

FIG. 7401-2

Rigidlok® Coupling

Gruvlok® introduces new 2-piece large diameter standard groove couplings in both rigid and flexible styles

- Uses standard grooves (conforming to AWWA C-606)
- No special grooves or grooving tools needed
- Pressures to 350 P.S.I. on cut or roll grooved pipe with a wall thickness of 0.250" or greater
- No special fittings needed
- No special valves needed
- Up to 23% less weight than competitive models
- Sizes: 14" through 24" in Rigid: Figure 7401-2



MATERIAL SPECIFICATIONS

BOLTS:

SAE J429, Grade 5, Zinc Electroplated

HEAVY HEX NUTS:

ASTM A563, Grade A, Zinc Electroplated

STAINLESS STEEL BOLTS & NUTS:

304SS bolts and nuts are available as a standard option.
(316SS are available for special order).

HOUSING:

Ductile Iron conforming to ASTM A 536, Grade 65-45-12

COATINGS:

- ☐ Rust inhibiting paint – Color: ORANGE (standard)
 - ☐ Hot Dipped Zinc Galvanized (optional)
 - ☐ Other Colors Available (IE: RAL3000 and RAL9000)
- For other Coating requirements contact an Anvil Representative.

GASKETS: Materials

Properties as designated in accordance with ASTM D 2000

- ☐ **Grade "E" EPDM** (Green color code)
-40°F to 230°F (Service Temperature Range)(-40°C to 110°C)
Recommended for water service, diluted acids, alkalies solutions, oil-free air and many other chemical services.
NOT FOR USE IN PETROLEUM APPLICATIONS.

- ☐ **Grade "T" Nitrile** (Orange color code)
-20°F to 180°F (Service Temperature Range)(-29°C to 82°C)
Recommended for petroleum applications. Air with oil vapors and vegetable and mineral oils.
NOT FOR USE IN HOT WATER OR HOT AIR

GASKET TYPE:

Flush Gap (Standard)

LUBRICATION:

- ☐ Standard
- ☐ Gruvlok Xtreme™

WORKING PRESSURE, END LOAD & PIPE END SEPARATION:

Based on standard wall steel pipe with cut or roll grooves in accordance with Gruvlok specifications. See technical data section for design factors.

PROJECT INFORMATION		APPROVAL STAMP
Project:		<input type="checkbox"/> Approved
Address:		<input type="checkbox"/> Approved as noted
Contractor:		<input type="checkbox"/> Not approved
Engineer:		Remarks:
Submittal Date:		
Notes 1:		
Notes 2:		

FIG. 7401-2
Rigidlok® Coupling

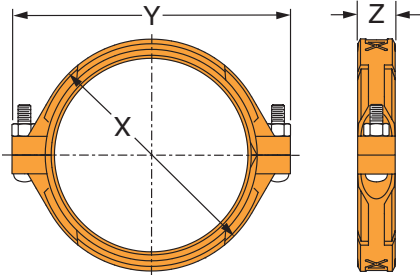


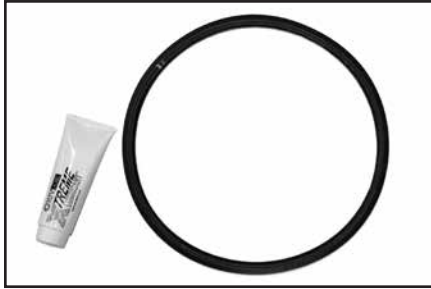
FIGURE 7401-2 RIGIDLOK COUPLING												
Nominal Size	O.D.	Max. Working Pressure	Max. End Load	Range of Pipe End Separation	Coupling Dimensions			Coupling Bolts*		Specified Torque §		Approx. Wt. Ea.
					X	Y	Z	Qty.	Size	Min.	Max.	
In./DN(mm)	In./mm	PSI/bar	Lbs./kN	In./mm	In./mm	In./mm	In./mm		In./mm	Ft.-Lbs/N-M		Lbs./kg
14	14.000	350	53,878	0- ³ / ₃₂	16 ¹ / ₄	19 ³ / ₄	3	2	⁷ / ₈ x 5 ¹ / ₂	180	220	36.5
350	355.6	24.1	239.66	0-2.38	413	502	76		—	245	300	16.6
16	16.000	350	70,372	0- ³ / ₃₂	18 ⁵ / ₁₆	22	3	2	1 x 5 ¹ / ₂	250	300	46.0
400	406.4	24.1	313.03	0-2.38	465	558	76		—	340	408	20.9
18	18.000	350	89,064	0- ³ / ₃₂	20 ³ / ₄	24 ¹ / ₄	3 ¹ / ₈	2	1 x 5 ¹ / ₂	250	300	62.5
450	457.2	24.1	396.18	0-2.38	527	615	79		—	340	408	28.3
20	20.000	350	109,956	0- ³ / ₃₂	23	27 ¹ / ₈	3 ¹ / ₈	2	1 ¹ / ₈ x 5 ¹ / ₂	375	425	73.5
500	508.0	24.1	489.11	0-2.38	582	691	79		—	510	578	33.3
24	24.000	350	158,336	0- ³ / ₃₂	27 ¹ / ₄	31 ¹ / ₈	3 ³ / ₁₆	2	1 ¹ / ₈ x 5 ¹ / ₂	375	425	90.5
600	609.6	24.1	704.31	0-2.38	688	791	81		—	510	578	41.1

Range of Pipe End Separation values are for roll grooved pipe and may be doubled for cut groove pipe.
See Installation & Assembly directions on next page.

FIG. 7001-2 & FIG. 7401-2

2-Piece Large Diameter Groove Couplings

- 7001-2 & 7401-2 bolts must be lightly coated with Grivlok Xtreme™ lube before installation. See chart for torque requirements.
- Minimum wall pipe suitable for 14" – 24": 7001-2 & 7401-2 roll grooved installation is 0.250" wall thickness
- Pipe preparation Grooved dimensions must conform to the Gruvlok Roll/Cut groove specification



1 CHECK & LUBRICATE GASKET— Check gasket to be sure it is compatible for the intended service. Apply a thin coat of Gruvlok lubricant to the exterior surface and sealing lips of the gasket. Be careful that foreign particles do not adhere to lubricated surfaces.



2 GASKET INSTALLATION— Slip the gasket over the pipe end, making sure the gasket lip does not overhang the pipe end.



3 ALIGNMENT— After aligning the two pipe ends together, pull the gasket into position, centering it between the grooves on each pipe. Gasket should not extend into the groove on either pipe.

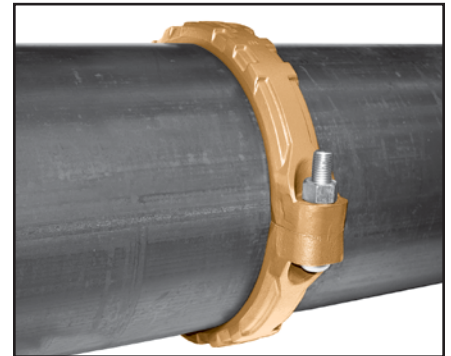


4 HOUSING— Place each housing half on the pipe and into each groove making sure that the gasket does not slip out of position in between the pipe ends or groove.



5 BOLTS— Apply a thin coat of Xtreme lube to the bolt threads. Tighten the nuts alternately and equally to the specified bolt torque.

CAUTION: Uneven tightening may cause the gasket to pinch.



6 FINAL ASSEMBLY— Visually inspect the pipe joint to assure the coupling keys are fully engaged in the pipe grooves, the bolt pads are in firm even metal-to-metal contact on both sides of the coupling, and gasket is not visible.

ANSI SPECIFIED BOLT TORQUE			
Pipe Sizes	Bolt Size	Specified Bolt Torque	Lubrication
In.	In.	Ft.-Lbs	—
14	7/8	180 - 220	Gruvlok Xtreme™ Lubricant
16	1	250 - 300	
18	1	250 - 300	
20	1 1/8	375 - 425	
24	1 1/8	375 - 425	

CAUTION: When using an impact wrench, verify that the torque output on the impact wrench is within the required torque range.