

FIG. 7401 Rigidlok® Coupling

The Fig. 7401 Rigidlok Coupling is an ideal connector for service and applications that require a rigid connection.

The Fig. 7401 Rigidlok coupling utilizes a technologically advanced housing design that conforms to and grips the pipe.

Coupling installation is fast and easy, remove only one nut and swing the housing over the gasket and into the grooves. The exclusive Guidelok® feature automatically separates the grooved pipe ends and guides the coupling into position as the bolts are tightened. Precisely sized and oriented tines in the housing key section firmly grip the pipe. The combination of these designed in features produce a secure, rigid pipe joint connection.

The Fig. 7401 Rigidlok Coupling is designed for use with roll grooved or cut grooved standard weight and roll grooved



lightweight pipe, as well as with grooved-end fittings and valves. The Rigidlok Coupling provides a rigid pipe connection allowing pipe hanging practices per ASME B31 pipe codes.

The Fig. 7401 Rigidlok Coupling allows for a maximum working pressure of 750 psi (51.7 bar) when used on standard wall roll or cut grooved pipe.

MATERIAL SPECIFICATIONS

BOLTS:

SAE J429, Grade 5, Zinc Electroplated (standard)

HEAVY HEX NUTS:

SAE A563, Grade A, Zinc Electroplated (standard)

HARDWARE KITS:

- 304 Stainless Steel (available in sizes up to 3/4")
Kit includes: (2) Bolts per ASTM A193, Grade B8 and
(2) Heavy Hex Nuts per ASTM A194, Grade 8.

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:

Properties as designated in accordance with ASTM D 2000

- Grade "EP" EPDM (Green and Red color code)
-40°F to 250°F (Service Temperature Range)(-40°C to 121°C)
Recommended for water service, diluted acids, alkalies solutions,
oil-free air and many other chemical services.
NOT FOR USE IN PETROLEUM APPLICATIONS.

For hot water applications the use of Gruvlok Xtreme™ Temperature
lubricant is recommended. NSF-61.

- Grade "T" Nitrile (Orange color code)
NOT FOR USE IN DRINKING WATER
-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
- Grade "O" Fluoro-Elastomer (Blue color code)
NOT FOR USE IN DRINKING WATER
Size Range: 1" - 12" (C style only)
20°F to 300°F (Service Temperature Range)(-29°C to 149°C)
Recommended for high temperature resistance to oxidizing acids,
petroleum oils, hydraulic fluids, halogenated hydrocarbons and
lubricants.
- Grade "L" Silicone (Red color code)
NOT FOR USE IN DRINKING WATER
Size Range: 1" - 12" (C style only)
-40°F to 350°F (Service Temperature Range)(-40°C to 177°C)
Recommended for dry, hot air and some high temperature chemical
services. Contact an Anvil Representative for availability.

GASKET TYPE:

- C Style (1" - 24")
- Flush Gap (1" - 24")

LUBRICATION:

- Standard
- Gruvlok Xtreme™ (Do Not use with Grade "L")

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

Rigidlok® Coupling

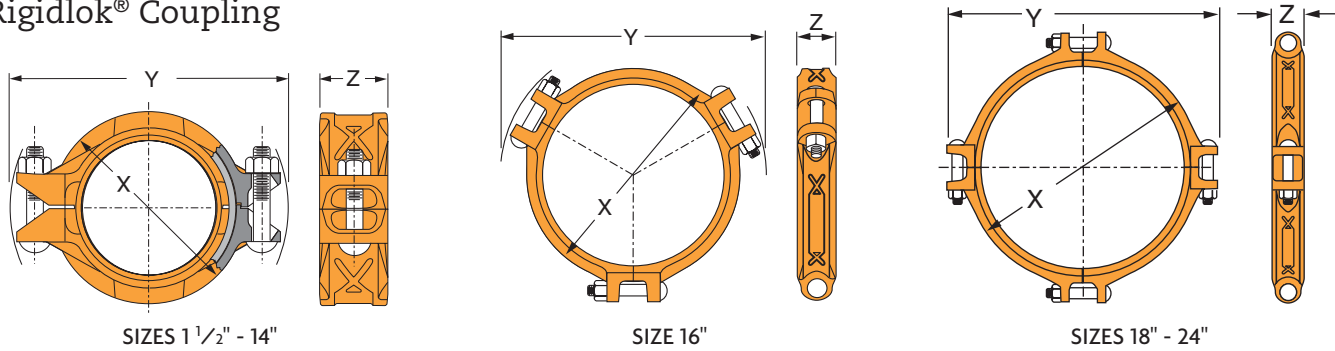


FIGURE 7401 RIGIDLOK COUPLING

Nominal Size	O.D.	Max. Working Pressure [†]	Max. End Load	Range of Pipe End Separation	Coupling Dimensions			Coupling Bolts		Approx. Wt. Ea.
					X	Y	Z	Qty.	Size	
In./DN(mm)	In./mm	PSI/bar	Lbs./kN	In./mm	In./mm	In./mm	In./mm		In./mm	Lbs./kg
1½	1.900	750	2,126	0-½	3	5⅛	1⅞	2	¾ x 2¼	1.8
40	48.3	51.7	9.46	0-0.79	76	130	48		M10 x 57	0.8
2	2.375	750	3,323	0-½	3½	5⅝	1⅞	2	¾ x 2½	2.4
50	60.3	51.7	14.78	0-0.79	89	143	48		M10 x 63	1.1
2½	2.875	750	4,869	0-½	4	6⅞	1⅞	2	¾ x 2½	2.9
65	73.0	51.7	21.66	0-0.79	102	156	48		M10 x 63	1.3
3 O.D.	2.996	750	5,207	0-½	4⅞	6⅞	1⅞	2	¾ x 2½	3.4
76.1	76.1	51.7	23.52	0-0.79	105	156	48		M10 x 63	1.5
3	3.500	750	7,216	0-½	4¾	7¼	1⅞	2	½ x 3	3.6
80	88.9	51.7	32.10	0-0.79	121	184	48		M12 x 76	1.6
4	4.500	750	11,928	0-¾	5⅞	8⅞	2⅞	2	½ x 3	5.0
100	114.3	51.7	53.06	0-2.38	149	213	54		M12 x 76	2.3
5½ O.D.	5.500	750	17,819	0-¾	7	9¼	2⅞	2	¾ x 3½	6.9
139.7	139.7	51.7	79.26	0-2.38	178	248	54		M16 x 85	3.1
5	5.563	750	18,229	0-¾	7	10	2⅞	2	¾ x 3½	6.9
125	141.3	51.7	81.09	0-2.38	178	254	54		M16 x 85	3.1
6½ O.D.	6.500	750	24,887	0-¾	8	11	2⅞	2	¾ x 3½	7.6
165.1	165.1	51.7	110.70	0-2.38	203	279	54		M16 x 85	3.4
6	6.625	750	25,854	0-¾	8⅞	11⅞	2⅞	2	¾ x 3½	7.9
150	168.3	51.7	115.00	0-2.38	206	283	54		M16 x 85	3.6
8	8.625	600	35,056	0-¾	10½	14⅞	2⅞	2	¾ x 4½	15.9
200	219.1	41.4	155.94	0-2.38	267	359	67		M20 x 110	7.2
10	10.750	500	45,381	0-¾	12⅞	17½	2⅞	2	1 x 6	25.6
250	273.1	34.5	201.87	0-2.38	327	445	67		M24 x 150	11.6
12	12.750	400	51,070	0-¾	15	19½	2⅞	2	⅞ x 6	30.5
300	323.9	27.6	227.17	0-2.38	381	495	67		M22 x 150	13.8
14	14.000	300	46,181	0-¾	16¼	19¾	3	2	⅞ x 5½	36.1
350	355.6	20.7	205.43	0-2.38	413	502	76		M22 x 140	16.4
16	16.000	300	60,319	0-¾	18⅞	22¼	3	3	⅞ x 5½	42.0
400	406.4	20.7	268.31	0-2.38	460	565	76		M22 x 140	19.1
18	18.000	300	76,341	0-¾	20½	24⅞	3⅞	4	1 x 4	51.6
450	457.2	20.7	339.58	0-2.38	521	619	79		M24 x 100	23.4
20	20.000	300	94,248	0-¾	23	26⅞	3⅞	4	1 x 4	68.3
500	508.0	20.7	419.23	0-2.38	581	683	79		M24 x 100	31.0
24	24.000	250	113,097	0-¾	27⅞	30⅞	3⅞	4	1 x 4	89.3
600	609.6	17.2	503.08	0-2.38	689	784	79		M24 x 100	40.5

NOTE:

Range of Pipe End Separation values are for roll grooved pipe and may be doubled for cut groove pipe.

† Maximum Working Pressure Rating is for schedule 40 steel pipe. For light wall, stainless steel, aluminum and ISO pipe pressure ratings, please refer to the technical data section.

For additional details see "Coupling Data Chart Notes" in the Introduction Section of the Gruklok Catalog. See Installation & Assembly directions on next page.

FIG. 7401
Rigidlok[®] Coupling

⚠ WARNING



- Read and understand all instructions before use.
- Ensure system is drained and depressurized before installation or service.
- Use appropriate personal protective equipment.

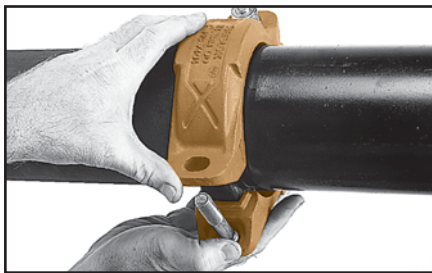
Failure to follow these instructions could result in serious personal injury and/or property damage.

Check pipe ends for proper grooved dimensions and to ensure that the pipe is free of indentations, projections, or other imperfections that would prevent proper sealing of the gasket.



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

NOTICE: Gruvlok Xtreme[™] Lubricant must be applied when used in dry pipe systems or freezer applications. separation. Pipe joint separation may result in significant property damage and serious injury.

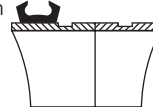


4 HOUSINGS— Remove one nut and bolt and loosen the other nut. Place one housing over the gasket, making sure the housing keys fit into the pipe grooves. Swing the other housing over the gasket and into the grooves on both pipes, making sure the tongue and recess of each housing is properly mated. Reinsert the bolt and run-up both nuts finger tight.



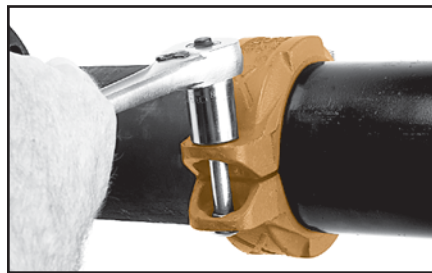
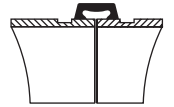
2 GASKET INSTALLATION— Slip the gasket over the pipe end making sure the gasket lip does not overhang the pipe end.

On couplings 10" and larger it may be easier to turn the gasket inside out then lubricate and slide the gasket over the pipe end as shown.



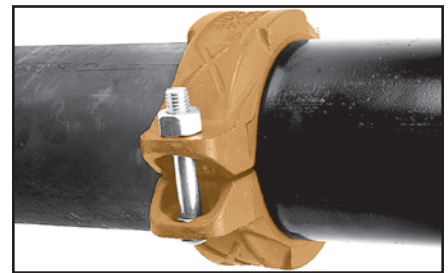
3 ALIGNMENT— After aligning the two pipe ends, pull the gasket into position centering it between the grooves on each pipe. Gasket should not extend into the groove on either pipe.

On couplings 10" and larger, flip or roll the gasket into centered position.



5 TIGHTEN NUTS— Securely tighten nuts alternately and equally, keeping the gaps at the bolt pads evenly spaced.

NOTICE: Uneven tightening may cause the gasket to pinch. Gasket should not be visible between segments after bolts are tightened.



6 ASSEMBLY IS COMPLETE— Visually inspect the pipe joint to assure the coupling keys are fully engaged in the pipe grooves. The bolt pads are to have equal gaps on each side of the coupling.

NOTICE: Visually inspect both sides of the coupling to ensure gaps between bolt pads are evenly spaced and are parallel. Any deviations must be corrected before placing coupling into service.

ANSI SPECIFIED BOLT TORQUE		
Bolt Size	Wrench Size	Specified Bolt Torque *
In.	In.	Ft.-Lbs
3/8	11/16	30-45
1/2	7/8	80-100
5/8	1 1/16	100-130
3/4	1 1/4	130-180
1	1 5/8	200-250

* Non-lubricated bolt torques.

NOTICE: Sizes 16" and larger are cast in multiple segments. To install the larger sizes align the tongue and pocket of the couplings appropriately and tighten the nuts alternately to the specified bolt torque. When properly assembled there will be a small equal gap between the adjacent bolt pads.