

# NIBCO®

☒☒ *Lead Free* ☒☒

## LEAD FREE VALVES\*



AHEAD OF THE FLOW®

CATALOG C-LFV-0617

[nibcoleadfree.com](http://nibcoleadfree.com)

\*Weighted average lead content  $\leq 0.25\%$

# THE LEAD FREE AUTHORITY



## WROT COPPER & CAST PERFORMANCE BRONZE®

- Sweat and thread
- Size range: 1/8" to 8"



## NIBCO® PRESS SYSTEM®

- Wrot copper and cast Performance Bronze
- Size range: 1/2" to 4"



## NIBCO® PUSH

- Brass fittings and valves
- Size range: 1/2" to 1"



## FLANGES

- 1-piece cast Performance Bronze
  - Size range: 1" to 6"
- 2-piece copper
  - Size range: 3/4" to 6"



## NIBCO® PEX PIPING SYSTEMS

- Performance Bronze fittings and valves
- Size range: 1/2" to 1"



## CPVC-CTS FITTINGS

- Suitable for hot and cold water distribution
- Size range: 1/2" to 1"



## THE LARGEST VALVE PACKAGE IN THE INDUSTRY

- Performance Bronze ball, gate and check
- Iron butterfly, gate and check
- Plumbing

Visit us at [www.nibcoleadfree.com](http://www.nibcoleadfree.com) for our full lead-free\* offering.

\*Weighted average lead content  $\leq 0.25\%$

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# HydraPure® Performance Bronze® Commercial Valves

## Figure Number Key for Threaded, Solder and Press Ends

### Figure Number Key

# T-585-80-LF-\*\*

End Connection	Valve Style	Trim Material	Lead-Free* Designation	Options
PC - Press	111 - Rising Stem Gate	-66 - Stainless Steel	-LF	EL - Extended Lever w/Memory Stop
S - Solder	113 - Non-rising Stem Gate	-80 - Performance Bronze		HC - Hose Cap and Chain
T - Thread	413 - Swing Check			LL - Locking Lever
TPC - Thread x Press	480 - Ring Check			M - Memory Stop
	580 - Two-piece Cast Conventional Port Ball			NS - NIB-SEAL® Handle
	585 - Two-piece Cast Full Port Ball			LX - NIB-SEAL® Locking Extended Handle
	595 - Three-piece Cast Full Port Ball			
	685 - Two-piece Forged Full Port Ball			

**NOTE: Plumbing valves utilize a different Figure Number Key.**

\*Weighted average lead content ≤ 0.25%

Visit our website for the most current information.

# TURN TO EXPERIENCE

## AHEAD OF ITS TIME

For over two decades, NIBCO has led the industry in the development of lead-free alloys and commercialization of lead-free plumbing products. NIBCO first introduced a lead-free alloy into the domestic plumbing market in 1992.

## INDUSTRY-WIDE CHALLENGE

Reduce the allowable lead content in the Safe Drinking Water Act and other equivalent state regulations from 8% to .25% maximum by weighted average.

## NIBCO SOLUTION

NIBCO developed a line of valves produced from Performance Bronze® lead-free alloys, a family of high-quality, time-proven silicon alloys. The mechanical properties of Performance Bronze far exceed traditional plumbing alloys containing lead.

In 2009, NIBCO launched HydraPure® Performance Bronze® products to form a new generation of lead-free valves, fittings and flanges that comply with changing plumbing requirements.

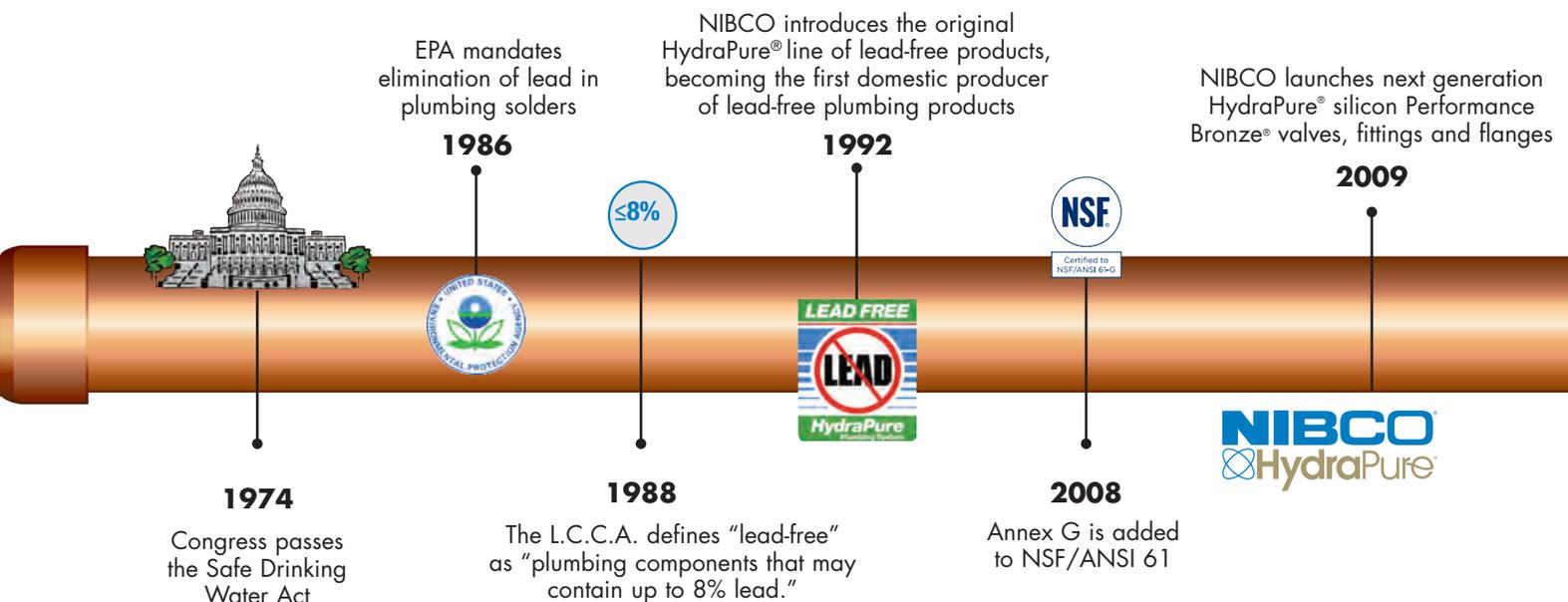
## COMPETITIVE ADVANTAGE

Unsurpassed experience, research, development, testing and production of lead-free alloys have given NIBCO the advantage to develop products with proven mechanical strength and corrosion resistance.

## HISTORICAL PERSPECTIVE

NIBCO originally used copper-bismuth alloy C89844 in its first generation of HydraPure® lead-free products. Introduced in 1992, this lead-free alloy brought NIBCO to the forefront of the industry as the first domestic producer of lead-free plumbing products. Many plumbing valve and fitting manufacturers still use similar alloys today.

To overcome technical limitations of bismuth-based alloys, NIBCO focused on the development of silicon lead-free alloys that have far superior mechanical properties.



# WHY SILICON LEAD FREE ALLOYS?



## BASIC PHYSICAL PROPERTIES

HydraPure® silicon Performance Bronze® exhibits mechanical properties that far exceed traditional plumbing alloys containing lead, especially when temperature is applied. NIBCO provides a series of white papers detailing engineering properties and performance characteristics of lead-free products on its website, nibcoleadfree.com.

## CORROSION RESISTANCE

Silicon improves corrosion resistance of copper alloys, creating a largely impenetrable surface oxide barrier to corrosion attack. NIBCO uses third-party agencies to test its HydraPure® silicon Performance Bronze® products for stress corrosion cracking and dezincification corrosion. Data presented confirms performance of actual products produced from the alloys, not theoretical. Letters available at nibcoleadfree.com.

## THIRD-PARTY REASSURANCE

NIBCO® HydraPure® valve products have achieved the highest level of stringent testing (Commercial Hot 180°F) within the NSF/ANSI 61-8 drinking water standard. In addition, HydraPure products are listed to NSF/ANSI 372; Weighted Average Lead Content of Water Contact Components that satisfies new requirements of the Safe Drinking Water Act.



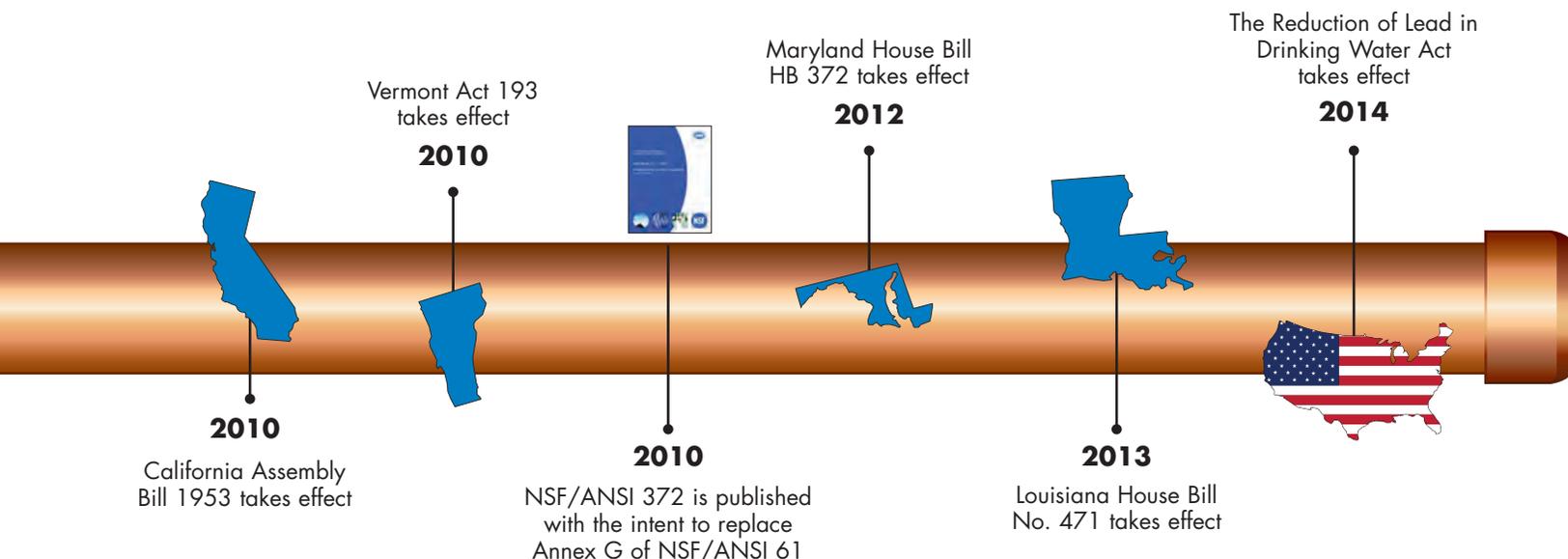
## MELTING TEMPERATURE

Elemental silicon melts at 2,572°F. The melting point of silicon is not a factor with respect to alloy application and service as it maintains mechanical strength at elevated temperatures. The melting temperature of bismuth is 520.7°F, which is significantly lower than the melt point for lead, 621.5°F. The lower melt point of bismuth can have a reduction of mechanical strength with soldering, brazing and/or service exposure.

13	14	15	16
Al Aluminum	Si Silicon	P Phosphorus	S Sulfur
31	32	33	34
Ga Gallium	Ge Germanium	As Arsenic	Se Selenium
49	50	51	52
In Indium	Sn Tin	Sb Antimony	Te Tellurium
81	82	83	84
Tl Thallium	Pb Lead	Bi Bismuth	Po Polonium

## SOURCE OF SUPPLY

Silicon is the second most abundant element within the earth's crust, second only to oxygen. In contrast, the U.S. has no bismuth deposits. Bismuth is only about twice as abundant as gold and is extracted from the earth's crust primarily as a byproduct of lead mining.



\*Weighted average lead content ≤ 0.25%

# Lead-Free\* Commercial Valves Illustrated Index



**T/S-585-80/66-LF**  
Two-piece lead-free ball valve  
Full port, 600 PSI CWP  
Threaded or solder ends  
Sizes 1/4" thru 2"  
**Page 9, 10**



**PC-585-80/66-LF**  
Two-piece lead-free ball valve  
Full port, 200 PSI CWP  
Copper press ends  
Sizes 1/2" thru 2"  
**Page 11, 12**



**TPC-585-80/66-LF**  
Lead-free ball valve  
Full port, 250 PSI CWP  
Threaded x press ends  
Sizes 1/2" thru 2"  
**Page 13, 14**



**T/S-580-80/66-LF**  
Two-piece lead-free ball valve  
Conventional port, 600 PSI CWP  
Threaded or solder ends  
Sizes 1-1/4" thru 3"  
**Page 15, 16**



**T/S-585-80/66-LF-HC**  
Two-piece lead-free ball valve  
w/hose cap & chain  
Full Port, 600 PSI CWP  
Sizes 1/2" and 3/4" threaded or  
solder End w/ 3/4" hose connection  
**Page 17, 18**



**PC-585-80/66-LF-HC**  
Two-piece lead-free ball valve  
w/hose cap & chain  
Full port, 250 PSI CWP  
Sizes 1/2" and 3/4" press end  
w/ 3/4" hose connection  
**Page 19, 20**



**T/S-595-Y-LF or T/S-595-Y-66-LF**  
Three-piece lead-free ball valve  
Full port, 600 PSI CWP  
Threaded or solder ends  
Sizes 1/4" thru 2-1/2"  
**Page 21, 22**



**PC-111-LF**  
Lead-free gate valve  
Rising stem, 250<sup>+</sup> PSI CWP  
Threaded or solder ends  
Sizes 1/2" thru 3"  
**Page 23**



**T/S-111-LF**  
Lead-free gate valve  
Rising stem, 300 PSI CWP  
Threaded or solder ends  
Sizes 1/4" thru 3"  
**Page 24**



**PC-113-LF**  
Lead-free Gate Valve  
Non-rising stem, 250<sup>+</sup> PSI CWP  
Threaded or solder ends  
Sizes 1/2" thru 3"  
**Page 25**



**T/S-113-LF**  
Lead-free Gate Valve  
Non-rising stem, 300 PSI CWP  
Threaded or solder ends  
Sizes 1/4" thru 3"  
**Page 26**



**T/S-413-Y-LF**  
Lead-free horizontal swing check valve  
200 PSI CWP  
Threaded or solder ends  
Sizes 1/4" thru 2"  
**Page 27**



**PC-413-Y-LF**  
Lead-free horizontal swing check valve  
200 PSI CWP  
Copper Press Ends  
Sizes 1/2" thru 2"  
**Page 28**

\*Weighted average lead content ≤ 0.25%

# Lead-Free\* Plumbing Valves Illustrated Index



**T/S-480-Y-LF**  
Lead-free ring check valve  
250 PSI CWP  
Threaded or solder ends  
Sizes 1/2" thru 2"  
**Page 29**



**T/S-FP-600A-LF**  
**T/S-FP-600-AD-LF**  
Two-piece lead-free Ball Valve  
Full port  
600 PSI CWP (1/4" - 2")  
400 PSI CWP (2 1/2" - 4")  
Threaded sizes 1/4" thru 4"  
Solder sizes 3/8" thru 3"  
**Pages 30-32**



**PC-FP-600A-LF**  
Press x press female end  
Full port, blowout-proof stem  
Press end leak detection  
225 PSI CWP  
Size 1/2" thru 4"  
**Page 33-34**



**PC-FP-600A-LF-W**  
Press end leak detection  
Two-piece lead-free ball valve  
Full port, 250 PSI CWP  
Wing handle  
Sizes 1/2" thru 1"  
**Pages 35**



**PCMT-FP-600A-LF**  
Press end leak detection  
Two-piece lead-free ball valve  
Full port, 250 PSI CWP  
MIP union  
Sizes 1/2" thru 1"  
**Pages 36**



**PCT-FP-600A-LF**  
Press end leak detection  
Two-piece lead-free ball valve  
Full port, 250 PSI CWP  
FIP union  
Sizes 1/2" thru 1"  
**Pages 37**



**PC-FP-600A-D-LF**  
Press end leak detection  
Two-piece lead-free ball valve  
Full port, 250 PSI CWP  
Side drain / bleeder  
Sizes 1/2" thru 1"  
**Pages 38**



**PC-FP-600A-LF-HC**  
Press end leak detection  
Two-piece lead-free ball valve  
Full port, 250 PSI CWP  
3/4" Hose connection with cap  
Sizes 1/2" thru 3/4"  
**Pages 39**



**PCPXA-FP-600A-LF**  
Press end leak detection  
Two-piece lead-free ball valve  
Full port, 250 PSI CWP  
PEX end F1960 cold expansion  
Sizes 1/2" thru 2"  
**Pages 40**



**PCPX-FP-600A-LF**  
Press end leak detection  
Two-piece lead-free ball valve  
Full port, 250 PSI CWP  
PEX end F1807 crimp  
Sizes 1/2" thru 2"  
**Pages 41**

\*Weighted average lead content ≤ 0.25%



**PCFU-FP-600A-LF**  
Press end leak detection  
Two-piece lead-free ball valve  
Full port, 250 PSI CWP  
FIP union  
Sizes 1/2" thru 1"  
**Pages 42**



**PCMU-FP-600A-LF**  
Press end leak detection  
Two-piece lead-free ball valve  
Full port, 250 PSI CWP  
MIP union  
Sizes 1/2" thru 1"  
**Pages 43**



**PCSU-FP-600A-LF**  
Press end leak detection  
Two-piece lead-free ball valve  
Full port, 250 PSI CWP  
Solder union  
Sizes 1/2" thru 1"  
**Pages 44**



**T/S-685-80/66-LF**  
**S-685-80-D-LF**  
Two-piece lead-free ball valve  
Full port, 600 PSI CWP  
Threaded or solder ends  
Sizes 1/4" thru 2"  
Solder available with drain (-D)  
Sizes 1/2" thru 1"  
**Pages 45-47**



**726-LF/76-LF**  
Lead-free stop & drain valves  
125 PSI CWP  
Threaded or solder ends  
Sizes 1/2" and 3/4"  
**Page 48**



**Supply Stops**  
Quarter-turn  
Straight or angle style  
125 PSI CWP  
Various end connections  
Sizes 1/2" thru 5/8"  
**Page 49-53**

## Identification of Lead-Free\* Bronze/Brass Valves Markings and Packaging



**NIBCO® HydraPure® valves can be identified by the double oval symbol and "Si" – indicative of silicon Performance Bronze® – cast in the body of the valve.**



**Lead-Free valves not manufactured from Performance Bronze® include an "LF" in the body**

### White Handles



### Blue Carton Labels



\*Weighted average lead content ≤ 0.25%

\*1

# Lead-Free\* Bronze Ball Valves

**Features:** Silicon Performance Bronze® Alloy • Two-Piece Body • Full Port • Blowout-Proof Stem

**Approvals:** MSS SP-110 • IAPMO IGC-157 • NSF/ANSI-61-8 Commercial Hot 180°F (includes annex F and G) and NSF/ANSI-372

**Size range:** ¼" - 2½"

**Pressure rating:** 600 PSI non-shock cold working pressure

**Maximum pressure / temperature:** 100 PSI at 300° F

Lead-free\* markings: Double oval in body casting, white handle and blue hang tag



## MATERIAL LIST

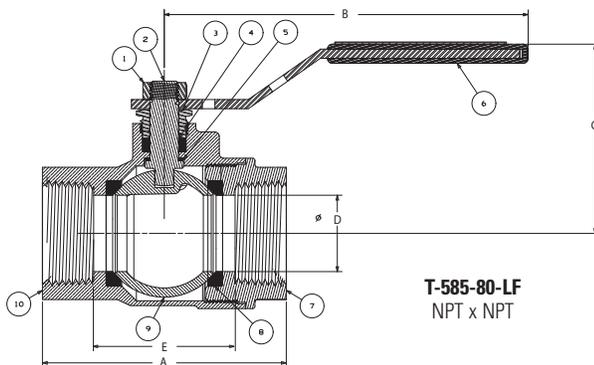
PART	SPECIFICATION
1. Handle Nut	Zinc Plated Steel
2. Stem	Silicon Bronze ASTM B371 Alloy C69300
3. Pack Gland	Brass ASTM B16 Alloy C36000
4. Packing, Stem	Virgin PTFE
5. Washer, Thrust	Reinforced PTFE
6. Handle	Zinc Plated Steel Clear Chromate Plastisol Coated
7. End Piece	Silicon Bronze ASTM B584 Alloy C87600
8. Seat Ring (2)	Reinforced PTFE
9. Ball	DZR Brass SAE J461 C46500 (¼"-1") Stainless Steel ASTM A276 S31600 or ASTM A351 CF8M (1¼"-2½")
10. Body	Silicon Bronze ASTM B584 Alloy C87600



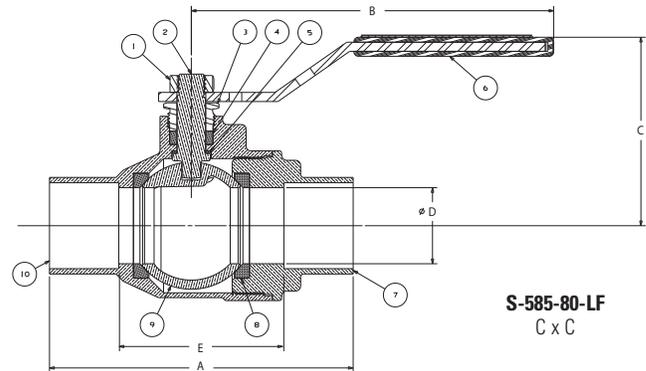
**T-585-80-LF**  
Threaded



**S-585-80-LF**  
Solder



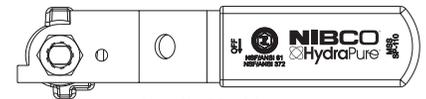
**T-585-80-LF**  
NPT x NPT



**S-585-80-LF**  
C x C

## DIMENSIONS—WEIGHTS—QUANTITIES

SIZE	Dimensions																Master Ctn. Qty.			
	T-585-80-LF				S-585-80-LF				T-585-80-LF				S-585-80-LF							
	A	A	B	C	A	A	B	C	E	E	E	E	Lbs.	Kg.	Lbs.	Kg.				
¼	8	1.78	45	1.83	46	3.96	101	1.86	47	0.31	8	1.00	25	1.21	31	0.43	0.19	0.40	0.18	24
⅜	10	1.79	45	1.97	50	3.96	101	1.85	47	0.38	10	1.80	46	1.21	31	0.44	0.20	0.41	0.19	24
½	15	2.23	57	2.4	61	3.96	101	1.96	50	0.5	13	1.16	29	1.40	36	0.65	0.30	0.56	0.25	80
¾	20	2.78	71	3.16	80	4.76	121	2.28	58	0.75	19	1.68	43	1.66	42	1.20	0.55	1.02	0.46	60
1	25	3.34	85	3.99	101	4.76	121	2.48	63	1	25	2.00	51	2.17	55	1.63	0.74	1.50	0.68	40
1¼	32	3.75	95	4.13	105	6.75	171	3.10	79	1.25	32	2.39	61	2.19	56	2.87	1.30	2.41	1.09	20
1½	40	4.26	108	4.97	126	6.75	171	3.32	84	1.5	38	2.89	73	2.79	71	3.83	1.74	3.62	1.64	10
2	65	4.80	122	6.02	153	6.75	171	3.56	90	2	51	3.40	86	3.34	85	5.57	2.53	5.54	2.51	6
2½	65	6.00	152	7.21	183	8.06	205	4.40	112	2.50	64	4.12	105	4.27	108	13.70	6.21	12.80	5.80	2



Handle Markings

### Handle Options:

- Stainless Steel Lever
- NIB-Seal®
- Locking lever
- Stainless Steel Locking Lever
- Memory stop
- Extended lever w/ memory stop
- Round
- Wing
- Horizontal and vertical chain



Conventional port valve offered in 3" size



**WARNING:** This product can expose you to chemicals including lead, which is known to the State of California to cause cancer and birth defects or other reproductive harm. For more information go to [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov).

\*Weighted average lead content ≤ 0.25%

# Lead-Free\* Bronze Ball Valves

**Features:** Silicon Performance Bronze® Alloy • Two-Piece Body • Full Port • Blowout-Proof Stem • Stainless Trim • Vented Ball

**Approvals:** MSS SP-110 • IAPMO IGC-157 • NSF/ANSI-61-8 Commercial Hot 180°F (includes annex F and G) and NSF/ANSI-372

**Size range:** 1/4" - 2 1/2"

**Pressure rating:** 600 PSI non-shock cold working pressure

**Maximum pressure / temperature:** 100 PSI at 300° F

Lead-free\* markings: Double oval in body casting, white handle and blue hang tag



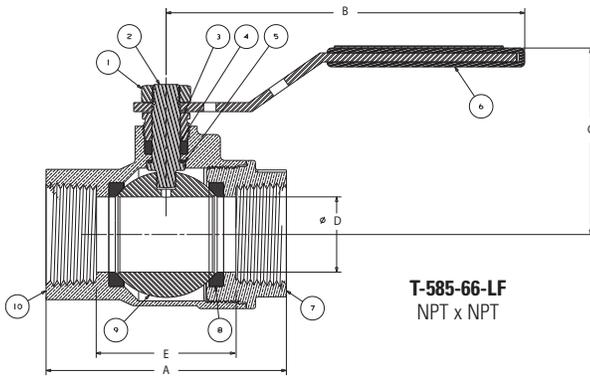
## MATERIAL LIST

PART	SPECIFICATION
1. Handle Nut	Zinc Plated Steel
2. Stem	Stainless Steel ASTM A276 Type 316
3. Pack Gland	Brass ASTM B16 Alloy C36000
4. Packing, Stem	Virgin PTFE
5. Washer, Thrust	Reinforced PTFE
6. Handle	Zinc Plated Steel Clear Chromate Plastisol Coated
7. End Piece	Silicon Bronze ASTM B584 Alloy C87600
8. Seat Ring (2)	Reinforced PTFE
9. Ball (Vented)	Stainless Steel ASTM A276 Type 316
10. Body	Silicon Bronze ASTM B584 Alloy C87600

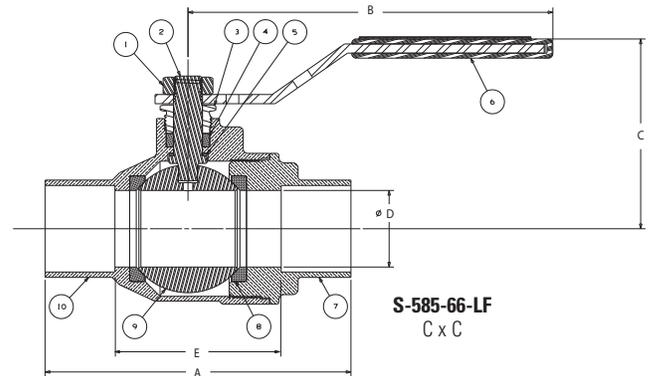


**T-585-66-LF**  
Threaded

**S-585-66-LF**  
Solder



**T-585-66-LF**  
NPT x NPT



**S-585-66-LF**  
C x C

## DIMENSIONS—WEIGHTS—QUANTITIES

SIZE	Dimensions										Weights				Master Ctn. Qty.					
	T-585-66-LF		S-585-66-LF		T-585-66-LF		S-585-66-LF		T-585-66-LF		S-585-66-LF									
In. mm.	A	A	B	C	D	E	E	Lbs.	Kg.	Lbs.	Kg.	Lbs.	Kg.	Lbs.	Kg.					
1/4	8	1.78	45	1.83	46	3.96	101	1.86	47	0.31	8	1.00	25	1.21	31	0.43	0.19	0.40	0.18	24
3/8	10	1.79	45	1.97	50	3.96	101	1.85	47	0.38	10	1.80	46	1.21	31	0.44	0.20	0.41	0.19	24
1/2	15	2.23	57	2.4	61	3.96	101	1.96	50	0.5	13	1.16	29	1.40	36	0.65	0.30	0.56	0.25	80
3/4	20	2.78	71	3.16	80	4.76	121	2.28	58	0.75	19	1.68	43	1.66	42	1.20	0.55	1.02	0.46	60
1	25	3.34	85	3.99	101	4.76	121	2.48	63	1	25	2.00	51	2.17	55	1.63	0.74	1.50	0.68	40
1 1/4	32	3.75	95	4.13	105	6.75	171	3.10	79	1.25	32	2.39	61	2.19	56	2.87	1.30	2.41	1.09	20
1 1/2	40	4.26	108	4.97	126	6.75	171	3.32	84	1.5	38	2.89	73	2.79	71	3.83	1.74	3.62	1.64	10
2	65	4.80	122	6.02	153	6.75	171	3.56	90	2	51	3.40	86	3.34	85	5.57	2.53	5.54	2.51	6
2 1/2	65.00	6.00	152	7.21	183	8.06	205	4.40	112	2.50	64	4.12	105	4.27	108	13.70	6.21	12.80	5.80	2



Handle Markings

### Handle Options:

- Stainless Steel Lever
- NIB-Seal®
- Locking lever
- Stainless Steel Locking Lever
- Memory stop
- Extended lever w/ memory stop
- Round
- Wing
- Horizontal and vertical chain

Conventional port valve offered in 3" size

**WARNING:** This product can expose you to chemicals including lead, which is known to the State of California to cause cancer and birth defects or other reproductive harm. For more information go to [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov).

\*Weighted average lead content ≤ 0.25%

# NIBCO® Press System Lead-Free\* Bronze Ball Valves

**Features:** Silicon Performance Bronze® Two-Piece Body • Press Ends Leak Detection • Full Port • Blowout-Proof Stem

**Approvals:** MSS SP-110 • IAPMO/ANSI Z1157 (IGC-157) •

NSF/ANSI-61-8 commercial hot 180°F (includes annex F and G) and NSF/ANSI-372

**Size range:** ½" - 2½"

**Pressure rating:** 250 PSI non-shock cold working pressure

**Body design pressure:** 600 PSI CWP non-shock cold working pressure

**Maximum pressure / temperature:** 200 PSI at 250° F

Lead-free\* markings: Double oval in body casting, white handle and blue hang tag



## MATERIAL LIST

PART	SPECIFICATION
1. Handle Nut	Zinc Plated Steel
2. Stem	Silicon Bronze ASTM B371 Alloy C69300
3. Pack Gland	Brass ASTM B16 Alloy C36000
4. Packing, Stem	PTFE
5. Thrust Washer	Reinforced PTFE
6. Handle Assembly	Zinc Plated Steel Clear Chromate Plastisol Coated
7. Body End	Silicon Bronze ASTM B584 Alloy C87600
8. Seat Ring (2)	Reinforced PTFE
9. Ball (vented)	DZR Brass SAE J461 C46500 (¼"-1") Stainless Steel ASTM A276 S31600 or ASTM A351 CF8M (1¼"-2½")
10. Body	Silicon Bronze ASTM B584 Alloy C87600
11. Boss seal o-ring (2)	EPDM
12. O-Ring (2)	EPDM - Leak Detection
13. Press End Adapter (2)	Wrot Copper ASTM B75 Alloy C12200

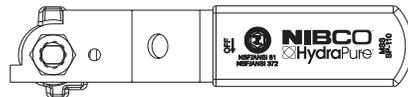


**PC-585-80-LF**

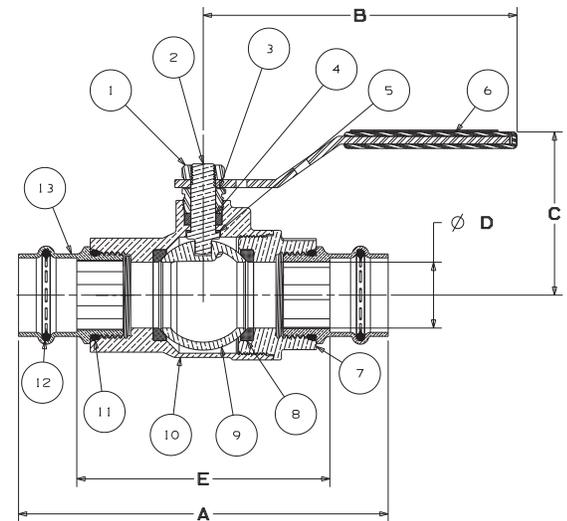
Press x Press  
Female End

### Handle Options:

- Stainless Steel Lever
- NIB-Seal®
- Locking lever
- Stainless Steel Locking Lever
- Memory stop
- Extended lever w/ memory stop
- Round
- Wing
- Horizontal and vertical chain



Handle Markings



**PC-585-80-LF**  
P x P

## DIMENSIONS—WEIGHTS—QUANTITIES

SIZE	A		B		C		D		E		Weight		
	In.	mm.	Lbs.	Kg.									
½	15	3.93	100	3.96	101	1.96	50	0.50	13	2.53	64	0.80	0.36
¾	20	5.00	127	4.76	121	2.28	58	0.75	19	3.23	82	1.56	0.71
1	25	5.61	142	4.76	121	2.48	63	1.00	25	3.84	98	2.13	1.00
1¼	32	6.23	158	6.76	172	3.10	79	1.25	32	4.21	107	3.73	1.69
1½	40	7.56	192	6.76	172	3.32	84	1.50	38	4.79	122	5.53	2.51
2	50	8.40	213	6.76	172	3.56	90	2.00	51	5.36	136	7.95	3.61
2½	65	9.49	241	8.06	205	4.33	110	2.50	64	6.55	166	16.20	7.35



NIBCO Press System ball valves are designed to meet MSS SP-110 with the exception of the end connection. Ball valves are down-rated from 600 PSI CWP to 250 PSI CWP to match the Press System. Male and female press-to-connect ends are new technology not yet covered in the current edition of this specification

**WARNING:** This product can expose you to chemicals including lead, which is known to the State of California to cause cancer and birth defects or other reproductive harm. For more information go to [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov).

\*Weighted average lead content ≤ 0.25%

# NIBCO® Press System Lead-Free\* Bronze Ball Valves

**Features:** Silicon Performance Bronze® Two-Piece Body • Copper Ends • Full Port • Blowout-Proof Stem • Stainless Trim

**Approvals:** MSS SP-145 • IAPMO/ANSI Z1157 (IGC-157) • NSF/ANSI-61-8 commercial hot 180°F (includes annex F and G) and NSF/ANSI-372

**Size range:** 1/2" - 2 1/2"

**Pressure rating:** 250 PSI non-shock cold working pressure

**Body design pressure:** 600 PSI CWP

**Maximum pressure / temperature:** 200 PSI at 250° F

Lead-free\* markings: Double oval in body casting, white handle and blue hang tag



## MATERIAL LIST

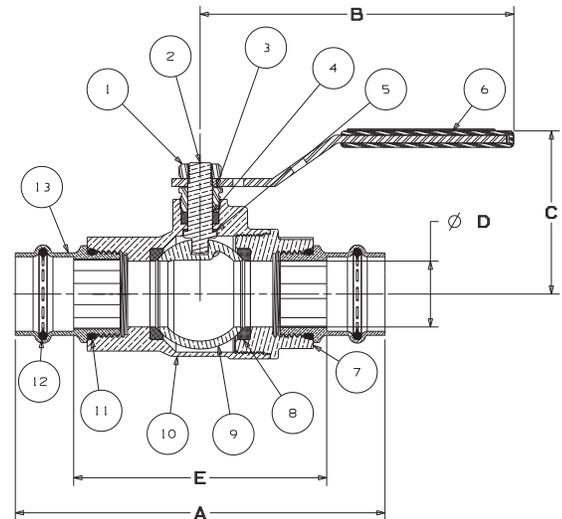
PART	SPECIFICATION
1. Handle Nut	Zinc Plated Steel
2. Stem	Stainless Steel ASTM A276 Type 316
3. Pack Gland	Brass ASTM B16 Alloy C36000
4. Packing, Stem	PTFE
5. Thrust Washer	Reinforced PTFE
6. Handle Assembly	Plated Steel with Plastisol Coating
7. Body End	Silicon Bronze ASTM B584 Alloy C87600
8. Seat Ring (2)	Reinforced PTFE
9. Ball (vented)	Stainless Steel ASTM A276 Type 316
10. Body	Silicon Bronze ASTM B584 Alloy C87600
11. Boss seal o-ring (2)	EPDM
12. O-Ring (2)	EPDM - Leak Detection
13. Press End Adapter (2)	Wrot Copper ASTM B75 Alloy C12200



**PC-585-66-LF**  
Press x Press  
Female End

### Handle Options:

- Stainless Steel Lever
- NIB-Seal®
- Locking lever
- Stainless Steel Locking Lever
- Memory stop
- Extended lever w/ memory stop
- Round
- Wing
- Horizontal and vertical chain



**PC-585-66-LF**  
P x P

## DIMENSIONS—WEIGHTS—QUANTITIES

SIZE	A		B		C		D		E		Weight		
In.	mm.	In.	mm.	In.	mm.	In.	mm.	In.	mm.	In.	mm.	Lbs.	Kg.
1/2	15	3.93	100	3.96	101	1.96	50	0.50	13	2.53	64	0.80	0.36
3/4	20	5.00	127	4.76	121	2.28	58	0.75	19	3.23	82	1.56	0.71
1	25	5.61	142	4.76	121	2.48	63	1.00	25	3.84	98	2.13	1.00
1-1/4	32	6.23	158	6.76	172	3.10	79	1.25	32	4.21	107	3.73	1.69
1-1/2	40	7.56	192	6.76	172	3.32	84	1.50	38	4.79	122	5.53	2.51
2	50	8.40	213	6.76	172	3.56	90	2.00	51	5.36	136	7.95	3.61
2-1/2	65.00	9.49	241	8.06	205	4.33	110	2.50	64	6.55	166	16.20	7.35



NIBCO Press System ball valves are designed to meet MSS SP-110 with the exception of the end connection. Ball valves are down-rated from 600 PSI CWP to 250 PSI CWP to match the Press System. Male and female press-to-connect ends are new technology not yet covered in the current edition of this specification

**WARNING:** This product can expose you to chemicals including lead, which is known to the State of California to cause cancer and birth defects or other reproductive harm. For more information go to [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov).

\*Weighted average lead content ≤ 0.25%

# NIBCO® Press System Lead-Free\* Bronze Ball Valves

**Features:** Silicon Performance Bronze® Body • Copper End • Full Port • Blowout-Proof Stem

**Approvals:** MSS SP-145 • IAPMO/ANSI Z1157 (IGC-157) • NSF/ANSI-61-8  
Commercial Hot 180°F (includes annex F and G) and NSF/ANSI-372

**Size range:** 1/2" - 2"

**Pressure rating:** 250 PSI non-shock cold working pressure

**Body design pressure:** 600 PSI CWP

**Maximum pressure / temperature:** 200 PSI at 250° F

Lead-free\* markings: Double oval in body casting, white handle and blue hang tag



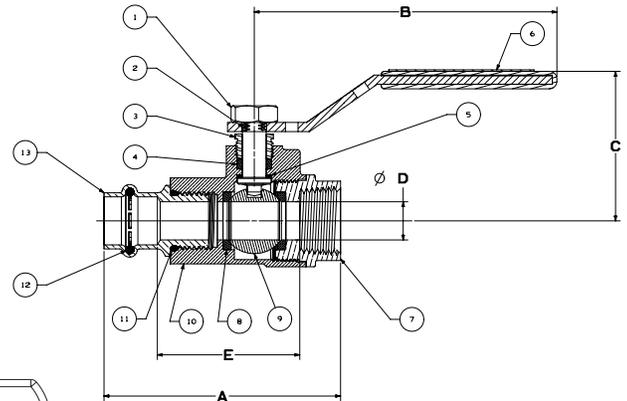
## MATERIAL LIST

PART	SPECIFICATION
1. Handle Nut	Plated Steel
2. Stem	Silicon Bronze ASTM B371 Alloy C69300
3. Pack Gland	Brass ASTM B16 Alloy C36000
4. Packing, Stem	PTFE
5. Thrust Washer	Reinforced PTFE
6. Handle Assembly	Plated Steel with Platisol Coating
7. Body End	Silicon Bronze ASTM B584 Alloy C87600
8. Seat Ring (2)	Reinforced PTFE
9. Ball	Silicon Bronze ASTM B283 Alloy C69300
10. Body	Silicon Bronze ASTM B584 Alloy C87600
11. Boss seal o-ring	EPDM
12. O-Ring	EPDM
13. Press End Adapter	Wrot Copper ASTM B75 Alloy C12200



**TPC-585-80-LF**

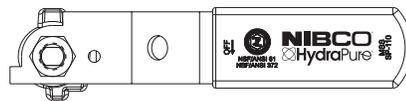
Thread x Press  
Female



**TPC-585-80-LF**  
NPT x P

### Handle Options:

- Stainless steel lever
- NIB-Seal®
- Locking lever
- Stainless steel locking lever
- Memory stop
- Extended lever w/ memory stop
- Round
- Wing
- Horizontal and vertical chain



Handle Markings

## DIMENSIONS—WEIGHTS

NOM SIZE	A		B		C		D		E		F		G		J		Weight		Master	
In. mm.	In.	mm.	Lbs.	Kg.	Lbs.	Kg.	Lbs.	Kg.	Ctn. Qty.											
1/2	15	3.1	79	3.96	101	1.96	50	0.5	13	1.86	47	1.2	30	0.7	18	5.93	151	0.80	0.36	50
3/4	20	3.96	101	4.76	121	2.28	58	0.75	19	2.45	62	1.56	40	0.96	24	7.33	186	1.35	0.61	30
1	25	4.47	114	4.76	121	2.48	63	1	25	2.92	74	1.97	50	0.89	23	7.56	192	1.90	0.86	20
1-1/4	32	4.99	127	6.76	172	3.1	79	1.25	32	3.3	84	2.31	59	1.01	26	9.86	250	3.20	1.45	12
1-1/2	40	5.9	150	6.76	172	3.32	84	1.5	38	3.84	98	2.84	72	1.39	35	10.53	267	4.40	2.00	6
2	50	6.61	168	6.76	172	3.56	90	2	51	4.38	111	3.54	90	1.51	38	10.94	278	6.45	2.93	6



**WARNING:** This product can expose you to chemicals including lead, which is known to the State of California to cause cancer and birth defects or other reproductive harm. For more information go to [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov).

\*Weighted average lead content ≤ 0.25%

# NIBCO® Press System Lead-Free\* Bronze Ball Valves

**Features:** Silicon Performance Bronze® Body • Copper End • Full Port • Blowout-Proof Stem • Stainless Trim

**Approvals:** MSS SP-145 • IAPMO/ANSI Z1157 (IGC-157) • NSF/ANSI-61-8 Commercial Hot 180°F (includes annex F and G) and NSF/ANSI-372

**Size range:** 1/2" - 2"

**Pressure rating:** 250 PSI non-shock cold working pressure

**Body design pressure:** 600 PSI CWP

**Maximum pressure / temperature:** 200 PSI at 250° F

Lead-free\* markings: Double oval in body casting, white handle and blue hang tag



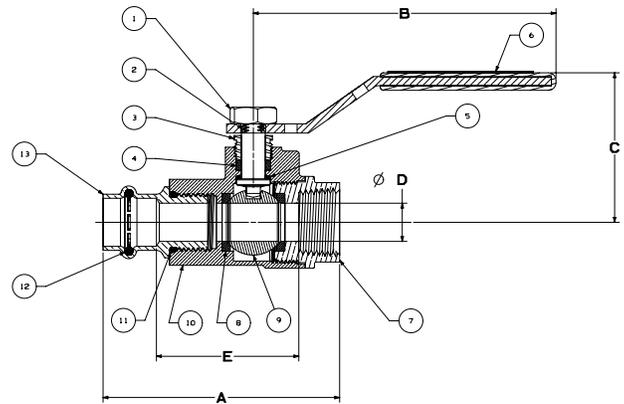
## MATERIAL LIST

PART	SPECIFICATION
1. Handle Nut	Plated Steel
2. Stem	Stainless Steel ASTM A276 Type 316
3. Pack Gland	Brass ASTM B16 Alloy C36000
4. Packing, Stem	PTFE
5. Thrust Washer	Reinforced PTFE
6. Handle Assembly	Plated Steel with Plastisol Coating
7. Body End	Silicon Bronze ASTM B584 Alloy C87600
8. Seat Ring (2)	Reinforced PTFE
9. Ball (vented)	Stainless Steel ASTM A276 Type 316
10. Body	Silicon Bronze ASTM B584 Alloy C87600
11. Boss seal o-ring	EPDM
12. O-Ring	EPDM
13. Press End Adapter	Wrot Copper ASTM B75 Alloy C12200



## TPC-585-66-LF

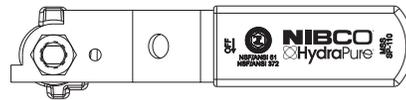
Thread x Press  
Female



TPC-585-66-LF  
NPT x P

### Handle Options:

- Stainless Steel Lever
- NIB-Seal®
- Locking lever
- Stainless Steel Locking Lever
- Memory stop
- Extended lever w/ memory stop
- Round
- Wing
- Horizontal and vertical chain



Handle Markings

## DIMENSIONS—WEIGHTS

NOM SIZE	A		B		C		D		E		F		G		J		Weight		Master Ctn. Qty.	
	In.	mm.	Lbs.	Kg.	Lbs.	Kg.	Lbs.	Kg.												
1/2	15	3.1	79	3.96	101	1.96	50	0.5	13	1.86	47	1.2	30	0.7	18	5.93	151	0.80	0.36	50
3/4	20	3.96	101	4.76	121	2.28	58	0.75	19	2.45	62	1.56	40	0.96	24	7.33	186	1.35	0.61	30
1	25	4.47	114	4.76	121	2.48	63	1	25	2.92	74	1.97	50	0.89	23	7.56	192	1.90	0.86	20
1-1/4	32	4.99	127	6.76	172	3.1	79	1.25	32	3.3	84	2.31	59	1.01	26	9.86	250	3.20	1.45	12
1-1/2	40	5.9	150	6.76	172	3.32	84	1.5	38	3.84	98	2.84	72	1.39	35	10.53	267	4.40	2.00	6
2	50	6.61	168	6.76	172	3.56	90	2	51	4.38	111	3.54	90	1.51	38	10.94	278	6.45	2.93	6

**WARNING:** This product can expose you to chemicals including lead, which is known to the State of California to cause cancer and birth defects or other reproductive harm. For more information go to [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov).

\*Weighted average lead content ≤ 0.25%

# Lead-Free\* Bronze Ball Valves

**Features:** Silicon Performance Bronze® Alloy • Two-Piece Body • Conventional Port • Blowout-Proof Stem

**Approvals:** MSS SP-110 • IAPMO IGC-157 • NSF/ANSI-61-8 Commercial Hot 180°F (includes annex F and G) and NSF/ANSI-372

**Size range:** 1-1/4" - 3"

**Pressure rating:** 600 PSI non-shock cold working pressure

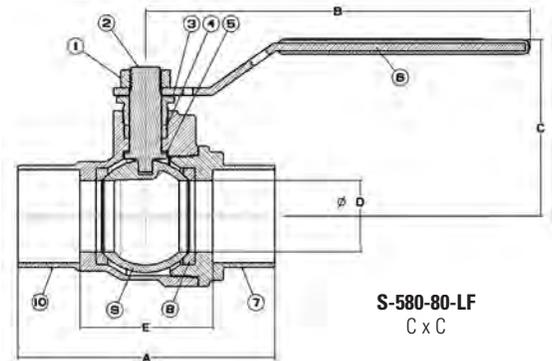
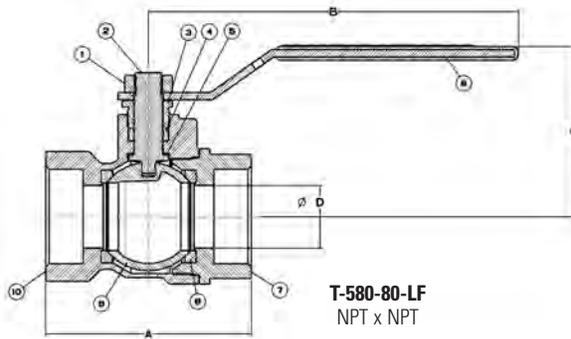
**Maximum pressure / temperature:** 100 PSI at 300° F

Lead-free\* markings: Double oval in body casting, white handle and blue hang tag



## MATERIAL LIST

PART	SPECIFICATION
1. Nut, Handle	Steel, Plated
2. Stem	Silicon Bronze ASTM B371 Alloy C69300
3. Pack Gland	Brass ASTM B16 Alloy C36000
4. Packing, Stem	Virgin PTFE
5. Washer, Thrust	Reinforced PTFE
6. Handle	Steel, Plated Plastisol Coated
7. End Piece	Silicon Bronze ASTM B584 Alloy C87600
8. Seat Ring	Reinforced PTFE
9. Ball	Silicon Bronze ASTM B283 Alloy C69300
10. Body	Silicon Bronze ASTM B584 Alloy C87600



### Handle Options:

- NIB-Seal® (up to 2-1/2")
- Locking lever
- Memory stop
- Extended lever w/ memory stop
- Round (up to 2 1/2")
- Horizontal and vertical chain (up to 2-1/2")

## DIMENSIONS—WEIGHTS—QUANTITIES

SIZE	Dimensions												Weights				Master Ctn. Qty.													
	T-580-80-LF		S-580-80-LF		T-580-80-LF		S-580-80-LF		T-580-80-LF		S-580-80-LF		T-580-80-LF		S-580-80-LF															
In. mm.	A	A	B	C	D	E	E	F	G	G	J	J	Lbs.	Kg.	Lbs.	Kg.														
1-1/4	32	3.54	90	3.9	99	4.76	121	2.48	63	1.00	25	2.18	55	1.96	50	2.09	53	0.68	17	0.97	25	6.53	166	6.69	170	2.17	0.98	1.78	0.81	20
1-1/2	40	3.75	95	4.51	115	6.75	171	3.09	78	1.25	32	2.39	61	2.33	59	2.46	62	0.68	17	1.09	28	8.62	219	8.99	228	3.27	1.48	2.87	1.30	20
2	50	4.30	109	5.49	139	6.75	171	3.32	84	1.50	38	2.90	74	2.81	71	2.95	75	0.70	18	1.34	34	8.90	226	9.49	241	5.09	2.31	4.60	2.08	10
2-1/2	65	5.43	138	6.34	161	6.75	171	3.56	90	2.00	51	3.55	90	3.40	86	3.75	95	0.94	24	1.47	37	9.46	240	9.89	251	8.25	3.74	8.18	3.71	6
3"	80	6.16	156	7.53	191	8.06	205	4.40	112	2.50	64	—	—	4.21	107	6.61	168	1.02	26	1.66	42	11.14	283	11.83	300	14.62	7.00	13.75	6.00	4

†Patent Pending

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\*Weighted average lead content ≤ 0.25%

# Lead-Free\* Bronze Ball Valves

**Features:** Silicon Performance Bronze® Alloy • Two-Piece Body • Conventional Port • Blowout-Proof Stem • Stainless Trim • Vented Ball

**Approvals:** MSS SP-110 • IAPMO IGC-157 • NSF/ANSI-61-8 Commercial Hot 180°F (includes annex F and G) and NSF/ANSI-372

**Size range:** 1-1/4" - 3"

**Pressure rating:** 600 PSI non-shock cold working pressure

**Maximum pressure / temperature:** 100 PSI at 300° F

Lead-free\* markings: Double oval in body casting, white handle and blue hang tag



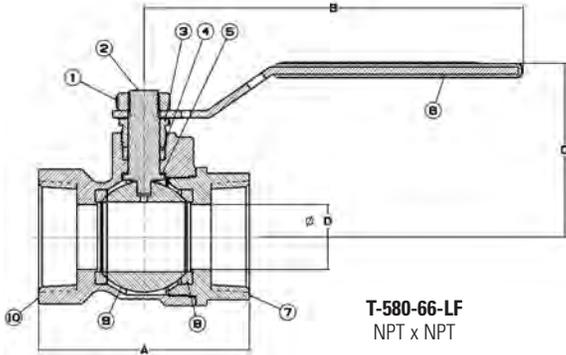
## MATERIAL LIST

PART	SPECIFICATION
1. Nut, Handle	Steel, Stainless
2. Stem	Stainless Steel ASTM A276 Type 316
3. Pack Gland	Brass ASTM B16 Alloy C36000
4. Packing, Stem	Virgin PTFE
5. Washer, Thrust	Reinforced PTFE
6. Handle	Steel, Plated Plastisol Coated
7. End Piece	Silicon Bronze ASTM B584 Alloy C87600
8. Seat Ring	Reinforced PTFE
9. Ball (Vented)	Stainless Steel ASTM A276 Type 316
10. Body	Silicon Bronze ASTM B584 Alloy C87600

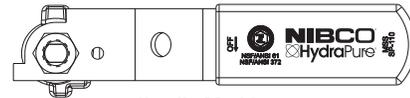


**T-580-66-LF**  
Threaded

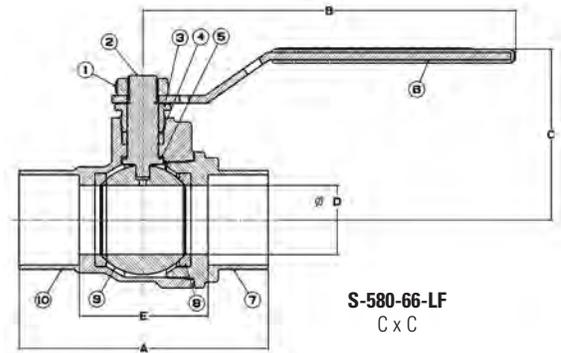
**S-580-66-LF**  
Solder



**T-580-66-LF**  
NPT x NPT



Handle Markings



**S-580-66-LF**  
C x C

### Handle Options:

- NIB-Seal® (up to 2-1/2")
- Locking lever
- Memory stop
- Extended lever w/ memory stop
- Round (up to 2-1/2")
- Horizontal and vertical chain (up to 2-1/2")

## DIMENSIONS—WEIGHTS—QUANTITIES

SIZE	T-580-66-LF		S-580-66-LF		T-580-66-LF		S-580-66-LF		T-580-66-LF		S-580-66-LF		T-580-80-LF		S-580-80-LF		Master Ctn. Qty.													
	A	A	B	C	D	E	E	F	G	G	J	J	Lbs.	Kg.	Lbs.	Kg.														
1-1/4	32	3.54	90	3.9	99	4.76	121	2.48	63	1.00	25	2.18	55	1.96	50	2.09	53	0.68	17	0.97	25	6.53	166	6.69	170	2.17	0.98	1.78	0.81	20
1-1/2	40	3.75	95	4.51	115	6.75	171	3.09	78	1.25	32	2.39	61	2.33	59	2.46	62	0.68	17	1.09	28	8.62	219	8.99	228	3.27	1.48	2.87	1.30	20
2	50	4.30	109	5.49	139	6.75	171	3.32	84	1.50	38	2.90	74	2.81	71	2.95	75	0.70	18	1.34	34	8.90	226	9.49	241	5.09	2.31	4.60	2.08	10
2-1/2	65	5.43	138	6.34	161	6.75	171	3.56	90	2.00	51	3.55	90	3.40	86	3.75	95	0.94	24	1.47	37	9.46	240	9.89	251	8.25	3.74	8.18	3.71	6
3"	80	6.16	156	7.53	191	8.06	205	4.33	110	2.50	64	4.37	111	4.35	110	6.54	166	1.02	26	1.66	42	11.26	286	11.83	300	14.59	7.00	17.32	6.00	4

†Patent Pending

**WARNING:** This product can expose you to chemicals including lead, which is known to the State of California to cause cancer and birth defects or other reproductive harm. For more information go to [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov).

\*Weighted average lead content ≤ 0.25%

# Lead-Free\* Bronze Ball Valves

**Features:** Silicon Performance Bronze® Alloy • Two-Piece Body • Full Port  
• 3/4" Hose Connection with Cap and Chain • Blowout-Proof Stem

**Approvals:** MSS SP-110 • NSF/ANSI-61-9 and NSF/ANSI-372

**Size range:** 1/2" & 3/4"

**Pressure rating:** 600 PSI non-shock cold working pressure

Lead-free\* markings: Double oval in body casting, white handle and blue hang tag



## MATERIAL LIST

PART	SPECIFICATION
1. Handle Nut	Steel, Plated
2. Stem	Silicon Bronze ASTM B371 Alloy C69300
3. Pack Gland	Brass ASTM B16 Alloy C36000
4. Packing, Stem	Virgin PTFE
5. Thrust Washer	Reinforced PTFE
6. Handle	Steel, Plated Plastisol Coated
7. Hose Body End	Silicon Bronze ASTM B371 Alloy C69300
8. Seat Ring (2)	Reinforced PTFE
9. Ball	Silicon Bronze ASTM B283 Alloy C69300
10. Body	Silicon Bronze ASTM B584 Alloy C87600
11. Cap	Die Cast Brass, EPDM Gasket
12. Pop Rivet	Stainless Steel

<sup>1</sup> Cap is for hose end thread protection only. Not to be used for pressure containing purposes.

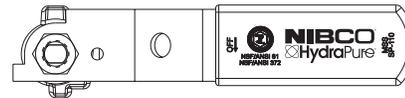
Note: valves designed to MSS SP 110 with exception of the hose end connection which is not covered by the standard.



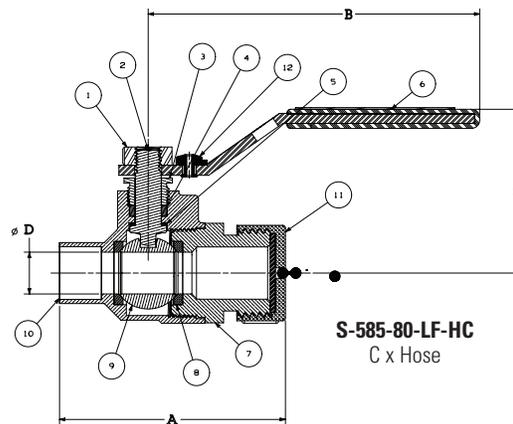
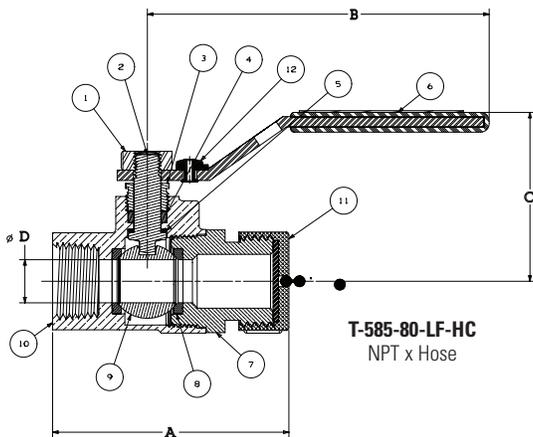
**T-585-80-LF-HC**  
Threaded x Hose



**S-585-80-LF-HC**  
Solder x Hose



Handle Markings



### Handle Options:

- Stainless steel lever
- NIB-Seal®
- Locking lever
- Stainless steel locking lever
- Memory stop
- Extended lever w/ memory stop
- Round
- Wing
- Horizontal and vertical chain

## DIMENSIONS—WEIGHTS—QUANTITIES

SIZE	A		B		C		D		E		Thread		Solder		G		Thread		Solder		Master Ctn Qty.	
	In.	mm.	In.	mm.	In.	mm.	In.	mm.	Lbs.	Kg.	Lbs.	Kg.										
1/2	15	2.74	70	3.96	101	1.96	50	0.5	13	5.06	129	1.57	40	1.31	33	0.53	13	0.80	0.36	0.74	0.34	100
3/4	20	3.14	80	4.76	121	2.28	58	0.75	19	6.15	156	1.98	50	1.71	43	0.55	14	1.46	0.66	1.42	0.65	50



**WARNING:** This product can expose you to chemicals including lead, which is known to the State of California to cause cancer and birth defects or other reproductive harm. For more information go to [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov).

\*Weighted average lead content ≤ 0.25%

# Lead-Free\* Bronze Ball Valves

**Features:** Silicon Performance Bronze® Alloy • Two-Piece Body • Full Port  
• Stainless Trim • 3/4" Hose Connection with Cap and Chain • Blowout-Proof Stem

**Approvals:** MSS SP-110 • NSF/ANSI-61-9 and NSF/ANSI-372

**Size range:** 1/2" & 3/4"

**Pressure rating:** 600 PSI non-shock cold working pressure

Lead-free\* markings: Double oval in body casting, white handle and blue hang tag



## MATERIAL LIST

PART	SPECIFICATION
1. Handle Nut	Steel, Plated
2. Stem	Stainless Steel ASTM A 276 Type 316
3. Pack Gland	Brass ASTM B16 Alloy C36000
4. Packing, Stem	Virgin PTFE
5. Thrust Washer	Reinforced PTFE
6. Handle	Steel, Plated Plastisol Coated
7. Hose Body End	Silicon Bronze ASTM B371 Alloy C69300
8. Seat Ring (2)	Reinforced PTFE
9. Ball	Stainless Steel ASTM A 276 Type 316 or ASTM A 351 Type CF8M
10. Body	Silicon Bronze ASTM B584 Alloy C87600
11. 1/2" Cap	Die Cast Brass, EPDM Gasket
12. Pop Rivet	Stainless Steel

<sup>1</sup> Cap is for hose end thread protection only. Not to be used for pressure containing purposes.

Note: valves designed to MSS SP 110 with exception of the hose end connection which is not covered by the standard.

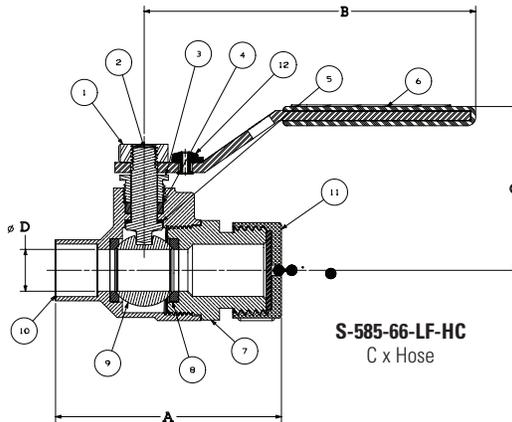
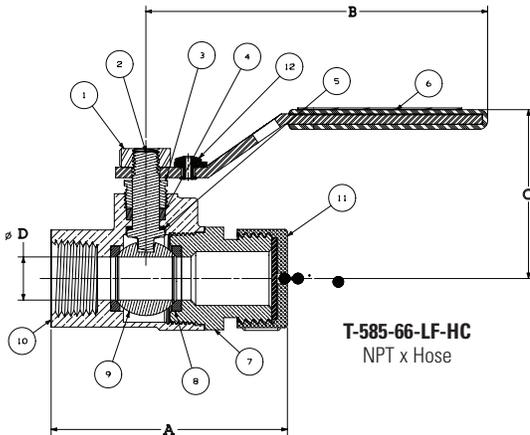


**T-585-66-LF-HC**  
Threaded x Hose

**S-585-66-LF-HC**  
Solder x Hose



Handle Markings



### Handle Options:

- Stainless steel lever
- NIB-Seal®
- Locking lever
- Stainless steel locking lever
- Memory stop
- Extended lever w/ memory stop
- Round
- Wing
- Horizontal and vertical chain

## DIMENSIONS—WEIGHTS—QUANTITIES

SIZE	A	B	C	D	E	F	G	Weight				Master Ctn Qty.
								Thread		Solder		
In. mm.	In. mm.	In. mm.	In. mm.	In. mm.	In. mm.	In. mm.	In. mm.	Lbs. Kg.	Lbs. Kg.			
1/2	15 2.74	70 3.96	101 1.96	50 0.5	13 5.06	129 1.19	30 0.53	13 0.80	0.36	0.74	0.34	100
3/4	20 3.14	80 4.76	121 2.28	58 0.75	19 6.15	156 1.71	43 0.55	14 1.46	0.66	1.42	0.65	50

**WARNING:** This product can expose you to chemicals including lead, which is known to the State of California to cause cancer and birth defects or other reproductive harm. For more information go to [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov).

\*Weighted average lead content ≤ 0.25%

# NIBCO® Press System Lead-Free\* Bronze Ball Valves

**Features:** Silicon Performance Bronze® Alloy • Two-Piece Body • Full Port • Blowout-Proof Stem • Copper End x 3/4" Hose Connection with Cap and Chain

**Approvals:** MSS SP-145 • IAPMO/ANSI Z1157 (IGC-157) • NSF/ANSI-61-9 and NSF/ANSI-372

**Size range:** 1/2" & 3/4"

**Pressure rating:** 250 PSI non-shock cold working pressure

Lead-free\* markings: Double oval in body casting, white handle and blue hang tag



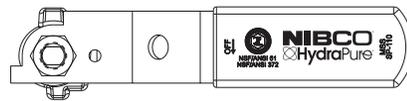
## MATERIAL LIST

PART	SPECIFICATION
1. Handle Nut	Zinc Plated Steel
2. Stem	Silicon Bronze ASTM B371 Alloy C69300
3. Pack Gland	Brass ASTM B16 Alloy C36000
4. Packing	PTFE
5. Thrust Washer	Reinforced PTFE
6. Handle Assembly	Zinc Plated Steel with Plastisol Coating
7. Hose Body End	Silicon Bronze ASTM B371 Alloy C69300
8. Ball	Silicon Bronze ASTM B283 Alloy C69300
9. Seat Ring (2)	Reinforced PTFE
10. Body	Silicon Bronze ASTM B584 Alloy C87600
11. Boss seal o-ring	EPDM
12. O-Ring	EPDM
13. Press End Adapter	Wrot Copper ASTM B75 Alloy C12200
14. Cap <sup>1</sup>	Die Cast Brass, EPDM Gasket
15. Pop Rivet	Stainless Steel

<sup>1</sup> Cap is for hose end thread protection only. Not to be used for pressure containing purposes.

### Handle Options:

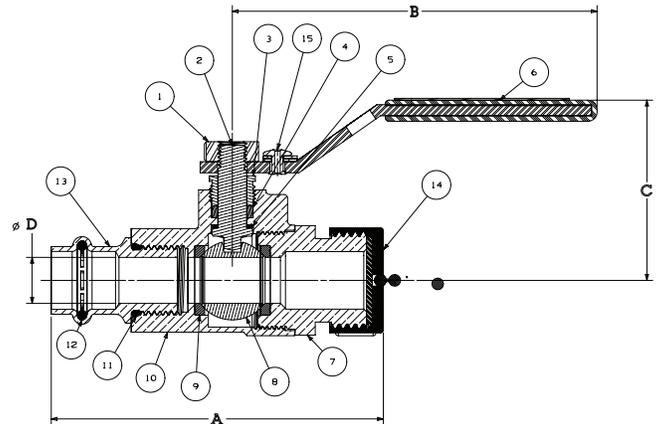
- Stainless steel lever
- NIB-Seal®
- Locking lever
- Stainless steel locking lever
- Memory stop
- Extended lever w/ memory stop
- Round
- Wing
- Horizontal and vertical chain



Handle Markings



**PC-585-80-LF-HC**  
Press Female x Hose End



**PC-585-80-LF-HC**  
P x Hose

## DIMENSIONS—WEIGHTS—QUANTITIES

SIZE	A		B		C		D		E		F		G		Weight	
In. mm.	In.	mm.	In.	mm.	In.	mm.	In.	mm.	In.	mm.	In.	mm.	In.	mm.	Lbs.	Kg.
1/2	15	3.61	92	3.76	96	1.96	50	0.50	13	5.93	151	1.53	39	0.70	18	12.70 0.42
3/4	20	4.32	110	4.76	121	2.28	58	0.75	19	7.28	185	1.95	50	0.96	24	1.70 0.77



**WARNING:** This product can expose you to chemicals including lead, which is known to the State of California to cause cancer and birth defects or other reproductive harm. For more information go to [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov).

\*Weighted average lead content ≤ 0.25%

# NIBCO® Press System Lead-Free\* Bronze Ball Valves

**Features:** Silicon Performance Bronze® Alloy • Two-Piece Body • Full Port • Stainless Trim • Blowout-Proof Stem • Copper Ends x 3/4" Hose Connection with Cap and Chain

**Approvals:** MSS SP-145 • IAPMO/ANSI Z1157 (IGC-157) • NSF/ANSI-61-9 and NSF/ANSI-372

**Size range:** 1/2" & 3/4"

**Pressure rating:** 250 PSI non-shock cold working pressure

Lead-free\* markings: Double oval in body casting, white handle and blue hang tag



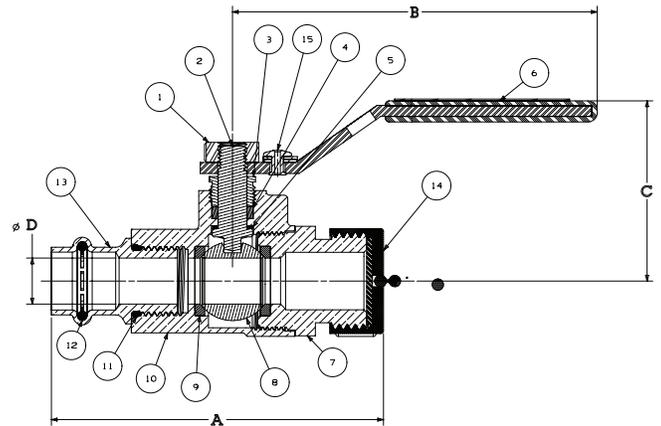
## MATERIAL LIST

PART	SPECIFICATION
1. Handle Nut	Zinc Plated Steel
2. Stem	Stainless Steel ASTM A276 Type 316
3. Pack Gland	Brass ASTM B16 Alloy C36000
4. Packing	PTFE
5. Thrust Washer	Reinforced PTFE
6. Handle Assembly	Zinc Plated Steel with Platisol Coating
7. Hose Body End	Silicon Bronze ASTM B371 Alloy C69300
8. Ball (vented)	Stainless Steel ASTM A276 Type 316
9. Seat Ring (2)	Reinforced PTFE
10. Body	Silicon Bronze ASTM B584 Alloy C87600
11. Boss seal o-ring	EPDM
12. O-Ring	EPDM
13. Press End Adapter	Wrot Copper ASTM B75 Alloy C12200
14. Cap <sup>1</sup>	Die Cast Brass, EPDM Gasket
15. Pop Rivet	Stainless Steel

<sup>1</sup> Cap is for hose end thread protection only. Not to be used for pressure containing purposes.



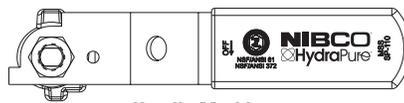
**PC-585-66-LF-HC**  
Press Female x Hose End



**PC-585-66-LF-HC**  
P x Hose

### Handle Options:

- Stainless steel lever
- NIB-Seal®
- Locking lever
- Stainless steel locking lever
- Memory stop
- Extended lever w/ memory stop
- Round
- Wing
- Horizontal and vertical chain



Handle Markings

## DIMENSIONS—WEIGHTS—QUANTITIES

SIZE	A		B		C		D		E		F		G		Weight		
	In.	mm.	Lbs.	Kg.													
1/2	15	3.61	92	3.76	96	1.96	50	0.50	13	5.93	151	1.31	33	0.70	18	0.92	0.42
3/4	20	4.32	110	4.76	121	2.28	58	0.75	19	7.28	185	1.62	41	0.96	24	1.70	0.77

**WARNING:** This product can expose you to chemicals including lead, which is known to the State of California to cause cancer and birth defects or other reproductive harm. For more information go to [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov).

\*Weighted average lead content ≤ 0.25%

# Lead-Free\* Three Piece Bronze Ball Valves

**Features:** Silicon Performance Bronze® Alloy • Three-Piece Body • Full Port • Blowout-Proof Stem

**Approvals:** MSS SP-110 • NSF/ANSI-61-8 Commercial Hot 180°F (includes annex F and G) and NSF/ANSI-372

**Size range:** 1/4" - 2-1/2"

**Pressure rating:** 600 PSI non-shock cold working pressure

**Maximum pressure / temperature:** 100 PSI at 300° F

Lead-free\* markings: Double oval in body casting, white handle and blue hang tag



NSF/ANSI 61  
NSF/ANSI 372



## MATERIAL LIST

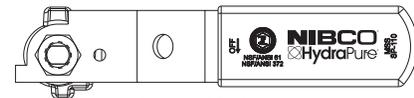
PART	SPECIFICATION
1. Handle	Steel, Plated Plastisol Coated
2. Handle Nut	Zinc Plated Steel
3. Stem	Silicon Bronze ASTM B371 Alloy C69300
4. Threaded Pack Gland	Brass ASTM B16 Alloy C36000
5. Packing	PTFE
6. Thrust Washer	Reinforced PTFE
7. Body Bolts	Zinc Dichromate Plated Steel ASTM A449 Grade 5
8. Body End (2)	Silicon Bronze ASTM B584 Alloy C87850
9. Ball	Silicon Bronze ASTM B283 Alloy C69300 or Stainless Steel ASTM A276 Type 316
10. Body	Silicon Bronze ASTM B584 Alloy C87850
11. O-Ring Seal (2)	FKM
12. Seat Ring (2)	PTFE
13. Body Nuts	Zinc Dichromate Plated Steel ASTM A449 Grade 5
14. Handle Sleeve	Zinc Plated Steel

Note: valves are static grounded by a grounding washer. (Not Shown)

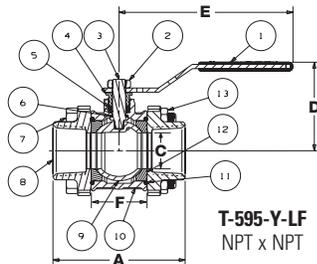
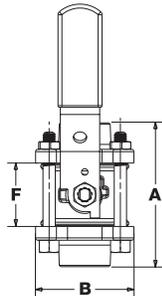


**T-595-Y-LF**  
Threaded

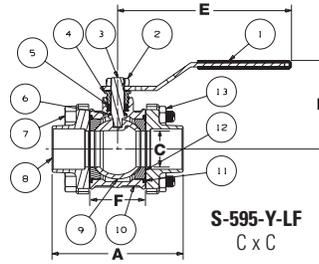
**S-595-Y-LF**  
Solder



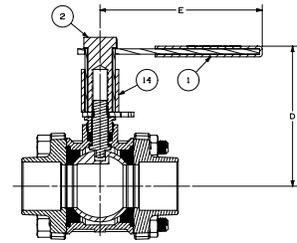
Handle Markings



**T-595-Y-LF**  
NPT x NPT



**S-595-Y-LF**  
C x C



**Extended Handle**  
Representation for Suffix -EL

## DIMENSIONS—WEIGHTS—QUANTITIES

Size	Dimensions										w/ Extended Handle		E		F		T-595-Y-LF		S-595-Y-LF		Master Ctn. Qty.			
	A		B		C		D		E		D		E		In. mm.		Lbs. Kg.		Lbs. Kg.					
1/4	8	2.50	64	1.69	43	1.81	46	.38	10	1.69	43	2.80	71	3.82	97	3.91	99	1.13	29	1.03	.47	.89	.40	50
3/8	10	2.50	64	1.81	46	1.81	46	.38	10	1.69	43	2.79	71	3.82	97	3.91	99	1.13	29	.98	.44	.89	.40	50
1/2	15	2.50	64	2.06	52	1.81	46	.50	13	1.69	43	2.79	71	3.82	97	3.91	99	1.13	29	1.03	.47	.89	.40	50
3/4	20	3.00	76	2.94	75	1.94	49	.75	19	2.00	51	3.13	79	3.82	97	4.66	118	1.44	37	1.70	.77	1.59	.72	30
1	25	3.69	94	3.66	93	2.50	64	1.00	25	2.25	57	3.32	84	3.82	97	4.66	118	1.84	47	2.82	1.28	2.55	1.15	20
1 1/4	32	4.09	104	3.91	99	2.69	68	1.25	32	2.75	70	3.83	97	5.45	138	6.69	170	1.97	50	3.96	1.80	3.61	1.64	10
1 1/2	40	4.56	116	4.60	117	3.00	76	1.50	38	2.97	75	4.06	103	5.45	138	6.69	170	2.38	60	5.68	2.57	5.31	2.41	10
2	50	6.16	156	5.78	147	4.00	102	2.00	51	3.63	92	4.30	109	5.45	138	6.69	170	3.06	78	11.40	5.17	10.60	4.81	4
2 1/2	65	6.84	174	6.94	176	5.00	127	2.50	64	4.09	104	5.51	140	8.03	204	8.00	203	4.00	102	21.07	9.56	19.30	8.75	2

**WARNING:** This product can expose you to chemicals including lead, which is known to the State of California to cause cancer and birth defects or other reproductive harm. For more information go to [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov).

\*Weighted average lead content ≤ 0.25%

# Lead-Free\* Three Piece Bronze Ball Valves

**Features:** Silicon Performance Bronze® Alloy • Three-Piece Body • Full Port • 316SS Trim • Blowout-Proof Stem • Vented Ball

**Approvals:** MSS SP-110 • NSF/ANSI-61-8 Commercial Hot 180°F (includes annex F and G) and NSF/ANSI-372

**Size range:** 1/4" - 2-1/2"

**Pressure rating:** 600 PSI non-shock cold working pressure

**Maximum pressure / temperature:** 100 PSI at 300° F

Lead-free\* markings: Double oval in body casting, white handle and blue hang tag



NSF/ANSI 61  
NSF/ANSI 372



## MATERIAL LIST

PART	SPECIFICATION
1. Handle	Steel, Plated Plastisol Coated
2. Handle Nut	Stainless Steel 300 Series
3. Stem	Stainless Steel ASTM A276 Type 316
4. Threaded Pack Gland	Brass ASTM B16 Alloy C36000
5. Packing	PTFE
6. Thrust Washer	Reinforced PTFE
7. Body Bolts	Zinc Dichromate Plated Steel ASTM A449 Grade 5
8. Body End (2)	Silicon Bronze ASTM B584 Alloy C87850
9. Ball (Vented)	Stainless Steel ASTM A276 Type 316
10. Body	Silicon Bronze ASTM B584 Alloy C87850
11. O-Ring Seal (2)	FKM
12. Seat Ring (2)	PTFE
13. Body Nuts	Zinc Dichromate Plated Steel ASTM A449 Grade 5

Note: valves are static grounded by a grounding washer (not shown).



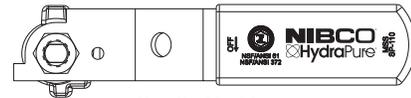
**T-595-Y-66-LF**

Threaded

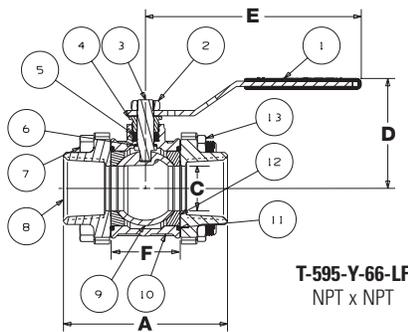


**S-595-Y-66-LF**

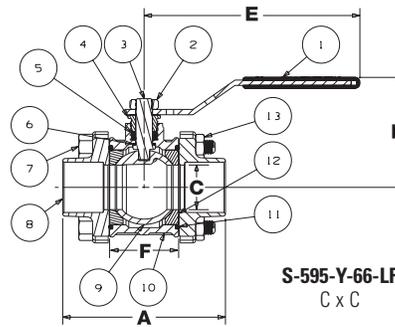
Solder



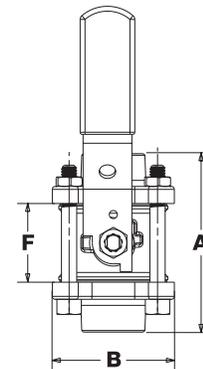
Handle Markings



**T-595-Y-66-LF**  
NPT x NPT



**S-595-Y-66-LF**  
C x C



## DIMENSIONS—WEIGHTS—QUANTITIES

Size	T-595-Y-66-LF		S-595-Y-66-LF		Dimensions										T-595-SS-Y-LF				S-595-Y-66-LF		Master Ctn. Qty.
	In.	mm.	In.	mm.	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	
1/4	8	2.50	64	1.69	43	1.81	46	.38	10	1.69	43	3.91	99	1.13	29	1.03	.47	.89	.40	50	
3/8	10	2.50	64	1.81	46	1.81	46	.38	10	1.69	43	3.91	99	1.13	29	.98	.44	.89	.40	50	
1/2	15	2.50	64	2.06	52	1.81	46	.50	13	1.69	43	3.91	99	1.13	29	1.03	.47	.89	.40	50	
3/4	20	3.00	76	2.94	75	1.94	49	.75	19	2.00	51	4.66	118	1.44	37	1.70	.77	1.59	.72	30	
1	25	3.69	94	3.66	93	2.50	64	1.00	25	2.25	57	4.66	118	1.84	47	2.82	1.28	2.55	1.15	20	
1 1/4	32	4.09	104	3.91	99	2.69	68	1.25	32	2.75	70	6.69	170	1.97	50	3.96	1.80	3.61	1.64	10	
1 1/2	40	4.56	116	4.60	117	3.00	76	1.50	38	2.97	75	6.69	170	2.38	60	5.68	2.57	5.31	2.41	10	
2	50	6.16	156	5.78	147	4.00	102	2.00	51	3.63	92	6.69	170	3.06	78	11.40	5.17	10.60	4.81	4	
2 1/2	65	6.84	174	6.94	176	5.00	127	2.50	64	4.09	104	8.00	203	4.00	102	21.07	9.56	19.30	8.75	2	

**WARNING:** This product can expose you to chemicals including lead, which is known to the State of California to cause cancer and birth defects or other reproductive harm. For more information go to [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov).

\*Weighted average lead content ≤ 0.25%

# NIBCO® Press System Lead-Free\* Bronze Gate Valves

**Features:** Silicon Performance Bronze® Alloy • Screw-In Bonnet • Rising Stem  
• Conforms to MSS SP-139 • Solid Wedge • Press Ends Leak Detection

**Approvals:** NSF/ANSI-61-8 Commercial Hot 180°F (includes Annex F and G) and NSF/ANSI-372

**Size range:** 1/2" - 3"

**Pressure rating:** 250<sup>†</sup> PSI non-shock cold working pressure

**Maximum pressure / temperature:** 180 PSI at 200° F

Lead-free\* markings: Double oval in body casting, white handle and blue hang tag

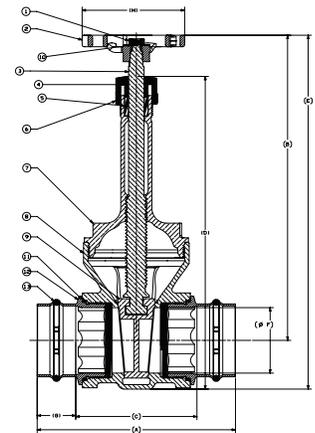


NSF/ANSI 61  
NSF/ANSI 372



## MATERIAL LIST

PART	SPECIFICATION
1. Handwheel Nut	300 Series Stainless Steel
2. Handwheel	Malleable Iron ASTM A47, 35018
3. Stem	Silicon Bronze ASTM B371 Alloy C69430
4. Packing Gland	ASTM B16 C36000
5. Stem Packing	Aramid Fibers with Graphite
6. Packing Nut	ASTM B16 C36000
7. Bonnet	Silicon Bronze ASTM B584 Alloy C87850
8. Body	Silicon Bronze ASTM B584 Alloy C87850
9. Wedge	Silicon Bronze ASTM B584 Alloy C87850
10. Identification Plate	Aluminum
11. Boss seal o-ring (2)	EPDM
12. Press End Adapter (2)	Wrot Copper ASTM B75 Alloy C12200
13. Leak Detect O-Ring (2)	EPDM



**PC-111-LF**  
Press x Press  
Female End

## DIMENSIONS—WEIGHTS—QUANTITIES

SIZE	A		B		C		D		E		F		G		H		Weight		Master	
In. mm.	In.	mm.	In.	mm.	In.	mm.	In.	mm.	In.	mm.	In.	mm.	In.	mm.	In.	mm.	Lbs.	Kg.	Ctn Qty.	
1/2 <sup>†</sup>	15	3.68	93.47	4.85	123	2.28	57.9	3.92	100	4.82	122	0.5	13	0.7	17.78	2.44	62	0.96	0.43	50
3/4	20	4.28	108.7	5.89	150	2.36	60	4.93	125	5.74	146	0.75	19	0.96	24	2.44	62	1.38	0.62	25
1	25	4.62	117.3	7.21	183	2.85	72.4	5.95	151	6.93	176	1.00	25	0.88	22.35	3.19	81	2.18	0.99	20
1-1/4	32	5.1	129.5	8.20	208	3.08	78.23	6.69	170	7.84	199	1.25	32	1.01	25.65	3.19	81	3.15	1.43	10
1-1/2	40	6.18	157	9.40	239	3.41	86.6	7.51	191	8.94	227	1.50	38	1.38	35	4.42	112.3	4.5	2.04	10
2	50	6.44	163.6	11.54	293	3.42	86.9	9.65	245	10.84	275	2.00	51	1.51	38.3	4.42	112.3	6.7	3.04	4
2-1/2	65	7.56	192	14.4	366	4.62	117.3	11.86	301	13.52	343	2.50	64	1.47	37.3	4.42	112.3	11.9	5.4	4
3	80	8.49	215.6	16.6	422	5.17	131.3	13.89	353	15.65	398	3.00	76	1.66	42.2	5.28	134.1	18.6	8.44	4

<sup>†</sup>200 PSI for 2 1/2" and 3"

#No packing gland, packing only in this size.



**WARNING:** This product can expose you to chemicals including lead, which is known to the State of California to cause cancer and birth defects or other reproductive harm. For more information go to [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov).

\*Weighted average lead content ≤ 0.25%

# Lead-Free\* Bronze Gate Valves

**Features:** Silicon Performance Bronze® Alloy • Screw-In Bonnet • Rising Stem

**Approvals:** Conforms to MSS SP-139 • Solid Wedge • NSF/ANSI-61-8 Commercial Hot 180°F (includes annex F and G) and NSF/ANSI-372

**Size range:** 1/4" - 3"

**Pressure rating:** 300 PSI non-shock cold working pressure

**Maximum pressure / temperature:** 100 PSI at 300° F

Lead-free\* markings: Double oval in body casting, white handle and blue hang tag



NSF/ANSI 61  
NSF/ANSI 372



## MATERIAL LIST

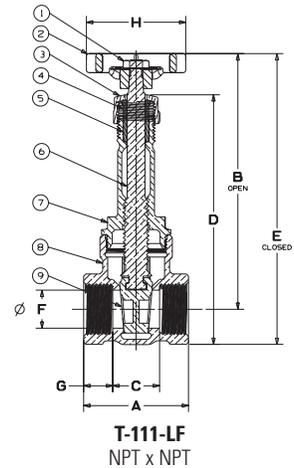
PART	SPECIFICATION
1. Handwheel Nut	300 Series Stainless Steel
2. Identification Plate	Aluminum
3. Handwheel	Malleable Iron ASTM A47
4. Stem	Silicon Bronze ASTM B371 Alloy C69430 or ASTM B99 Alloy C65100
5. Packing Nut	Bronze ASTM B62 or ASTM B584 Alloy C84400 or Brass ASTM B16
6. Packing Gland	Bronze ASTM B62 or ASTM B584 Alloy C84400 or Brass ASTM B16
7. Packing	Aramid Fibers with Graphite
8. Bonnet	Silicon Bronze ASTM B584 Alloy C87850
9. Body	Silicon Bronze ASTM B584 Alloy C87850
10. Wedge	Silicon Bronze ASTM B584 Alloy C87850



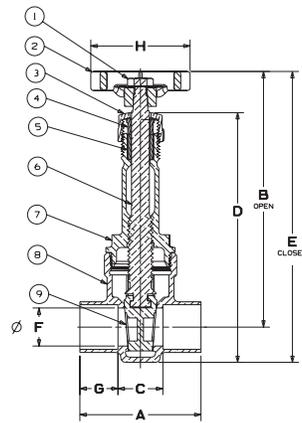
**T-111-LF**  
Threaded



**S-111-LF**  
Solder



**T-111-LF**  
NPT x NPT



**S-111-LF**  
C x C

## DIMENSIONS—WEIGHTS—QUANTITIES

SIZE	A	B	C	D	E	F	G	T-111-LF		Master								
In. mm.	Lbs.	Kg.	Ctn Qty.															
1/4†	8	1.68	43	5.12	130	0.88	22	3.62	92	4.54	115	0.31	8	0.38	10	0.75	0.34	50
3/8†	10	1.68	43	5.20	132	0.84	21	3.62	92	4.56	116	0.38	10	0.42	11	0.72	0.33	50
1/2†	15	1.94	49	4.85	123	0.86	22	3.92	100	4.82	122	0.5	13	0.54	14	0.83	0.38	50
3/4	20	2.06	52	5.89	150	0.92	23	4.93	125	5.74	146	0.75	19	0.57	14	1.13	0.51	50
1	25	2.44	62	7.21	183	1.04	26	5.95	151	6.93	176	1.00	25	0.70	18	1.88	0.86	30
1-1/4	32	2.62	67	8.20	208	1.20	30	6.69	170	7.84	199	1.25	32	0.71	18	2.53	1.15	20
1-1/2	40	2.88	73	9.40	239	1.38	35	7.51	191	8.94	227	1.50	38	0.75	19	3.57	1.62	10
2	50	3.06	78	11.54	293	1.48	38	9.65	245	10.84	275	2.00	51	0.79	20	5.28	2.39	10
2-1/2	65	4.12	105	14.40	366	1.84	47	11.86	301	13.52	343	2.50	64	1.14	29	10.26	4.66	5
3	80	4.50	114	16.60	422	2.10	53	13.89	353	15.65	398	3.00	76	1.20	30	14.72	6.67	4

SIZE	A	B	C	D	E	F	G	S-111-LF		Master								
In. mm.	Lbs.	Kg.	Ctn Qty.															
1/2†	15	1.75	44	5.46	139	0.75	19	3.88	99	4.80	122	0.50	13	0.50	13	0.69	0.31	50
3/4	20	2.38	60	5.89	150	0.88	22	4.93	125	5.74	146	0.75	19	0.75	19	1.02	0.47	50
1	25	2.82	72	7.21	183	1.00	25	5.87	149	6.85	174	1.00	25	0.91	23	1.68	0.76	30
1-1/4	32	3.12	79	8.20	208	1.18	30	6.69	170	7.84	199	1.25	32	0.97	25	2.39	1.08	20
1-1/2	40	3.42	87	9.40	239	1.24	31	7.48	190	8.91	226	1.50	38	1.09	28	3.25	1.47	10
2	50	4.00	102	11.54	293	1.31	33	9.60	244	10.78	274	2.00	51	1.34	34	4.97	2.25	10

†No packing gland, packing only in this size.



**WARNING:** This product can expose you to chemicals including lead, which is known to the State of California to cause cancer and birth defects or other reproductive harm. For more information go to [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov).

\*Weighted average lead content ≤ 0.25%

# NIBCO® Press System Lead-Free\* Bronze Gate Valves

**Features:** Silicon Performance Bronze® Alloy • Screw-In Bonnet • Non-Rising Stem  
• Press Ends Leak Detection

**Approvals:** Conforms to MSS SP-139 • Solid Wedge • NSF/ANSI-61-8  
Commercial Hot 180°F (includes Annex F and G) and NSF/ANSI-372

**Size range:** 1/2" - 3"

**Pressure rating:** 250† PSI non-shock cold working pressure

**Maximum pressure / temperature:** 180 PSI at 200° F

Lead-free\* markings: Double oval in body casting, white handle and blue hang tag

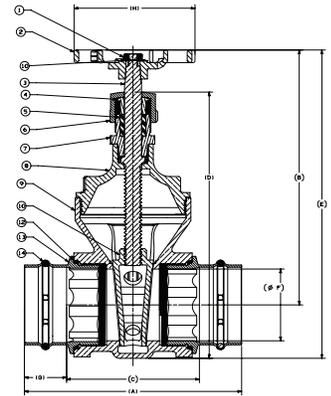


NSF/ANSI 61  
NSF/ANSI 372



## MATERIAL LIST

PART	SPECIFICATION
1. Handwheel Nut	300 Series Stainless Steel
2. Handwheel	Malleable Iron ASTM A47, 35018
3. Stem	Silicon Bronze ASTM B371 Alloy C69430
4. Packing Gland	ASTM B16 C36000
5. Stem Packing	Aramid Fibers with Graphite
6. Packing Nut	ASTM B16 C36000
7. Stuffing Box	Silicon Bronze ASTM B584 Alloy C87850
8. Bonnet	Silicon Bronze ASTM B584 Alloy C87850
9. Body	Silicon Bronze ASTM B584 Alloy C87850
10. Wedge	Silicon Bronze ASTM B584 Alloy C87850
11. Identification Plate	Aluminum
12. Boss seal o-ring (2)	EPDM
13. Press End Adapter (2)	Wrot Copper ASTM B75 Alloy C12200
14. Leak Detect O-Ring (2)	EPDM



**PC-113-LF**

Press x Press  
Female End

## DIMENSIONS—WEIGHTS—QUANTITIES

SIZE	A		B		C		D		E		F		G		H		Weight		Master Ctn Qty.	
	In.	mm.	In.	mm.	In.	mm.	In.	mm.	In.	mm.	In.	mm.	In.	mm.	In.	mm.	Lbs.	Kg.		
1/2	15	3.68	93.47	3.66	93	2.28	57.9	3.34	84.84	4.24	107.7	0.5	13	0.7	17.78	2.44	62	0.91	0.41	30
3/4	20	4.24	107.7	3.94	100	2.36	59.9	3.85	97.8	4.64	118	0.75	19	0.96	24	2.44	62	1.28	0.58	25
1	25	4.62	117.3	4.62	117.3	2.85	72.4	4.69	119	5.52	140	1.00	25	0.88	22.35	3.19	81	2.09	0.95	20
1-1/4	32	5.1	129.5	5.19	132	3.08	78.2	5.26	133.6	6.25	159	1.25	32	1.01	25.65	3.19	81	3.03	1.37	10
1-1/2	40	6.18	157	6.3	160	3.41	86.6	6.07	154.2	7.5	191	1.50	38	1.38	35	4.42	112.3	4.18	1.9	10
2	50	6.44	163.6	7.09	180	3.42	86.9	7.33	186.2	8.59	218	2.00	51	1.51	38.3	4.42	112.3	6.1	2.77	4
2-1/2†	65	7.56	192	8.88	226	4.62	117.3	9.28	235.7	10.69	272	2.50	64	1.47	37.3	4.42	112.3	11.2	5.08	4
3†	80	8.49	215.6	10.24	260	5.17	131.3	10.71	272	12.5	318	3.00	76	1.66	42.2	5.28	134.1	17.37	7.89	4

†200 PSI for 2 1/2" and 3"

‡No packing gland, packing only in this size.



**WARNING:** This product can expose you to chemicals including lead, which is known to the State of California to cause cancer and birth defects or other reproductive harm. For more information go to [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov).

\*Weighted average lead content ≤ 0.25%

# Lead-Free\* Bronze Gate Valves

**Features:** Silicon Performance Bronze® Alloy • Screw-In Bonnet • Non-Rising Stem

**Approvals:** Conforms to MSS SP-139 • Solid Wedge • NSF/ANSI-61-8 Commercial Hot 180°F (includes annex F and G) and NSF/ANSI-372

**Size range:** 1/4" - 3"

**Pressure rating:** 300 PSI non-shock cold working pressure

**Maximum pressure / temperature:** 100 PSI at 300° F

Lead-free\* markings: Double oval in body casting, white handle and blue hang tag



NSF/ANSI 61  
NSF/ANSI 372



## MATERIAL LIST

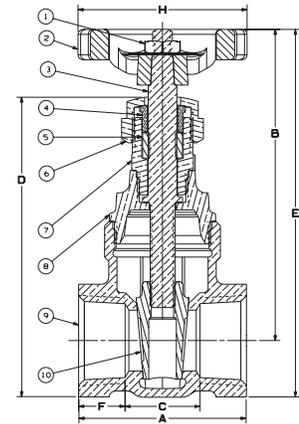
PART	SPECIFICATION
1. Handwheel Nut	300 Series Stainless Steel
2. Identification Plate	Aluminum
3. Handwheel	Malleable Iron ASTM A47 (T-113)
4. Stem	ASTM B99 Alloy C65100
5. Packing Nut	Bronze ASTM B62 or ASTM B584 Alloy C84400 or Brass ASTM B16
6. Packing Gland	Bronze ASTM B62 or ASTM B584 Alloy C84400 or Brass ASTM B16
7. Packing	Aramid Fibers with Graphite
8. Stuffing Box	Silicon Bronze ASTM B584 Alloy C87850
9. Bonnet	Silicon Bronze ASTM B584 Alloy C87850
10. Body	Silicon Bronze ASTM B584 Alloy C87850
11. Wedge	Silicon Bronze ASTM B584 Alloy C87850



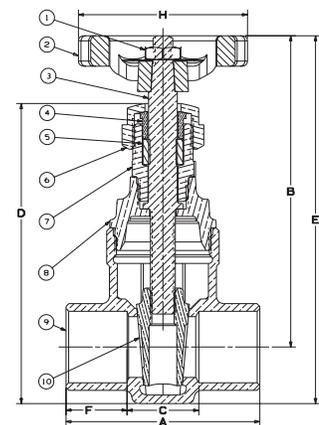
**T-113-LF**  
Threaded



**S-113-LF**  
Solder



**T-113-LF**  
NPT x NPT



**S-113-LF**  
C x C

## DIMENSIONS—WEIGHTS—QUANTITIES

SIZE	A	B	C	D	E	F	H	T-113-LF		Master
In. mm.	In. mm.	In. mm.	In. mm.	In. mm.	In. mm.	In. mm.	In. mm.	Lbs.	Kg.	Ctn Qty.
1/4"	8 1.68 43	3.44 87	0.88 22	3.06 78	3.95 100	0.4 10	1.95 50	0.70	0.31	50
3/8"	10 1.68 43	3.44 87	0.84 21	3.95 100	3.95 100	0.42 11	1.95 50	0.67	0.30	50
1/2"	15 1.94 49	3.66 93	0.88 22	4.24 108	4.24 108	0.54 14	1.95 50	0.78	0.35	50
3/4"	20 2.06 52	3.94 100	0.92 23	4.64 118	4.64 118	0.57 14	1.95 50	1.00	0.48	50
1	25 2.44 62	4.62 117	1.04 26	5.52 140	5.52 140	0.7 18	2.56 65	1.73	0.78	30
1-1/4	32 2.62 67	5.19 132	1.21 31	6.25 159	6.25 159	0.7 18	2.56 65	2.28	1.04	20
1-1/2	40 2.88 73	6.3 160	1.38 35	7.5 191	7.5 191	0.75 19	3.55 90	3.33	1.51	10
2	50 3.06 78	7.09 180	1.48 38	8.59 218	8.59 218	0.79 20	3.55 90	4.68	2.13	10
2-1/2	65 4.12 105	8.88 226	1.84 47	10.69 272	10.69 272	1.14 29	3.55 90	9.46	4.29	5
3	80 4.5 114	10.24 260	2.1 53	12.5 318	12.5 318	1.2 30	4.23 107	13.70	6.20	4

SIZE	A	B	C	D	E	F	H	S-113-LF		Master
In. mm.	In. mm.	In. mm.	In. mm.	In. mm.	In. mm.	In. mm.	In. mm.	Lbs.	Kg.	Ctn Qty.
1/2"	15 1.76 45	3.66 93	0.75 19	3.26 83	4.16 106	0.5 13	2.08 53	0.69	0.29	50
3/4"	20 2.38 60	3.84 98	0.88 22	3.7 94	4.53 115	0.75 19	2.08 53	0.94	0.43	50
1	25 2.82 72	4.66 118	1 25	4.57 116	5.5 140	0.91 23	2.64 67	1.50	0.68	30
1-1/4	32 3.12 79	5.01 127	1.18 30	5.16 131	6.05 154	0.97 25	2.8 71	2.14	0.97	20
1-1/2	40 3.42 87	6.2 157	1.24 31	6 152	7.37 187	1.09 28	3.83 97	3.01	1.37	10
2	50 4 102	7.06 179	1.31 33	7.24 184	8.52 216	1.34 34	4.69 119	4.40	1.99	10

†No packing gland, packing only in this size.



**WARNING:** This product can expose you to chemicals including lead, which is known to the State of California to cause cancer and birth defects or other reproductive harm. For more information go to [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov).

\*Weighted average lead content ≤ 0.25%

# Lead-Free\* Bronze Check Valves

**Features:** Silicon Performance Bronze® Alloy • Horizontal Swing • Regrinding Type • Y-Pattern • Renewable Seat and Disc

**Approvals:** Conforms to MSS SP-139 • NSF/ANSI-61-8 Commercial Hot 180°F (includes annex F and G) and NSF/ANSI-372

**Size Range:** 1/4" - 2"

**Pressure Rating:** 200 PSI Non-Shock Cold Working Pressure

**Maximum Pressure / Temperature:** 100 PSI at 300° F

Lead-Free\* marking: Double oval in body casting



NSF/ANSI 61  
NSF/ANSI 372



**T-413-Y-LF**  
Threaded



**S-413-Y-LF**  
Solder

## MATERIAL LIST

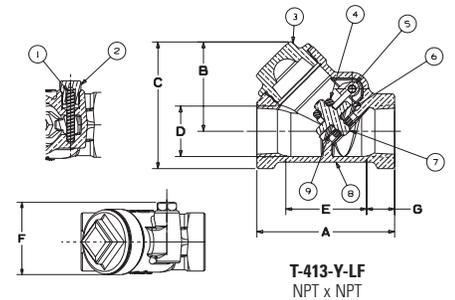
PART	SPECIFICATION
1. Hinge Pin	316SS or 304SS
2. Hinge Pin Plug	Silicon Bronze ASTM B283 Alloy C69300
3. Bonnet	Silicon Bronze ASTM B584 Alloy C87850
4. Nut (2)	316SS or 304SS
5. Disc Hanger	Silicon Bronze ASTM B584 Alloy C87850 or MPIF SS-316NI-25
6. Seat Disc	PTFE
7.* Seat Disc Washer	304SS or 316SS
8. Disc Holder	Silicon Bronze ASTM B283 Alloy C69300
9. Body	Silicon Bronze ASTM B584 Alloy C87850

\*Sizes 3/4", 1", 1 1/2", 1 3/4" and 2" only.

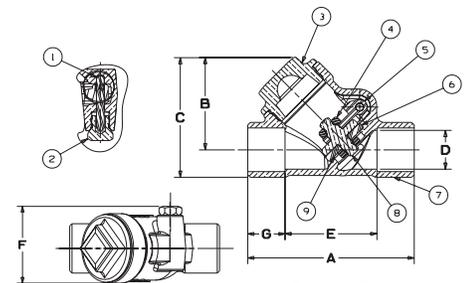
## DIMENSIONS—WEIGHTS—QUANTITIES

SIZE	A		B		C		D		E		F		G		T-413-LF		Master
In. mm.	In. mm.	In. mm.	In. mm.	In. mm.	In. mm.	In. mm.	In. mm.	In. mm.	In. mm.	In. mm.	In. mm.	In. mm.	In. mm.	Lbs.	Kg.	Ctn Qty.	
1/4	8	2.12 53.85	1.31 33.27	1.37 34.79	0.67 17	1.57 40	1.401 27	0.26 7	0.508 0.23	50							
3/8	10	2.12 53.85	1.31 33.27	1.31 33.27	0.67 17	1.40 36	1.401 27	0.35 9	0.478 0.22	50							
1/2	15	2.44 62	1.66 42	2.31 59	0.81 21	1.61 41	1.401 33	0.42 11	0.55 0.25	50							
3/4	20	2.9 74	1.88 48	2.67 68	1.04 26	2.06 52	1.702 40	0.42 11	0.90 0.41	50							
1	25	3.56 90	2.27 58	3.29 84	1.26 32	2.44 62	1.953 52	0.55 14	1.46 0.66	30							
1-1/4	32	4.18 106	2.73 69	3.93 100	1.59 40	3.00 76	2.179 60	0.59 15	2.17 0.99	20							
1-1/2	40	4.48 114	3.08 78	4.44 113	1.86 47	3.39 86	2.430 70	0.57 13	2.95 1.34	10							
2	50	5.29 134	3.84 98	5.48 139	2.29 58	3.74 95	3.067 83	0.76 19	4.79 2.17	10							

SIZE	A		B		C		D		E		F		G		S-413-LF		Master
In. mm.	In. mm.	In. mm.	In. mm.	In. mm.	In. mm.	In. mm.	In. mm.	In. mm.	In. mm.	In. mm.	In. mm.	In. mm.	In. mm.	Lbs.	Kg.	Ctn Qty.	
1/4	8	2.12 53.85	1.31 33.27	1.37 34.79	0.67 17	1.57 40	1.401 27	0.26 7	0.508 0.23	50							
3/8	10	2.12 53.85	1.31 33.27	1.31 33.27	0.67 17	1.40 36	1.401 27	0.35 9	0.478 0.22	50							
1/2	15	2.52 64	1.540 42	1.940 49	0.54 14	1.52 39	1.416 20	0.50 13	0.55 0.25	50							
3/4	20	3.34 85	1.861 48	2.410 61	0.78 20	1.84 47	1.717 28	0.75 19	0.88 0.40	50							
1	25	4.06 103	2.206 29	2.880 73	1.02 26	2.25 57	1.947 34	0.91 23	1.48 0.67	30							
1-1/4	32	4.69 119	2.737 38	3.520 89	1.26 32	2.75 70	2.178 40	0.97 25	2.22 1.01	20							
1-1/2	40	5.28 134	3.030 44	3.950 100	1.51 38	3.09 78	2.429 47	1.09 28	3.00 1.36	10							
2	50	6.44 164	3.640 98	4.863 123	1.98 50	3.74 95	3.073 62	1.34 34	4.87 2.21	10							



**T-413-Y-LF**  
NPT x NPT



**S-413-Y-LF**  
C x C

NIBCO check valves may be installed in both horizontal and vertical lines with upward flow or in any intermediate position. They will operate satisfactorily in a declining plane (no more than 15°). Install check valves as far from pump discharge or line direction change as possible and at a minimum length of 5 times the pipe diameter.

**WARNING:** This product can expose you to chemicals including lead, which is known to the State of California to cause cancer and birth defects or other reproductive harm. For more information go to [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov).

Do not use for reciprocating air compressor service.

\*Weighted average lead content ≤ 0.25%

Press end valve also available (PC-413-Y-LF).  
See NIBCO® Press System catalog.

# Lead-Free\* Bronze Check Valves

**Features:** Silicon Performance Bronze® Alloy • Horizontal Swing • Regrinding Type • Y-Pattern • Renewable Seat and Disc • Press Ends

**Approvals:** Conforms to MSS SP-139 • NSF/ANSI-61-8 Commercial Hot 180°F (includes annex F and G) and NSF/ANSI-372

**Size range:** 1/2" - 2"

**Pressure rating:** 200 PSI non-shock cold working pressure

**Maximum pressure / temperature:** 100 PSI at 250° F

Lead-free\* marking: Double oval in body casting



NSF/ANSI 61  
NSF/ANSI 372

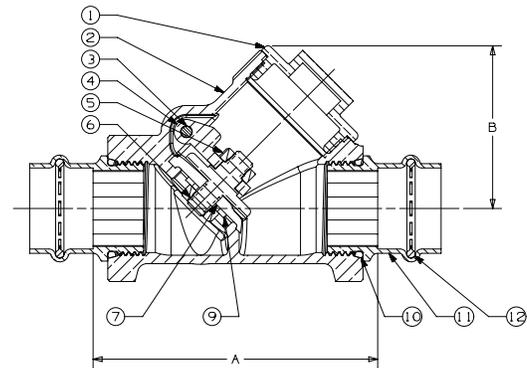


**PC-413-Y-LF**  
Press Ends

## MATERIAL LIST

PART	SPECIFICATION
1. Bonnet	Silicon Bronze ASTM B584 Alloy C87850
2. Body	Silicon Bronze ASTM B584 Alloy C87850
3. Hinge Pin	ASTM A276 Alloy S31600 or ASTM A276 Alloy S30400
4. Disc Hanger	Silicon Bronze ASTM B584 Alloy C87850
5. Stainless Steel Nut (2)	ASTM F594 Alloy S31600 or ASTM F594 Alloy S30400
6. Disc Holder	Silicon Bronze ASTM B371 Alloy C69300
7. Seat Disc	PTFE
8. Hinge Pin Plug	ASTM B371 Alloy C69300
9.* Disc Washer	304 Stainless Steel
10. O-Ring	EPDM
11. Press End Adapter	ASTM B75 Alloy C12200
12. Crimp Evident Seal O-Ring	EPDM

\*Sizes 1/2", 1", 1 1/2", 1 3/4" and 2" only



**PC-413-Y-LF**  
Press x Press

## DIMENSIONS—WEIGHTS

SIZE	Dimensions				Master Ctn Qty	Weight	
	A (Lay Length)		B (Height)			Lbs.	Kg.
1/2	15	2.78	71	1.66	42	0.72	0.33
3/4	20	3.25	83	1.90	48	1.13	0.51
1	25	3.97	101	2.27	25	1.80	0.82
1-1/4	32	4.64	118	2.67	20	2.42	1.10
1-1/2	40	5.00	127	3.09	16	3.75	1.70
2	50	5.85	149	3.84	4	6.02	2.73

NIBCO check valves may be installed in both horizontal and vertical lines with upward flow or in any intermediate position. They will operate satisfactorily in a declining plane (no more than 15°). Install check valves as far from pump discharge or line direction change as possible and at a minimum length of 5 times the pipe diameter.

Do not use for reciprocating air compressor service.

**WARNING:** This product can expose you to chemicals including lead, which is known to the State of California to cause cancer and birth defects or other reproductive harm. For more information go to [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov).

\*Weighted average lead content ≤ 0.25%

# Lead-Free\* Bronze Ring Check® Valves

**Features:** Silicon Performance Bronze® Alloy • Inline Lift Type • Resilient Discs • Spring Actuated

**Approvals:** conforms to MSS SP-139 • NSF/ANSI-61-8 Commercial Hot 180°F (includes annex F and G) and NSF/ANSI-372

**Size range:** 1/2" - 2"

**Pressure rating:** 250 PSI non-shock cold working pressure

**Maximum pressure / temperature:** 100 PSI at 300° F

Lead-free\* marking: Double oval in body casting



NSF/ANSI 61  
NSF/ANSI 372



**T-480-Y-LF**  
Threaded



**S-480-Y-LF**  
Solder

## MATERIAL LIST

PART	SPECIFICATION
1. Body	Silicon Bronze ASTM B584 Alloy C87850
2. Stem	Stainless Steel ASTM A582 Alloy S30300
3. Spring	Stainless Steel S31600
4. Disc Holder	Stainless Steel S31600
5. Disc	PTFE
6. Seat Screw	Stainless Steel ASTM A276 Alloy S43000
7. Body End	Silicon Bronze ASTM B584 Alloy C87850

## DIMENSIONS—WEIGHTS—QUANTITIES

SIZE	A		B		C		D		E		T-480-Y-LF		Master Ctn Qty.	
	In.	mm.	Lbs.	Kg.										
1/2	15	2.06	52	0.5	13	1.03	26	0.53	13	1.37	35	0.36	0.16	100
3/4	20	2.25	57	0.75	19	1.12	28	0.61	15	1.63	41	0.48	0.22	100
1	25	2.63	67	1	25	1.29	33	0.72	18	2.08	53	0.77	0.35	50
1-1/4	32	2.94	75	1.25	32	1.47	37	0.59	15	2.39	61	1.14	0.51	30
1-1/2	40	3.31	84	1.5	38	1.77	45	0.84	21	2.76	70	1.63	0.74	30
2	50	3.69	94	2	51	2.19	56	0.84	21	3.39	86	2.27	1.03	10

SIZE	A		B		C		D		E		S-480-Y-LF		Master Ctn Qty.	
	In.	mm.	Lbs.	Kg.										
1/2	15	2.17	55	0.5	13	1.19	30	0.5	13	1.37	35	0.40	0.18	100
3/4	20	2.78	71	0.75	19	1.31	33	0.75	19	1.63	41	0.52	0.24	100
1	25	3.31	84	1	25	1.5	38	0.91	23	2.08	53	0.85	0.39	50
1-1/4	32	3.54	90	1.25	32	1.6	41	0.97	25	2.39	61	1.28	0.58	30
1-1/2	40	4.1	104	1.5	38	1.92	49	1.09	28	2.76	70	1.75	0.79	30
2	50	4.96	126	2	51	2.28	58	1.34	34	3.39	86	2.70	1.23	10

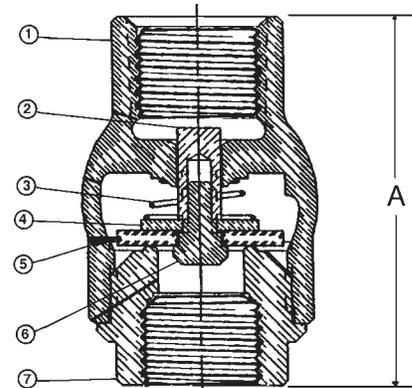
1/2" thru 2" require 1/2 pound pressure to open

NIBCO check valves may be installed in both horizontal and vertical lines with upward flow or in any intermediate position. They will operate satisfactorily in a declining plane (no more than 15°). Install check valves as far from pump discharge or line direction change as possible and at a minimum length of 5 times the pipe diameter.

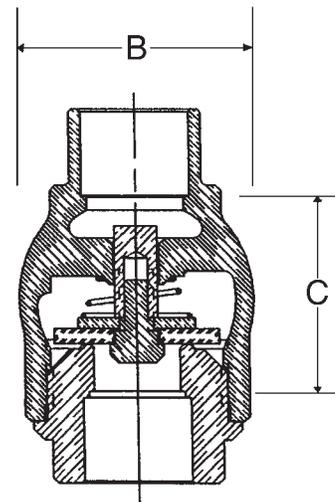
Do not use for reciprocating air compressor service.

**WARNING:** This product can expose you to chemicals including lead, which is known to the State of California to cause cancer and birth defects or other reproductive harm. For more information go to [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov).

\*Weighted average lead content ≤ 0.25%



**T-480-Y-LF**  
NPT x NPT



**S-480-Y-LF**  
C x C

# Lead-Free\* Brass Ball Valves - Threaded

**Features:** Two-Piece Body • Full Port • Blowout-Proof Stem • PTFE Seats

**Approvals:** NSF/ANSI 61-8 (includes annex F and G) • NSF/ANSI 372 • IAPMO IGC-157 • MSS SP-110

**1/4"-2" 600 PSI non-shock cold working pressure**  
**2-1/2"-4" 400 PSI non-shock cold working pressure**



**T-FP-600A-LF**



**T-FP-600A-LF-LL**

w/Locking Lever

CSA (ØØ" - 2"):

- ANSI Z21.15 / CSA 9.1
- ASME B16.44: 5 psig (maximum)
- ASME B16.33: 125 psig (maximum)
- CAN / CGA 3.16
- CGA CR91-002: ½ psig, 2psig, and 5 psig

FM (ØØ" - 2"):

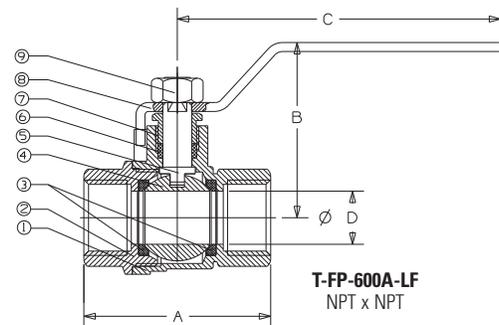
- 1140 approved 175 wwp

UL, Gas and Oil (ØØ" - 4"):

- UL 1477 (YQNZ): Compressed gas shutoff valves – 250 PSI
- UL 842 (YRBX): Flammable liquid shutoff valves – 250 PSI
- UL 842 (YRPV): Gas shutoff valves – 250 PSI
- UL 842 (MHKZ): Manual valves – 250 PSI
- UL 125 (YSdT): LP-Gas shutoff valves – 250 PSI
- UL Subject 258 (VQGU): Trim and drain valves (1/4" to 2")

## MATERIAL LIST

PART	SPECIFICATION
1. Body	Forged DZR Copper Alloy
2. End Cap	Forged DZR Copper Alloy
3. Ball Seat	PTFE
4. Ball	Chrome Plated LF Brass - C46500 (1/2"-1") Stainless Steel 316 (1 1/4"-4")
5. Stem	Brass
6. Stem Packing	PTFE
7. Packing Nut	Brass
8. Lever Handle	Steel, Plated
9. Handle Nut	Stainless Steel



**T-FP-600A-LF**  
NPT x NPT

## DIMENSIONS—WEIGHTS—QUANTITIES

SIZE	A	B	C	D	E	F	G	J	T-FP-600A-LF	Master
In. mm.	In. mm.	In. mm.	In. mm.	In. mm.	In. mm.	In. mm.	In. mm.	In. mm.	Lbs. Kg.	Ctn Qty.
1/4	8 1.76	45 3.54	90 1.73	44 0.39	10 0.82	21 1.01	26 0.47	12 4.42	112 0.33 0.15	18
3/8	10 1.76	45 3.54	90 1.73	44 0.39	10 0.82	21 1.01	26 0.47	12 4.42	112 0.30 0.14	18
1/2	15 2.02	51 3.54	90 1.94	49 0.56	14 0.98	25 1.24	31 0.52	13 4.57	116 0.44 0.20	18
3/4	20 2.36	60 3.78	96 2.11	54 0.74	19 1.24	31 1.49	38 0.56	14 4.98	126 0.66 0.30	12
1	25 2.76	70 4.53	115 2.56	65 0.94	24 1.5	38 1.79	45 0.63	16 5.91	150 1.10 0.50	6
1-1/4	32 3.3	84 4.53	115 2.98	76 1.28	33 1.88	48 2/34 316255	0.71	18 6.18	157 1.57 0.71	4
1-1/2	40 3.66	93 5.51	140 3.37	86 1.58	40 2.22	56 2.83	72 0.72	18 7.34	186 2.40 1.09	2
2	50 4.18	106 5.51	140 3.7	94 1.99	51 2.68	68 3.42	87 0.75	19 7.6	193 3.37 1.53	2
2-1/2	65 5.38	137 8.66	220 4.76	121 2.52	64 3.34	85 4.33	110 1.02	26 11.35	288 7.60 3.45	3
3	80 6.09	155 8.66	220 5.08	129 2.91	74 3.89	99 4.92	125 1.1	28 11.68	297 9.36 4.24	2
4	100 7.39	188 9.61	244 5.87	149 3.87	98 4.95	126 6.38	162 1.22	31 13.3	338 16.85 7.64	1

### Handle Options:

- Lever
- Locking lever
- Extended lever

**WARNING:** This product can expose you to chemicals including lead, which is known to the State of California to cause cancer and birth defects or other reproductive harm. For more information go to [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov).

\*Weighted average lead content ≤ 0.25%

# Lead-Free\* Brass Ball Valves - Threaded

**Features:** Two-Piece Body • Full Port • Blowout-Proof Stem • PTFE seats

**Approvals:** IAPMO IGC-157 • MSS SP-110 • NSF/ANSI 61-8  
(includes annex F and G) and NSF/ANSI 372



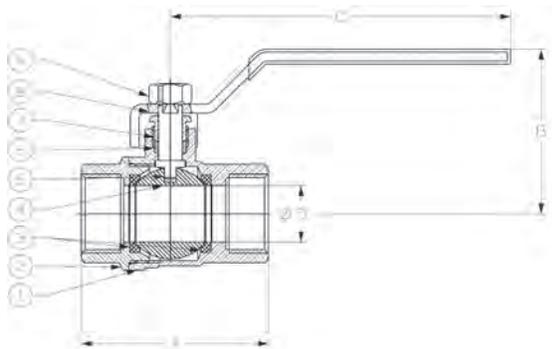
**600 PSI non-shock cold working pressure**

## MATERIAL LIST

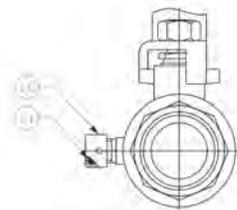
PART	SPECIFICATION
1. Body	Forged DZR Copper Alloy
2. End Cap	Forged DZR Copper Alloy
3. Ball Seat	PTFE
4. Ball	Stainless Steel or Chrome Plated Brass
5. Stem	Brass
6. O-Ring (Stem Seal)	Fluorocarbon (FKM)
7. Stem Packing	PTFE
8. Packing Nut	Brass
9. Lever Handle	Steel, Plated
10. Drain Cap	Brass
11. Seal	Buna-N



**T-FP-600AD-LF**  
w/Drain



**T-FP-600AD-LF**  
NPT x NPT



## DIMENSIONS—WEIGHTS—QUANTITIES

Size		A		B		C		Port D				Ctn.
In.	mm.	In.	mm.	In.	mm.	In.	mm.	In.	mm.	Lbs.	Kg.	Qty.
1/2	15	2.18	55	1.67	42	3.54	90	0.58	15	0.48	0.22	18
3/4	20	2.48	63	2.14	54	4.47	114	0.75	19	0.75	0.34	12

**WARNING:** This product can expose you to chemicals including lead, which is known to the State of California to cause cancer and birth defects or other reproductive harm. For more information go to [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov).

\*Weighted average lead content ≤ 0.25%

# Lead-Free\* Brass Ball Valves - Solder

**Features:** Two-Piece Body • Full Port • Blowout-Proof Stem • PTFE Seats

**Approvals:** NSF/ANSI 61-8 (includes annex F and G) • NSF/ANSI 372 • IAPMO IGC-157 • MSS SP-110

**3/8"-2" 600 PSI non-shock cold working pressure**  
**2-1/2"-3" 400 PSI non-shock cold working pressure**



## MATERIAL LIST

PART	SPECIFICATION
1. Body	Forged DZR Copper Alloy
2. End Cap	Forged DZR Copper Alloy
3. Ball Seat	PTFE
4. Ball	Stainless Steel or Chrome Plated Brass
5. Stem	Brass
6. O-Ring (Stem Seal)	Fluorocarbon (FKM)
7. Stem Packing	PTFE
8. Packing Nut	Brass
9. Lever Handle	Steel, Plated
10. Lock Washer	Stainless Steel
11. Handle Nut	Stainless Steel
12. Drain Cap*	Brass
13. Seat*	EPDM

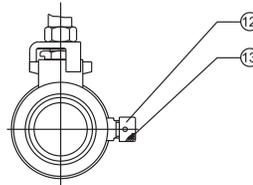
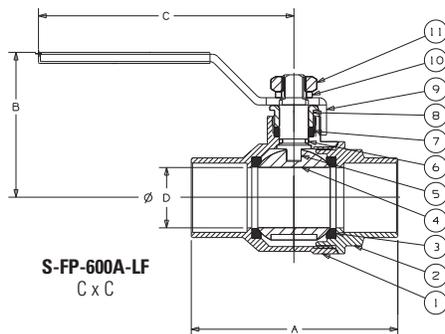
Note: \*parts 12 and 13 are applicable to valve with drain only.



**S-FP-600A-LF**



**S-FP-600AD-LF**  
w/Drain



**Handle Options:**

- Lever
- Extended lever

## DIMENSIONS—WEIGHTS—QUANTITIES

SIZE	A		B		C		D		E		F		G		J		S-FP-600A-LF		Master
In. mm.	In. mm.	In. mm.	In. mm.	In. mm.	In. mm.	In. mm.	In. mm.	In. mm.	In. mm.	In. mm.	In. mm.	In. mm.	In. mm.	In. mm.	In. mm.	Lbs.	Kg.	Ctn Qty.	
3/8	10	1.75 44	3.74 95	1.5 38	0.5 13	1 25	1.02 26	0.37 9	4.62 117	0.30	0.14	18							
1/2	15	1.97 50	3.74 95	1.78 45	0.63 16	0.97 25	1.28 33	0.5 13	4.74 120	0.44	0.20	18							
3/4	20	2.73 69	3.97 101	1.94 49	0.88 22	1.23 31	1.57 40	0.91 23	6.04 153	0.66	0.30	12							
1	25	3.34 85	4.33 110	2.51 64	1 25	1.53 39	1.89 48	0.91 23	6.04 153	1.10	0.50	6							
1-1/4	32	3.8 97	5 127	2.57 65	1.38 35	1.87 47	2.28 58	0.96 24	6.88 175	1.57	0.71	4							
1-1/2	40	4.42 112	6.18 157	3.04 77	1.63 41	2.21 56	2.78 71	1.1 28	8.38 213	2.40	1.09	2							
2	50	5.34 136	6.18 157	3.34 85	2.12 54	2.66 68	3.46 88	1.34 34	8.85 225	3.37	1.53	2							
2-1/2	65	6.24 158	9.45 240	4.78 121	2.63 67	3.28 83	4.29 109	1.48 38	12.6 320	7.60	3.45	3							
3	75	7.11 181	9.51 242	5.17 131	3.13 80	3.81 97	4.96 126	1.65 42	13.1 333	16.85	7.64	1							

SIZE	A		B		C		D		E		F		G		J		S-FP-600AD-LF		Master
In. mm.	In. mm.	In. mm.	In. mm.	In. mm.	In. mm.	In. mm.	In. mm.	In. mm.	In. mm.	In. mm.	In. mm.	In. mm.	In. mm.	In. mm.	In. mm.	Lbs.	Kg.	Ctn Qty.	
1/2	15	1.97 50	3.74 95	1.78 45	0.63 16	0.97 25	1.78 45	0.5 13	4.74 120	0.44	0.20	18							
3/4	20	2.73 69	3.97 101	1.94 49	0.88 22	1.23 31	2.09 53	0.75 19	5.31 135	0.66	0.30	12							
1	50	3.34 85	4.33 110	2.51 64	1 25	1.53 39	2.40 61	0.91 23	6.04 153	1.10	0.50	6							

**WARNING:** This product can expose you to chemicals including lead, which is known to the State of California to cause cancer and birth defects or other reproductive harm. For more information go to [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov).

\*Weighted average lead content ≤ 0.25%

# NIBCO® Press System Lead-Free\* Brass Ball Valves

**Features:** Press Ends Leak Detection • Two-Piece Body • PTFE Seats • Full Port • Blowout-Proof Stem

**Approvals:** IAPMO/ANSI Z1157 (IGC-157) • NSF/ANSI-61 & 372 • MSS SP-145 • Conforms to ASME B16.51†

**Size range:** 1/2" - 2"

**Pressure rating:** 250 PSI non-shock cold working pressure

**Maximum pressure / temperature:** 225 PSI at 250° F

Lead-Free\* markings: White handle and blue hang tag

**Applications:** Drinking Water • Domestic Hot & Cold Water • HVAC (condensors, chilled water, hot water heating) • Isolation and Throttling (half-open to full-open only) • Connect to Rigid Copper Tubing Manufactured per ASTM B88, Condition H (hard drawn)

Reference Press System catalog for updated Approved Tool and Jaw Compatibility Matrix list.

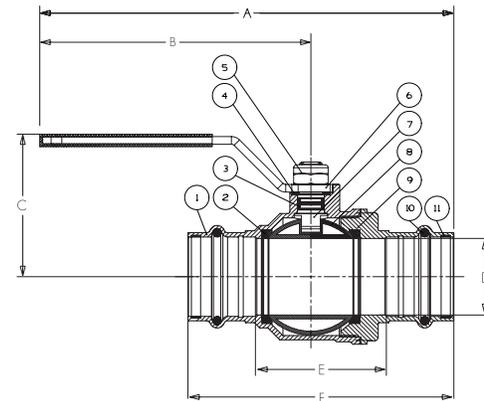
**Not intended for steam or gas usage.**



## PC-FP-600A-LF

Press x Press  
1/2" - 2"

(Patent Pending sizes 1-1/4" - 2")



**PC-FP-600A-LF**  
Press x Press  
1/2" - 2"

### MATERIAL LIST

PART	SPECIFICATION
1. Body	Forged DZR Copper Alloy - C46500
2. Seat Seal	PTFE
3. O-ring	EPDM - ASTM D2000
4. Washer	PTFE
5. Lock Nut	Stainless Steel + Nylon
6. Handle	Steel, Plated
7. Stem	Brass
8. Ball	Chrome Plated Brass - C46500 (1/2"-1") Stainless Steel 316 (1 1/4"-2")
9. End Cap	Forged DZR Copper Alloy - C46500
10. O-ring	EPDM - ASTM D2000
11. Metal Ring	Stainless Steel (1-1/4"-2")†

### Options:

- Extended lever
- EPDM Seal for Press Ends
- Wing Handle



Handle Markings

### DIMENSIONS—WEIGHTS—QUANTITIES

SIZE	A		B		C		D		E		F		Weight	
In.	In.	mm.	In.	mm.	In.	mm.	In.	mm.	In.	mm.	In.	mm.	Lbs.	Kg.
1/2	4.57	116	3.66	93	2.09	53	0.631	16.03	1.30	33.0	2.87	73.0	0.38	0.17
3/4	5.71	145	4.17	106	2.80	71	0.883	22.43	1.63	41.5	3.44	87.5	0.73	0.33
1	5.83	148	4.17	106	3.15	80	1.140	28.96	1.83	46.5	3.64	92.5	1.00	0.46
1-1/4†	6.97	177	4.61	117	2.52	64	1.386	35.20	2.19	55.5	4.43	112.5	1.70	0.77
1-1/2†	9.06	230	6.30	160	3.23	82	1.636	41.56	2.52	64.0	5.30	134.5	2.37	1.08
2"	9.88	251	6.30	160	3.23	82	2.137	54.28	3.39	86.0	6.69	170.0	3.96	1.80

IAPMO/ANSI Z1157: in addition to meeting IGC-157 test requirements, the IAPMO/ANSI Z1157 also requires Press ends to be fully tested to IAPMO PS-117 performance requirements which includes the following additional tests:

- |  |  |
|--|--|
| 1. Unrestrained Hydrostatic Pressure Test at 20 °C (68°F)  | 6. Hydraulic Shock (Water Hammer) Test         |
| 2. Unrestrained Hydrostatic Pressure Test at 93 °C (200°F) | 7. Vibration Test                              |
| 3. Static Torsion Test for Press Connections               | 8. Thermal Cycling Test                        |
| 4. Bending Test  | 9. Alternate Thermal Cycling Test              |
| 5. Vacuum Test   | 10. Dynamic Torsion Test for Press Connections |

†Tested to the performance criteria of ASME B16.51

‡ Patent Pending



**WARNING:** This product can expose you to chemicals including lead, which is known to the State of California to cause cancer and birth defects or other reproductive harm. For more information go to [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov).

\*Weighted average lead content ≤ 0.25%

# NIBCO® Press System Lead-Free\* Brass Ball Valves

**Features:** Press Ends Leak Detection • Two-Piece Body • PTFE Seats • Full Port • Blowout-Proof Stem

**Approvals:** IAPMO/ANSI Z1157 (IGC-157) • NSF/ANSI-61 & 372 • MSS SP-145 • Conforms to ASME B16.51†

**Size range:** 2 1/2" - 4"

**Pressure rating:** 200 PSI non-shock cold working pressure

**Maximum pressure / temperature:** 200 PSI at 200° F

Lead-Free\* markings: White handle and blue hang tag

**Applications:** Drinking Water • Domestic Hot & Cold Water • HVAC (condensors, chilled water, hot water heating) • Isolation and Throttling (half-open to full-open only) • Connect to Rigid Copper Tubing Manufactured per ASTM B88, Condition H (hard drawn)

Reference Press System catalog for updated Approved Tool and Jaw Compatibility Matrix list.

**Not intended for steam or gas usage.**

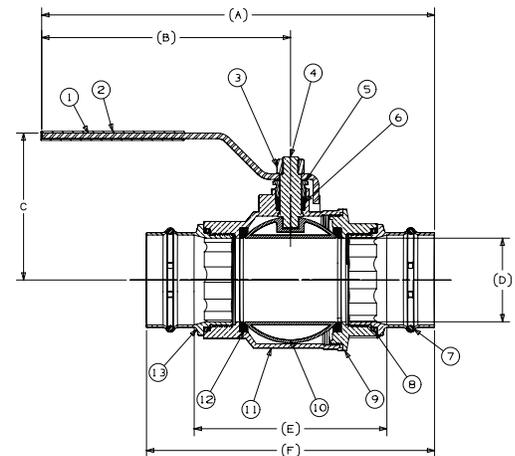


**PC-FP-600A-LF**

Press x Press  
2 1/2" - 4"

## MATERIAL LIST

PART	SPECIFICATION
1 Handle	Steel Plated
2 Handle Cover	PVC
3 Handle Lock Nut	Steel
4 Stem	Brass/Bronze
5 Packing Nut	Brass/Bronze
6 Packing	PTFE
7 Leak Detection O-ring	EPDM - ASTM D2000
8 O-ring, Boss Seal	EPDM - ASTM D2000
9 Body End	Brass/Bronze
10 Ball	Stainless Steel
11 Body	Brass/Bronze
12 Ball Seat Seal	PTFE
13 Press End Adaptor w/Leak Detection	ASTM B75 Alloy C12200



**PC-FP-600A-LF**

Press x Press  
2 1/2" - 4"

### Options:

- Extended lever
- EPDM Seal for Press Ends



Handle Markings

## DIMENSIONS—WEIGHTS—QUANTITIES

SIZE		A		B		C		D		E		F		Weight	
In.	mm.	In.	mm.	In.	mm.	In.	mm.	In.	mm.	In.	mm.	In.	mm.	Lbs.	Kg.
2 1/2"	15	13.07	332	8.66	220	4.8	121.9	2.52	64	5.88	149.3	8.81	223.7	9.55	4.33
3	20	13.67	347.2	8.66	220	5.12	130	2.91	73.9	6.71	170.4	10.03	261.6	13.07	5.93
4	25	15.87	403.1	9.61	244.1	5.98	151.9	3.9	99	8.21	208.5	12.53	318.2	26.32	11.94

IAPMO/ANSI Z1157: in addition to meeting IGC-157 test requirements, the IAPMO/ANSI Z1157 also requires Press ends to be fully tested to IAPMO PS-117 performance requirements which includes the following additional tests:

- |  |  |
|--|--|
| 1. Unrestrained Hydrostatic Pressure Test at 20 °C (68°F)  | 6. Hydraulic Shock (Water Hammer) Test         |
| 2. Unrestrained Hydrostatic Pressure Test at 93 °C (200°F) | 7. Vibration Test                              |
| 3. Static Torsion Test for Press Connections               | 8. Thermal Cycling Test                        |
| 4. Bending Test  | 9. Alternate Thermal Cycling Test              |
| 5. Vacuum Test   | 10. Dynamic Torsion Test for Press Connections |

†Tested to the performance criteria of ASME B16.51

**WARNING:** This product can expose you to chemicals including lead, which is known to the State of California to cause cancer and birth defects or other reproductive harm. For more information go to [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov).

\*Weighted average lead content ≤ 0.25%

# NIBCO® Press System Lead-Free\* Brass Ball Valves

**Features:** Press Ends Leak Detection • Wing Handle • Two-Piece Body • PTFE Seats • Full Port • Blowout-Proof Stem

**Approvals:** IAPMO/ANSI Z1157 (IGC-157) • NSF/ANSI-61 & 372 • MSS SP-145 • Conforms to ASME B16.51†

**Size range:** 1/2" - 1"

**Pressure rating:** 250 PSI non-shock cold working pressure

**Maximum pressure / temperature:** 225 PSI at 250° F

Lead-Free\* markings: White handle and blue hang tag

**Applications:** Drinking Water • Domestic Hot & Cold Water • HVAC (condensors, chilled water, hot water heating) • Isolation and Throttling (half-open to full-open only) • Connect to Rigid Copper Tubing Manufactured per ASTM B88, Condition H (hard drawn)

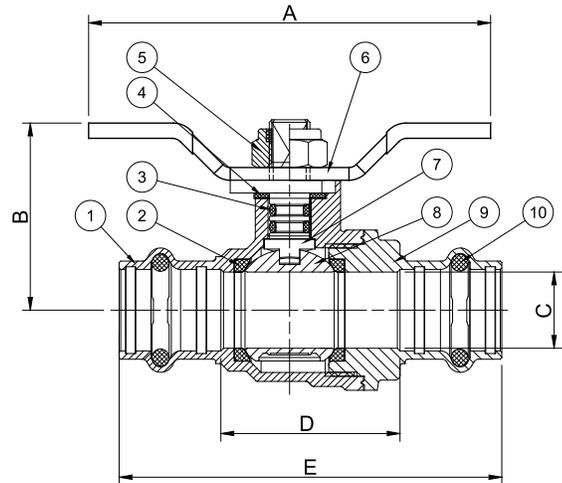
Reference Press System catalog for updated Approved Tool and Jaw Compatibility Matrix list.

**Not intended for steam or gas usage.**



## PC-FP-600A-LF-W

Press x Press  
1/2" - 1"



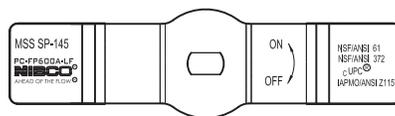
**PC-FP-600A-LF-W**  
Press x Press  
1/2" - 1"

### MATERIAL LIST

PART	SPECIFICATION
1. Body	Forged DZR Copper Alloy - C46500
2. Seat Seal	PTFE
3. O-ring	EPDM - ASTM D2000
4. Washer	PTFE
5. Lock Nut	Stainless Steel + Nylon
6. Handle	Steel, Plated
7. Stem	Brass
8. Ball	Chrome Plated Brass - C46500
9. End Cap	Forged DZR Copper Alloy - C46500
10. O-ring	EPDM - ASTM D2000

#### Options:

- Extended lever
- EPDM Seal for Press Ends
- Lever Handle



Handle Markings

### DIMENSIONS—WEIGHTS—QUANTITIES

Size		A		B		C		D		E		Weight	
In.	mm.	In.	mm.	In.	mm.	In.	mm.	In.	mm.	In.	mm.	Lbs.	Kg.
1/2	12.7	3.11	79.00	1.45	36.80	0.59	15.00	1.39	35.20	2.96	75.20	0.4230	0.1918
3/4	19.05	4.25	108.00	2.15	54.70	0.79	20.00	1.70	43.20	3.51	89.20	0.8020	0.3637
1	25.40	4.25	108.00	2.31	58.70	0.98	25.00	1.90	48.20	3.71	94.20	1.0930	0.4957

**IAPMO/ANSI Z1157:** in addition to meeting IGC-157 test requirements, the IAPMO/ANSI Z1157 also requires Press ends to be fully tested to IAPMO PS-117 performance requirements which includes the following additional tests:

†Tested to the performance criteria of ASME B16.51

1. Unrestrained Hydrostatic Pressure Test at 20 °C (68°F)
2. Unrestrained Hydrostatic Pressure Test at 93 °C (200°F)
3. Static Torsion Test for Press Connections
4. Bending Test
5. Vacuum Test
6. Hydraulic Shock (Water Hammer) Test
7. Vibration Test
8. Thermal Cycling Test
9. Alternate Thermal Cycling Test
10. Dynamic Torsion Test for Press Connections



**WARNING:** This product can expose you to chemicals including lead, which is known to the State of California to cause cancer and birth defects or other reproductive harm. For more information go to [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov).

\*Weighted average lead content ≤ 0.25%

# NIBCO® Press System Lead-Free\* Brass Ball Valves

**Features:** Press End Leak Detection • Two-Piece Body • PTFE Seats • Full Port • Blowout-Proof Stem

**Approvals:** IAPMO/ANSI Z1157 (IGC-157) • NSF/ANSI-61 & 372 • MSS SP-145 • Conforms to ASME B16.51†

**Size range:** 1/2" - 1"

**Pressure rating:** 250 PSI non-shock cold working pressure

**Maximum pressure / temperature:** 225 PSI at 250° F

Lead-Free\* markings: White handle and blue hang tag

**Applications:** Drinking Water • Domestic Hot & Cold Water • HVAC (condensors, chilled water, hot water heating) • Isolation and Throttling (half-open to full-open only) • Connect to Rigid Copper Tubing Manufactured per ASTM B88, Condition H (hard drawn)

Reference Press System catalog for updated Approved Tool and Jaw Compatibility Matrix list.

**Not intended for steam or gas usage.**



**PCMT-FP-600A-LF**

Press x MIP  
1/2" - 1"

## MATERIAL LIST

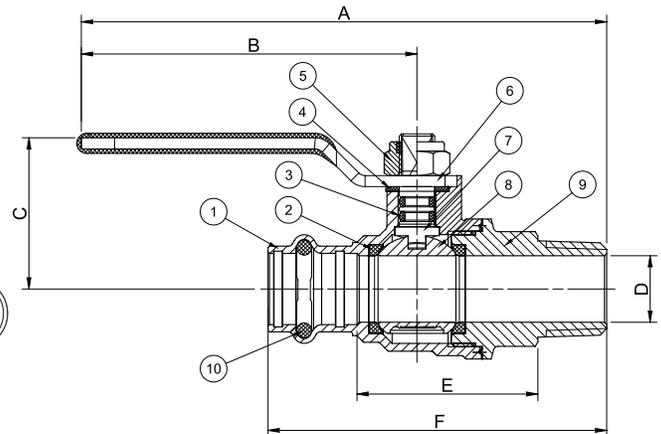
PART	SPECIFICATION
1. Body	Forged DZR Copper Alloy - C46500
2. Seat Seal	PTFE
3. O-ring	EPDM - ASTM D2000
4. Washer	PTFE
5. Lock Nut	Stainless Steel + Nylon
6. Handle	Steel, Plated
7. Stem	Brass
8. Ball	Chrome Plated Brass - C46500 (1/2"-1")
9. End Cap	Forged DZR Copper Alloy - C46500
10. O-ring	EPDM - ASTM D2000

### Options:

- Extended lever
- EPDM Seal for Press Ends
- Wing Handle



Handle Markings



**PCMT-FP-600A-LF**

Press x Male  
1/2" - 1"

## DIMENSIONS—WEIGHTS—QUANTITIES

SIZE		A		B		C		D		E		F		Weight	
In.	mm.	In.	mm.	In.	mm.	In.	mm.	In.	mm.	In.	mm.	In.	mm.	Lbs.	Kg.
1/2	12.7	5.30	134.70	3.62	92.00	1.34	34.00	0.59	15.00	1.60	40.70	3.00	76.20	0.4520	0.2050
3/4	19.05	6.07	154.20	4.13	105.00	2.06	52.20	0.79	20.00	2.00	50.70	3.53	89.70	0.7940	0.3601
1	25.40	6.29	159.70	4.13	105.00	2.21	56.20	0.98	25.00	2.23	56.70	3.89	98.70	1.1730	0.5320

IAPMO/ANSI Z1157: in addition to meeting ICG-157 test requirements, the IAPMO/ANSI Z1157 also requires Press ends to be fully tested to IAPMO PS-117 performance requirements which includes the following additional tests:

†Tested to the performance criteria of ASME B16.51

- |  |  |
|--|--|
| 1. Unrestrained Hydrostatic Pressure Test at 20 °C (68°F)  | 6. Hydraulic Shock (Water Hammer) Test         |
| 2. Unrestrained Hydrostatic Pressure Test at 93 °C (200°F) | 7. Vibration Test                              |
| 3. Static Torsion Test for Press Connections               | 8. Thermal Cycling Test                        |
| 4. Bending Test  | 9. Alternate Thermal Cycling Test              |
| 5. Vacuum Test   | 10. Dynamic Torsion Test for Press Connections |

**WARNING:** This product can expose you to chemicals including lead, which is known to the State of California to cause cancer and birth defects or other reproductive harm. For more information go to [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov).

\*Weighted average lead content ≤ 0.25%

# NIBCO® Press System Lead-Free\* Brass Ball Valves

**Features:** Press End Leak Detection • Two-Piece Body • PTFE Seats • Full Port • Blowout-Proof Stem

**Approvals:** IAPMO/ANSI Z1157 (IGC-157) • NSF/ANSI-61 & 372 • MSS SP-145 • Conforms to ASME B16.51†

**Size range:** 1/2" - 1"

**Pressure rating:** 250 PSI non-shock cold working pressure

**Maximum pressure / temperature:** 225 PSI at 250° F

Lead-Free\* markings: White handle and blue hang tag

**Applications:** Drinking Water • Domestic Hot & Cold Water • HVAC (condensors, chilled water, hot water heating) • Isolation and Throttling (half-open to full-open only) • Connect to Rigid Copper Tubing Manufactured per ASTM B88, Condition H (hard drawn)

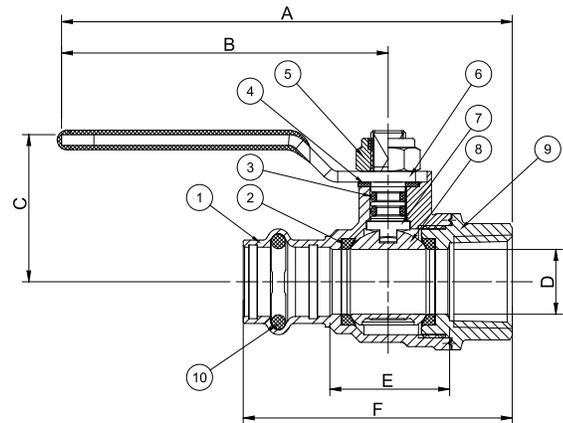
Reference Press System catalog for updated Approved Tool and Jaw Compatibility Matrix list.

**Not intended for steam or gas usage.**



**PCT-FP-600A-LF**

Press x FIP  
1/2" - 1"



**PCT-FP-600A-LF**

Press x FIP  
1/2" - 1"

## MATERIAL LIST

PART	SPECIFICATION
1. Body	Forged DZR Copper Alloy - C46500
2. Seat Seal	PTFE
3. O-ring	EPDM - ASTM D2000
4. Washer	PTFE
5. Lock Nut	Stainless Steel + Nylon
6. Handle	Steel, Plated
7. Stem	Brass
8. Ball	Chrome Plated Brass - C46500
9. End Cap	Forged DZR Copper Alloy - C46500
10. O-ring	EPDM - ASTM D2000

### Options:

- Extended lever
- EPDM Seal for Press Ends
- Wing Handle



**Handle Markings**

## DIMENSIONS—WEIGHTS—QUANTITIES

SIZE		A		B		C		D		E		F		Weight	
In.	mm.	In.	mm.	In.	mm.	In.	mm.	In.	mm.	In.	mm.	In.	mm.	Lbs.	Kg.
1/2	12.7	4.75	120.70	3.62	92.00	1.34	34.00	0.59	15.00	1.09	27.70	2.45	62.20	0.3950	0.1791
3/4	19.05	5.42	137.70	4.13	105.00	2.06	52.20	0.79	20.00	1.37	34.70	2.88	73.20	0.7280	0.3302
1	25.40	5.64	143.20	4.13	105.00	2.21	56.20	0.98	25.00	1.62	41.20	3.24	82.20	1.0520	0.4771

**IAPMO/ANSI Z1157:** in addition to meeting IGC-157 test requirements, the IAPMO/ANSI Z1157 also requires Press ends to be fully tested to IAPMO PS-117 performance requirements which includes the following additional tests:

†Tested to the performance criteria of ASME B16.51

- |  |  |
|--|--|
| 1. Unrestrained Hydrostatic Pressure Test at 20 °C (68°F)  | 6. Hydraulic Shock (Water Hammer) Test         |
| 2. Unrestrained Hydrostatic Pressure Test at 93 °C (200°F) | 7. Vibration Test                              |
| 3. Static Torsion Test for Press Connections               | 8. Thermal Cycling Test                        |
| 4. Bending Test  | 9. Alternate Thermal Cycling Test              |
| 5. Vacuum Test   | 10. Dynamic Torsion Test for Press Connections |



**WARNING:** This product can expose you to chemicals including lead, which is known to the State of California to cause cancer and birth defects or other reproductive harm. For more information go to [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov).

\*Weighted average lead content ≤ 0.25%

# NIBCO® Press System Lead-Free\* Brass Ball Valves

**Features:** Press End Leak Detection • Side Drain/Bleeder • Two-Piece Body • PTFE Seats • Full Port • Blowout-Proof Stem

**Approvals:** IAPMO/ANSI Z1157 (IGC-157) • NSF/ANSI-61 & 372 • MSS SP-145 • Conforms to ASME B16.51†

**Size range:** 1/2" - 1"

**Pressure rating:** 250 PSI non-shock cold working pressure

**Maximum pressure / temperature:** 225 PSI at 250° F

Lead-Free\* markings: White handle and blue hang tag

**Applications:** Drinking Water • Domestic Hot & Cold Water • HVAC (condensors, chilled water, hot water heating) • Isolation and Throttling (half-open to full-open only) • Connect to Rigid Copper Tubing Manufactured per ASTM B88, Condition H (hard drawn)

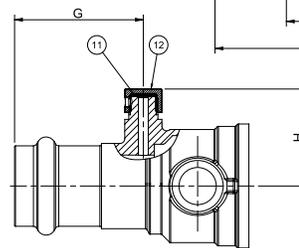
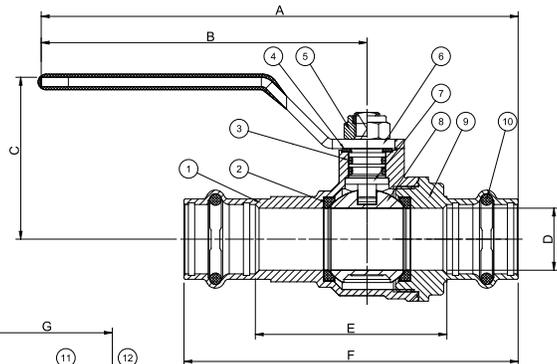
Reference Press System catalog for updated Approved Tool and Jaw Compatibility Matrix list.

**Not intended for steam or gas usage.**



## PC-FP-600A-D-LF

Press x Press with Drain/Bleeder  
1/2" - 1"



**PC-FP-600A-D-LF**  
Press x Press  
with Drain/Bleeder  
1/2" - 1"

### MATERIAL LIST

PART	SPECIFICATION
1. Body	Forged DZR Copper Alloy - C46500
2. Seat Seal	PTFE
3. O-ring	EPDM - ASTM D2000
4. Washer	PTFE
5. Lock Nut	Stainless Steel + Nylon
6. Handle	Steel, Plated
7. Stem	Brass
8. Ball	Chrome Plated Brass - C46500
9. End Cap	Forged DZR Copper Alloy - C46500
10. O-ring	EPDM - ASTM D2000
11. Washer	EPDM
12. Nut	Brass

### Options:

- Extended lever
- EPDM Seal for Press Ends
- Wing Handle



Handle Markings

### DIMENSIONS—WEIGHTS—QUANTITIES

SIZE		A		B		C		D		E		F		G		H		Weight	
In.	mm.	In.	mm.	In.	mm.	In.	mm.	In.	mm.	In.	mm.	In.	mm.	In.	mm.	In.	mm.	Lbs.	Kg.
1/2	12.7	5.26	133.70	3.62	92.00	1.34	34.00	0.59	15.00	2.15	54.70	3.73	94.70	2.09	53.00	1.44	36.50	0.5220	0.2368
3/4	19.05	6.05	153.70	4.13	105.00	2.06	52.20	0.79	20.00	2.43	61.70	4.24	107.70	2.32	59.00	1.44	36.50	0.8800	0.3991
1	25.40	6.11	155.20	4.13	105.00	2.21	56.20	0.98	25.00	2.61	66.20	4.42	112.20	2.44	62.00	1.59	40.50	1.2610	0.5719

**IAPMO/ANSI Z1157:** in addition to meeting ICG-157 test requirements, the IAPMO/ANSI Z1157 also requires Press ends to be fully tested to IAPMO PS-117 performance requirements which includes the following additional tests:

- |  |  |
|--|--|
| 1. Unrestrained Hydrostatic Pressure Test at 20 °C (68°F)  | 6. Hydraulic Shock (Water Hammer) Test         |
| 2. Unrestrained Hydrostatic Pressure Test at 93 °C (200°F) | 7. Vibration Test                              |
| 3. Static Torsion Test for Press Connections               | 8. Thermal Cycling Test                        |
| 4. Bending Test  | 9. Alternate Thermal Cycling Test              |
| 5. Vacuum Test   | 10. Dynamic Torsion Test for Press Connections |

†Tested to the performance criteria of ASME B16.51

**WARNING:** This product can expose you to chemicals including lead, which is known to the State of California to cause cancer and birth defects or other reproductive harm. For more information go to [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov).

\*Weighted average lead content ≤ 0.25%

# NIBCO® Press System Lead-Free\* Brass Ball Valves

**Features:** Press End Leak Detection • 3/4" Hose Connection w/Cap • Two-Piece Body • PTFE Seats • Full Port • Blowout-Proof Stem

**Approvals:** IAPMO/ANSI Z1157 (IGC-157) • NSF/ANSI-61 & 372 • MSS SP-145 • Conforms to ASME B16.51†

**Size range:** 1/2" - 3/4"

**Pressure rating:** 250 PSI non-shock cold working pressure

**Maximum pressure / temperature:** 225 PSI at 250° F

Lead-Free\* markings: White handle and blue hang tag

**Applications:** Drinking Water • Domestic Hot & Cold Water • HVAC (condensors, chilled water, hot water heating) • Isolation and Throttling (half-open to full-open only) • Connect to Rigid Copper Tubing Manufactured per ASTM B88, Condition H (hard drawn)

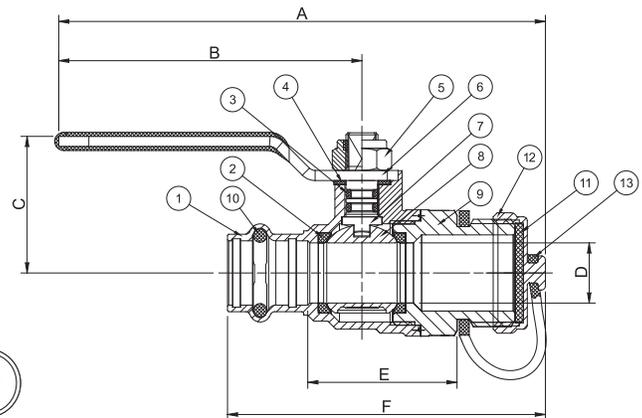
Reference Press System catalog for updated Approved Tool and Jaw Compatibility Matrix list.

**Not intended for steam or gas usage.**



## PC-FP-600A-LF-HC

Press x Hose Cap  
1/2" - 3/4"



## PC-FP-600A-LF-HC

Press x Hose Cap  
1/2" - 3/4"

### MATERIAL LIST

PART	SPECIFICATION
1. Body	Forged DZR Copper Alloy - C46500
2. Seat Seal	PTFE
3. O-ring	EPDM - ASTM D2000
4. Washer	PTFE
5. Lock Nut	Stainless Steel + Nylon
6. Handle	Steel, Plated
7. Stem	Brass
8. Ball	Chrome Plated Brass - C46500
9. End Cap	Forged DZR Copper Alloy - C46500
10. O-ring	EPDM - ASTM D2000
11. Washer	EPDM
12. Nut	Brass
13. Cap Retainer	NBR

### Options:

- Extended lever
- EPDM Seal for Press Ends
- Wing Handle



Handle Markings

### DIMENSIONS—WEIGHTS—QUANTITIES

SIZE		A		B		C		D		E		F		Weight	
In.	mm.	In.	mm.	In.	mm.	In.	mm.	In.	mm.	In.	mm.	In.	mm.	Lbs.	Kg.
1/2	12.7	4.51	114.50	3.62	92.00	1.34	34.00	0.59	15.00	1.46	37.20	3.11	79.00	0.5220	0.2368
3/4	19.05	5.10	129.50	4.13	105.00	2.06	52.20	0.79	20.00	1.74	44.20	3.52	89.50	0.8090	0.3669

IAPMO/ANSI Z1157: in addition to meeting IGC-157 test requirements, the IAPMO/ANSI Z1157 also requires Press ends to be fully tested to IAPMO PS-117 performance requirements which includes the following additional tests:

- |  |  |
|--|--|
| 1. Unrestrained Hydrostatic Pressure Test at 20 °C (68°F)  | 6. Hydraulic Shock (Water Hammer) Test         |
| 2. Unrestrained Hydrostatic Pressure Test at 93 °C (200°F) | 7. Vibration Test                              |
| 3. Static Torsion Test for Press Connections               | 8. Thermal Cycling Test                        |
| 4. Bending Test  | 9. Alternate Thermal Cycling Test              |
| 5. Vacuum Test   | 10. Dynamic Torsion Test for Press Connections |

†Tested to the performance criteria of ASME B16.51



**WARNING:** This product can expose you to chemicals including lead, which is known to the State of California to cause cancer and birth defects or other reproductive harm. For more information go to [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov).

\*Weighted average lead content ≤ 0.25%

# NIBCO® Press System Lead-Free\* Brass Ball Valves

**Features:** Press End Leak Detection • PEX end F1960 Cold Expansion • Two-Piece Body • PTFE Seats • Blowout-Proof Stem

**Approvals:** IAPMO/ANSI Z1157 (IGC-157) • NSF/ANSI-14 61 & 372 • MSS SP-145 • Conforms to ASME B16.51†

**Size range:** 1/2" - 2"

**Pressure rating:** 250 PSI non-shock cold working pressure

**Maximum pressure / temperature:** 225 PSI at 250° F

Lead-Free\* markings: White handle and blue hang tag

**Applications:** Drinking Water • Domestic Hot & Cold Water • HVAC (condensors, chilled water, hot water heating) • Isolation and Throttling (half-open to full-open only) • Connect to Rigid Copper Tubing Manufactured per ASTM B88, Condition H (hard drawn)

Reference Press System catalog for updated Approved Tool and Jaw Compatibility Matrix list.

**Not intended for steam or gas usage.**

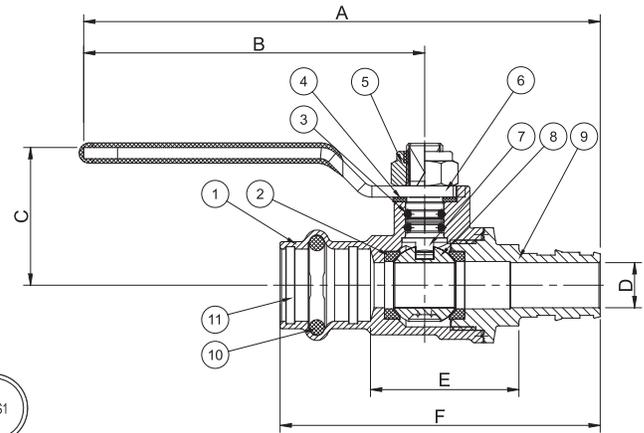


## PCPXA-FP-600A-LF

Press x PEX (F1960 - Cold Expansion)

1/2" - 2"

Patent Pending sizes 1-1/4" - 2"



## PCPXA-FP-600A-LF

Press x PEX (F1960 - Cold Expansion)

1/2" - 2" ††

### MATERIAL LIST

PART	SPECIFICATION
1. Body	Forged DZR Copper Alloy - C46500
2. Seat Seal	PTFE
3. O-ring	EPDM - ASTM D2000
4. Washer	PTFE
5. Lock Nut	Stainless Steel + Nylon
6. Handle	Steel, Plated
7. Stem	Brass
8. Ball	Chrome Plated Brass - C46500 (1/2"-1") Stainless Steel 316 (1 1/4"-2")
9. End Cap	Forged DZR Copper Alloy - C69300
10. O-ring	EPDM - ASTM D2000
11. Metal Ring	Stainless Steel (1-1/4"-2")†

### Options:

- Extended lever
- EPDM Seal for Press Ends
- Wing Handle



Handle Markings

### DIMENSIONS—WEIGHTS—QUANTITIES

SIZE		A		B		C		D		E		F		Weight	
In.	mm.	In.	mm.	In.	mm.	In.	mm.	In.	mm.	In.	mm.	In.	mm.	Lbs.	Kg.
1/2	12.7	5.15	130.90	3.62	92.00	1.20	30.55	0.39	10.00	1.30	32.90	2.79	70.90	0.3400	0.1542
3/4	19.05	5.48	139.20	3.62	92.00	1.34	34.00	0.60	15.30	1.48	37.70	3.33	84.70	0.5090	0.2308
1	25.40	6.37	161.70	4.13	105.00	2.06	52.20	0.79	20.00	1.74	44.20	3.83	97.20	0.8620	0.3909
1 1/4															
1 1/2															
2															

Coming Soon

**IAPMO/ANSI Z1157:** in addition to meeting IGC-157 test requirements, the IAPMO/ANSI Z1157 also requires Press ends to be fully tested to IAPMO PS-117 performance requirements which includes the following additional tests:

- |  |  |
|--|--|
| 1. Unrestrained Hydrostatic Pressure Test at 20 °C (68°F)  | 6. Hydraulic Shock (Water Hammer) Test         |
| 2. Unrestrained Hydrostatic Pressure Test at 93 °C (200°F) | 7. Vibration Test                              |
| 3. Static Torsion Test for Press Connections               | 8. Thermal Cycling Test                        |
| 4. Bending Test  | 9. Alternate Thermal Cycling Test              |
| 5. Vacuum Test   | 10. Dynamic Torsion Test for Press Connections |

\*Weighted average lead content ≤ 0.25%

†Tested to the performance criteria of ASME B16.51

††Patent Pending

**WARNING:** This product can expose you to chemicals including lead, which is known to the State of California to cause cancer and birth defects or other reproductive harm. For more information go to [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov).

\*Weighted average lead content ≤ 0.25%

# NIBCO® Press System Lead-Free\* Brass Ball Valves

**Features:** Press End Leak Detection • PEX End F1807 Crimp • Two-Piece Body • PTFE Seats • Blowout-Proof Stem

**Approvals:** IAPMO/ANSI Z1157 (IGC-157) • NSF/ANSI-14 61 & 372 • MSS SP-145 • Conforms to ASME B16.51†

**Size range:** 1/2" - 2"

**Pressure rating:** 250 PSI non-shock cold working pressure

**Maximum pressure / temperature:** 225 PSI at 250° F

Lead-Free\* markings: White handle and blue hang tag

**Applications:** Drinking Water • Domestic Hot & Cold Water • HVAC (condensors, chilled water, hot water heating) • Isolation and Throttling (half-open to full-open only) • Connect to Rigid Copper Tubing Manufactured per ASTM B88, Condition H (hard drawn)

Reference Press System catalog for updated Approved Tool and Jaw Compatibility Matrix list.

**Not intended for steam or gas usage.**

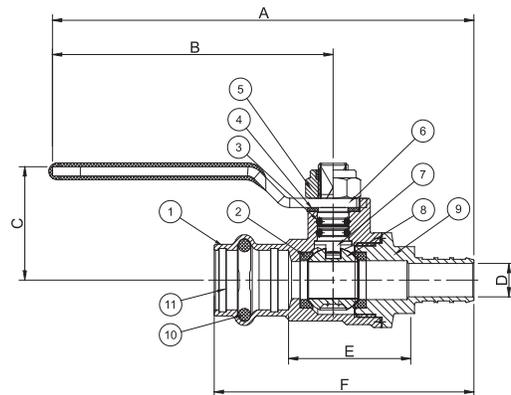


## PCPX-FP-600A-LF

Press x PEX (F1807 - Crimp)

1/2" - 2"

Patent Pending sizes 1-1/4" - 2"



## PCPX-FP-600A-LF

Press x PEX (F1807 - Crimp)

1/2" - 2" ††

### MATERIAL LIST

PART	SPECIFICATION
1. Body	Forged DZR Copper Alloy - C46500
2. Seat Seal	PTFE
3. O-ring	EPDM - ASTM D2000
4. Washer	PTFE
5. Lock Nut	Stainless Steel + Nylon
6. Handle	Steel, Plated
7. Stem	Brass
8. Ball	Chrome Plated Brass - C46500 (1/2"-1") Stainless Steel 316 (1 1/4"-2")
9. End Cap	Forged DZR Copper Alloy - C69300
10. O-ring	EPDM - ASTM D2000
11. Metal Ring	Stainless Steel (1-1/4"-2")†

### Options:

- Extended lever
- EPDM Seal for Press Ends
- Wing Handle



Handle Markings

### DIMENSIONS—WEIGHTS—QUANTITIES

SIZE		A		B		C		D		E		F		Weight	
In.	mm.	In.	mm.	In.	mm.	In.	mm.	In.	mm.	In.	mm.	In.	mm.	Lbs.	Kg.
1/2	12.7	5.11	129.90	3.62	92.00	1.20	30.55	0.39	10.00	1.30	32.90	2.75	69.90	0.3280	0.1487
3/4	19.05	5.19	131.70	3.62	92.00	1.34	34.00	0.60	15.30	1.50	38.20	3.04	77.20	0.4810	0.2181
1	25.40	5.97	151.70	4.13	105.00	2.06	52.20	0.80	20.30	1.72	43.70	3.43	87.20	0.7850	0.3560
1 1/4															
1 1/2															
2															

Coming Soon

**IAPMO/ANSI Z1157:** in addition to meeting IGC-157 test requirements, the IAPMO/ANSI Z1157 also requires Press ends to be fully tested to IAPMO PS-117 performance requirements which includes the following additional tests:

1. Unrestrained Hydrostatic Pressure Test at 20 °C (68°F)
2. Unrestrained Hydrostatic Pressure Test at 93 °C (200°F)
3. Static Torsion Test for Press Connections
4. Bending Test
5. Vacuum Test
6. Hydraulic Shock (Water Hammer) Test
7. Vibration Test
8. Thermal Cycling Test
9. Alternate Thermal Cycling Test
10. Dynamic Torsion Test for Press Connections

†Tested to the performance criteria of ASME B16.51

††Patent Pending



**WARNING:** This product can expose you to chemicals including lead, which is known to the State of California to cause cancer and birth defects or other reproductive harm. For more information go to [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov).

\*Weighted average lead content ≤ 0.25%

# NIBCO® Press System Lead-Free\* Brass Ball Valves

**Features:** Press End Leak Detection • FIP Union • Two-Piece Body • PTFE Seats • Full Port • Blowout-Proof Stem

**Approvals:** IAPMO/ANSI Z1157 (IGC-157) • NSF/ANSI-61 & 372 • MSS SP-145 • Conforms to ASME B16.51†

**Size range:** 1/2" - 1"

**Pressure rating:** 250 PSI non-shock cold working pressure

**Maximum pressure / temperature:** 225 PSI at 250° F

Lead-Free\* markings: White handle and blue hang tag

**Applications:** Drinking Water • Domestic Hot & Cold Water • HVAC (condensors, chilled water, hot water heating) • Isolation and Throttling (half-open to full-open only) • Connect to Rigid Copper Tubing Manufactured per ASTM B88, Condition H (hard drawn)

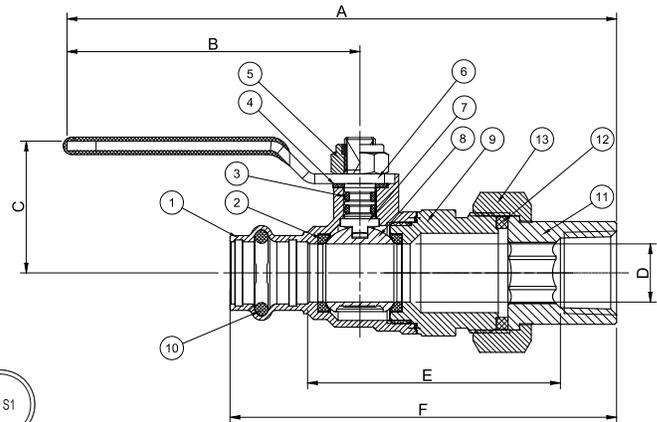
Reference Press System catalog for updated Approved Tool and Jaw Compatibility Matrix list.

**Not intended for steam or gas usage.**



**PCFU-FP-600A-LF**

Press x FIP Union  
1/2" - 1"



**PCFU-FP-600A-LF**

Press x FIP Union  
1/2" - 1"

## MATERIAL LIST

PART	SPECIFICATION
1. Body	Forged DZR Copper Alloy - C46500
2. Seat Seal	PTFE
3. O-ring	EPDM - ASTM D2000
4. Washer	PTFE
5. Lock Nut	Stainless Steel + Nylon
6. Handle	Steel, Plated
7. Stem	Brass
8. Ball	Chrome Plated Brass - C46500
9. End Cap	Forged DZR Copper Alloy - C46500
10. O-ring	EPDM - ASTM D2000
11. Fitting	Forged DZR Copper Alloy - C46500
12. Washer	EPDM
13. Nut	Brass

### Options:

- Extended lever
- EPDM Seal for Press Ends
- Wing Handle



Handle Markings

## DIMENSIONS—WEIGHTS—QUANTITIES

SIZE		A		B		C		D		E		F		Weight	
In.	mm.	In.	mm.	In.	mm.	In.	mm.	In.	mm.	In.	mm.	In.	mm.	Lbs.	Kg.
1/2	12.7	6.23	158.20	3.62	92.00	1.34	34.00	0.59	15.00	2.57	65.20	3.93	99.70	0.7720	0.3501
3/4	19.05	6.92	175.70	4.13	105.00	2.06	52.20	0.79	20.00	2.84	72.20	4.38	111.20	1.2040	0.5461
1	25.40	7.17	182.20	4.13	105.00	2.21	56.20	0.98	25.00	3.11	79.00	4.77	121.20	1.7750	0.8051

**IAPMO/ANSI Z1157:** in addition to meeting IGC-157 test requirements, the IAPMO/ANSI Z1157 also requires Press ends to be fully tested to IAPMO PS-117 performance requirements which includes the following additional tests:

- |  |  |
|--|--|
| 1. Unrestrained Hydrostatic Pressure Test at 20 °C (68°F)  | 6. Hydraulic Shock (Water Hammer) Test         |
| 2. Unrestrained Hydrostatic Pressure Test at 93 °C (200°F) | 7. Vibration Test                              |
| 3. Static Torsion Test for Press Connections               | 8. Thermal Cycling Test                        |
| 4. Bending Test  | 9. Alternate Thermal Cycling Test              |
| 5. Vacuum Test   | 10. Dynamic Torsion Test for Press Connections |

†Tested to the performance criteria of ASME B16.51

**WARNING:** This product can expose you to chemicals including lead, which is known to the State of California to cause cancer and birth defects or other reproductive harm. For more information go to [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov).

\*Weighted average lead content ≤ 0.25%

# NIBCO® Press System Lead-Free\* Brass Ball Valves

**Features:** Press Ends Leak Detection • MIP Union • Two-Piece Body • PTFE Seats • Full Port • Blowout-Proof Stem

**Approvals:** IAPMO/ANSI Z1157 (IGC-157) • NSF/ANSI-61 & 372 • MSS SP-145 • Conforms to ASME B16.51†

**Size range:** 1/2" - 1"

**Pressure rating:** 250 PSI non-shock cold working pressure

**Maximum pressure / temperature:** 225 PSI at 250° F

Lead-Free\* markings: White handle and blue hang tag

**Applications:** Drinking Water • Domestic Hot & Cold Water • HVAC (condensors, chilled water, hot water heating) • Isolation and Throttling (half-open to full-open only) • Connect to Rigid Copper Tubing Manufactured per ASTM B88, Condition H (hard drawn)

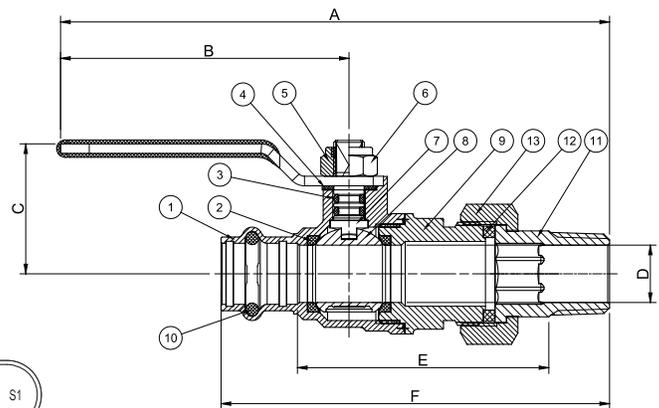
Reference Press System catalog for updated Approved Tool and Jaw Compatibility Matrix list.

**Not intended for steam or gas usage.**



## PCMU-FP-600A-LF

Press x MIP Union  
1/2" - 1"



**PCMU-FP-600A-LF**  
Press x MIP Union  
1/2" - 1"

### MATERIAL LIST

PART	SPECIFICATION
1. Body	Forged DZR Copper Alloy - C46500
2. Seat Seal	PTFE
3. O-ring	EPDM - ASTM D2000
4. Washer	PTFE
5. Lock Nut	Stainless Steel + Nylon
6. Handle	Steel, Plated
7. Stem	Brass
8. Ball	Chrome Plated Brass - C46500
9. End Cap	Forged DZR Copper Alloy - C46500
10. O-ring	EPDM - ASTM D2000
11. Fitting	Forged DZR Copper Alloy - C46500
12. Washer	EPDM
13. Nut	Brass

#### Options:

- Extended lever
- EPDM Seal for Press Ends
- Wing Handle



Handle Markings

### DIMENSIONS—WEIGHTS—QUANTITIES

SIZE		A		B		C		D		E		F		Weight	
In.	mm.	In.	mm.	In.	mm.	In.	mm.	In.	mm.	In.	mm.	In.	mm.	Lbs.	Kg.
1/2	12.7	6.31	160.20	3.62	92.00	1.34	34.00	0.59	15.00	2.60	66.00	4.00	101.70	0.6720	0.3048
3/4	19.05	6.92	175.70	4.13	105.00	2.06	52.20	0.79	20.00	2.81	71.50	4.38	111.20	1.0580	0.4799
1	25.40	7.13	181.20	4.13	105.00	2.21	56.20	0.98	25.00	3.05	77.50	4.73	120.20	1.5790	0.7162
3/4" x 1/2"		Coming Soon													

**IAPMO/ANSI Z1157:** in addition to meeting ICG-157 test requirements, the IAPMO/ANSI Z1157 also requires Press ends to be fully tested to IAPMO PS-117 performance requirements which includes the following additional tests:

- |  |  |
|--|--|
| 1. Unrestrained Hydrostatic Pressure Test at 20 °C (68°F)  | 6. Hydraulic Shock (Water Hammer) Test         |
| 2. Unrestrained Hydrostatic Pressure Test at 93 °C (200°F) | 7. Vibration Test                              |
| 3. Static Torsion Test for Press Connections               | 8. Thermal Cycling Test                        |
| 4. Bending Test  | 9. Alternate Thermal Cycling Test              |
| 5. Vacuum Test   | 10. Dynamic Torsion Test for Press Connections |

†Tested to the performance criteria of ASME B16.51



**WARNING:** This product can expose you to chemicals including lead, which is known to the State of California to cause cancer and birth defects or other reproductive harm. For more information go to [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov).

\*Weighted average lead content ≤ 0.25%

# NIBCO® Press System Lead-Free\* Brass Ball Valves

**Features:** Press End Leak Detection • Solder Union • Two-Piece Body • PTFE Seats • Full Port • Blowout-Proof Stem

**Approvals:** IAPMO/ANSI Z1157 (IGC-157) • NSF/ANSI-61 & 372 • MSS SP-145 • Conforms to ASME B16.51†

**Size range:** 1/2" - 1"

**Pressure rating:** 250 PSI non-shock cold working pressure

**Maximum pressure / temperature:** 225 PSI at 250° F

Lead-Free\* markings: White handle and blue hang tag

**Applications:** Drinking Water • Domestic Hot & Cold Water • HVAC (condensors, chilled water, hot water heating) • Isolation and Throttling (half-open to full-open only) • Connect to Rigid Copper Tubing Manufactured per ASTM B88, Condition H (hard drawn)

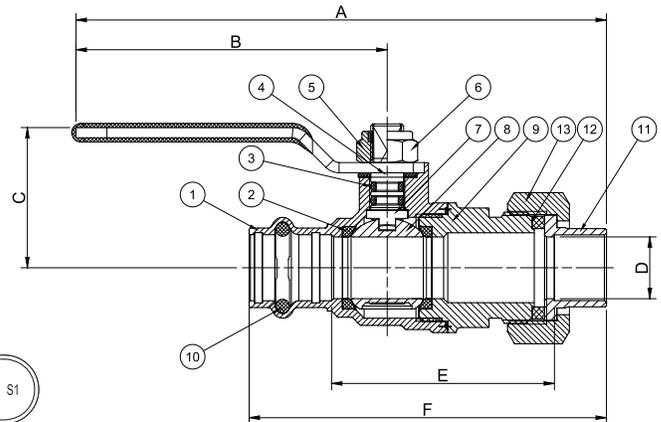
Reference Press System catalog for updated Approved Tool and Jaw Compatibility Matrix list.

**Not intended for steam or gas usage.**



**PCSU-FP-600A-LF**

Press x Solder Union  
1/2" - 1"



**PCSU-FP-600A-LF**

Press x Solder Union  
1/2" - 1"

## MATERIAL LIST

PART	SPECIFICATION
1. Body	Forged DZR Copper Alloy - C46500
2. Seat Seal	PTFE
3. O-ring	EPDM - ASTM D2000
4. Washer	PTFE
5. Lock Nut	Stainless Steel + Nylon
6. Handle	Steel, Plated
7. Stem	Brass
8. Ball	Chrome Plated Brass - C46500
9. End Cap	Forged DZR Copper Alloy - C46500
10. O-ring	EPDM - ASTM D2000
11. Fitting	Forged DZR Copper Alloy - C46500
12. Washer	EPDM
13. Nut	Brass

### Options:

- Extended lever
- EPDM Seal for Press Ends
- Wing Handle



Handle Markings

## DIMENSIONS—WEIGHTS—QUANTITIES

SIZE		A		B		C		D		E		F		Weight	
In.	mm.	In.	mm.	In.	mm.	In.	mm.	In.	mm.	In.	mm.	In.	mm.	Lbs.	Kg.
1/2	12.7	5.72	145.20	3.62	92.00	1.34	34.00	0.59	15.00	2.13	54.10	3.41	86.70	0.6130	0.2780
3/4	19.05	6.64	168.70	4.13	105.00	2.06	52.20	0.79	20.00	2.44	62.10	4.10	104.20	1.0010	0.4540
1	25.40	6.90	175.20	4.13	105.00	2.21	56.20	0.98	25.00	2.68	68.10	4.50	114.20	1.4880	0.6749

IAPMO/ANSI Z1157: in addition to meeting ICG-157 test requirements, the IAPMO/ANSI Z1157 also requires Press ends to be fully tested to IAPMO PS-117 performance requirements which includes the following additional tests:

- |  |  |
|--|--|
| 1. Unrestrained Hydrostatic Pressure Test at 20 °C (68°F)  | 6. Hydraulic Shock (Water Hammer) Test         |
| 2. Unrestrained Hydrostatic Pressure Test at 93 °C (200°F) | 7. Vibration Test                              |
| 3. Static Torsion Test for Press Connections               | 8. Thermal Cycling Test                        |
| 4. Bending Test  | 9. Alternate Thermal Cycling Test              |
| 5. Vacuum Test   | 10. Dynamic Torsion Test for Press Connections |

†Tested to the performance criteria of ASME B16.51

**WARNING:** This product can expose you to chemicals including lead, which is known to the State of California to cause cancer and birth defects or other reproductive harm. For more information go to [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov).

# Lead-Free\* Bronze Ball Valves

**Features:** Silicon Performance Bronze® Alloy • Two-Piece Body • Full Port • Blowout-Proof Stem



NSF/ANSI 61  
NSF/ANSI 372

**Approvals:** MSS SP-110 • NSF/ANSI-61-8 Commercial Hot 180°F (includes annex F and G) and NSF/ANSI-372

**Size range:** 1/4" - 2"

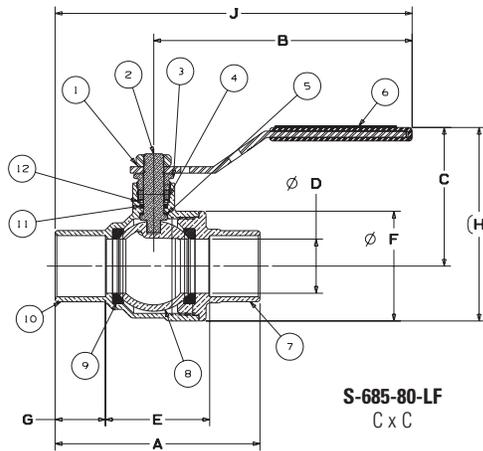
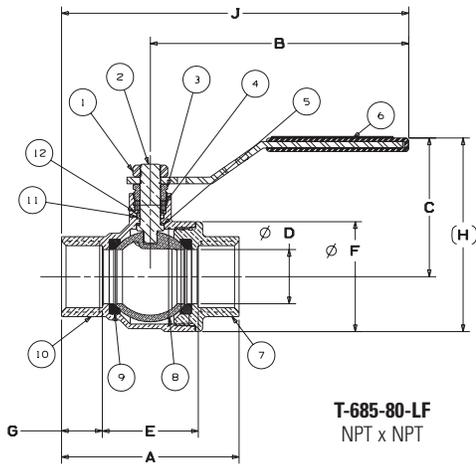
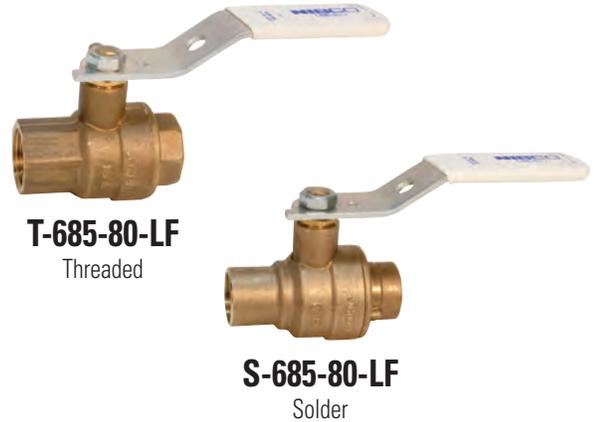
**Pressure rating:** 600 PSI non-shock cold working pressure

**Maximum pressure / temperature:** 100 PSI at 300° F

Lead-free\* markings: Double oval in body casting, white handle and blue hang tag

## MATERIAL LIST

PART	SPECIFICATION
1. Handle	Steel, Plated
2. Nut, Handle	Steel, Plated
3. Pack Gland	Brass ASTM B 16 Alloy C36000
4. Packing, Stem	Virgin PTFE
5. Washer, Flat	430 Stainless
6. O-Ring (Stem Seal)	EPDM
7. Washer, Thrust	Reinforced PTFE
8. Stem	Silicon Bronze ASTM B371 Alloy C69300
9. Body	Silicon Bronze ASTM B283 Alloy C69300
10. Seat Ring	Virgin PTFE
11. Ball	Silicon Bronze ASTM B283 Alloy C69300
12. End Piece	Silicon Bronze ASTM B283 Alloy C69300



## DIMENSIONS—WEIGHTS—QUANTITIES

SIZE	A	B	C	D	E	F	G	J	T-685-80-LF	S-685-80-LF	Master
In. mm.	In. mm.	In. mm.	In. mm.	In. mm.	In. mm.	In. mm.	In. mm.	In. mm.	Lbs. Kg.	Lbs. Kg.	Ctn Qty.
1/4	8 1.98	50 3.95	100 1.95	50 0.31	8 1.09	28 1.24	31 0.42	11 4.93	125 0.52	0.24	— — 24
3/8	10 1.98	50 3.95	100 2.01	51 0.50	13 1.09	28 1.24	31 0.40	10 4.93	125 0.49	0.22 0.46	0.21 0.21 24
1/2	15 2.22	56 3.95	100 2.01	51 0.50	13 1.00	25 1.24	31 0.61	15 5.06	129 0.47	0.21 0.46	0.21 0.21 80
3/4	20 2.66	68 4.76	121 2.30	58 0.75	19 1.42	36 1.64	42 0.63	16 6.09	155 0.70	0.32 0.69	0.31 0.31 60
1	25 3.27	83 4.76	121 2.56	65 1.00	25 1.77	45 2.03	52 0.75	19 6.4	163 1.10	0.50 1.12	0.51 0.51 40
1-1/4	32 3.56	90 6.75	171 3.07	78 1.25	32 2.01	51 2.38	60 0.76	19 8.51	216 1.69	0.77 1.66	0.75 0.75 4
1-1/2	40 3.98	101 6.75	171 3.31	84 1.50	38 2.44	62 2.89	73 0.77	20 8.73	222 2.58	1.17 2.71	1.23 1.23 2
2	50 4.52	115 6.75	171 3.56	90 2.00	51 2.94	75 3.6	91 0.79	20 9.01	229 4.37	1.98 4.62	2.1 2.1 8

**WARNING:** This product can expose you to chemicals including lead, which is known to the State of California to cause cancer and birth defects or other reproductive harm. For more information go to [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov).

\*Weighted average lead content ≤ 0.25%

# Lead-Free\* Bronze Ball Valves

**Features:** Silicon Performance Bronze® Alloy • Two-Piece Body • Full Port • Blowout-Proof Stem • Stainless Trim

**Approvals:** MSS SP-110 • NSF/ANSI-61-8 Commercial Hot 180°F (includes annex F and G) and NSF/ANSI-372

**Size range:** 1/4" - 2"

**Pressure rating:** 600 PSI non-shock cold working pressure

**Maximum pressure / temperature:** 100 PSI at 300° F

Lead-free\* markings:

Double oval in body casting, white handle and blue hang tag



NSF/ANSI 61  
NSF/ANSI 372



**T-685-66-LF**  
Threaded



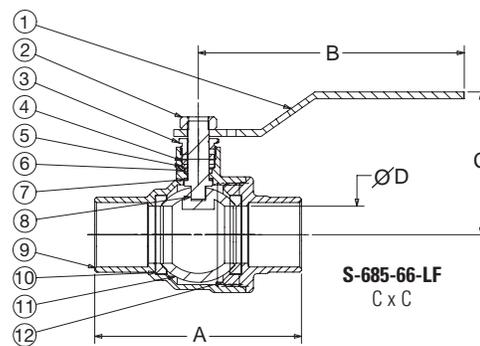
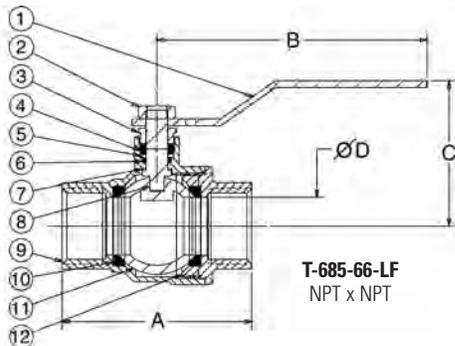
**S-685-66-LF**  
Solder



Handle Markings

## MATERIAL LIST

PART	SPECIFICATION
1. Handle	Steel, Plated
2. Nut, Handle	Steel, Plated
3. Pack Gland	Brass ASTM B16 Alloy C36000
4. Packing, Stem	Virgin PTFE
5. Washer, Flat	Stainless Steel ASTM A240 Alloy S43000
6. O-Ring (Stem Seal)	EPDM
7. Washer, Thrust	Reinforced PTFE
8. Stem	Stainless Steel ASTM A276 Type 316
9. Body	Silicon Bronze ASTM B283 Alloy C69300
10. Seat Ring	Virgin PTFE
11. Ball	Stainless Steel ASTM A276 Type 316 or ASTM A351 Type CF8M
12. End Piece	Silicon Bronze ASTM B283 Alloy C69300



## DIMENSIONS—WEIGHTS—QUANTITIES

SIZE	Dimensions																								T-685-66-LF		T-685-66-LF		Master Ctn. Qty.	
	T-685-66-LF		S-685-66-LF		T-685-66-LF		S-685-66-LF		T-685-66-LF		S-685-66-LF		T-685-66-LF		S-685-66-LF															
	In.	mm.	Lbs.	Kg.	Lbs.	Kg.																								
1/4	8	1.98	50	2.02	51	3.95	100	1.95	50	0.31	8	1.09	28	1.4	36	1.24	31	0.42	11	0.31	8	4.93	125	4.88	124	0.52	0.24	0.50	0.23	24
3/8	10	1.98	50	2.12	54	3.95	100	2.01	51	0.5	13	1.09	28	1.36	35	1.24	31	0.4	10	0.38	10	4.93	125	4.88	124	0.49	0.22	0.46	0.21	24
1/2	15	2.22	56	2.34	59	3.95	100	2.01	51	0.5	13	1	25	1.34	34	1.24	31	0.61	15	0.5	13	5.06	129	4.98	126	0.47	0.21	0.46	0.21	80
3/4	20	2.66	68	3.13	80	4.76	121	2.3	58	0.75	19	1.42	36	1.63	41	1.64	42	0.63	16	0.75	19	6.09	155	6.23	158	0.70	0.32	0.69	0.31	60
1	25	3.27	83	3.77	96	4.76	121	2.56	65	1	25	1.77	45	1.92	49	2.03	52	0.75	19	0.92	23	6.4	163	6.58	167	1.10	0.50	1.12	0.51	40
1-1/4	32	3.56	90	4.21	107	6.75	171	3.07	78	1.25	32	2.01	51	2.25	57	2.38	60	0.76	19	0.97	25	8.51	216	8.72	221	1.39	0.77	1.66	0.75	4
1-1/2	40	3.98	101	4.84	123	6.75	171	3.31	84	1.5	38	2.44	62	2.63	67	2.89	73	0.77	20	1.1	28	8.73	222	9.05	230	2.58	1.17	2.81	1.23	2
2	50	4.52	115	5.83	148	6.75	171	3.56	90	2	51	2.94	75	3.12	79	3.6	91	0.79	20	1.36	35	9.01	229	9.57	243	4.37	1.98	4.62	2.10	8

**WARNING:** This product can expose you to chemicals including lead, which is known to the State of California to cause cancer and birth defects or other reproductive harm. For more information go to [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov).

\*Weighted average lead content ≤ 0.25%

# Lead-Free\* Bronze Ball Valves

**Features:** Silicon Performance Bronze® Alloy • Two-Piece Body • Full Port • Blowout-Proof Stem

**Approvals:** MSS SP-110 • NSF/ANSI-61-8 Commercial Hot 180°F (includes annex F and G) and NSF/ANSI-372

**Size range:** 1/2" - 1"

**Pressure rating:** 600 PSI non-shock cold working pressure

**Maximum pressure / temperature:** 100 PSI at 180° F

Lead-free\* markings:

Double oval in body casting, white handle and blue hang tag

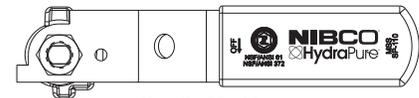


NSF/ANSI 61  
NSF/ANSI 372



**S-685-80-D-LF**

Solder



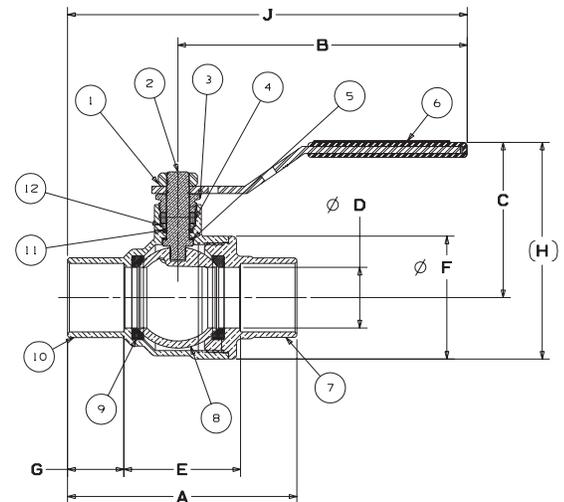
Handle Markings

## MATERIAL LIST

PART	SPECIFICATION
1. Handle	Steel, Plated
2. Nut, Handle	Steel, Plated
3. Pack Gland	Brass ASTM B16 Alloy C36000
4. Packing, Stem	Virgin PTFE
5. Washer, Flat	430 Stainless
6. O-Ring, Stem	EPDM
7. Washer, Thrust	Reinforced PTFE
8. Stem	Silicon Bronze ASTM B371 Alloy C69300
9. Body, Solder	Silicon Bronze ASTM B283 Alloy C69300
10. Seat Ring	Virgin PTFE
11. Ball	Silicon Bronze ASTM B283 Alloy C69300
12. End Piece, Solder	Silicon Bronze ASTM B283 Alloy C69300
13. Drain Washer	Rubber
14. Drain Cap	Brass ASTM B16 Alloy C36000

## DIMENSIONS—WEIGHTS

Nom. Size	Approx. Net Wt./Lbs.	DIMENSIONS/INCHES				
		A	B	C	D	
1/2	0.504	2.28	3.90	1.95	0.50	
3/4	0.943	3.05	4.66	2.30	0.75	
1	1.114	3.72	4.66	2.50	1.00	



**S-685-80-D-LF**  
C x C

## DIMENSIONS—WEIGHTS

NOM SIZE	A		B		C		D		E		F		G		J		Weight		
	In.	mm.	Lbs.	Kg.	Lbs.	Kg.	Lbs.	Kg.											
1/2	15	2.47	63	3.96	101	1.99	51	0.50	13	1.47	37	1.48	38	0.5	13	5.11	130	0.50	0.23
3/4	20	3.24	82	4.76	121	2.39	61	0.75	19	1.74	44	1.87	47	0.75	19	6.35	161	0.94	0.43
1	20	3.87	98	2.56	65	4.76	121	1.00	25	2.02	51	2.27	58	0.92	23	6.68	170	1.11	0.51



**WARNING:** This product can expose you to chemicals including lead, which is known to the State of California to cause cancer and birth defects or other reproductive harm. For more information go to [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov).

\*Weighted average lead content ≤ 0.25%

# Lead-Free\* Bronze Stop & Drain Valves

**Features:** Silicon Performance Bronze® alloy

**Approvals:** NSF/ANSI 61-8 (includes annex F and G) and NSF/ANSI 372

**Pressure rating: 125 PSI non-shock cold working pressure**

**Maximum pressure / temperature: 125 PSI at 180° F**

Lead-free\* markings:

Double oval in body casting and white handle



## MATERIALS LIST

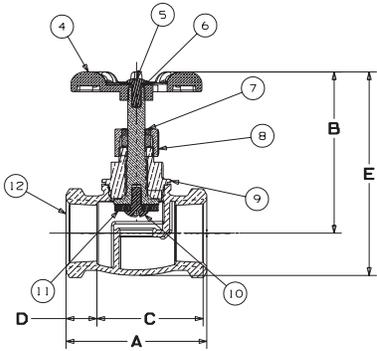
PART	SPECIFICATION
Body	ASTM B584 Alloy C87850
Bonnet	ASTM B584 Alloy C87850
Stem	Cold-formed Copper Alloy
Seat Disc	EPDM
Seat Disc Screw	Stainless Steel, Type 410
Packing Nut	Free Cutting Brass - ASTM B16
Packing	Graphite Impregnated, Asbestos-Free
Handwheel	Epoxy Coated Zinc Alloy
Handwheel Screw	Carbon Steel - Clear Chromate Finish



**726-LF**  
Cup x Cup

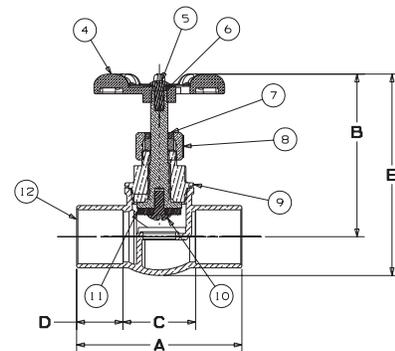


**76-LF**  
FIP x FIP



**76-LF**

DESCRIPTION	NOM. SIZE	DIMENSIONS		APPROX. NET WT.
		A	B	
Stop & Waste Valve FIP x FIP	1/2"	2 <sup>3</sup> / <sub>16</sub> "	2 <sup>9</sup> / <sub>16</sub> "	.54 lb
	3/4"	2 <sup>5</sup> / <sub>16</sub> "	2 <sup>9</sup> / <sub>16</sub> "	.60 lb



**726-LF**

DESCRIPTION	*NOM. SIZE	DIMENSIONS		APPROX. NET WT.
		B	C	
Stop & Waste Valve Cup x Cup	1/2"	2 <sup>9</sup> / <sub>16</sub> "	1 <sup>3</sup> / <sub>16</sub> "	.42 lb
	3/4"	2 <sup>9</sup> / <sub>16</sub> "	1 <sup>3</sup> / <sub>16</sub> "	.49 lb

## DIMENSIONS—WEIGHTS—QUANTITIES

NOM SIZE	A	B	C	D	E	F	76-LF	726-LF	Master
In. mm.	In. mm.	In. mm.	In. mm.	In. mm.	In. mm.	In. mm.	Lbs. Kg.	Lbs. Kg.	Ctn Qty.
1/2	15 2.16	55 2.19	56 1.44	37 0.36	9 3.06	78 2.12	54 0.54	0.42 0.XX	50
3/4	20 2.28	58 2.31	59 1.28	33 0.50	13 3.21	82 2.12	54 0.60	0.49 0.XX	50

**⚠ WARNING:** This product can expose you to chemicals including lead, which is known to the State of California to cause cancer and birth defects or other reproductive harm. For more information go to [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov).

\*Weighted average lead content ≤ 0.25%

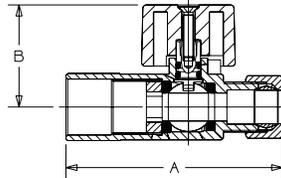
# Lead-Free\* PRO-Stop® Quarter-Turn Supply Stops

Pressure Rating: 125 PSI Non-Shock Cold Working Pressure



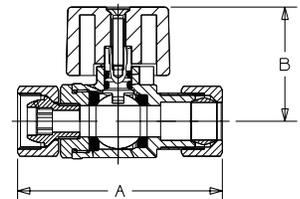
NIBCO® PRO-Stop® Supply Stops are specifically designed for use in applications that deliver water for human consumption; this includes commercial as well as residential construction.

MATERIAL LIST	
PART	SPECIFICATION
BODY / BODY END	DZR COPPER ALLOY CHROME PLATED
RETAINER	DZR COPPER ALLOY
STEM	DZR COPPER ALLOY
BALL	DZR COPPER ALLOY CHROME PLATED
COMPRESSION NUT	BRASS – CHROME PLATED
FERRULE	BRASS
O-RING	EPDM
HANDLE	ABS – CHROME PLATED
SCREW	STAINLESS STEEL



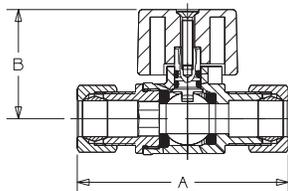
**7120-LF** ⚠

DESCRIPTION	Inlet x Outlet	DIMENSIONS		APPROX. NET WT.
		A	B	
<b>STRAIGHT PATTERN</b> Solder x Compression	1/2 x 1/2 OD	2.73"	1.15"	.212 lb
	1/2 x 3/8 OD	2.44"	1.15"	.172 lb



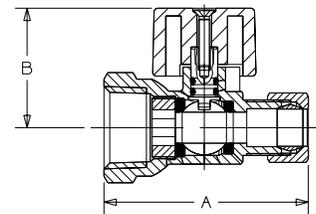
**7140F-LF** ⚠

DESCRIPTION	Inlet x Outlet	DIMENSIONS		APPROX. NET WT.
		A	B	
<b>STRAIGHT PATTERN</b> Female Comp x Compression	3/8 ODF x 3/8 OD	2.09"	1.15"	.170 lb



**7140-LF** ⚠

DESCRIPTION	Inlet x Outlet	DIMENSIONS		APPROX. NET WT.
		A	B	
<b>STRAIGHT PATTERN</b> Compression x Compression	5/8 OD x 1/2 OD	2.62"	1.15"	.252 lb
	5/8 OD x 3/8 OD	2.34"	1.15"	.213 lb
	5/8 OD x 1/4 OD	2.28"	1.15"	.205 lb
	1/2 OD x 1/2 OD	2.73"	1.15"	.245 lb
	1/2 OD x 3/8 OD	2.50"	1.15"	.207 lb
	3/8 OD x 3/8 OD	2.22"	1.15"	.170 lb



**7150-LF** ⚠

DESCRIPTION	Inlet x Outlet	DIMENSIONS		APPROX. NET WT.
		A	B	
<b>STRAIGHT PATTERN</b> FIP x Compression	1/2 x 1/2 OD	2.28"	1.21"	.228 lb
	1/2 x 3/8 OD	2.09"	1.21"	.197 lb
	3/8 x 3/8 OD	2.01"	1.15"	.160 lb



**WARNING:** This product can expose you to chemicals including lead, which is known to the State of California to cause cancer and birth defects or other reproductive harm. For more information go to [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov).

\*Weighted average lead content ≤ 0.25%

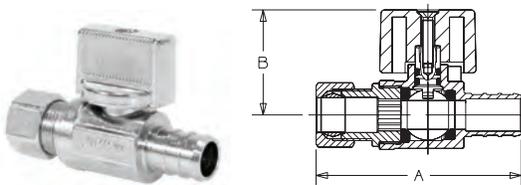
# Lead-Free\* PRO-Stop® Quarter-Turn Supply Stops

Pressure Rating: 125 PSI Non-Shock Cold Working Pressure



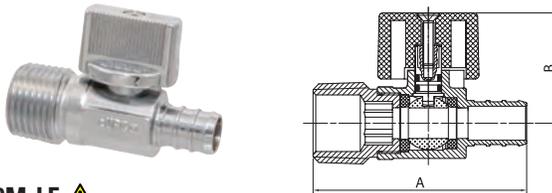
NIBCO® PRO-Stop® Supply Stops are specifically designed for use in applications that deliver water for human consumption; this includes commercial as well as residential construction.

MATERIAL LIST	
PART	SPECIFICATION
BODY / BODY END	DZR COPPER ALLOY CHROME PLATED
STEM	DZR COPPER ALLOY
BALL	DZR COPPER ALLOY CHROME PLATED
COMPRESSION NUT	BRASS – CHROME PLATED
FERRULE	BRASS
O-RING & GASKET	EPDM
TRANSITION TAILPIECE	CPVC
HANDLE	ABS – CHROME PLATED
SCREW	STAINLESS STEEL



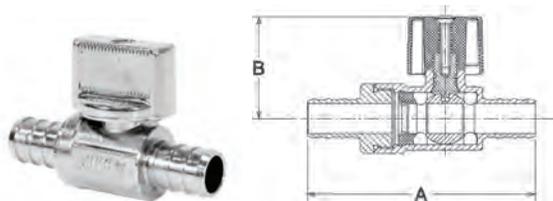
**7160-LF** ⚠

DESCRIPTION	Inlet x Outlet	DIMENSIONS		APPROX. NET WT.
		A	B	
STRAIGHT PATTERN PEX x Compression	1/2 x 3/8 OD	2.24"	1.15"	.152 lb
	1/2 x 1/4 OD	2.27"	1.15"	.153 lb



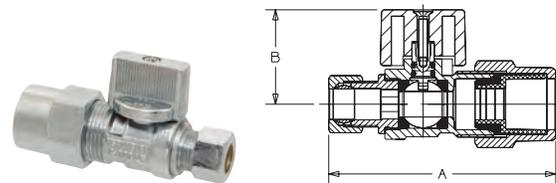
**7160M-LF** ⚠

DESCRIPTION	Inlet x Outlet	DIMENSIONS		APPROX. NET WT.
		A	B	
STRAIGHT PATTERN PEX x MIP	1/2 x 1/2	2.22"	1.15"	.159 lb



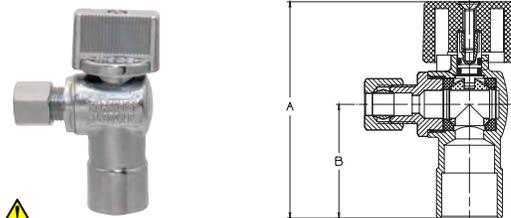
**7160PEX-LF** ⚠

DESCRIPTION	Inlet x Outlet	DIMENSIONS		APPROX. NET WT.
		A	B	
STRAIGHT PATTERN PEX x PEX	1/2 x 1/2	2.26"	1.15"	.134 lb



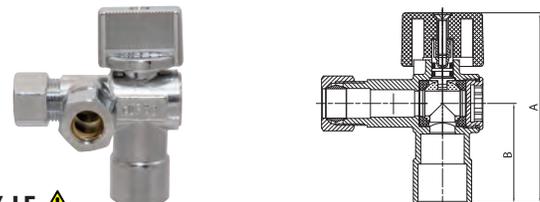
**7170-LF** ⚠

DESCRIPTION	Inlet x Outlet	DIMENSIONS		APPROX. NET WT.
		A	B	
STRAIGHT PATTERN CPVC x Compression	1/2 x 3/8 OD	2.80"	1.17"	.262 lb



**7125-LF** ⚠

DESCRIPTION	Inlet x Outlet	DIMENSIONS		APPROX. NET WT.
		A	B	
ANGLE PATTERN Solder x Compression	1/2 x 1/2 OD	2.46"	1.29"	.220 lb
	1/2 x 3/8 OD	2.46"	1.29"	.185 lb
	1/2 x 1/4 OD	2.46"	1.29"	.182 lb



**7125DX-LF** ⚠

DESCRIPTION	Inlet x Outlet	DIMENSIONS		APPROX. NET WT.
		A	B	
DUAL OUTLET ANGLE PATTERN Solder x Comp x Comp	1/2 x 3/8 OD x 3/8 OD	2.44"	1.28"	.237 lb

**⚠ WARNING:** This product can expose you to chemicals including lead, which is known to the State of California to cause cancer and birth defects or other reproductive harm. For more information go to [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov).

\*Weighted average lead content ≤ 0.25%

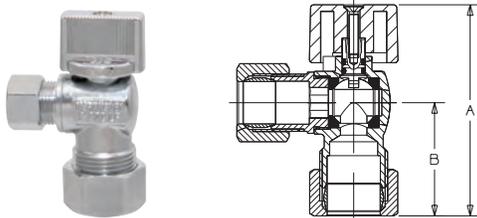
# Lead-Free\* PRO-Stop® Quarter-Turn Supply Stops

Pressure Rating: 125 PSI Non-Shock Cold Working Pressure



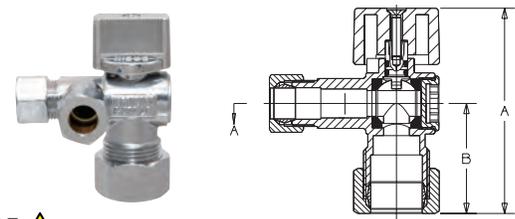
NIBCO® PRO-Stop® Supply Stops are specifically designed for use in applications that deliver water for human consumption; this includes commercial as well as residential construction.

MATERIAL LIST	
PART	SPECIFICATION
BODY / BODY END	DZR COPPER ALLOY CHROME PLATED
RETAINER	DZR COPPER ALLOY
STEM	DZR COPPER ALLOY
BALL	DZR COPPER ALLOY CHROME PLATED
COMPRESSION NUT	BRASS – CHROME PLATED
FERRULE	BRASS
O-RING	EPDM
HANDLE	ABS – CHROME PLATED
SCREW	STAINLESS STEEL



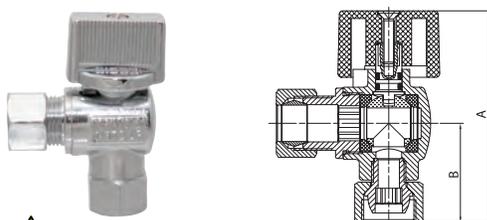
**7145-LF** ⚠️

DESCRIPTION	Inlet x Outlet	DIMENSIONS		APPROX. NET WT.
		A	B	
<b>ANGLE PATTERN</b> Compression x Compression	5/8 OD x 1/2 OD	2.50"	1.33"	.261 lb
	5/8 OD x 3/8 OD	2.50"	1.33"	.224 lb
	5/8 OD x 1/4 OD	2.50"	1.33"	.224 lb
	1/2 OD x 1/2 OD	2.50"	1.33"	.245 lb
	1/2 OD x 3/8 OD	2.50"	1.33"	.205 lb
	3/8 OD x 3/8 OD	2.23"	1.06"	.171 lb



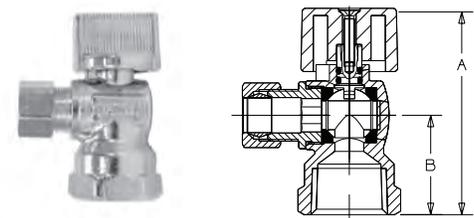
**7145DX-LF** ⚠️

DESCRIPTION	Inlet x Outlet	DIMENSIONS		APPROX. NET WT.
		A	B	
<b>DUAL OUTLET ANGLE PATTERN</b> Comp x Comp x Comp	5/8 OD x 3/8 OD x 3/8 OD	2.51"	1.35"	.284 lb
	5/8 OD x 3/8 OD x 1/4 OD	2.51"	1.35"	.287 lb



**7145F-LF** ⚠️

DESCRIPTION	Inlet x Outlet	DIMENSIONS		APPROX. NET WT.
		A	B	
<b>ANGLE PATTERN</b> Female Comp x Compression	3/8 ODF x 3/8 OD	2.19"	1.03"	.176 lb



**7155-LF** ⚠️

DESCRIPTION	Inlet x Outlet	DIMENSIONS		APPROX. NET WT.
		A	B	
<b>ANGLE PATTERN</b> FIP x Compression	1/2 x 1/2 OD	2.25"	1.08"	.246 lb
	1/2 x 3/8 OD	2.25"	1.08"	.209 lb
	1/2 x 1/4 OD	2.25"	1.08"	.207 lb
	3/8 x 3/8 OD	2.15"	.980"	.177 lb

**⚠️ WARNING:** This product can expose you to chemicals including lead, which is known to the State of California to cause cancer and birth defects or other reproductive harm. For more information go to [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov).

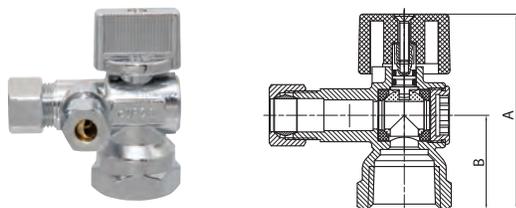
\*Weighted average lead content ≤ 0.25%

# Lead-Free\* PRO-Stop® Quarter-Turn Supply Stops

Pressure Rating: 125 PSI Non-Shock Cold Working Pressure

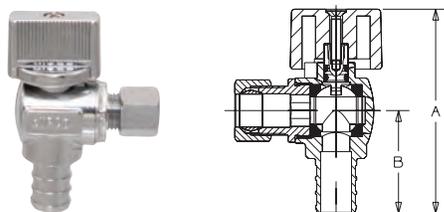


NIBCO® PRO-Stop® Supply Stops are specifically designed for use in applications that deliver water for human consumption; this includes commercial as well as residential construction.



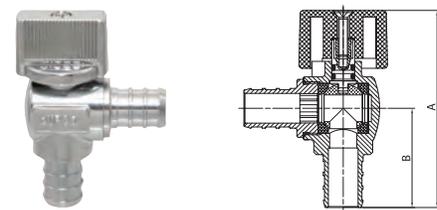
**7155DX-LF** ⚠

DESCRIPTION	Inlet x Outlet	DIMENSIONS		APPROX. NET WT.
		A	B	
<b>DUAL OUTLET ANGLE PATTERN</b> FIP x Comp x Comp	1/2 x 3/8 OD x 3/8 OD	2.25"	1.08"	.260 lb
	1/2 x 3/8 OD x 1/4 OD	2.25"	1.08"	.263 lb



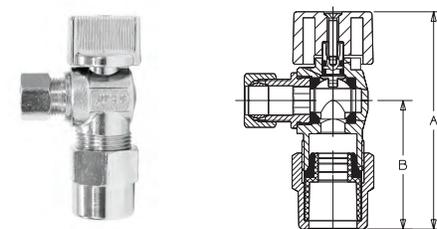
**7165-LF** ⚠

DESCRIPTION	Inlet x Outlet	DIMENSIONS		APPROX. NET WT.
		A	B	
<b>ANGLE PATTERN</b> PEX x Compression	1/2 x 3/8 OD	2.35"	1.18"	.164 lb
	1/2 x 1/4 OD	2.35"	1.18"	.165 lb



**7165PEX-LF** ⚠

DESCRIPTION	Inlet x Outlet	DIMENSIONS		APPROX. NET WT.
		A	B	
<b>ANGLE PATTERN</b> PEX x PEX	1/2 x 1/2	2.35"	1.18"	.148 lb



**7175-LF** ⚠

DESCRIPTION	Inlet x Outlet	DIMENSIONS		APPROX. NET WT.
		A	B	
<b>ANGLE PATTERN</b> CPVC x Compression	1/2 x 3/8 OD	2.85"	1.69"	.279 lb

## MATERIAL LIST

PART	SPECIFICATION
BODY / BODY END	DZR COPPER ALLOY CHROME PLATED
STEM	DZR COPPER ALLOY
BALL	DZR COPPER ALLOY CHROME PLATED
COMPRESSION NUT	BRASS – CHROME PLATED
FERRULE	BRASS
O-RING & GASKET	EPDM
TRANSITION TAILPIECE	CPVC
HANDLE	ABS – CHROME PLATED
SCREW	STAINLESS STEEL



**WARNING:** This product can expose you to chemicals including lead, which is known to the State of California to cause cancer and birth defects or other reproductive harm. For more information go to [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov).

\*Weighted average lead content ≤ 0.25%

# NIBCO® PRO-Stop® End Connection Information

NIBCO® Pro-Stop® Supply Stops are available with several end connection styles and types allowing connection to a variety of supply piping as follows:

**FIP (Female Iron Pipe):**

- Internal National Pipe Taper (NPT) threads per ASMEI B1.20.1.

**MIP (Male Iron Pipe)**

- External National Pipe Taper (NPT) threads per ASME B1.20.1.

**Solder**

- Solder cup, dimensionally compliant with ASME B16.18 or B16.22, for connection to copper tubing conforming to ASTM B88 by soldering.

**PEX**

- Male barbed end, dimensionally compliant with ASTM F1807 and CSA B137.5, intended to be inserted inside PEX tubing and joined using copper crimp ring or stainless steel sleeve.

**CPVC**

- Internal socket, dimensionally compliant with ASTM D2846, for connection by solvent welding to CPVC-CTS tubing.

**PUSH:**

- Internal socket that utilizes an elastomeric seal that fits into an annual recess and is compressed radially upon insertion of tubing and gripper ring that holds the tubing in place. Intended for connection to copper tubing conforming to ASTM B88, CPVC-CTS tubing conforming to ASTM D2846, or PEX tubing (with tubing insert for support) conforming to ASTM F876.

**Compression**

Internal socket-type of connection, based on SAE J512, for joining to copper tubing conforming to ASTM B88. The radial deformation (compression) of a metallic ferrule seals and grips the tubing.

**Female Comp**

Internally threaded connection that connects to a valve or fitting with compression end, once the compression nut and ferrule are removed. Sealing is by means of an elastomeric seal drawn up tight against the externally threaded end of the compression connection.

Installation instructions are printed on the back side of the plastic bags containing each specific model of NIBCO 7000 Series Supply Stops.

**Concerning Compression-Style Joint Assemblies**

For compression-type connections we recommend connecting only copper tubing. In general, there should be no need to apply pipe sealant compound or PTFE tape to the compression joint and the nut on a compression connection should be tightened to the point of feeling resistance, then tightening no more than additional ½ turn. Do Not Overtighten.

Although compression-end style end connections will mate onto tubing of other materials, such as, CPVC-CTS and PEX tubing, NIBCO does not recommend installing compression end assemblies on any piping product other than copper tubing conforming to ASTM B88.

\*Weighted average lead content ≤ 0.25%

## Lead-Free\* Iron Valves



### Grooved End Butterfly Valves GD-4765-N

- Sizes: 2" through 12"
- Polyamide coated ductile iron body
- EPDM encapsulated disc
- NSF/ANSI 61-8 and NSF/ANSI 372
- Conforms to MSS SP-67
- Reference catalog C-BFV for spec sheet



### Lug/Wafer Style Butterfly Valves LD/WD-2000

- Sizes: 2" through 12"
- Ductile iron body
- Molded-in EPDM seat liner
- NSF/ANSI 372
- Designed to comply with MSS SP 67
- Reference catalog C-BFV for spec sheet



### Silent Check Valves 900/910/920/960 Series

- 2" through 36"
- Wafer, flanged or grooved ends
- Performance Bronze® trim
- NSF/ANSI 61-8 and NSF/ANSI-372
- Conforms to MSS SP-125
- Reference catalog C-BIV for spec sheets

\*Weighted average lead content ≤ 0.25%

## Lead-Free\* Iron Valves



### Resilient Wedge Gate Valves 607/619-RW

- Sizes: 2-1/2" through 12"
- Epoxy coated interior/exterior
- Ductile iron ASTM A536 / EPDM ASTM D2000
- Rising and non-rising stem
- NSF/ANSI 372
- Reference catalog C-BIV for spec sheets



### Ductile Iron Gate Valves F-637-33

- Sizes: 2" through 24"
- OS&Y / raised face flanges
- 316 stainless steel trim
- Solid wedge
- NSF/ANSI 61-8 and NSF/ANSI 372
- Reference catalog C-BIV for spec sheets



### Ductile Iron Swing Check Valves F-938-33

- Sizes: 2" through 12"
- Bolted bonnet
- 316 stainless steel trim
- Raised face flanges
- NSF/ANSI 61-8 and NSF/ANSI 372
- Reference catalog C-BIV for spec sheets

\*Weighted average lead content ≤ 0.25%

# Performance Bronze® 580, 585 & 595 Series Thread, Solder and NIBCO® Press System® Ball Valve Handles

A wide variety of handles are available to fulfill safety and operation requirements. The carbon steel lever handle with plastisol cover is standard and additional handle options are shown. If an optional handle is desired, please indicate which one when ordering. Some options are factory installed and some require field assembly.

 <p><b>CS Standard Lever Handle</b></p>	 <p><b>CS Extended Lever Handle with Memory Stop</b> Allows for 2" of Insulation</p>	 <p><b>NIB-SEAL® Handle</b> Allows for 2" of Insulation</p>
 <p><b>CS Locking Lever Handle</b></p>	 <p><b>CS Round Handle</b></p>	 <p><b>NIB-SEAL® Locking Extended Handle</b></p>
 <p><b>SS Standard Lever Handle</b></p>	 <p><b>CS Wing Handle</b></p>	 <p><b>Vertical Chain Lever</b></p>
 <p><b>SS Locking Lever Handle</b></p>	 <p><b>Seat and Seal Kit (595)</b></p>	 <p><b>Horizontal Chain Lever</b></p>
 <p><b>Memory Stop Kit</b></p>		

\*Weighted average lead content ≤ 0.25%

# Performance Bronze<sup>®</sup> Threaded, Solder and NIBCO<sup>®</sup> Press System Ball Valves



## NIB-SEAL<sup>®</sup> Technical Data

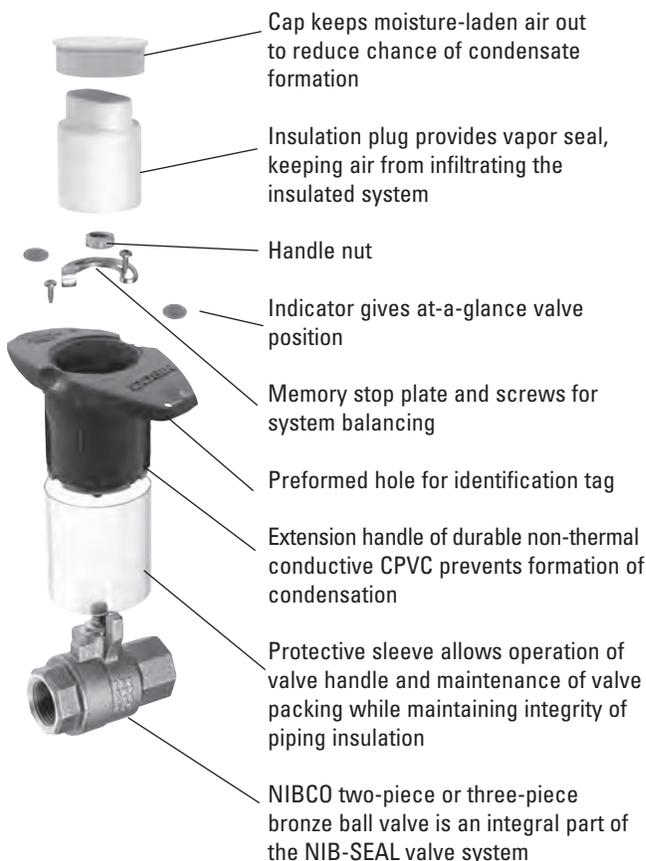
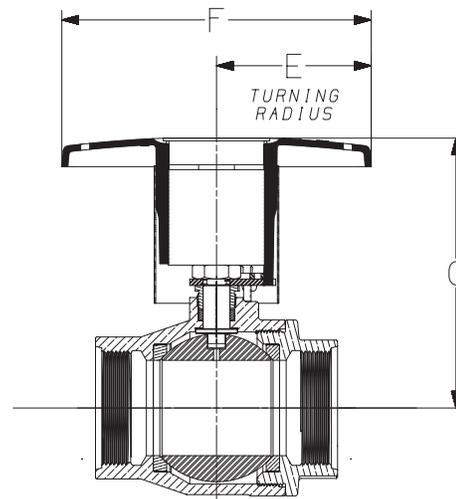
**NIBCO<sup>®</sup> bronze ball valves installed with NIB-SEAL<sup>®</sup> insulated handles are the best approach that keeps your insulated piping system completely intact.**

The revolutionary NIB-SEAL<sup>®</sup> insulated handle system used with a NIBCO bronze ball valve, stops condensate, cold. Its unique thermal barrier design keeps moisture from infiltrating your insulated system while preventing thermal energy loss through exposed metal handles.

Designed for new installations or retrofitting existing systems, NIB-SEAL<sup>®</sup> bronze ball valves offer a wide range of advantages where insulated piping is desirable.

In addition, the NIB-SEAL<sup>®</sup> handle was tested to UL 2043 and is UL listed for installation in air-handling spaces (plenums).

- Protective sleeve provides a stationary surface to affix the insulation, allowing operation of the valve without destroying the integrity of the insulated system.
- High-strength CPVC cylindrical handle design features easy access to standard adjustable memory stop for system balancing.
- Cap and insulating plug provide a vapor seal to prevent exchange of air, to maximize the efficiency of your insulated piping system.
- Position indicators allow at-a-glance determination of whether valve is in open or closed position.
- Preformed hole allows for convenient tagging.



Size	Dimensions					
	Valve Series 580-LF			Valve Series 585/595-LF		
	C	E	F	C	E	F
.250	—	—	—	3.750	2.188	4.25
.375	—	—	—	3.750	2.188	4.25
.500	—	—	—	3.750	2.188	4.25
.750	—	—	—	4.000	2.188	4.25
1.000	—	—	—	4.25	2.188	4.25
1.250	4.250	2.188	4.25	5.375	3.375	6.50
1.500	5.375	3.375	6.50	5.563	3.375	6.50
2.000	5.563	3.375	6.50	5.875	3.375	6.50
2.500	5.875	3.375	6.50	—	—	—

\*Use 585/595 for 1/4" - 1"

For bronze ball valves with factory-installed NIB-SEAL<sup>®</sup> insulated handle, order appropriate NIBCO valve figure number with suffix "NS."

Example: T-585-80-LF-NS, 1/2"

NIB-SEAL on sweat ball valves are shipped unassembled.

### Sample Specification

For piping systems requiring up to 2" of insulation, specify a non-conductive CPVC extended-handle bronze ball valve tested to UL 2043, is UL listed for installation in air handling spaces (plenums), that offers a vapor seal, adjustable memory stop, position indicators and convenient valve packing maintenance—all without disturbing the insulation. Specify NIB-SEAL<sup>®</sup> insulated handle.

Example: T-585-80-LF-NS

\*Weighted average lead content ≤ 0.25%

# NIB-SEAL® Locking Handle

U.S. PATENT 9,810,344

The patented technology of the 3-in-1 NIB-SEAL locking handle solves three problems at once: **it extends, it insulates, and it locks**. The innovative locking handle design extends valve actuation to provide ample room for insulating around piping systems, and its unique thermal barrier system prevents heat transfer and condensate development. The NIB-SEAL locking handle also allows the valve to be locked in the full open or closed position to prevent incidental actuation.

Designed for new installations, the NIB-SEAL locking handle is engineered to work with NIBCO® bronze ball valves.\*\*

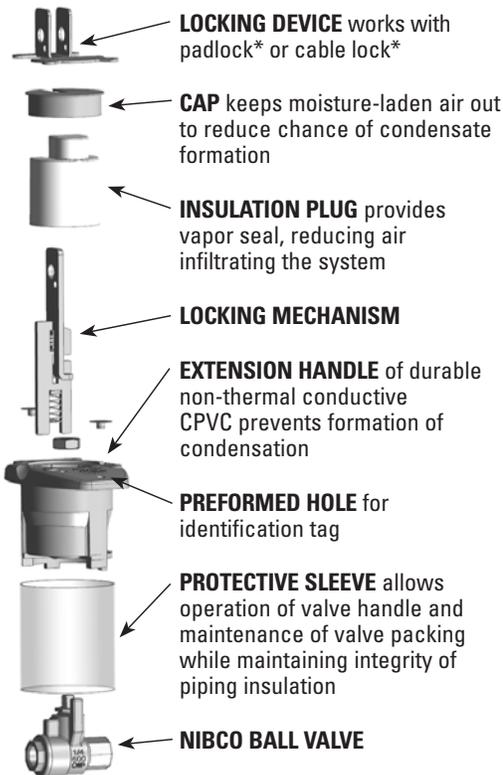
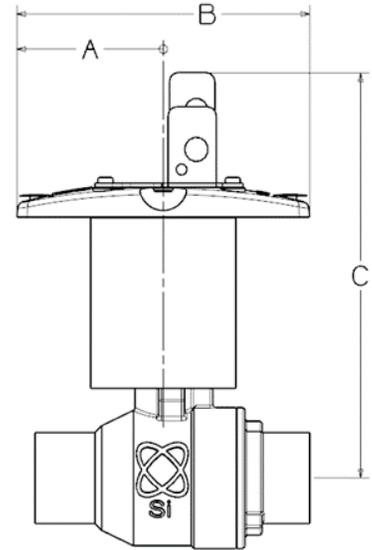
**Applications:** For piping systems requiring up to 2" of insulation, specify a non-conductive CPVC extended-locking handle bronze ball valve tested to UL 2043, and UL listed for installation in air handling spaces. The assembly offers a vapor seal, position indicators, locking device, and actuation without disturbing the insulation. Designed for new installations, the NIB-SEAL locking handle installed on bronze ball valves offers a wide range of advantages for typical commercial HVAC systems as well as industrial applications where insulated piping with a locking device is desirable. Specify NIB-SEAL insulated locking handle.

**Approvals:** UL 2043

**Safety Lock Compatibility:** Cable lock as small as 1/8" diameter to padlock as big as 0.33" diameter shackle.

**Temperature Range:** 15° F to 250° F

Not intended for steam applications in excess of 15 PSI.



\* Padlock and cable lock not included

\*\* Valve type showing above is just for handle representation

## Dimensions

Series 585						
Sizes	A		B		C	
	In.	mm.	In.	mm.	In.	mm.
1/4"	2.19	55.58	4.25	107.95	5.30	134.59
3/8"	2.19	55.58	4.25	107.95	5.30	134.58
1/2"	2.19	55.58	4.25	107.95	5.42	137.56
3/4"	2.19	55.58	4.25	107.95	5.69	144.50
1"	2.19	55.58	4.25	107.95	5.88	149.40
1 1/4"	3.38	85.73	6.50	165.10	6.84	173.67
1 1/2"	3.38	85.73	6.50	165.10	7.06	179.33
2"	3.38	85.73	6.50	165.10	7.30	185.44

Factory installed only.

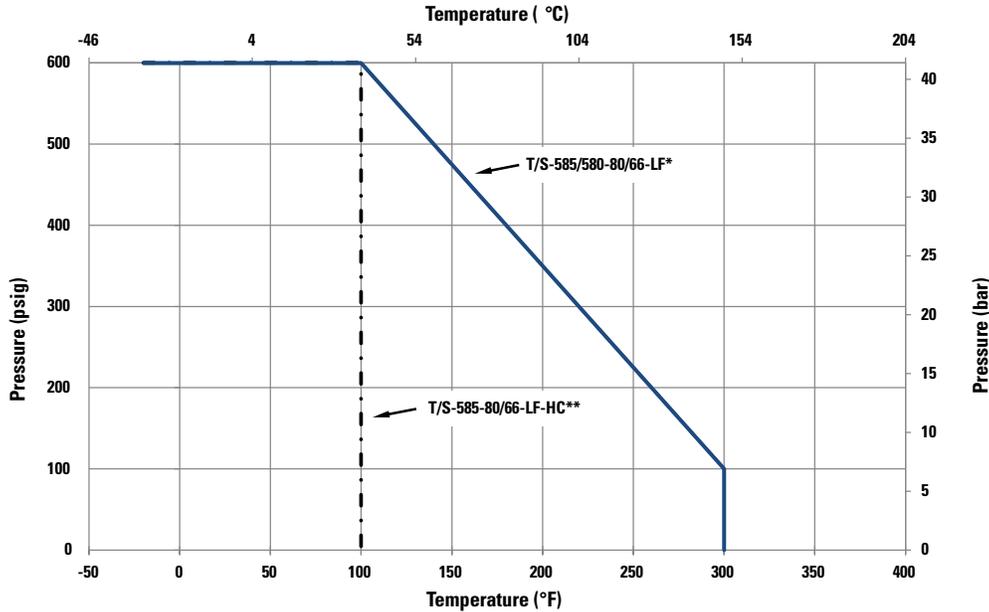
Order appropriate factory installed NIBCO valve figure number with suffix "LX". Example: T-585-70-LX, 1/2"

NIB-SEAL on solder/sweat ball valves are shipped unassembled.

\*Weighted average lead content ≤ 0.25%

# Pressure Temperature Ratings - T/S/PC-585/580-LF

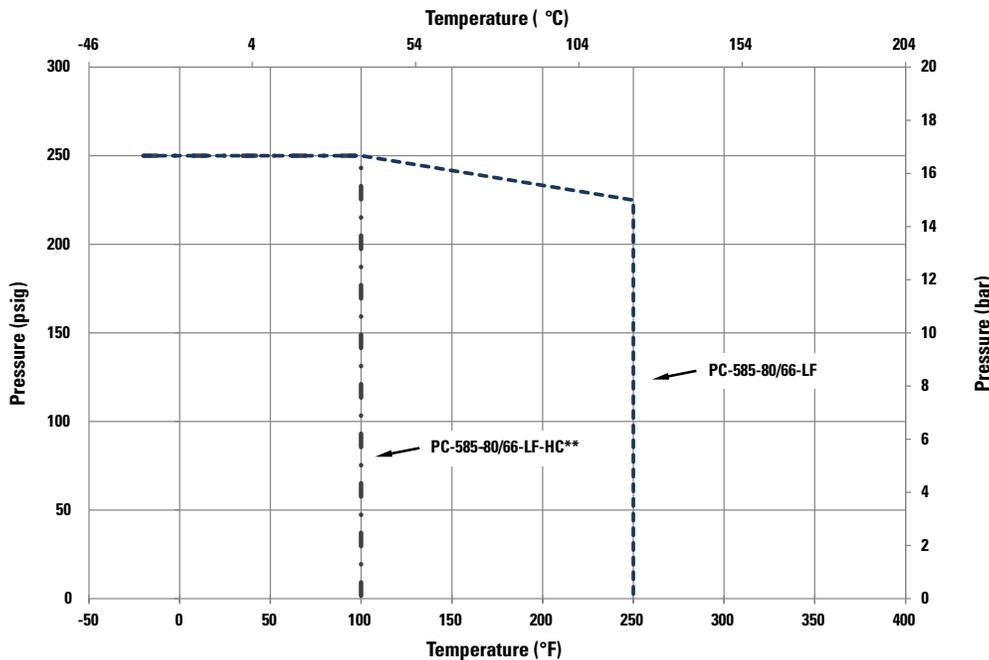
## PRESSURE/TEMPERATURE RATING 585/580-Series Lead-Free Bronze Ball Valve (1/4" thru 2")



\* Ball valves with solder cup end connections shall have maximum working pressure derated based upon a maximum service temperature of 250°F. Reference ASME B16.18 or the NIBCO Commercial Ball Valve catalog for further information.

\*\* Ball valves with hose thread end connections shall have a maximum service temperature 100°F.

## PRESSURE/TEMPERATURE RATING 585/580-Series Lead-Free Bronze Press Ball Valve (1/2" thru 2")

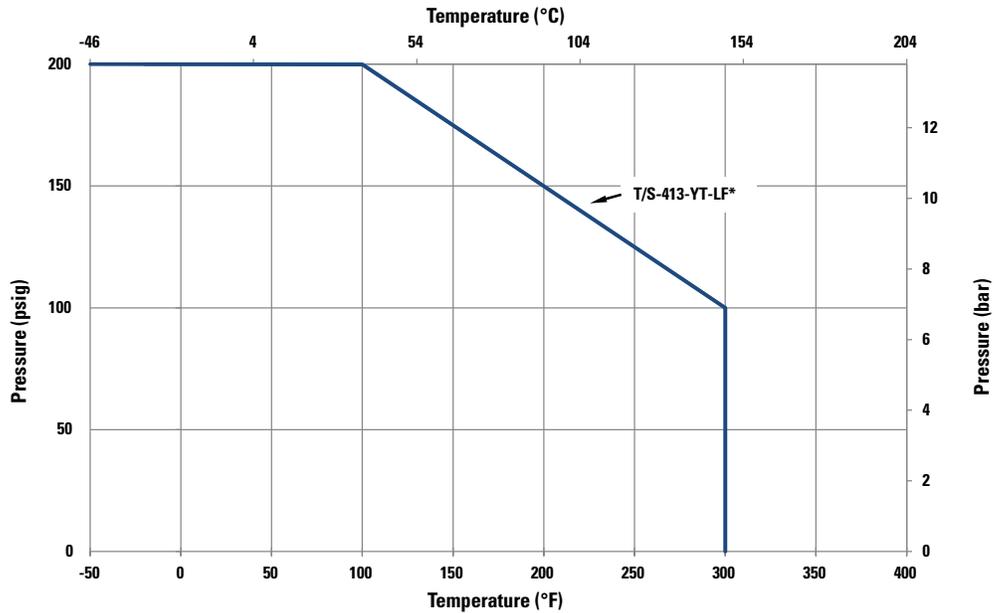


\*\* Ball valves with hose thread end connections shall have a maximum service temperature ≤100°F.

\*Weighted average lead content ≤ 0.25%

# Pressure Temperature Ratings - T/S-413-Y-LF

## PRESSURE/TEMPERATURE RATING 413-Y-LF Lead-Free Bronze Swing Check Valve (1/2" thru 2")



\* Swing check valves with solder cup end connections shall have maximum working pressure derated based upon a maximum service temperature of 250°F. Reference ASME B16.18 or the NIBCO® Bronze & Iron Valve catalog for further information.

\*Weighted average lead content ≤ 0.25%

# Engineering Data Index



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## Listings, Approvals and Standards

**ASME A112.4.14, Manually Operated, Quarter-Turn Shutoff Valves for Use in Plumbing Systems**, establishes requirements for manually operated, quarter-turn valves in nominal sizes less than or equal to NPS 2. These valves are intended for indoor installation as potable water shutoff valves between the meter and the supply stop. Valves covered by this Standard are intended for service at temperatures between 34°F (1°C) and 180°F (82°C), with an allowable working pressure rating not less than 125 psi (862 kPa).

**ASME A112.18.1/CSA B125.1, Plumbing Supply Fittings**, establishes requirements for plumbing supply fittings and accessories located between the supply stop and the terminal fitting, including lawn and sediment faucets; kitchen sink, lavatory, bidet, bath, and shower supply fittings; humidifier and clothes washer supply stops; and supply stop valves.

**IAPMO IGC-157, Ball Valves**, covers ball valves in sizes NPS 1/8 to NPS 4, with rated working pressures of at least 125 psi (860 kPa), intended for water supply systems, and specifies requirements for materials, physical characteristics, performance testing, and markings.

**IAPMO/ANSI Z1157, Press Ball Valves**, in addition to meeting ICG-157 test requirements, the IAPMO/ANSI Z1157 also requires Press ends to be fully tested to IAPMO PS-117 performance requirements which includes the following additional tests:

- |  |   |
|--|---|
| 1. Unrestrained Hydrostatic Pressure Test at 20 °C (68°F)  | 6. Hydraulic Shock (Water Hammer) Test    |
| 2. Unrestrained Hydrostatic Pressure Test at 93 °C (200°F) | 7. Vibration Test                         |
| 3. Static Torsion Test for Press Connections               | 8. Thermal Cycling Test                   |
| 4. Bending Test  | 9. Alternate Thermal Cycling Test         |
| 5. Vacuum Test   | 10. Dynamic Torsion Test for Press Connec |

**MSS SP-25, Standard Marking Systems for Valves, Fittings, Flanges and Unions**, establishes a marking system that applies to valves, fittings, flanges, and unions used in piping connections that include, but are not limited to, flanged, soldered, brazed, threaded, or welded joints. These specified markings serve to identify the manufacturer, rating designation, materials of construction, and special service limitations imposed by the manufacturer.

**MSS SP-80, Bronze Gate, Globe, Angle, and Check Valves**, establishes minimum requirements pressure-temperature ratings, materials, end connections, dimensions, marking, inspection, and testing of bronze gate, globe, angle, and check valves in Class 125, 150, 200, 300, and 350 for threaded and solder ends and Class 150 and 300 for flanged ends.

**MSS SP-110, Ball Valves Threaded, Socket-Welding, Solder-Joint, Grooved, and Flared Ends**, covers carbon steel, alloy steel, stainless steel, gray cast iron, ductile iron, malleable iron and copper alloy ball valves with threaded, socket-welding, solder-joint, grooved, and flared end connections. The sizes covered range from nominal size 1/4 through 4. These valves are intended for on-off operation and should be used for modulating or throttling only when recommended by the manufacturer.

\*Weighted average lead content ≤ 0.25%

## Listings, Approvals and Standards (cont...)

**MSS SP-139, Copper Alloy Gate, Globe, Angle, and Check Valves for Low Pressure/Low Temperature Plumbing Applications**, establishes requirements for pressure-temperature ratings, materials, end connections, dimensions, marking and testing of copper alloy gate, globe, angle, and check valves for use in plumbing applications and other purposes where a non-Class, Cold Working Pressure (CWP) rating is sufficient.

**MSS SP-145, Metal Ball Valves for Low Pressure/Low Temperature Plumbing Applications**, establishes requirements for pressure-temperature ratings, materials, design, dimensions, marking, and testing of ball valves with a minimum CWP rating of 125 psi (860 kPa).

**NSF/ANSI 14, Plastics Piping System Components and Related Materials**, establishes minimum physical, performance, and health effects requirements for plastic piping system components and related materials, including but not limited to pipes, fittings, valves, joining materials, gaskets, and appurtenances. These criteria were established for the protection of public health and the environment.

**NSF/ANSI 61, Drinking Water System Components – Health Effects**, establishes minimum requirements for the chemical contaminants and impurities that are indirectly imparted to drinking water from products, components, and materials used in drinking water systems. It is intended to cover specific materials or products that come in contact with; drinking water, drinking water treatment chemicals, or both. The products and materials covered include, but are not limited to, process media, protective materials, joining and sealing materials, pipes, and related products, mechanical devices used in treatment, transmission, or distribution systems, and mechanical plumbing devices.

- **Cold Water Application:** An end-use that is intended to result in continuous exposure to water at ambient temperature. Products are tested for an end-use temperature of  $73 \pm 4^\circ\text{F}$  ( $23 \pm 2^\circ\text{C}$ ).
- **Domestic Hot Water Application:** An end-use that is intended to result in continuous or intermittent exposure to water above that is above ambient; such as a part of the hot side of a residential piping system. Products are tested for an end-use temperature of  $140 \pm 4^\circ\text{F}$  ( $60 \pm 2^\circ\text{C}$ ).
- **Commercial Hot Water Application:** An end-use that is intended to result in continuous or intermittent exposure to water that is above ambient and domestic hot conditions; such as a part of the hot side of a commercial piping system (e.g., commercial dishwasher). Products are tested for an end-use temperature of  $180 \pm 4^\circ\text{F}$  ( $82 \pm 2^\circ\text{C}$ ).
- **Annex F:** This revision lowered the total allowable concentration (TAC) for lead from 15  $\mu\text{g/L}$  to 5  $\mu\text{g/L}$  and lowered the single product allowable concentration (SPAC) for lead from 1.5  $\mu\text{g/l}$  to 0.5  $\mu\text{g/L}$ . The requirements defined within Annex F of NSF/ANSI 61 were incorporated into the body of the standard on July 1, 2012.
- **Annex G:** An optional evaluation method for products that need to meet a 0.25% weighted average lead content standard. Products evaluated for compliance with Annex G must first comply with the full requirements of NSF/ANSI 61. The method for evaluation of lead content is in accordance with NSF/ANSI 372.

**NSF/ANSI 372, Drinking Water System Components – Lead Content**, establishes procedures for the determination of lead content based on the wetted surface areas of products. This Standard applies to any drinking water system component that conveys or dispenses water for human consumption through drinking or cooking.

\*Weighted average lead content  $\leq 0.25\%$

# Sample Specification

## LINE CONTROL VALVES 3" AND SMALLER

**SILICON BRONZE TWO-PIECE BALL VALVES – THREAD AND SOLDER:** Valves shall be rated 600 PSI non-shock CWP and will have 2-pc. lead-free\* dezincification-resistant body, end piece, stem and ball, PTFE seats, full port, separate pack nut with adjustable stem packing, anti-blowout stems and have the capability of accepting extended operating handles. Valve ends shall have full depth ANSI threads or extended solder connections. Valves shall conform to MSS SP-110 and be 3rd party certified to NSF/ANSI-61-8 (commercial hot 180°F), NSF/ANSI-372, and IAPMO IGC-157.

ACCEPTABLE VALVES: NIBCO® T-585-80-LF (thread); S-585-80-LF (solder) or T-585-66-LF (thread); S-585-66-LF (solder)

**NIB-SEAL®:** Where piping is insulated, ball valves shall be equipped with 2" extended handles of non-thermal conductive material that meets UL 2043 approved for inside air plenum. Also provide a protective sleeve that allows operation of the valve without breaking the vapor seal or disturbing the insulation. Memory stops, which are fully adjustable after insulation is applied, shall be included.

ACCEPTABLE VALVES:

NIBCO® T-585-80-LF-NS (thread); S-585-80-LF-NS (solder) or T-585-66-LF-NS (thread); S-585-66-LF-NS (solder)

**SILICON BRONZE BALL VALVES – PRESS SYSTEM®:** Valve body rated to 600 PSI non-shock CWP, connections rated to 250 PSI CWP, lead-free\* dezincification-resistant body, end piece, stem and ball, PTFE seats, full port, separate pack nut with adjustable stem packing, anti-blowout stems and have the capability of accepting extended operating handles. Valve ends shall be wrought copper ASTM B75 alloy for copper to copper pipe connections. Valves shall conform to MSS SP-145 and be 3rd party certified to NSF/ANSI-61-8 (commercial hot 180°F), NSF/ANSI-372, and IAPMO IGC-157.

ACCEPTABLE VALVES: NIBCO® PC-585-80-LF or PC-585-66-LF

**SILICON BRONZE THREE-PIECE BALL VALVES:** Valves shall be rated 600 PSI non-shock CWP and will have 3-pc. lead-free\* dezincification-resistant body, end pieces, stem and ball, PTFE seats, full port, separate pack nut with adjustable stem packing, anti-blowout stems and have the capability of accepting extended operating handles. Valve ends shall have full depth ANSI threads or extended solder connections. Valves shall conform to MSS SP-110 and be 3rd party certified to NSF/ANSI-61-8 (commercial hot 180°F) and NSF/ANSI-372.

ACCEPTABLE VALVES: NIBCO® T-595-Y-LF (thread); S-595-Y-LF (solder) or T-595-Y-66-LF (thread); S-595-Y-66-LF (solder)

**SILICON BRONZE GATE VALVES:** Valves shall be rated 300 PSI non-shock CWP, rising or non-rising stem, screw-in bonnet, solid wedge. Body, bonnet, external stuffing box and wedge are to be of lead-free\* dezincification-resistant material. Stems shall be of dezincification-resistant silicon bronze ASTM B 371 or low-zinc alloy B 99, non-asbestos packing and malleable or ductile iron hand wheel. Valve ends may be threaded or solder-type. Valves shall conform to MSS SP-139 and be 3rd party certified to NSF/ANSI-61-8 (commercial hot 180°F) and NSF/ANSI-372.

ACCEPTABLE VALVES: NIBCO® T-111-LF (thread); S-111-LF (solder); T-113-LF (thread); S-113-LF (solder)

**SILICON BRONZE SWING CHECK VALVES:** Valves shall be Y-pattern swing-type rated 300 PSI non-shock CWP. Body, bonnet, and disc hanger are to be of lead-free\* dezincification-resistant material and PTFE seat disc. Valve ends may be thread or solder-type. Valves shall conform to MSS SP-139 and be 3rd party certified to NSF/ANSI-61-8 (commercial hot 180°F) and NSF/ANSI-372.

ACCEPTABLE VALVES: NIBCO® T-413-Y-LF (thread); S413-Y-LF (solder)

**SILICON BRONZE RING CHECK VALVES:** Valves shall be rated a minimum 250 PSI inline lift check, resilient disc, spring actuated. Body and end piece, to be of lead-free\* dezincification-resistant material. Valves shall conform to MSS SP-139 and be 3rd party certified to NSF/ANSI-61-8 (commercial hot 180°F) and NSF/ANSI-372.

ACCEPTABLE VALVES: NIBCO® T-480-Y-LF (thread); S480-Y-LF (solder)

\*Weighted average lead content ≤ 0.25%

# Sample Specification (cont...)

## **LINE CONTROL VALVES 2 1/2" AND LARGER**

**DUCTILE IRON SINGLE FLANGE BUTTERFLY VALVES:** Valves shall be rated a minimum 200 PSI wafer or lug style, ductile iron body, EPDM resilient seat manufactured in accordance with MSS-SP67 Type I. Valves shall be third party certified to NSF/ANSI 372 and/or NSF/ANSI-61-G.

**ACCEPTABLE VALVES:**

NIBCO® WD2000 (wafer); LD2000 (lug)

**DUCTILE IRON GROOVED END BUTTERFLY VALVES:** Valves shall be rated a minimum 300 PSI grooved mechanical style, ductile iron body, EPDM resilient seat manufactured in accordance with MSS-SP67. Valves shall be third party certified to NSF/ANSI 372 and/or NSF/ANSI-61-G.

**ACCEPTABLE VALVES:**

NIBCO® GD4765N (grooved)

**IRON GATE VALVES:** Valves shall be rated a minimum 200 PSI flanged, bolted bonnet, Class 125/150 OS&Y or NRS, iron body manufactured in accordance with MSS-SP70 gray cast iron or MSS-SP128 ductile iron or AWWA C509/C515. Packing and gaskets to be asbestos free. Valves shall be third party certified to NSF/ANSI 372 and/or NSF/ANSI-61-G.

**ACCEPTABLE VALVES:**

NIBCO® F637-33; F607RW; F619RW

**IRON SWING CHECK VALVES:** Valves shall be rated a minimum 200 PSI flanged style Class 150, iron body manufactured in accordance with MSS SP136. Valves shall be third party certified to NSF/ANSI 372 and/or NSF/ANSI-61-G.

**ACCEPTABLE VALVES:**

NIBCO® F938-33

**IRON CENTER GUIDED CHECK VALVES:** Valves shall be center guided, sliding disc type. To be rated a minimum 200 PSI flanged/wafer style Class 125/250, iron body manufactured in accordance with MSS SP-125 cast iron. Valves shall be third party certified to NSF/ANSI 372 and/or NSF/ANSI-61-G.

**ACCEPTABLE VALVES:**

NIBCO® F910-LF/F960-LF (flanged); W910-LF/W960-LF (wafer)

**IRON TWIN DISC CHECK VALVES:** Valves shall be twin disc wafer or grooved end type. To be rated a minimum 200 PSI flanged/wafer style Class 125, iron body manufactured in accordance with ASME B16.1. Valves shall be third party certified to NSF/ANSI 372 and/or NSF/ANSI-61-G.

**ACCEPTABLE VALVES:**

NIBCO® W-920-W-LF (wafer); G-920-W-LF (grooved)

\*Weighted average lead content ≤ 0.25%

# Chemistries and Properties of Copper Alloys

Type	Alloy Description			Chemical Composition											Mech. Properties		
	Common	ASTM	UNS	Nominal % - Maximum Trace %											Strength (PSI)†		%
	Name/App.	Nos.		Cu	Pb	Bi	Zn	Sn	P	Fe	Ni	Si	Al	Other	UTS	YS	Elong.

## Leaded Brass

Brass	Free Cutting	B 16	C 36000	61.5	2.7	-	35.4	-	-	-	-	-	-	-	50,000	20,000	15
	Forging Brass	B 124	C 37700	59.5	2.0	-	38.0	-	-	0.3	-	-	-	-	52,000	20,000	45
	Semi-Red Brass	B 584	C 84400	81.0	7.0	-	9.0	3.0	0.02	0.4	1.0	0.005	0.005	S 0.08	29,000	13,000	18

## Leaded Bronze

Bronze	Commercial	B 140	C 31400	89.0	1.9	-	9.1	-	-	0.1	0.7	-	-	-	52,000	45,000	18
	Ounce Metal	B 62	C 83600	85.0	5.0	-	5.0	5.0	0.05	0.3	1.0	0.005	0.005	S 0.08	30,000	14,000	20
	Navy "M"	B 61	C 92200	88.0	1.5	-	4.5	6.0	0.05	0.25	1.0	0.005	0.005	S 0.05	34,000	16,000	22
	Ni Bronze	B 584	C 97600	65.0	4.0	-	6.0	4.0	0.05	1.5	20.3	0.15	0.005	S 0.08	40,000	17,000	10

## Lead Free\* Brass

Lead-Free* Brass	Yellow Brass YB	-	C 27450	62.5	0.25	-	37.5	-	-	0.35	-	-	-	-	63,000	47,000	25
	Yellow Brass YB	-	C 27451	63.0	0.25	-	36.9	-	0.12	-	-	-	-	-	63,000	47,000	25
	Uninhibited YB	B 124	C 46400	60.0	0.20	-	39.2	0.7	-	0.1	-	-	-	-	69,000	46,000	27
	Inhibited YB	-	C 46500	60.0	0.20	-	39.2	0.7	-	0.1	-	-	-	As 0.04	70,000	48,000	25
	Si Red Brass	B 371	C 69400	81.5	0.30	-	14.5	-	-	0.2	-	4.0	-	-	90,000	45,000	20
	Inhibited YB	B 371	C 69430	81.5	0.30	-	14.5	-	-	0.2	-	4.0	-	As 0.04	90,000	45,000	20
	Bismuth Brass	-	C 89320	89.0	0.09	5.0	1.0	6.0	0.3	0.2	1.0	0.005	0.005	S 0.08	40,000	20,000	30
	Bismuth Brass	-	C 89325	86.0	0.10	3.2	1.0	10.0	0.1	0.15	1.0	0.005	0.005	S 0.08	35,000	18,000	20
	Bismuth Brass	-	C 89831	89.0	0.10	3.2	3.0	3.2	0.05	0.3	1.0	0.005	0.005	S 0.08	34,000	15,000	20
	Bismuth Brass	-	C 89833	89.0	0.09	2.2	3.0	5.0	0.05	0.3	1.0	0.005	0.005	S 0.08	37,000	17,000	28
	Bismuth Brass	-	C 89835	87.0	0.09	2.2	3.0	6.7	0.1	0.2	1.0	0.005	0.005	S 0.08	35,000	18,000	20
	Bismuth Brass	-	C 89836	89.0	0.25	2.5	3.0	5.5	-	0.35	0.9	0.005	0.005	S 0.08	37,000	19,000	30
	Bismuth Brass	B 584	C 89844	84.5	0.20	3.0	8.0	4.0	0.05	0.3	1.0	0.005	0.005	S 0.08	34,000	15,000	30

## Lead Free\* Bronze

Lead-Free* Bronze	Al Bronze	B 150	C 64200	91.0	0.05	-	0.5	0.2	-	0.3	0.25	1.8	7.0	Mn 0.1	90,000	55,000	28
	Low Si Bronze	B 98	C 65100	98.5	0.05	-	1.5	-	-	0.8	-	1.5	-	Mn 0.7	70,000	55,000	15
	Cu Si Alloy 1	B 584	C 69300	75.0	0.09	-	21.9	0.2	0.1	0.1	0.1	3.0	-	Mn 0.1	80,000	49,000	10
	Cu Si Alloy 1	B 584	C 87600	89.0	0.09	-	5.5	-	-	0.2	-	4.5	-	Mn 0.2	66,000	32,000	20
	Silicon Bronze	B 584	C 87700	89.0	0.09	-	8.0	2.0	0.15	0.5	0.25	3.0	-	Mn 0.8	58,000	23,000	3
	Silicon Bronze	B 584	C 87710	86.0	0.09	-	10.0	2.0	0.15	0.5	0.25	4.0	-	Mn 0.8	50,000	21,000	2
	Cu Si Alloy 1	B 584	C 87850	76.0	0.09	-	20.9	0.1	0.12	0.1	0.2	3.0	-	Mn 0.1	59,000	22,000	16
	Tin Bronze	B 584	C 90300	87.5	0.30	-	4.0	0.05	0.2	0.2	1.0	0.005	0.005	S 0.05	45,000	21,000	30
	Al Bronze	B 148	C 95400	83.2	-	-	-	-	-	4.0	1.5	-	10.8	Mn 0.5	75,000	30,000	12

## Copper

Cu	Oxygen Free Cu	B 16	C 10200	99.95	-	-	-	-	-	-	-	-	-	0 0.001	36,000	28,000	40
	Phos DeOx Cu	B 16	C 12200	99.9	-	-	-	-	0.02	-	-	-	-	Cu Min	40,000	32,000	25

<sup>1</sup> Performance Bronze® describes a class of copper zinc alloys that have excellent mechanical properties and corrosion resistance as demonstrated through independent testing using the highest industry standards. (See <http://www.nibco.com/Lead-Free/Resources/>)

† UTS = Ultimate Tensile Strength; YS = Yield Strength

Data listed represents reasonable approximations suitable for general engineering use. See applicable ASTM and CDA specification references.

\*Weighted average lead content ≤ 0.25%

# Lead-Free\* Valve Figure Number Comparison

Noted valves 3rd party listed.

## COMMERCIAL VALVES

		NIBCO	Milwaukee	Apollo (Conbraco)	Watts
Bronze Ball	Two-Pc. Bronze Full Port	S/T-585-LF	UPBA400/450	77CLF-100/200	LFB6080/6081
	Two-Pc. Bronze Conventional Port	S/T-580-LF	UPBA100/150	70LF-100/200	LFB6000/6001
	Three-Pc. Bronze Full Port	S/T-595-Y-LF	UPBA300/350	82LF-100/200	—
Bronze Gate and Check	Rising Stem Gate	S/T-111-LF	UP149/148	101S-LF/101T-LF	—
	Non-Rising Stem Gate	S/T-113-LF	UP105/115	102S-LF/102T-LF	LFGVS/LFGV
	Swing Check	S/T-413Y-LF	UP1509/509	163S-LF/163T-LF	LFCVS/LFCV
	Inline Check	S/T-480Y-LF	UP1548T/548T	61-LF	LF601S/60
Iron Gate and Check	OS&Y Gate	F637-33	—	—	—
	OS&Y Gate RW	F607RW	—	—	—
	Non-Rising Stem Gate RW	F619RW	—	—	—
	Swing Check	F938-33	—	—	—
	Center Guided Check Flanged	F910/960 LF	—	—	—
	Center Guided Check Wafer	W910/960 LF	—	—	—
	Twin Disc Wafer	W920W-LF	—	—	—
	Twin Disc Grooved	G-920-W-LF	—	—	—
Butterfly	Ductile Iron Single Flange Wafer	WD2000	—	—	DBF-04
	Ductile Iron Single Flange Lug	LD2000	ML133E/233E/333E	—	DBF-03
	Ductile Iron Single Flange Grooved	GD4765N	—	—	—

## PLUMBING VALVES

		NIBCO	Milwaukee	Apollo (Conbraco)	Watts
Brass / Bronze Ball	Two-Pc. Brass / Bronze Full Port	S/T-685-LF	UPBA475B/485B	77FLF-100/200	LFFBV-3C
	Two-Pc. Brass Full Port	FP-600A-LF	UPBA475B/485B	94ALF	LFFBV-3C

		NIBCO	BrassCraft	Legend	Watts
1/4-Turn Supply Stops	Straight Sweat x Compression	7120-LF	KTR14X C	T594 NL	—
	Angle Sweat x Compression	7125-LF	KTR*9X C	T595 NL	—
	Dual Outlet Sweat x Comp x Comp	7125DX-LF	—	T597 NL	—
	Straight Comp x Comp	7140-LF	KTCR*4X C	T596 NL	—
	Straight Female Comp x Comp	7140F-LF	KTCR11FX C	T596 NL	LFBV894013
	Angle Comp x Comp	7145-LF	KTCR*9X C	T595 NL	LFBV894**3
	Angle Female Comp x Comp	7145F-LF	—	T595 NL	—
	Dual Outlet Comp x Comp x Comp	7145DX-LF	—	T597 NL	LFBV389403
	Straight FIP x Comp	7150-LF	KTR1*X C	T596 NL FIP	LFBV890013
	Angle FIP x Comp	7155-LF	KTR**X C	T595 FIP	LFBV890*03
	Dual Outlet FIP x Comp x Comp	7155DX-LF	—	T597 NL FIP	LFBV389003
	Straight PEX x Comp	7160-LF	KTBRPX14X C	T596 NL	—
	Straight PEX x MIP	7160M-LF	—	—	—
	Straight PEX x PEX	7160PEX-LF	KTBRPX44X C	T596 NL	—
	Angle PEX x Comp	7165-LF	KTBRPX19X C	T595 NL	—
	Angle PEX x PEX	7165PEX-LF	—	—	—
	Straight CPVC x Comp	7170-LF	KTPR14X C	T596 NL	—
	Angle CPVC x Comp	7175-LF	KTPR19X C	T595 NL	—

\*Weighted average lead content ≤ 0.25%

# Valve Installation

## SOLDERING RECOMMENDATIONS:



### 1. Ensure proper joint preparation for solder cup and mating tube:

Proper joint preparation is critical in order to achieve a satisfactory solder joint - follow all best practices for prepping tube by using a coarse emery cloth or a clean wire brush, including square cutting, de-burring (inside and outside), cleaning, etc.



### 2. Select appropriate solder, flux and heat:

The selection of a compatible solder / flux combination is a critical first step to achieving a quality joint.

**Solder:** NIBCO recommends plumbing solders with a melting point above 400°F. Solders with a melting point above 400°F include traditional 95/5 tin / antimony and those containing silver or other filler elements.

**Flux:** The purpose of flux is to clean, prep, and protect the surfaces of the joint to accept solder. It is important that the flux utilized has an active temperature range compatible with the intended solder. Many plumbing flux and solder combinations have been confirmed for use with silicon bronze alloys. There are generally many flux types beyond plumbing – best practice calls for installers to utilize plumbing paste fluxes containing chlorides. Contact the flux manufacturer regarding the suitability of their flux for use with any intended solder. Confirming flux suitability per local plumbing code is the responsibility of the installer.



**Heat:** Silicon bronze alloys will transfer heat away from the heat affected area more slowly than copper or leaded bronze; therefore, more attention may be required to achieve uniform heating of the alloy. Select torch tip and gas mix to adequately distribute the heat. The hotter the flame, the more skill and technique are required.

### 3. Ensure sufficient joint heating:

Ball valves should be in the CLOSED position and gate valves OPEN when soldering.

**Ensuring sufficient heat is critical to achieving a satisfactory solder joint.**

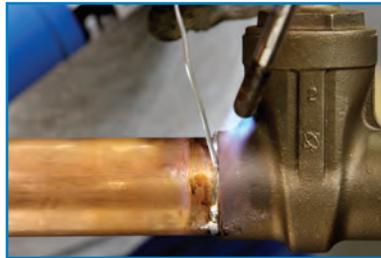
\*Weighted average lead content ≤ 0.25%

## Valve Installation (cont...)

Standard soldering techniques can be used with proper selection of a solder and flux combination.\*\* Even, uniform heat should be accomplished by directing the inner-most flame tip (neutral flame) to the joint, remembering these critical points:

- Begin by mildly preheating the socket and tube.
- Do not direct the flame into the gap.
- Heat the entire joint, always keep the flame moving – **do not linger in any one position.**
- Watch for the flux to activate, per flux manufacturer’s recommendation. Flux will generally bubble as it reaches activation temperature, taking care not to burn out the flux.
- Apply the flame to the base of the solder cup – the farthest point you want to draw the solder to.
- With uniform heating around the base of the cup, touch the solder to the joint. If the solder doesn’t melt remove the solder and continue heating the entire joint.
- When the solder begins to melt, return the flame to the base of the cup, rotating the flame 360 degrees around the cup.

Due to expansion and contraction of materials after heating, the ball valve or gate valve pack nut may need to be tightened.



**For soldering and peel test recommendations,  
review video at [www.nibcoleadfree.com](http://www.nibcoleadfree.com)**

### BRAZING RECOMMENDATIONS:

Lead-Free\* silicon bronze alloy brazing, including filler material selection and installation, is identical to that used in good industry practice for traditional plumbing products.

### THREADING RECOMMENDATIONS:

When threading pipe, gauge pipe threads for size and length to avoid jamming pipe against seat or disc. Thoroughly clean threaded end to remove excess material shavings. For a good joint, use PTFE tape OR pipe dope. If pipe dope is used, apply sparingly on pipe threads, NEVER on valve threads. Do not allow any pipe dope into valve body in order to avoid damage to disc, ball or seat. Close valve completely before installation. Apply wrench to hex next to pipe and guard against possible distortion.

### PRESS SYSTEM:

For NIBCO® Press System Engineering data, installation instructions, tool / jaw compatibility matrix, and warranty information reference NIBCO catalog C-NPS.

\*\* ASTM B828 Standard Practice for Making Capillary Joints by Soldering of Copper and Copper Alloy Tube and Fittings.

# Notes

# Notes

# Notes



**NIBCO INC. 125% LIMITED WARRANTY**

Applicable to NIBCO INC. Pressure Rated Metal Valves

NIBCO INC. warrants each NIBCO® pressure rated metal valve to be free from defects in materials and workmanship under normal use and service for a period of five (5) years from date put into service, with the exception of models FP-600A-LF, PC-FP600A-LF, FP-600AD-LF, and Pro-Stop® Quarter Turn Supply Stops, for which a two (2) year warranty period from date put into service applies.

In the event any defect occurs which the owner believes is covered by this warranty, the owner should immediately contact NIBCO Technical Services, either in writing or by telephone at (888) 446-4226 or (574) 295-3000. The owner will be instructed to return said product, at the owner's expense, to NIBCO INC., or an authorized representative for inspection. In the event said inspection discloses to the satisfaction of NIBCO INC. that said valve is defective, it will be replaced at the expense of NIBCO INC. Replacements shall be shipped free of charge to the owner. In the event of the replacement of any valve, NIBCO INC. shall further pay the owner Twenty-Five (25%) Percent of the price of the valve according to the published suggested list price schedule of NIBCO INC. in effect at the time of purchase to apply on the cost of the installation of said replacement valve.

TO THE EXTENT PERMITTED BY LAW, THIS WARRANTY SPECIFICALLY EXCLUDES INCIDENTAL AND CONSEQUENTIAL DAMAGES OF EVERY TYPE AND DESCRIPTION RESULTING FROM ANY CLAIMED DEFECT IN MATERIAL OR WORKMANSHIP, INCLUDING BUT NOT LIMITED TO, PERSONAL INJURIES AND PROPERTY DAMAGES. Some states or countries do not allow the exclusion or limitation of incidental or consequential damages so these limitations may not apply to you. TO THE EXTENT PERMITTED BY LAW, IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE ARE LIMITED IN DURATION.

This warranty gives you specific legal rights, and you may also have other rights which vary from state to state and country to country.



# how to order

State quantity, figure number and size for each valve you wish to order. See individual valve catalog pages for specific or special product designations.

**HOW MANY TO ORDER**

NIBCO® valves are decimal packed for your convenience in handling, shipping and stock-keeping. Number in master carton varies with item.

**POLICY ON RETURNS TO FACTORY**

NO NIBCO valves are to be returned without prior written agreement. Transportation must be prepaid. A 20% charge will be made to cover cost of rehandling and reinspection.

**TECHNICAL ASSISTANCE**

Engineers, contractors, wholesalers or manufacturers may obtain special or technical assistance from any factory representative of NIBCO. Write, fax or phone.

NIBCO INC.  
World Headquarters  
1516 Middlebury Street  
Elkhart, IN 46516-4740  
USA

Phone: 1.574.295.3000

Fax: 1.574.295.3307

Technical Service Phone: 1.888.446.4226

Fax: 1.888.336.4226

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# NIBCO®

## HydraPure®



# TURN TO EXPERIENCE

Only NIBCO combines 20+ years of lead-free\* expertise to manufacture its vast collection of lead-free valves, fittings and flanges. Made from HydraPure®, this silicon-based Performance Bronze® alloy has mechanical properties far exceeding traditional plumbing alloys.

- 3rd-party tested dezincification-resistant
- Contains no bismuth for superb heat resistance during soldering and brazing
- NSF/ANSI-61-8 (180 F) and NSF/ANSI-372 3rd-party approvals

NIBCO keeps you ahead of regulations, ahead of the industry – and AHEAD OF THE FLOW®.

Visit [nibcoleadfree.com](http://nibcoleadfree.com) for  
email alerts, white papers and more.

\*Weighted average lead content ≤ 0.25%

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## VALVES

Pressure-rated bronze, iron and alloy-iron gate, globe and check valves • Pressure-rated bronze ball valves • Boiler specialty valves • Commercial and industrial butterfly valves • Lined butterfly valves • Circuit balancing valves • Carbon and stainless steel ball valves • ANSI flanged steel ball valves • Lined ball valves • Pneumatic and electric actuators and controls • Grooved ball and butterfly valves • High performance butterfly valves • UL/FM fire protection valves • MSS specification valves • Bronze specialty valves • Low pressure gate, globe, check and ball valves • Frostproof sillcocks • Quarter-turn supply stops • Quarter-turn low pressure valves • PVC and CPVC plumbing and industrial ball valves • Bronze & Iron Y-strainers • Sample valves • Sanitary valves • Lead-Free\* valves • Coil-Connect® Kits

\*Weighted average lead content  $\leq 0.25\%$

## FITTINGS

Wrot and cast copper pressure and drainage fittings • Cast copper alloy flanges • Wrot and cast press fittings • ABS and PVC DWV fittings • Schedule 40 PVC pressure fittings • CPVC CTS fittings • CPVC CTS-to-metal transition fittings • Schedule 80 PVC and CPVC systems • CPVC BlazeMaster® fire protection fittings • Lead-Free\* fittings

BlazeMaster® is a registered trademark of The Lubrizol Corporation.

\*Weighted average lead content  $\leq 0.25\%$

## FLEXIBLE PIPING SYSTEMS

PE-RT and PEX tubing for potable and radiant applications • Insulated tubing • Risers • Ice maker tubing • Silicon Performance Bronze® fittings • Poly alloy fittings • Home Run Manifold® • Radiant heat manifolds • Ball valves and supply stops • Connections, tools and accessories • Radiant heat controls and panels

## INDUSTRIAL PLASTICS

Thermoplastic pipe, valves, and fittings in PVC, Corzan® CPVC, polypropylene and PVDF Kynar® • Pneumatic and electric actuation systems • BlazeMaster® CPVC fire protection fittings

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**NIBCO**<sup>®</sup>  
AHEAD OF THE FLOW<sup>®</sup>

View the NIBCO lead-free soldering recommendation video.