,<br>Ambient)       | E                 | X                      | X                | -               | E   | -   | -        | G     | E                     | E                      | E                      | E        | -     |
| Propylene Dichloride                        | E                 | -                      | -                | -               | -   | -   | -        | -     | E                     | G                      | E                      | X        | -     |
| Propylene Glycol                            | -                 | E                      | X                | -               | E   | E   | E        | G     | E                     | G                      | G                      | E        | -     |
| Propylene Oxide ( Permiable )               | E                 | X                      | X                | -               | -   | -   | -        | -     | G                     | E                      | E                      | G        | -     |
| Purina Insecticide                          | -                 | X                      | X                | -               | -   | -   | -        | G     | E                     | E                      | E                      | E        | G     |
| Puropale RX Oils                            | -                 | -                      | E                | -               | -   | -   | G        | E     | E                     | E                      | E                      | E        | E     |
| Pydraulic                                   | -                 | X                      | X                | -               | -   | -   | -        | -     | -                     | -                      | -                      | -        | -     |
| Pydraulic 10E,29E-<br>LT,30E,60,65E,115E    | -                 | X                      | X                | -               | G   | -   | -        | -     | E                     | E                      | E                      | E        | E     |
| Pydraulic 135 ( to 70°F)                    | E                 | -                      | X                | -               | G   | -   | -        | G     | E                     | E                      | E                      | -        | -     |

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### Rating Scale

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**G** = Good resistance      **-** = Testing recommended

| Chemical Name                             | Hose                |                         |                  |                 |     |     |          |       | Fittings and Adapters |                        |                        |          |       |
|-------------------------------------------|---------------------|-------------------------|------------------|-----------------|-----|-----|----------|-------|-----------------------|------------------------|------------------------|----------|-------|
|                                           | PTFE<br>(Teflon®)   | CR<br>(Polychloroprene) | NBR<br>(Nitrile) | Nitrile/<br>PVC | CPE | CSM | Urethane | Nylon | Carbon<br>Steel       | Stainless<br>Steel 304 | Stainless<br>Steel 316 | Aluminum | Brass |
| Pydraulic 150                             |                     | X                       | X                | X               | G   | X   | G        | G     | E                     | E                      | E                      | E        | E     |
| Pydraulic 280 (at 400°F)                  | G                   | X                       | X                | X               | G   | X   | G        | G     | E                     | E                      | E                      | -        | -     |
| Pydraulic 312 (to 70°F)                   | E                   | X                       | X                | X               | G   | -   | G        | E     | E                     | E                      | E                      | -        | -     |
| Pydraulic 50E                             |                     | -                       | -                | -               | G   | -   | G        | E     | E                     | E                      | E                      | -        | -     |
| Pydraulic 540 (to 70°F)                   | E                   | X                       | X                | X               | G   | X   | X        | X     | E                     | E                      | E                      | -        | -     |
| Pydraulic 625                             |                     | X                       | X                | X               | G   | X   | G        | G     | E                     | E                      | E                      | -        | -     |
| Pydraulic A-200                           |                     | X                       | X                | X               | G   | X   | X        | G     | E                     | E                      | E                      | -        | -     |
| Pydraulic F-9                             |                     | X                       | X                | X               | G   | X   | G        | E     | E                     | E                      | E                      | -        | -     |
| Pyranol, Transformer Oil<br>(to 70°F)     | E                   | G                       | E                | -               | -   | -   | -        | -     | E                     | E                      | E                      | E        | -     |
| Pyridine                                  | E                   | X                       | X                | -               | -   | X   | E        | -     | E                     | E                      | E                      | E        | E     |
| Pyrogard 160, 230, 630                    |                     | -                       | -                | -               | -   | -   | -        | -     | E                     | E                      | E                      | -        | -     |
| Pyrogard 51, 53, 55                       |                     | -                       | X                | -               | -   | -   | -        | -     | E                     | E                      | E                      | -        | -     |
| Pyrogard C, D                             | E                   | -                       | E                | -               | -   | -   | G        | E     | E                     | E                      | E                      | E        | E     |
| Pyrolube                                  |                     | E                       | X                | -               | -   | -   | -        | -     | -                     | -                      | -                      | -        | -     |
| Quench Oil                                | E                   | G                       | G                | -               | -   | -   | -        | -     | -                     | E                      | E                      | E        | -     |
| Quintolubric 700                          |                     |                         |                  |                 |     |     |          |       |                       |                        |                        |          |       |
| Quintolubric 822                          |                     | X                       | E                | -               | -   | -   | -        | -     | E                     | E                      | E                      | E        | E     |
| Quintolubric 957, 958                     |                     |                         |                  |                 |     |     |          |       |                       |                        |                        |          |       |
| Ramrod (Ag Spray)                         |                     | -                       | -                | -               | -   | -   | -        | E     | E                     | E                      | E                      | E        | E     |
| Rando Oils                                |                     | -                       | E                | -               | -   | -   | G        | E     | E                     | E                      | E                      | E        | E     |
| Rape Seed Oil                             |                     | G                       | X                | -               | -   | X   | -        | G     | E                     | E                      | E                      | E        | E     |
| Red Line 100 Oil                          | E                   | G                       | E                | -               | -   | -   | -        | -     | -                     | -                      | -                      | -        | -     |
| Red Oil (Comm. Oleic Acid,<br>MIL-H-5606) | E                   | G                       | G                | G               | E   | G   | -        | E     | G                     | G                      | E                      | E        | G     |
| Refined Wax (Petroleum)                   |                     | G                       | E                | G               | -   | -   | G        | E     | E                     | E                      | E                      | -        | E     |
| Refrigerant Freon 113<br>(see Freon)      | Use Freon Hose Only |                         |                  |                 |     |     |          |       |                       |                        |                        |          |       |
| Refrigerant Freon 114<br>(see Freon)      | Use Freon Hose Only |                         |                  |                 |     |     |          |       |                       |                        |                        |          |       |
| Refrigerant Freon 12<br>(see Freon)       | Use Freon Hose Only |                         |                  |                 |     |     |          |       |                       |                        |                        |          |       |
| Refrigerant Freon 22<br>(see Freon)       | Use Freon Hose Only |                         |                  |                 |     |     |          |       |                       |                        |                        |          |       |
| Refrigerant Freon 502<br>(see Freon)      | Use Freon Hose Only |                         |                  |                 |     |     |          |       |                       |                        |                        |          |       |
| Refrigerant HFC 134A<br>(see Freon)       | Use Freon Hose Only |                         |                  |                 |     |     |          |       |                       |                        |                        |          |       |
| Regal Oils R&O                            |                     | -                       | E                | -               | -   | -   | G        | E     | -                     | -                      | -                      | -        | -     |
| Resorcinol                                |                     |                         |                  |                 |     |     |          |       |                       |                        |                        |          |       |

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Chemical Resistance Tables

The following is a representative list of fluids and manufacturers and a general guideline for the use and compatibility of Continental ContiTech hose and fittings.

Rating Scale

E = Excellent resistance      X = Not recommended      Blank = No Data  
G = Good resistance      - = Testing recommended

|                                          | Hose              |                         |                  |                 |     |     |          |       | Fittings and Adapters |                        |                        |          |       |
|------------------------------------------|-------------------|-------------------------|------------------|-----------------|-----|-----|----------|-------|-----------------------|------------------------|------------------------|----------|-------|
| Chemical Name                            | PTFE<br>(Teflon®) | CR<br>(Polychloroprene) | NBR<br>(Nitrile) | Nitrile/<br>PVC | CPE | CSM | Urethane | Nylon | Carbon<br>Steel       | Stainless<br>Steel 304 | Stainless<br>Steel 316 | Aluminum | Brass |
| Richfield Weed Killer                    |                   | X                       | G                | -               | -   | X   | -        | -     | -                     | -                      | -                      | -        | -     |
| Round Up                                 |                   | G                       | G                | -               | -   | -   | -        | E     | G                     | E                      | E                      | E        | E     |
| Rubilene Oils                            |                   | -                       | E                | -               | -   | -   | G        | E     | -                     | -                      | -                      | -        | -     |
| SAE N° 10 Oil                            | E                 |                         |                  |                 |     |     |          |       |                       |                        |                        |          |       |
| Safco-Safe T10, T20                      |                   |                         |                  |                 |     |     |          |       |                       |                        |                        |          |       |
| Safetytex 215                            |                   | -                       | X                | -               | -   | -   | -        | -     | -                     | -                      | -                      | -        | -     |
| Salilic Acid ( to 400°F)                 | E                 | E                       | X                | -               | -   | -   | -        | E     | E                     | E                      | E                      | G        | -     |
| Salt Water (See Water)                   | E                 | G                       | G                | G               | -   | G   | E        | E     | G                     | E                      | E                      | X        | G     |
| Santo Safe 300                           |                   | X                       | X                | -               | -   | -   | -        | -     | E                     | E                      | E                      | E        | -     |
| Santosafe W-G15,<br>W-G20, W-G30         |                   | -                       | E                | -               | -   | -   | G        | E     | E                     | E                      | E                      | E        | E     |
| SCC 7204 (Stauffer)                      |                   | -                       | -                | -               | -   | -   | -        | -     | -                     | -                      | -                      | -        | -     |
| Sevin                                    |                   | -                       | -                | -               | -   | -   | -        | E     | -                     | -                      | -                      | -        | -     |
| Sewage                                   | E                 | G                       | G                | G               | E   | G   | -        | E     | X                     | E                      | E                      | G        | G     |
| Shell IRUS 902                           | E                 |                         |                  |                 |     |     |          |       |                       |                        |                        |          |       |
| Shell IRUS 905                           | E                 |                         |                  |                 |     |     |          |       |                       |                        |                        |          |       |
| Shell Pella-A                            |                   |                         |                  |                 |     |     |          |       |                       |                        |                        |          |       |
| Shell Tellus                             |                   |                         |                  |                 |     |     |          |       |                       |                        |                        |          |       |
| Shellac (to 400°F)                       |                   | G                       | E                | -               | -   | -   | -        | E     | E                     | E                      | E                      | E        | -     |
| Shellac (Bleached) (to 400°F)            | E                 | G                       | E                | -               | -   | -   | -        | E     | E                     | E                      | E                      | E        | G     |
| Shellac (Orange) (to 400°F)              | E                 | G                       | E                | -               | -   | -   | -        | E     | E                     | E                      | E                      | E        | G     |
| Silicate Ester (to 400°F)                | E                 |                         |                  |                 |     |     |          |       |                       |                        |                        |          |       |
| Silicone Greases                         | E                 | G                       | G                | G               | -   | G   | -        | E     | E                     | E                      | E                      | E        | E     |
| Silicone Oils                            | E                 | G                       | G                | G               | -   | G   | -        | E     | E                     | E                      | E                      | E        | E     |
| Silver Cyanide                           | E                 | E                       | -                | -               | -   | -   | -        | -     | E                     | E                      | E                      | X        | -     |
| Silver Nitrate                           | E                 | E                       | E                | E               | E   | E   | -        | E     | G                     | E                      | E                      | E        | G     |
| Skelly, Solvent B, C, E                  |                   | X                       | E                | -               | -   | -   | -        | -     | -                     | -                      | -                      | -        | -     |
| Skydrol 500A & 7000<br>(to 200°F)        | E                 | X                       | X                | X               | G   | X   | -        | E     | E                     | E                      | E                      | E        | -     |
| Soap oil                                 | E                 | X                       | X                | -               | -   | X   | -        | -     | E                     | E                      | E                      | -        | -     |
| Soap Solutions                           | E                 | G                       | E                | G               | E   | E   | E        | E     | E                     | E                      | E                      | E        | E     |
| Soda Ash (Sodium Carbonate)              | E                 | E                       | E                | E               | E   | E   | E        | E     | E                     | E                      | E                      | X        | G     |
| Soda Water                               | E                 | -                       | -                | -               | -   | -   | E        | E     | -                     | -                      | -                      | -        | -     |
| Sodium Dichromate                        |                   | G                       | E                | -               | E   | G   | E        | E     | -                     | -                      | -                      | -        | -     |
| Sodium Hypochlorite -<br>100% (to 200°F) | E                 | E                       | X                | -               | -   | -   | -        | -     | X                     | X                      | X                      | X        | -     |
| Sodium Hypochlorite 20%<br>(to 400°F)    | E                 | X                       | X                | X               | E   | E   | X        | E     | X                     | X                      | G                      | X        | X     |
| Sodium Hypochlorite 5%                   | E                 | -                       | X                | X               | E   | E   | X        | E     | X                     | X                      | G                      | X        | X     |
| Sodium Hyposulfate                       | E                 | X                       | -                | -               | -   | -   | -        | -     | X                     | E                      | E                      | X        | -     |

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## Chemical Resistance Tables

The following is a representative list of fluids and manufacturers and a general guideline for the use and compatibility of Continental ContiTech hose and fittings.

### Rating Scale

**E** = Excellent resistance      **X** = Not recommended      **Blank** = No Data  
**G** = Good resistance      **-** = Testing recommended

| Chemical Name                               | Hose              |                         |                  |                 |     |     |          |       | Fittings and Adapters |                        |                        |          |       |
|---------------------------------------------|-------------------|-------------------------|------------------|-----------------|-----|-----|----------|-------|-----------------------|------------------------|------------------------|----------|-------|
|                                             | PTFE<br>(Teflon®) | CR<br>(Polychloroprene) | NBR<br>(Nitrile) | Nitrile/<br>PVC | CPE | CSM | Urethane | Nylon | Carbon<br>Steel       | Stainless<br>Steel 304 | Stainless<br>Steel 316 | Aluminum | Brass |
| Sodium Metaphosphate                        | E                 | G                       | G                | G               | E   | G   | -        | E     | X                     | E                      | E                      | E        | X     |
| Sodium Nitrate                              | E                 | X                       | X                | -               | E   | G   | E        | E     | E                     | G                      | G                      | G        | G     |
| Sodium Perborate                            | E                 | X                       | X                | -               | -   | X   | -        | G     | X                     | E                      | E                      | E        | X     |
| Sodium Peroxide<br>(Sodium Dioxide)         | E                 | E                       | G                | E               | G   | E   | -        | X     | X                     | E                      | E                      | E        | X     |
| Sodium Phosphate                            | E                 | X                       | E                | -               | E   | -   | E        | E     | G                     | E                      | E                      | X        | X     |
| Sodium Phosphate (Dibasic)                  | E                 | G                       | E                | -               | -   | -   | -        | -     | -                     | -                      | -                      | -        | -     |
| Sodium Phosphate (Mono)                     | E                 | E                       | E                | -               | -   | -   | -        | -     | -                     | -                      | -                      | -        | -     |
| Sodium Phosphate (Tribasic)                 |                   | G                       | E                | -               | -   | -   | -        | -     | G                     | G                      | G                      | -        | -     |
| Sodium Silicate                             |                   | E                       | E                | -               | E   | E   | G        | E     | G                     | G                      | G                      | X        | X     |
| Sodium Silicate (Hot)                       | E                 | E                       | E                | -               | -   | -   | -        | -     | G                     | G                      | G                      | X        | X     |
| Sodium Sulfate                              | E                 | E                       | E                | -               | E   | E   | E        | E     | G                     | E                      | E                      | -        | G     |
| Sodium Sulfide                              | E                 | E                       | E                | -               | E   | E   | E        | E     | X                     | X                      | G                      | X        | X     |
| Sodium Sulfide Saturated<br>- 100%          | E                 | E                       | E                | -               | -   | -   | -        | E     | G                     | G                      | E                      | X        | X     |
| Sodium Sulfite                              |                   | G                       | G                | G               | E   | G   | E        | G     | E                     | E                      | E                      | -        | X     |
| Sodium Sulfite 10% @ 150°F                  |                   | E                       | E                | -               | -   | -   | -        | -     | G                     | G                      | G                      | G        | -     |
| Sodium Sulfite 5%                           |                   | E                       | E                | -               | -   | -   | -        | -     | E                     | E                      | E                      | E        | -     |
| Sodium Thiosulfate<br>(hpo, Antichlor)      | E                 | E                       | E                | E               | E   | E   | E        | E     | X                     | E                      | E                      | G        | X     |
| Sodium Tripolyphosphate<br>(STPP) (to 70°F) | E                 | -                       | -                | -               | -   | -   | -        | -     | -                     | E                      | E                      | X        | X     |
| Sodium Acetate                              | E                 | X                       | X                | X               | E   | X   | G        | E     | E                     | E                      | E                      | E        | E     |
| Sodium Benzoate                             | E                 | -                       | -                | -               | -   | -   | E        | -     | -                     | -                      | -                      | -        | -     |
| Sodium Bicarbonate                          | E                 | E                       | E                | E               | E   | E   | E        | E     | G                     | E                      | E                      | G        | G     |
| Sodium Bisulfate (Niter Cake)               |                   | E                       | E                | E               | E   | E   | E        | E     | X                     | G                      | E                      | X        | X     |
| Sodium Bisulfite                            | E                 | E                       | E                | E               | E   | E   | E        | E     | G                     | E                      | E                      | G        | -     |
| Sodium Borate                               | E                 | E                       | E                | E               | E   | E   | E        | E     | E                     | E                      | E                      | -        | -     |
| Sodium Carbonate                            | E                 | E                       | E                | E               | E   | E   | E        | E     | G                     | G                      | G                      | X        | G     |
| Sodium Chlorate                             | E                 | G                       | E                | -               | -   | E   | E        | E     | G                     | G                      | G                      | X        | -     |
| Sodium Chloride                             | E                 | E                       | E                | E               | E   | E   | E        | E     | G                     | G                      | E                      | X        | X     |
| Sodium Chloride - 2%                        | E                 | E                       | E                | -               | -   | -   | -        | E     | G                     | G                      | E                      | X        | X     |
| Sodium Chloride - 5%                        | E                 | E                       | E                | -               | -   | -   | -        | E     | -                     | G                      | E                      | X        | X     |
| Sodium Chloride - 5%<br>@ 150°F             | E                 | E                       | E                | -               | -   | -   | -        | E     | -                     | G                      | E                      | -        | X     |
| Sodium Chloride Saturated                   | E                 | E                       | E                | -               | -   | -   | -        | E     | -                     | E                      | E                      | X        | -     |
| Sodium Chloride Saturated<br>(Boiling)      | E                 | -                       | -                | -               | -   | -   | -        | -     | -                     | G                      | E                      | X        | -     |
| Sodium Chloride Slurry                      |                   | -                       | -                | -               | -   | -   | -        | -     | -                     | -                      | -                      | -        | -     |

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Chemical Resistance Tables

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Rating Scale

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G = Good resistance      - = Testing recommended

|                                         | Hose              |                        |                  |                 |     |     |          |       | Fittings and Adapters |                        |                        |          |       |
|-----------------------------------------|-------------------|------------------------|------------------|-----------------|-----|-----|----------|-------|-----------------------|------------------------|------------------------|----------|-------|
| Chemical Name                           | PTFE<br>(Teflon®) | CR<br>(Polychloropene) | NBR<br>(Nitrile) | Nitrile/<br>PVC | CPE | CSM | Urethane | Nylon | Carbon<br>Steel       | Stainless<br>Steel 304 | Stainless<br>Steel 316 | Aluminum | Brass |
| Sodium Cyanide                          | E                 | E                      | E                | E               | E   | E   | E        | E     | G                     | E                      | E                      | X        | X     |
| Sodium Ferricyanide                     | E                 | -                      | -                | -               | -   | -   | -        | -     | G                     | G                      | G                      | -        | -     |
| Sodium Ferrocyanide                     | E                 | -                      | -                | -               | -   | -   | -        | -     | -                     | -                      | -                      | -        | -     |
| Sodium Fluoride                         | E                 | -                      | E                | -               | -   | -   | -        | -     | G                     | G                      | G                      | -        | -     |
| Sodium Fluoride (5%)                    | E                 | -                      | E                | -               | -   | -   | -        | E     | G                     | G                      | G                      | -        | -     |
| Sodium Fluoride (70%)                   | E                 | -                      | -                | -               | -   | -   | -        | -     | -                     | -                      | G                      | -        | -     |
| Sodium Hydrosulfide - 100%<br>(to 70°F) | E                 | E                      | X                | -               | -   | -   | -        | -     | -                     | -                      | -                      | -        | -     |
| Sodium Hydrosulfide - 45%<br>(to 500°F) | E                 | E                      | X                | -               | -   | -   | -        | -     | -                     | -                      | -                      | -        | -     |
| Sodium Hydrosulfite                     | E                 | -                      | -                | -               | -   | -   | -        | -     | -                     | -                      | -                      | -        | -     |
| Sodium Hydroxide                        | E                 | G                      | G                | -               | -   | -   | -        | -     | G                     | -                      | -                      | -        | X     |
| Sodium Hydroxide (10%)                  | E                 | -                      | -                | -               | E   | -   | -        | -     | -                     | -                      | -                      | -        | -     |
| Sodium Hydroxide<br>(20% Cold)          | E                 | E                      | G                | -               | -   | -   | -        | E     | E                     | E                      | E                      | X        | X     |
| Sodium Hydroxide (20% Hot)              | E                 | E                      | X                | -               | -   | -   | -        | -     | G                     | E                      | E                      | X        | X     |
| Sodium Hydroxide (3M)                   | -                 | G                      | G                | -               | -   | -   | -        | -     | -                     | -                      | -                      | -        | X     |
| Sodium Hydroxide (40%)                  | E                 | E                      | G                | G               | E   | E   | -        | G     | G                     | E                      | E                      | X        | X     |
| Sodium Hydroxide<br>(50% Cold)          | E                 | G                      | X                | X               | E   | E   | -        | G     | G                     | G                      | G                      | X        | X     |
| Sodium Hydroxide (50% Hot)              | E                 | -                      | -                | -               | E   | G   | -        | X     | X                     | G                      | G                      | X        | X     |
| Sodium Hydroxide (60%)                  | E                 | G                      | X                | X               | E   | G   | -        | X     | X                     | G                      | G                      | X        | X     |
| Sodium Hydroxide (70% Cold)             | E                 | E                      | G                | -               | -   | -   | -        | -     | -                     | -                      | G                      | X        | X     |
| Sodium Hydroxide (70% Hot)              | E                 | -                      | -                | -               | -   | -   | -        | -     | -                     | -                      | -                      | -        | -     |
| Sodium Hydroxide (80% Hot)              | E                 | E                      | X                | -               | -   | -   | -        | -     | X                     | X                      | X                      | X        | X     |
| Sole                                    |                   |                        |                  |                 |     |     |          |       |                       |                        |                        |          |       |
| Solnus Oils                             |                   | -                      | E                | -               | -   | -   | G        | E     | E                     | E                      | E                      | E        | E     |
| Solvac 1535 G                           |                   | -                      | -                | -               | G   | -   | -        | E     | -                     | -                      | -                      | -        | -     |
| Sour Crude Oil                          |                   | -                      | -                | -               | -   | -   | -        | -     | -                     | -                      | -                      | -        | -     |
| Soybean Oil                             | E                 | G                      | G                | G               | -   | G   | -        | E     | E                     | E                      | E                      | E        | -     |
| Spent Acid                              |                   | -                      | -                | -               | -   | G   | -        | -     | -                     | E                      | E                      | -        | -     |
| SR-10 Fuel                              |                   | X                      | G                | -               | -   | -   | -        | -     | -                     | -                      | -                      | -        | -     |
| SR-6 Fuel                               |                   | X                      | E                | -               | -   | -   | -        | -     | -                     | -                      | -                      | -        | -     |
| SRF Fluid B (Shell)                     |                   | -                      | X                | -               | -   | -   | -        | -     | -                     | -                      | -                      | -        | -     |
| SRF Fluid C (Shell)                     |                   | -                      | X                | -               | -   | -   | -        | -     | -                     | -                      | -                      | -        | -     |
| Stannic Chloride                        | E                 | X                      | G                | G               | E   | X   | -        | X     | X                     | X                      | X                      | X        | X     |
| Stannic Chloride, 50%                   | E                 | X                      | E                | -               | -   | -   | -        | -     | X                     | X                      | X                      | X        | -     |
| Stannous Chloride<br>(Under 150°F)      | E                 | E                      | E                | -               | E   | E   | -        | X     | -                     | X                      | G                      | X        | -     |

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| Chemical Name                                | Hose              |                         |                  |                 |     |     |          |       | Fittings and Adapters |                        |                        |          |       |
|----------------------------------------------|-------------------|-------------------------|------------------|-----------------|-----|-----|----------|-------|-----------------------|------------------------|------------------------|----------|-------|
|                                              | PTFE<br>(Teflon®) | CR<br>(Polychloroprene) | NBR<br>(Nitrile) | Nitrile/<br>PVC | CPE | CSM | Urethane | Nylon | Carbon<br>Steel       | Stainless<br>Steel 304 | Stainless<br>Steel 316 | Aluminum | Brass |
| Stannous Chloride, 15%                       | E                 | E                       | E                | -               | -   | -   | -        | -     | X                     | X                      | -                      | X        | -     |
| Stanoll N° 15, 18, 25, 31, 35, 51            |                   | -                       | E                | -               | -   | -   | G        | E     | E                     | E                      | E                      | E        | E     |
| Starch                                       | E                 | G                       | G                | -               | -   | E   | E        | E     | X                     | E                      | E                      | E        | -     |
| Staysol FR                                   |                   | -                       | E                | -               | -   | -   | G        | E     | E                     | E                      | E                      | E        | E     |
| Steam-Water up to 250°F                      | E                 |                         |                  |                 |     |     |          |       |                       |                        |                        |          |       |
| Stearic Acid                                 | E                 | G                       | G                | G               | E   | G   | E        | E     | X                     | G                      | E                      | X        | X     |
| Stearin                                      |                   | -                       | -                | -               | -   | -   | E        | G     | -                     | -                      | -                      | -        | -     |
| Stoddard Solvent                             | E                 | G                       | G                | X               | E   | -   | X        | E     | G                     | E                      | E                      | E        | E     |
| Styrene (Monomer)                            | E                 | -                       | X                | -               | G   | -   | -        | G     | G                     | X                      | G                      | X        | G     |
| Styrene (Vinyl Benzene)                      |                   | X                       | X                | -               | -   | -   | -        | E     | E                     | E                      | E                      | E        | E     |
| Sucrose Solutions                            | E                 | E                       | E                | E               | -   | E   | -        | -     | E                     | E                      | E                      | -        | -     |
| Sulfamic Acid (10%<br>Under 170°F)           | E                 | -                       | -                | -               | E   | G   | -        | -     | -                     | -                      | -                      | -        | -     |
| Sulfate Black Liquor                         | E                 | E                       | E                | -               | -   | -   | -        | E     | G                     | G                      | G                      | X        | -     |
| Sulfate Green Liquor                         | E                 | E                       | E                | -               | -   | -   | -        | E     | G                     | G                      | G                      | X        | -     |
| Sulfur                                       | E                 |                         | -                | -               | -   | -   | -        | -     | -                     | -                      | -                      | -        | -     |
| Sulfur (Molten)                              |                   | X                       | X                | -               | -   | -   | -        | -     | -                     | -                      | -                      | -        | -     |
| Sulfur Chloride                              | E                 | X                       | X                | X               | -   | G   | -        | G     | X                     | X                      | G                      | X        | X     |
| Sulfur Dioxide (Dry)                         | E                 | X                       | X                | X               | -   | G   | -        | X     | G                     | E                      | E                      | E        | E     |
| Sulfur Dioxide (Liquid)                      | E                 | G                       | X                | -               | -   | G   | -        | -     | -                     | -                      | -                      | -        | -     |
| Sulfur Dioxide (Moist)                       | E                 | G                       | X                | -               | -   | G   | -        | E     | -                     | G                      | E                      | E        | X     |
| Sulfur Hexafluoride (Gas)<br>(to 70°F)       | E                 | E                       | G                | -               | -   | G   | -        | X     | -                     | -                      | -                      | -        | -     |
| Sulfur Trioxide (Dry)                        | E                 | X                       | X                | X               | X   | X   | -        | E     | G                     | G                      | G                      | G        | X     |
| Sulfuric Acid (10%)                          | E                 | E                       | G                | G               | E   | E   | -        | X     | -                     | X                      | X                      | G        | X     |
| Sulfuric Acid (30%)                          | E                 | E                       | -                | -               | E   | E   | -        | X     | X                     | X                      | G                      | X        | X     |
| Sulfuric Acid (50%)                          | E                 | G                       | X                | X               | E   | E   | -        | X     | X                     | X                      | G                      | X        | X     |
| Sulfuric Acid (75%)                          | E                 | X                       | X                | X               | -   | G   | -        | X     | X                     | X                      | G                      | X        | X     |
| Sulfuric Acid (93%)                          | E                 | X                       | X                | X               | -   | X   | -        | X     | G                     | X                      | G                      | X        | X     |
| Sulfuric Acid (98%)                          | E                 | X                       | X                | X               | X   | X   | -        | X     | G                     | X                      | G                      | X        | X     |
| Sulfuric Acid, 3 Molar                       |                   | X                       | X                | -               | -   | -   | -        | -     | -                     | -                      | -                      | -        | -     |
| Sulfuric Acid, 85%                           | E                 | X                       | X                | -               | -   | -   | -        | -     | X                     | G                      | E                      | X        | -     |
| Sulfuric Acid, Aerated,<br>No Velocity       | E                 | -                       | -                | -               | -   | -   | -        | -     | G                     | G                      | G                      | X        | -     |
| Sulfuric Acid, Air Free,<br>No Velocity      | E                 | -                       | -                | -               | -   | -   | -        | -     | X                     | X                      | G                      | X        | -     |
| Sulfuric Acid, Concentrated                  | E                 | X                       | X                | -               | -   | -   | -        | -     | -                     | E                      | E                      | -        | -     |
| Sulfuric Acid, Fuming, Oleum<br>(Permeable ) | E                 | X                       | -                | -               | -   | -   | -        | -     | G                     | E                      | E                      | G        | -     |
| Sulfurous Acid                               | E                 | G                       | G                | -               | -   | -   | -        | X     | X                     | X                      | G                      | G        | -     |

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Chemical Resistance Tables

The following is a representative list of fluids and manufacturers and a general guideline for the use and compatibility of Continental ContiTech hose and fittings.

Rating Scale

E = Excellent resistance      X = Not recommended      Blank = No Data  
G = Good resistance      - = Testing recommended

| Chemical Name                                | Hose              |                        |                  |                 |     |     |          |       | Fittings and Adapters |                        |                        |          |       |
|----------------------------------------------|-------------------|------------------------|------------------|-----------------|-----|-----|----------|-------|-----------------------|------------------------|------------------------|----------|-------|
|                                              | PTFE<br>(Teflon®) | CR<br>(Polychloropene) | NBR<br>(Nitrile) | Nitrile/<br>PVC | CPE | CSM | Urethane | Nylon | Carbon<br>Steel       | Stainless<br>Steel 304 | Stainless<br>Steel 316 | Aluminum | Brass |
| Sulfurous Acid (10%)                         | E                 | -                      | X                | -               | E   | E   | -        | -     | -                     | X                      | G                      | E        | X     |
| Sulfurous Acid (75%)                         | E                 | X                      | X                | X               | E   | E   | -        | X     | X                     | X                      | G                      | X        | X     |
| Sulphuric Acid 10%                           | -                 | -                      | G                | -               | -   | -   | -        | X     | X                     | G                      | E                      | X        | X     |
| Sulphuric Acid 5%                            | -                 | -                      | E                | -               | -   | -   | -        | X     | G                     | G                      | E                      | X        | X     |
| Sulphuric Acid 5% Boiling                    | -                 | X                      | -                | -               | -   | -   | -        | X     | X                     | X                      | -                      | X        | X     |
| Sulphuric Acid 50%                           | -                 | X                      | X                | -               | -   | -   | -        | X     | X                     | X                      | X                      | X        | X     |
| Sulphuric Acid, Concentrated                 | -                 | X                      | X                | -               | -   | -   | -        | X     | -                     | E                      | E                      | X        | X     |
| Sulphuric Acid, Concentrated<br>@ 300%       | -                 | X                      | X                | -               | -   | -   | -        | -     | X                     | X                      | X                      | X        | X     |
| Sulphuric Acid, Concentrated<br>Boiling      | -                 | X                      | X                | -               | -   | -   | -        | -     | X                     | X                      | X                      | X        | X     |
| Sulphuric Acid, Fuming                       | -                 | X                      | -                | -               | -   | -   | -        | -     | G                     | G                      | G                      | X        | -     |
| Sulphuric Acid 10% Boiling                   | -                 | X                      | X                | -               | -   | -   | -        | X     | X                     | X                      | -                      | X        | X     |
| Sulphurous Acid, saturated                   | -                 | X                      | X                | -               | -   | -   | -        | G     | -                     | E                      | E                      | X        | X     |
| Sun Minesafe, Sunsafe                        | -                 | -                      | -                | -               | -   | -   | -        | -     | -                     | -                      | -                      | -        | -     |
| Sun R&O Oils                                 | -                 | -                      | E                | -               | -   | -   | G        | E     | E                     | E                      | E                      | E        | E     |
| Sunsafe (Fire Resist.Hydr.<br>Fluid) to 70°F | E                 | G                      | E                | -               | -   | -   | G        | E     | E                     | E                      | E                      | E        | -     |
| Suntac HP Oils                               | -                 | -                      | E                | -               | -   | -   | G        | E     | E                     | -                      | E                      | E        | -     |
| Suntac WR Oils                               | -                 | -                      | E                | -               | -   | -   | G        | E     | E                     | -                      | E                      | E        | -     |
| Sunvis Oils 700, 800, 900                    | -                 | -                      | E                | -               | -   | -   | G        | E     | E                     | E                      | E                      | -        | -     |
| Super Hydraulic Oils<br>(Conoco)             | -                 | -                      | E                | -               | -   | -   | G        | E     | E                     | E                      | E                      | E        | -     |
| Sutan Plus, Herbicide                        | -                 | X                      | X                | X               | E   | -   | -        | E     | E                     | E                      | E                      | E        | -     |
| Sutazine Plus, Herbicide                     | -                 | X                      | X                | -               | E   | -   | -        | E     | X                     | E                      | E                      | E        | -     |
| Synsstic                                     | -                 | -                      | -                | -               | -   | -   | -        | -     | -                     | -                      | -                      | -        | -     |
| Synthetic Oil (Citgo)                        | -                 | -                      | -                | -               | -   | -   | G        | E     | E                     | E                      | E                      | -        | -     |
| Syrup                                        | E                 | G                      | E                | G               | -   | -   | -        | E     | -                     | E                      | E                      | E        | -     |
| Tall Oil (Under 100°F)                       | E                 | G                      | G                | G               | -   | X   | -        | -     | G                     | X                      | G                      | X        | -     |
| Tallow                                       | E                 | G                      | G                | G               | -   | -   | -        | E     | G                     | G                      | G                      | E        | G     |
| Tannic Acid (10%)                            | E                 | G                      | X                | -               | E   | G   | -        | X     | G                     | E                      | E                      | G        | X     |
| Tannin                                       | -                 | E                      | E                | -               | -   | -   | -        | E     | -                     | -                      | -                      | -        | -     |
| Tar (Bituminous, Under 100°F)                | E                 | G                      | G                | G               | X   | -   | -        | -     | E                     | E                      | E                      | E        | G     |
| Tar and Tar Oil                              | -                 | G                      | -                | -               | -   | -   | G        | E     | E                     | E                      | E                      | E        | G     |
| Tartaric Acid                                | E                 | G                      | G                | G               | E   | E   | -        | E     | X                     | G                      | G                      | G        | X     |
| Tellus Oils (to 70°F)                        | E                 | -                      | E                | -               | -   | -   | G        | E     | E                     | E                      | E                      | E        | E     |
| Tenol Oils                                   | -                 | -                      | E                | -               | -   | -   | G        | E     | E                     | E                      | E                      | -        | -     |
| Tergitol                                     | -                 | -                      | -                | -               | -   | -   | -        | -     | G                     | E                      | E                      | -        | G     |
| Terpineol                                    | E                 | X                      | G                | -               | E   | G   | -        | G     | E                     | E                      | E                      | E        | -     |

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## Chemical Resistance Tables

The following is a representative list of fluids and manufacturers and a general guideline for the use and compatibility of Continental ContiTech hose and fittings.

### Rating Scale

**E** = Excellent resistance

**X** = Not recommended

**Blank** = No Data

**G** = Good resistance

**-** = Testing recommended

| Chemical Name               | Hose              |                         |                  |                 |     |     |          |       | Fittings and Adapters |                        |                        |          |       |
|-----------------------------|-------------------|-------------------------|------------------|-----------------|-----|-----|----------|-------|-----------------------|------------------------|------------------------|----------|-------|
|                             | PTFE<br>(Teflon®) | CR<br>(Polychloroprene) | NBR<br>(Nitrile) | Nitrile/<br>PVC | CPE | CSM | Urethane | Nylon | Carbon<br>Steel       | Stainless<br>Steel 304 | Stainless<br>Steel 316 | Aluminum | Brass |
| Terresstic                  |                   | -                       | E                | -               | -   | -   | -        | E     | E                     | E                      | E                      | -        | -     |
| Tertiary Butyl Alcohol      |                   |                         |                  |                 |     |     |          |       |                       |                        |                        |          |       |
| Tetra Chloro Benzene        |                   |                         |                  |                 |     |     |          |       |                       |                        |                        |          |       |
| Tetra Chloro Ethane         | E                 |                         |                  |                 |     |     |          |       |                       |                        |                        |          |       |
| Tetra Chloro Ethylene       |                   |                         |                  |                 |     |     |          |       |                       |                        |                        |          |       |
| (Permeable)                 | E                 |                         |                  |                 |     |     |          |       |                       |                        |                        |          |       |
| Tetra Chloro Methane        | E                 |                         |                  |                 |     |     |          |       |                       |                        |                        |          |       |
| Tetra Chloro Naphthalene    |                   |                         |                  |                 |     |     |          |       |                       |                        |                        |          |       |
| Tetra Ethylene Glycol       |                   |                         |                  |                 |     |     |          |       |                       |                        |                        |          |       |
| Tetraethyl Lead             |                   | G                       | G                | -               | -   | -   | -        | G     | -                     | -                      | -                      | -        | -     |
| Tetraethyl Lead Blench      |                   | X                       | G                | -               | -   | -   | -        | -     | -                     | -                      | -                      | -        | -     |
| Tetrahydrofuran (THF)       |                   | X                       | X                | -               | -   | X   | G        | E     | G                     | E                      | E                      | -        | -     |
| Tetralin                    |                   | X                       | X                | -               | -   | X   | -        | G     | E                     | E                      | E                      | E        | -     |
| Texaco 760 Hydrafluid       |                   |                         |                  |                 |     |     |          |       |                       |                        |                        |          |       |
| Texaco 766, 763 (200-300)   |                   |                         |                  |                 |     |     |          |       |                       |                        |                        |          |       |
| Thiopen (to 70°F)           | E                 | X                       | X                | -               | -   | -   | -        | -     | -                     | -                      | -                      | -        | -     |
| Tim-Sol                     |                   |                         |                  |                 |     |     |          |       |                       |                        |                        |          |       |
| Titanium Tetrachloride      | E                 | X                       | X                | X               | -   | -   | -        | -     | E                     | G                      | G                      | X        | X     |
| Toluene (Toluol)            | E                 | X                       | X                | X               | X   | X   | -        | E     | E                     | E                      | E                      | E        | E     |
| Toluene Diisocyanate        |                   |                         |                  |                 |     |     |          |       |                       |                        |                        |          |       |
| (Under 150°F)               | E                 | X                       | -                | -               | -   | -   | -        | -     | E                     | E                      | E                      | -        | -     |
| Transformer Oil             |                   |                         |                  |                 |     |     |          |       |                       |                        |                        |          |       |
| (Askarel Types)             |                   | X                       | X                | X               | E   | X   | -        | -     | E                     | E                      | E                      | E        | -     |
| Transformer Oil             |                   |                         |                  |                 |     |     |          |       |                       |                        |                        |          |       |
| (Petroleum Type)            | E                 | G                       | E                | G               | E   | X   | G        | E     | E                     | E                      | E                      | E        | E     |
| Transmission Fluid Type A   | E                 | G                       | E                | G               | E   | G   | -        | G     | E                     | E                      | E                      | E        | E     |
| Tributyl Phosphate          | E                 | X                       | X                | X               | G   | X   | -        | -     | E                     | -                      | -                      | X        | -     |
| Tributoxyethyl Phosphate    | E                 | X                       | X                | X               | X   | X   | -        | G     | E                     | -                      | -                      | X        | -     |
| Tributyl Phosphate          | E                 |                         |                  |                 |     |     |          |       |                       |                        |                        |          |       |
| Trichloro Acetic Aci        | E                 |                         |                  |                 |     |     |          |       |                       |                        |                        |          |       |
| Trichloro Etane (Permeable) | E                 |                         |                  |                 |     |     |          |       |                       |                        |                        |          |       |
| Trichloroethylene           |                   |                         |                  |                 |     |     |          |       |                       |                        |                        |          |       |
| (Permeable)                 | E                 | X                       | X                | X               | G   | X   | -        | G     | X                     | G                      | E                      | X        | E     |
| Trichloromonofluoroethane   |                   |                         |                  |                 |     |     |          |       |                       |                        |                        |          |       |
| (Freon 113) (to 200°F)      | E                 | -                       | E                | -               | -   | -   | -        | -     | E                     | E                      | E                      | X        | -     |
| Trichloromonofluoroethane   |                   |                         |                  |                 |     |     |          |       |                       |                        |                        |          |       |
| (Freon 17) (to 200°F)       | E                 | -                       | -                | -               | -   | -   | -        | -     | E                     | E                      | E                      | X        | -     |
| Tricresyl Phosphate         | E                 | X                       | X                | X               | E   | X   | -        | E     | E                     | G                      | G                      | X        | -     |
| Triethanolamine (TEA)       | E                 | G                       | G                | -               | E   | G   | -        | E     | E                     | E                      | E                      | E        | E     |

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Rating Scale

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| Chemical Name                 | Hose              |                        |                  |                 |     |     |          |       | Fittings and Adapters |                        |                        |          |       |
|-------------------------------|-------------------|------------------------|------------------|-----------------|-----|-----|----------|-------|-----------------------|------------------------|------------------------|----------|-------|
|                               | PTFE<br>(Teflon®) | CR<br>(Polychloropene) | NBR<br>(Nitrile) | Nitrile/<br>PVC | CPE | CSM | Urethane | Nylon | Carbon<br>Steel       | Stainless<br>Steel 304 | Stainless<br>Steel 316 | Aluminum | Brass |
| Triphenyl Phosphate           |                   |                        |                  |                 |     |     |          |       |                       |                        |                        |          |       |
| Tripolyphosphate (STPP)       |                   | X                      | E                | -               | -   | -   | -        | -     | -                     | G                      | E                      | X        | -     |
| Trisodium Phosphate E         |                   |                        |                  |                 |     |     |          |       |                       |                        |                        |          |       |
| Tung Oil ( to 400°F)          | E                 | G                      | G                | -               | -   | G   | -        | E     | E                     | E                      | E                      | E        | E     |
| Turbine Oil #15               |                   |                        |                  |                 |     |     |          |       |                       |                        |                        |          |       |
| (MIL-L7808A) (to 70°F)        | E                 | X                      | E                | -               | -   | -   | -        | -     | E                     | E                      | E                      | E        | -     |
| Turbine Oil (to 250°F)        | E                 | X                      | E                | -               | -   | -   | -        | -     | E                     | E                      | E                      | E        | -     |
| Turbo Oil #35                 |                   | X                      | G                | -               | -   | -   | -        | -     | E                     | E                      | E                      | E        | -     |
| Turpentine                    | E                 | X                      | G                | -               | G   | X   | E        | E     | X                     | E                      | E                      | E        | G     |
| Tycol A Turbo 37, 50, 58, 60  |                   | -                      | E                | -               | -   | -   | G        | E     | E                     | E                      | E                      | -        | -     |
| Tycol Avalon 50, 57, 60       |                   | -                      | E                | -               | -   | -   | G        | E     | E                     | E                      | E                      | -        | -     |
| Type I Fuel (MIL-S-3136)      |                   |                        |                  |                 |     |     |          |       |                       |                        |                        |          |       |
| ASTM Fuel A (to 300°F)        | E                 | G                      | E                | -               | -   | -   | -        | -     | E                     | E                      | E                      | E        | -     |
| Type II Fuel (MIL-S-3136)     |                   | X                      | G                | -               | -   | -   | -        | -     | E                     | E                      | E                      | E        | -     |
| Type III Fuel (MIL-S-3136)    |                   |                        |                  |                 |     |     |          |       |                       |                        |                        |          |       |
| ASTM Fuel B (to 300°F)        | E                 | X                      | E                | -               | -   | -   | -        | -     | E                     | E                      | E                      | E        | -     |
| Ucon Hydrolube Types          |                   |                        |                  |                 |     |     |          |       |                       |                        |                        |          |       |
| 150CP, 200CP                  |                   | -                      | E                | -               | -   | -   | G        | E     | E                     | E                      | E                      | E        | E     |
| Ucon Hydrolube Types          |                   |                        |                  |                 |     |     |          |       |                       |                        |                        |          |       |
| 275CP, 300CP, 550CP           |                   |                        |                  |                 |     |     |          |       |                       |                        |                        |          |       |
| (to 70°F)                     | E                 | -                      | -                | -               | -   | -   | -        | -     | -                     | -                      | -                      | -        | -     |
| Ucon M1                       |                   | -                      | E                | -               | -   | -   | G        | E     | E                     | E                      | E                      | E        | E     |
| Union ATF Dexron              |                   | -                      | E                | -               | -   | -   | G        | E     | E                     | E                      | E                      | E        | E     |
| Union ATF Type F              |                   | -                      | E                | -               | -   | -   | G        | E     | E                     | E                      | E                      | E        | E     |
| Union C-2 Fluid               |                   | -                      | E                | -               | -   | -   | G        | E     | E                     | E                      | E                      | E        | E     |
| Union C-P Oil                 |                   | -                      | E                | -               | -   | -   | G        | E     | E                     | E                      | E                      | E        | E     |
| Union Hydraulic Oil AW        |                   | -                      | E                | -               | -   | -   | G        | E     | E                     | E                      | E                      | E        | E     |
| Union Hydraulic Tractor Fluid |                   | -                      | E                | -               | -   | -   | G        | E     | E                     | E                      | E                      | E        | E     |
| Univis 40, Hydraulic Fluidon  |                   | G                      | E                | -               | -   | -   | -        | -     | E                     | E                      | E                      | E        | -     |
| Unleaded Gasoline             | E                 |                        |                  |                 |     |     |          |       |                       |                        |                        |          |       |
| Urea Solution                 | E                 | E                      | G                | -               | E   | E   | G        | E     | E                     | E                      | E                      | G        | -     |
| Urethane Formulators          |                   |                        |                  |                 |     |     |          |       |                       |                        |                        |          |       |
| Uric Acid 100% (to 250°F)     | E                 |                        |                  |                 |     |     |          |       |                       |                        |                        |          |       |
| Uric Acid 75% (to 400°F)      | E                 |                        |                  |                 |     |     |          |       |                       |                        |                        |          |       |
| Varnish                       | E                 | X                      | X                | X               | X   | X   | -        | E     | G                     | E                      | E                      | E        | G     |
| Vaseline                      | E                 |                        |                  |                 |     |     |          |       |                       |                        |                        |          |       |
| Vegetable Oils                | E                 | G                      | E                | G               | E   | -   | G        | E     | E                     | E                      | E                      | E        | G     |
| Vegetable Oils (Hot)          | -                 | -                      | -                | -               | -   | -   | E        | G     | G                     | G                      | E                      | G        |       |
| Versilube                     | E                 | E                      | E                | -               | -   | -   | -        | -     | E                     | E                      | E                      | E        | -     |

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| Chemical Name                               | Hose              |                        |                   |                 |     |     |          |       | Fittings and Adapters |                        |                        |          |       |
|---------------------------------------------|-------------------|------------------------|-------------------|-----------------|-----|-----|----------|-------|-----------------------|------------------------|------------------------|----------|-------|
|                                             | PTFE<br>(Teflon®) | CR<br>(Polychloropene) | NBR<br>(Nitrile)  | Nitrile/<br>PVC | CPE | CSM | Urethane | Nylon | Carbon<br>Steel       | Stainless<br>Steel 304 | Stainless<br>Steel 316 | Aluminum | Brass |
| Versilube F-50, F-44<br>(to 70°F)           | E                 | G                      | G                 | G               | -   | G   | G        | E     | E                     | E                      | E                      | E        | E     |
| Vinyl Acetate                               | E                 | X                      | X                 | X               | E   | X   | -        | -     | G                     | E                      | G                      | E        | G     |
| Vinyl Chloride<br>(Chloroethylene, Monomer) |                   |                        |                   |                 |     |     |          |       |                       |                        |                        |          |       |
| (Permeable)                                 | E                 | X                      | X                 | X               | X   | X   | -        | -     | G                     | E                      | E                      | G        | X     |
| Vital 4300, 5310                            |                   |                        |                   |                 |     |     |          |       |                       |                        |                        |          |       |
| Vitrea Oils                                 |                   | -                      | E                 | -               | -   | -   | G        | E     | E                     | E                      | E                      | -        | -     |
| Volt Esso 35                                |                   |                        |                   |                 |     |     |          |       |                       |                        |                        |          |       |
| Water                                       | E                 | E                      | E                 | E               | E   | E   | E        | E     | E                     | E                      | E                      | E        | E     |
| Water Glycols                               | E                 |                        |                   |                 |     |     |          |       |                       |                        |                        |          |       |
| Water in Oil Emulsion                       |                   | -                      | -                 | -               | -   | -   | G        | E     | -                     | -                      | -                      | -        | -     |
| Water, (Under 150°F)                        | E                 |                        |                   |                 |     |     |          |       |                       |                        |                        |          |       |
| Water, (Up to 200°F)                        | E                 |                        |                   |                 |     |     |          |       |                       |                        |                        |          |       |
| Water, Acid Mine                            | E                 | G                      | X                 | -               | -   | -   | -        | E     | X                     | G                      | G                      | X        | X     |
| Water, Brine                                |                   | G                      | G                 | -               | -   | E   | E        | E     | X                     | G                      | G                      | -        | -     |
| Water, Demineralized                        | E                 | -                      | -                 | -               | -   | -   | -        | -     | -                     | -                      | -                      | -        | E     |
| Water, Distilled                            | E                 | G                      | E                 | -               | -   | E   | E        | E     | X                     | E                      | E                      | E        | -     |
| Water, Fresh                                | E                 | E                      | E                 | -               | -   | -   | -        | E     | X                     | E                      | E                      | E        | -     |
| Water, Potable                              |                   |                        |                   |                 |     |     |          |       |                       |                        |                        |          |       |
| (FDA Tube Only)                             | E                 |                        | Use FDA Hose only |                 |     |     |          |       | E                     |                        |                        |          |       |
| Water, Salt                                 | E                 | G                      | E                 | -               | -   | -   | -        | E     | X                     | G                      | G                      | X        |       |
| Whiskey                                     | E                 |                        |                   |                 |     |     |          |       |                       |                        |                        | X        |       |
| White & Bagley N° 2190                      |                   |                        |                   |                 |     |     |          |       |                       |                        |                        |          |       |
| Cutting Oil                                 |                   | G                      | E                 | -               | -   | -   | -        | -     | -                     | -                      | -                      | -        | -     |
| White Oil (to 70°F)                         | E                 |                        |                   |                 |     |     |          |       |                       |                        |                        | -        |       |
| White Pine Oil                              |                   |                        |                   |                 |     |     |          |       |                       |                        |                        | X        |       |
| Wines                                       | E                 |                        | Use FDA Hose only |                 |     |     |          |       |                       |                        |                        |          |       |
| Wood Alcohol                                |                   |                        |                   |                 |     |     |          |       |                       |                        |                        |          |       |
| Wood Oil (to 400°F)                         | E                 | G                      | E                 | -               | E   | G   | E        | E     | E                     | E                      | E                      | E        |       |
| Xenon                                       | E                 |                        |                   |                 |     |     |          |       |                       |                        |                        |          |       |
| Xylene, Xylol                               | E                 | X                      | E                 | -               | X   | -   | G        | G     | G                     | G                      | G                      | E        |       |
| Xylidine                                    |                   |                        |                   |                 |     |     |          |       |                       |                        |                        |          |       |
| Zeric                                       |                   | -                      | E                 | -               | -   | G   | G        | G     | -                     | -                      | -                      | -        |       |
| Zinc Acetate                                | E                 | G                      | X                 | -               | -   | X   | -        | G     | E                     | E                      | E                      | E        |       |
| Zinc Carbonate (to 200°F)                   | E                 |                        |                   |                 |     |     |          |       |                       |                        |                        |          |       |
| Zinc Chloride Solutions                     | E                 | E                      | E                 | E               | E   | E   | -        | E     | X                     | G                      | E                      | X        |       |
| Zinc Chromate 75%<br>(to 400°F)             | E                 | -                      | -                 | -               | E   | E   | -        | -     | -                     | E                      | E                      | -        |       |

Underline is cover compound rating only. Many factors, such as temperature, concentration and length of exposure, are relevant to how chemical exposure affects the tube and cover or fitting material. The fluid manufacturers recommended maximum operating temperature should be carefully observed. Exceeding the manufacturer's recommended maximum temperature can result in fluid breakdown and cause harm or shorten life of tube and cover materials. There may be instances where the hose cover could be adversely affected by fluids which would not chemically affect the hose tube. Conversely, some fluids with an adverse affect on the tube of the hose may not have a deteriorating effect on the hose cover. It is recommended that the user test the hose/fluid compatibility to their own standards. Since no industry standards exist for chemical resistance, the Compass Chemical Resistance Guide for Elastomers is used whenever possible. Teflon® is a registered trademark of Dupont.

Chemical Resistance Tables

The following is a representative list of fluids and manufacturers and a general guideline for the use and compatibility of Continental ContiTech hose and fittings.

Rating Scale

E = Excellent resistance      X = Not recommended      Blank = No Data  
G = Good resistance      - = Testing recommended

|                                      | Hose              |                        |                  |                 |     |     |          |       | Fittings and Adapters |                        |                        |          |       |
|--------------------------------------|-------------------|------------------------|------------------|-----------------|-----|-----|----------|-------|-----------------------|------------------------|------------------------|----------|-------|
| Chemical Name                        | PTFE<br>(Teflon®) | CR<br>(Polychloropene) | NBR<br>(Nitrile) | Nitrile/<br>PVC | CPE | CSM | Urethane | Nylon | Carbon<br>Steel       | Stainless<br>Steel 304 | Stainless<br>Steel 316 | Aluminum | Brass |
| Zinc Hydrate                         |                   | -                      | -                | -               | -   | -   | G        | -     | -                     | -                      | -                      | -        |       |
| Zinc Sulfate Solutions<br>(to 300°F) | E                 | G                      | G                | G               | E   | G   | -        | G     | X                     | G                      | E                      | X        |       |

Underline is cover compound rating only. Many factors, such as temperature, concentration and length of exposure, are relevant to how chemical exposure affects the tube and cover or fitting material. The fluid manufacturers recommended maximum operating temperature should be carefully observed. Exceeding the manufacturer's recommended maximum temperature can result in fluid breakdown and cause harm or shorten life of tube and cover materials. There may be instances where the hose cover could be adversely affected by fluids which would not chemically affect the hose tube. Conversely, some fluids with an adverse affect on the tube of the hose may not have a deteriorating effect on the hose cover. It is recommended that the user test the hose/fluid compatability to their own standards. Since no industry standards exist for chemical resistance, the Compass Chemical Resistance Guide for Elastomers is used whenever possible. Teflon® is a registered trademark of Dupont.

## Temperature Conversion Chart

Locate temperature in middle column. If in °C, read °F equivalent in right-hand column; if in °F, read °C in left-hand column.

$$C = 0.556 (°F - 32) \quad F = (1.8 °C) + 32$$

| -459° to 0° |      |      | 1° to 60° |     |      | 61° to 290° |     |       | 300° to 890° |     |      | 900° to 3000° |      |      |
|-------------|------|------|-----------|-----|------|-------------|-----|-------|--------------|-----|------|---------------|------|------|
| C           | C/F  | F    | C         | C/F | F    | C           | C/F | F     | C            | C/F | F    | C             | C/F  | F    |
| -273        | -459 |      | -17.2     | 1   | 33.8 | 16.1        | 61  | 141.8 | 149          | 300 | 572  | 482           | 900  | 1652 |
| -268        | -450 |      | -16.7     | 2   | 35.6 | 16.7        | 62  | 143.6 | 154          | 310 | 590  | 488           | 910  | 1670 |
| -262        | -440 |      | -16.1     | 3   | 37.4 | 17.2        | 63  | 145.4 | 160          | 320 | 608  | 493           | 920  | 1688 |
| -257        | -430 |      | -15.6     | 4   | 39.2 | 17.8        | 64  | 147.2 | 166          | 330 | 626  | 499           | 930  | 1706 |
| -251        | -420 |      | -15.0     | 5   | 41.0 | 18.3        | 65  | 149.0 | 171          | 340 | 644  | 504           | 940  | 1724 |
| -246        | -410 |      | -14.4     | 6   | 42.8 | 18.9        | 66  | 150.8 | 177          | 350 | 662  | 510           | 950  | 1742 |
| -240        | -400 |      | -13.9     | 7   | 44.6 | 19.4        | 67  | 152.6 | 182          | 360 | 680  | 516           | 960  | 1760 |
| -234        | -390 |      | -13.3     | 8   | 46.4 | 20.0        | 68  | 154.4 | 188          | 370 | 698  | 521           | 970  | 1778 |
| -229        | -380 |      | -12.8     | 9   | 48.2 | 20.6        | 69  | 156.2 | 193          | 380 | 716  | 527           | 980  | 1796 |
| -223        | -370 |      | -12.2     | 10  | 50.0 | 21.1        | 70  | 158.0 | 199          | 390 | 734  | 532           | 990  | 1814 |
| -218        | -360 |      | -11.7     | 11  | 51.8 | 21.7        | 71  | 159.8 | 204          | 400 | 752  | 538           | 1000 | 1832 |
| -212        | -350 |      | -11.1     | 12  | 53.6 | 22.2        | 72  | 161.6 | 210          | 410 | 770  | 549           | 1020 | 1868 |
| -207        | -340 |      | -10.6     | 13  | 55.4 | 22.8        | 73  | 163.4 | 216          | 420 | 788  | 560           | 1040 | 1904 |
| -201        | -330 |      | -10.0     | 14  | 57.2 | 23.3        | 74  | 165.2 | 221          | 430 | 806  | 571           | 1060 | 1940 |
| -196        | -320 |      | -9.4      | 15  | 59.0 | 23.9        | 75  | 167.0 | 227          | 440 | 824  | 582           | 1080 | 1976 |
| -190        | -310 |      | -8.9      | 16  | 60.8 | 24.4        | 76  | 168.8 | 232          | 450 | 842  | 593           | 1100 | 2012 |
| -184        | -300 |      | -8.3      | 17  | 62.6 | 25.0        | 77  | 170.6 | 238          | 460 | 860  | 604           | 1120 | 2048 |
| -179        | -290 |      | -7.8      | 18  | 64.4 | 25.6        | 78  | 172.4 | 243          | 470 | 878  | 616           | 1140 | 2084 |
| -173        | -280 |      | -7.2      | 19  | 66.2 | 26.1        | 79  | 174.2 | 249          | 480 | 896  | 627           | 1160 | 2120 |
| -169        | -273 | -459 | -6.7      | 20  | 68.0 | 26.7        | 80  | 176.0 | 254          | 490 | 914  | 638           | 1180 | 2156 |
| -168        | -270 | -454 | -6.1      | 21  | 69.8 | 27.2        | 81  | 177.8 | 260          | 500 | 932  | 649           | 1200 | 2192 |
| -162        | -260 | -436 | -5.6      | 22  | 71.6 | 27.8        | 82  | 179.6 | 266          | 510 | 950  | 660           | 1220 | 2228 |
| -157        | -250 | -418 | -5.0      | 23  | 73.4 | 28.3        | 83  | 181.4 | 271          | 520 | 968  | 671           | 1240 | 2264 |
| -151        | -240 | -400 | -4.4      | 24  | 75.2 | 28.9        | 84  | 183.2 | 277          | 530 | 986  | 682           | 1260 | 2300 |
| -146        | -230 | -382 | -3.9      | 25  | 77.0 | 29.4        | 85  | 185.0 | 282          | 540 | 1004 | 693           | 1280 | 2336 |
| -140        | -220 | -364 | -3.3      | 26  | 78.8 | 30.0        | 86  | 186.8 | 288          | 550 | 1022 | 704           | 1300 | 2372 |
| -134        | -210 | -346 | -2.8      | 27  | 80.6 | 30.6        | 87  | 188.6 | 293          | 560 | 1040 | 732           | 1350 | 2462 |
| -129        | -200 | -328 | -2.2      | 28  | 82.4 | 31.1        | 88  | 190.4 | 299          | 570 | 1058 | 760           | 1400 | 2552 |
| -123        | -190 | -310 | -1.7      | 29  | 84.2 | 31.7        | 89  | 192.2 | 304          | 580 | 1076 | 788           | 1450 | 2642 |
| -118        | -180 | -292 | -1.1      | 30  | 86.0 | 32.2        | 90  | 194.0 | 310          | 590 | 1094 | 816           | 1500 | 2732 |
| -112        | -170 | -274 | -0.6      | 31  | 87.8 | 32.8        | 91  | 195.8 | 316          | 600 | 1112 | 843           | 1550 | 2822 |

Temperature Conversion Chart

Locate temperature in middle column. If in °C, read °F equivalent in right-hand column; if in °F, read °C in left-hand column.

C = 0.556 (°F - 32)    F = (1.8 °C) + 32

| -459° to 0° |      |      | 1° to 60° |     |       | 61° to 290° |     |       | 300° to 890° |     |      | 900° to 3000° |      |      |
|-------------|------|------|-----------|-----|-------|-------------|-----|-------|--------------|-----|------|---------------|------|------|
| C           | C/F  | F    | C         | C/F | F     | C           | C/F | F     | C            | C/F | F    | C             | C/F  | F    |
| -107        | -160 | -256 | 0.0       | 32  | 89.6  | 33.3        | 92  | 197.6 | 321          | 610 | 1130 | 871           | 1600 | 2912 |
| -101        | -150 | -238 | 0.6       | 33  | 91.4  | 33.9        | 93  | 199.4 | 327          | 620 | 1148 | 899           | 1650 | 3002 |
| -96         | -140 | -220 | 1.1       | 34  | 93.2  | 34.4        | 94  | 201.2 | 332          | 630 | 1166 | 927           | 1700 | 3092 |
| -90         | -130 | -202 | 1.7       | 35  | 95.0  | 35.0        | 95  | 203.0 | 338          | 640 | 1184 | 954           | 1750 | 3182 |
| -84         | -120 | -184 | 2.2       | 36  | 96.8  | 35.6        | 96  | 204.8 | 343          | 650 | 1202 | 983           | 1800 | 3272 |
| -79         | -110 | -166 | 2.8       | 37  | 98.6  | 36.1        | 97  | 206.6 | 349          | 660 | 1220 | 1010          | 1850 | 3362 |
| -73         | -100 | -148 | 3.3       | 38  | 100.4 | 36.7        | 98  | 208.4 | 354          | 670 | 1238 | 1038          | 1900 | 3452 |
| -68         | -90  | -130 | 3.9       | 39  | 102.2 | 37.2        | 99  | 210.2 | 360          | 680 | 1256 | 1066          | 1950 | 3542 |
| -62         | -80  | -112 | 4.4       | 40  | 104.0 | 37.8        | 100 | 212.0 | 366          | 690 | 1274 | 1093          | 2000 | 3632 |
| -57         | -70  | -94  | 5.0       | 41  | 105.8 | 43          | 110 | 230   | 371          | 700 | 1292 | 1121          | 2050 | 3722 |
| -51         | -60  | -76  | 5.6       | 42  | 107.6 | 49          | 120 | 248   | 377          | 710 | 1310 | 1149          | 2100 | 3812 |
| -46         | -50  | -58  | 6.1       | 43  | 109.4 | 54          | 130 | 266   | 382          | 720 | 1328 | 1177          | 2150 | 3902 |
| -40         | -40  | -40  | 6.7       | 44  | 111.2 | 60          | 140 | 284   | 388          | 730 | 1346 | 1204          | 2200 | 3992 |
| -34         | -30  | -22  | 7.2       | 45  | 113.0 | 66          | 150 | 302   | 393          | 740 | 1364 | 1232          | 2250 | 4082 |
| -29         | -20  | -4   | 7.8       | 46  | 114.8 | 71          | 160 | 320   | 399          | 750 | 1382 | 1260          | 2300 | 4172 |
| -23         | -10  | 14   | 8.3       | 47  | 116.6 | 77          | 170 | 338   | 404          | 760 | 1400 | 1288          | 2350 | 4262 |
| -18         | 0    | 32   | 8.9       | 48  | 118.4 | 82          | 180 | 356   | 410          | 770 | 1418 | 1316          | 2400 | 4352 |
|             |      |      | 9.4       | 49  | 120.2 | 88          | 190 | 374   | 416          | 780 | 1436 | 1343          | 2450 | 4442 |
|             |      |      | 10.0      | 50  | 122.0 | 93          | 200 | 392   | 421          | 790 | 1454 | 1271          | 2500 | 4532 |
|             |      |      | 10.6      | 51  | 123.8 | 99          | 210 | 410   | 427          | 800 | 1472 | 1399          | 2550 | 4622 |
|             |      |      | 11.1      | 52  | 125.6 | 100         | 212 | 414   | 432          | 810 | 1490 | 1427          | 2600 | 4712 |
|             |      |      | 11.7      | 53  | 127.4 | 104         | 220 | 428   | 438          | 820 | 1508 | 1454          | 2650 | 4802 |
|             |      |      | 12.2      | 54  | 129.2 | 110         | 230 | 446   | 443          | 830 | 1526 | 1482          | 2700 | 4892 |
|             |      |      | 12.8      | 55  | 131.0 | 116         | 240 | 464   | 449          | 840 | 1544 | 1510          | 2750 | 4982 |
|             |      |      | 13.3      | 56  | 132.8 | 121         | 250 | 482   | 454          | 850 | 1562 | 1538          | 2800 | 5072 |
|             |      |      | 13.9      | 57  | 134.6 | 127         | 260 | 500   | 460          | 860 | 1580 | 1566          | 2850 | 5162 |
|             |      |      | 14.4      | 58  | 136.4 | 132         | 270 | 518   | 466          | 870 | 1598 | 1593          | 2900 | 5252 |
|             |      |      | 15.0      | 59  | 138.2 | 138         | 280 | 536   | 471          | 880 | 1616 | 1621          | 2950 | 5342 |
|             |      |      | 15.6      | 60  | 140.0 | 143         | 290 | 554   | 477          | 890 | 1634 | 1649          | 3000 | 5432 |

## Pressure Conversions

Metric to psi (1 kPa = .145 psi)

| Kilo Pascals (kPa) | Mega Pascals (MPa) | Bar (Bar) | Pounds per Square Inch (psi) |
|--------------------|--------------------|-----------|------------------------------|
| 100                | 0.1                | 1         | 14.5                         |
| 200                | 0.2                | 2         | 29.0                         |
| 300                | 0.3                | 3         | 43.5                         |
| 400                | 0.4                | 4         | 58.0                         |
| 500                | 0.5                | 5         | 72.5                         |
| 600                | 0.6                | 6         | 87.0                         |
| 700                | 0.7                | 7         | 101.5                        |
| 800                | 0.8                | 8         | 116.0                        |
| 900                | 0.9                | 9         | 130.5                        |
| 1,000              | 1.0                | 10        | 145.0                        |
| 2,000              | 2.0                | 20        | 290.1                        |
| 3,000              | 3.0                | 30        | 435.1                        |
| 4,000              | 4.0                | 40        | 580.2                        |
| 5,000              | 5.0                | 50        | 725.2                        |
| 6,000              | 6.0                | 60        | 870.2                        |
| 7,000              | 7.0                | 70        | 1,015                        |
| 8,000              | 8.0                | 80        | 1,160                        |
| 9,000              | 9.0                | 90        | 1,305                        |
| 10,000             | 10.0               | 100       | 1,450                        |
| 20,000             | 20.0               | 200       | 2,901                        |
| 30,000             | 30.0               | 300       | 4,351                        |
| 40,000             | 40.0               | 400       | 5,802                        |
| 50,000             | 50.0               | 500       | 7,252                        |
| 60,000             | 60.0               | 600       | 8,702                        |
| 70,000             | 70.0               | 700       | 10,153                       |
| 80,000             | 80.0               | 800       | 11,603                       |
| 90,000             | 90.0               | 900       | 13,053                       |
| 100,000            | 100.0              | 1,000     | 14,504                       |
| 200,000            | 200.0              | 2,000     | 29,008                       |
| 300,000            | 300.0              | 3,000     | 43,511                       |

psi to Metric (1 psi = 6.89 kPa)

| Pounds per Square Inch (psi) | Kilo Pascals (kPa) | Mega Pascals (MPa) | Bar (Bar) |
|------------------------------|--------------------|--------------------|-----------|
| 10                           | 68.9               | 0.07               | 0.7       |
| 20                           | 137.9              | 0.14               | 1.4       |
| 30                           | 206.8              | 0.21               | 2.1       |
| 40                           | 275.8              | 0.28               | 2.8       |
| 50                           | 344.7              | 0.34               | 3.4       |
| 60                           | 413.7              | 0.41               | 4.1       |
| 70                           | 482.6              | 0.48               | 4.8       |
| 80                           | 551.6              | 0.55               | 5.5       |
| 90                           | 620.5              | 0.62               | 6.2       |
| 100                          | 689                | 0.7                | 6.9       |
| 200                          | 1,379              | 1.4                | 13.8      |
| 300                          | 2,068              | 2.1                | 20.7      |
| 400                          | 2,758              | 2.8                | 27.6      |
| 500                          | 3,447              | 3.4                | 34.5      |
| 600                          | 4,137              | 4.1                | 41.4      |
| 700                          | 4,826              | 4.8                | 48.3      |
| 800                          | 5,516              | 5.5                | 55.2      |
| 900                          | 6,205              | 6.2                | 62.1      |
| 1,000                        | 6,895              | 6.9                | 68.9      |
| 2,000                        | 13,790             | 13.8               | 147.9     |
| 3,000                        | 20,684             | 20.7               | 206.8     |
| 4,000                        | 27,579             | 27.6               | 275.8     |
| 5,000                        | 34,474             | 34.5               | 344.7     |
| 6,000                        | 41,369             | 41.4               | 413.7     |
| 7,000                        | 48,263             | 48.3               | 482.6     |
| 8,000                        | 55,158             | 55.2               | 551.6     |
| 9,000                        | 62,053             | 62.1               | 620.5     |
| 10,000                       | 68,948             | 68.9               | 689       |
| 20,000                       | 137,895            | 147.9              | 1,379     |
| 30,000                       | 206,843            | 206.8              | 2,068     |
| 40,000                       | 275,790            | 275.8              | 2,758     |

Fraction Equivalents

Fittings

Equipment & Accessories

Assemblies

Installation & Maintenance

| Fractions | Inches Decimals | Millimeters |
|-----------|-----------------|-------------|
| 1/64      | 0.015625        | 0.397       |
| 1/32      | 0.03125         | 0.794       |
| 3/64      | 0.046875        | 1.191       |
| 1/16      | 0.0625          | 1.588       |
| 5/64      | 0.078125        | 1.984       |
| 3/32      | 0.09375         | 2.381       |
| 7/64      | 0.109375        | 2.778       |
| 1/8       | 0.125           | 3.175       |
| 9/64      | 0.140625        | 3.572       |
| 5/32      | 0.15625         | 3.969       |
| 11/64     | 0.171875        | 4.366       |
| 3/16      | 0.1875          | 4.763       |
| 13/64     | 0.203125        | 5.159       |
| 7/32      | 0.21875         | 5.556       |
| 15/64     | 0.234375        | 5.953       |
| 1/4       | 0.250           | 6.350       |
| 17/64     | 0.265625        | 6.747       |
| 9/32      | 0.28125         | 7.144       |
| 19/64     | 0.296875        | 7.541       |
| 5/16      | 0.3125          | 7.938       |
| 21/64     | 0.328125        | 8.334       |
| 11/32     | 0.34375         | 8.731       |
| 23/64     | 0.359375        | 9.128       |
| 3/8       | 0.375           | 9.525       |
| 25/64     | 0.390625        | 9.922       |
| 13/32     | 0.40625         | 10.319      |
| 27/64     | 0.421875        | 10.716      |
| 7/16      | 0.4375          | 11.113      |
| 29/64     | 0.453125        | 11.509      |
| 15/32     | 0.46875         | 11.906      |
| 31/64     | 0.484375        | 12.303      |
| 1/2       | 0.500           | 12.700      |

| Fractions | Inches Decimals | Millimeters |
|-----------|-----------------|-------------|
| 33/64     | 0.515625        | 13.097      |
| 17/32     | 0.53125         | 13.494      |
| 35/64     | 0.546875        | 13.891      |
| 9/16      | 0.5625          | 14.288      |
| 37/64     | 0.578125        | 14.684      |
| 19/32     | 0.59375         | 15.081      |
| 39/64     | 0.609375        | 15.478      |
| 5/8       | 0.625           | 15.875      |
| 41/64     | 0.640625        | 16.272      |
| 21/32     | 0.65625         | 16.669      |
| 43/64     | 0.671875        | 17.066      |
| 11/16     | 0.6875          | 17.463      |
| 45/64     | 0.703125        | 17.859      |
| 23/32     | 0.71875         | 18.256      |
| 47/64     | 0.734375        | 18.653      |
| 3/4       | 0.750           | 19.050      |
| 49/64     | 0.765625        | 19.447      |
| 25/32     | 0.78125         | 19.844      |
| 51/64     | 0.796875        | 20.241      |
| 13/16     | 0.8125          | 20.638      |
| 53/64     | 0.828125        | 21.034      |
| 27/32     | 0.84375         | 21.431      |
| 55/64     | 0.859375        | 21.828      |
| 7/8       | 0.875           | 22.225      |
| 57/64     | 0.890625        | 22.622      |
| 29/32     | 0.90625         | 23.019      |
| 59/64     | 0.921875        | 23.416      |
| 15/16     | 0.9375          | 23.813      |
| 61/64     | 0.953125        | 24.209      |
| 31/32     | 0.96875         | 24.606      |
| 63/64     | 0.984375        | 25.003      |
| 1         | 1.000           | 25.400      |

## Conversion Constants

### Length Conversion Constants

| Metric to U.S.                       | U.S. to Metric                        |
|--------------------------------------|---------------------------------------|
| Millimeters x .039370 = inches       | Inches x 25.4001 = millimeters        |
| Meters x 39.370 = inches             | Inches x .0254 = meters               |
| Meters x 3.2808 = feet               | Feet x .30480 = meters                |
| Meters x 1.09361 = yards             | Yards x .91440 = meters               |
| Kilometers x 3,280.8 = feet          | Feet x .0003048 = kilometers          |
| Kilometers x .62137 = Statute Miles  | Statute Miles x 1.60935 = kilometers  |
| Kilometers x .53959 = Nautical Miles | Nautical Miles x 1.85325 = kilometers |

### Weight Conversion Constants

| Metric to U.S.                                          | U.S. to Metric                                          |
|---------------------------------------------------------|---------------------------------------------------------|
| Grams x 981 = dynes                                     | Dynes x .0010193 = grams                                |
| Grams x 15.432 = grains                                 | Grains x .0648 = grams                                  |
| Grams x .03528 = ounces (Avd.)                          | Ounces (Avd.) x 28.35 = grams                           |
| Grams x .033818 = fluid ounces (water)                  | Fluid Ounces (Water) x 29.57 = grams                    |
| Kilograms x 35.27 = ounces (Avd.)                       | Ounces (Avd.) x .02835 = kilograms                      |
| Kilograms x 2.20462 = pounds (Avd.)                     | Pounds (Avd.) x .45359 = kilograms                      |
| Metric Tons (1000 Kg.) x 1.10231 = Net Ton (2000 lbs.)  | Net Ton (2000 lbs.) x .90719 = Metric Tons (1000kg)     |
| Metric Tons (1000 Kg.) x .98421 = Gross Ton (2240 lbs.) | Gross Ton (2240 lbs.) x 1.101605 = Metric Tons (1000kg) |

### Area Conversion Constants

| Metric to U.S.                              | U.S. to Metric                               |
|---------------------------------------------|----------------------------------------------|
| Square Millimeters x .00155 = square inches | Square Inches x 645.163 = square millimeters |
| Square Centimeters x .155 = square inches   | Square Inches x 6.45163 = square centimeters |
| Square Meters x 10.76387 = square feet      | Square Feet x .0929 = square meters          |
| Square Meters x 1.19599 = square yards      | Square Yards x .83613 = square meters        |
| Hectares x 2.47104 = acres                  | Acres x .40469 = hectares                    |
| Square Kilometers x 247.104 = acres         | Acres x .0040469 = square kilometers         |
| Square Kilometers x .3861 = square miles    | Square Miles x 2.5899 = square kilometers    |

### Pressure Conversion Constants

| Metric to U.S.                    | U.S. to Metric                    |
|-----------------------------------|-----------------------------------|
| Bar x 14.5 = psi                  | psi x .0689 = Bar                 |
| Megapascals x 145.0 = psi         | psi x .0069 = Megapascals (MPa)   |
| kgf/cm <sup>2</sup> x 14.22 = psi | psi x .0703 = kgf/cm <sup>2</sup> |

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# ContiTech



## Contact

ContiTech

NAFTA Headquarters

703 S. Cleveland Massillon Road

Fairlawn, OH 44333-3023 U.S.A.

1-800-235-4632

## Canada

1-888-275-4397

FAX 1-888-464-4397

## Mexico

1-800-439-7373

FAX 1-800-062-0918

[www.contitech.us](http://www.contitech.us)

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