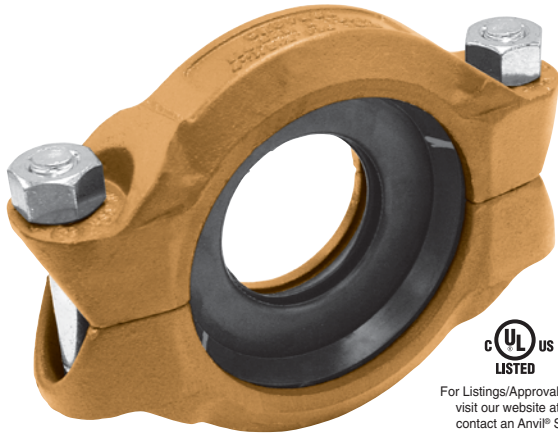


FIG. 7010 Reducing Coupling





 For Listings/Approval Details and Limitations, visit our website at www.anvilintl.com or contact an Anvil® Sales Representative.

The Fig. 7010 Reducing Coupling makes it possible to directly connect two different pipe sizes, eliminating the need for two couplings and a reducing pipe fitting. The specially designed reducing coupling gasket with a center rib assures proper positioning of the gasket and prevents the smaller pipe from telescoping into the larger during assembly. Fig. 7010 Reducing Coupling allows for working pressure ratings up to 500 PSI (34.5 bar). Not recommended for vacuum applications.

MATERIAL SPECIFICATIONS

ANSI BOLTS & HEAVY HEX NUTS:

Heat treated, oval neck track head bolts conforming to ASTM A 183 Grade 2 with a minimum tensile strength of 110,000 psi and heavy hex nuts of carbon steel conforming to ASTM A 563 Grade A or Grade B, or J995 Grade 2. Bolts and nuts are provided zinc electroplated as standard.

METRIC BOLTS & HEAVY HEX NUTS:

Heat treated, zinc electroplated oval-neck track head bolts made of carbon steel with mechanical properties per ISO 898-1 Class 8.8. Hex nuts are zinc electroplated followed by a yellow chromate dip.

HOUSING:

Ductile Iron conforming to ASTM A 536, Grade 65-45-12, or Malleable Iron conforming to ASTM A 47, Grade 32510.

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, alkalis 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.

LUBRICATION:

- Standard Gruvlok
- 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. 7010 Reducing Coupling

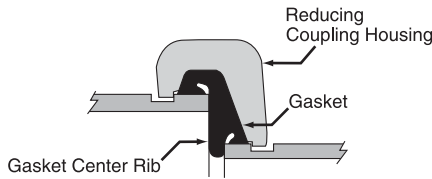


Fig. 7010
Coupling with Gasket

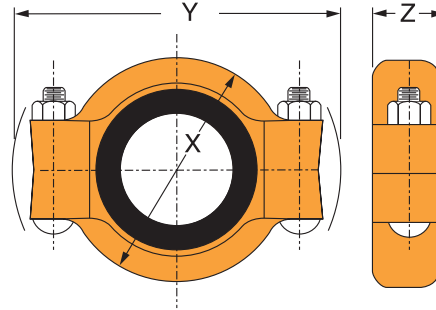


FIGURE 7010 REDUCING COUPLING

Nominal Size	Larger O.D.	Smaller O.D.	Max. Working Pressure [†]	Max. End Load	Range of Pipe End Separation	Deflection from \mathcal{C}		Coupling Dimensions			Coupling Bolts		Specified Torque \S		Approx. Wt. Ea.
						Per Coupling	of Pipe	X	Y	Z	Qty.	Size	Min.	Max.	
In./DN(mm)	In./mm	In./mm	PSI/bar	Lbs./kN	In./mm	Degrees(-Minutes [¶])	In./ft-mm/m	In./mm	In./mm	In./mm		In./mm	Ft.-Lbs./N-m	Lbs./Kg	
2 x 1½ 50 x 40	2.375 60.3	1.900 48.3	500 34.5	2,215 9.85	0-½/32 0-0.79	0° 45'	0.16 13.1	3⅝ 92	5⅞ 149	1⅞ 48	2	½ x 2¾ M12 x 76	80 110	100 150	2.0 0.9
2½ x 2 65 x 50	2.875 73.0	2.375 60.3	500 34.5	3,246 14.44	0-½/32 0-0.79	0° 37'	0.13 10.9	4¼ 108	6⅜ 162	1⅞ 48	2	½ x 2¾ M12 x 76	80 110	100 150	3.5 1.6
3 x 2 80 x 50	3.500 88.9	2.375 60.3	500 34.5	4,811 21.40	0-½/32 0-0.79	0° 31'	0.11 8.9	4⅞ 124	7⅞ 181	1⅞ 48	2	½ x 2¾ M12 x 76	80 110	100 150	4.4 2.0
3 x 2½ 80 x 65	3.500 88.9	2.875 73.0	500 34.5	4,811 21.40	0-½/32 0-0.79	0° 31'	0.11 8.9	4⅞ 124	7⅞ 181	1⅞ 48	2	½ x 2¾ M12 x 76	80 110	100 150	4.1 1.9
4 x 2 100 x 50	4.500 114.3	2.375 60.3	500 34.5	7,952 35.37	0-¾/32 0-2.38	1° 12'	0.25 20.8	6¼ 159	8⅞ 225	2 51	2	⅝ x 3½ M16 x 95	100 135	130 175	8.9 4.0
4 x 2½ 100 x 65	4.500 114.3	2.875 73.0	500 34.5	7,952 35.37	0-¾/32 0-2.38	1° 12'	0.25 20.8	6¼ 159	8⅞ 225	2 51	2	⅝ x 3½ M16 x 95	100 135	130 175	7.9 3.6
4 x 3 100 x 80	4.500 114.3	3.500 88.9	500 34.5	7,952 35.37	0-¾/32 0-2.38	1° 12'	0.25 20.8	6¼ 159	8⅞ 225	2 51	2	⅝ x 3½ M16 x 95	100 135	130 175	6.7 3.0
5 x 4 125 x 100	5.563 141.3	4.500 114.3	500 34.5	12,153 54.06	0-¾/32 0-2.38	1° 58'	0.20 16.8	7¼ 184	10⅝ 270	2½ 54	2	¾ x 4½ M20 x 115	130 175	180 245	11.4 5.2
6 x 4 150 x 100	6.625 168.3	4.500 114.3	500 34.5	17,236 76.67	0-¾/32 0-2.38	0° 49'	0.17 14.1	8¼ 210	11⅝ 295	2½ 54	2	¾ x 4½ M20 x 115	130 175	180 245	13.4 6.1
6 x 5 150 x 125	6.625 168.3	5.562 141.3	500 34.5	17,236 76.67	0-¾/32 0-2.38	0° 49'	0.17 14.1	8½ 216	11⅝ 295	2½ 54	2	¾ x 4½ M20 x 115	130 175	180 245	13.5 6.1
8 x 6 200 x 150	8.625 219.1	6.625 168.3	500 34.5	29,213 129.95	0-¾/32 0-2.38	0° 37'	0.13 10.9	10½ 267	14 356	2¼ 57	2	¾ x 4½ M20 x 115	130 175	180 245	17.7 8.0

NOTES:

Fig. 7010 Reducing Coupling should not be used with end caps in systems where a vacuum may be developed. Contact your Anvil Representative for details.
 Range of Pipe End Separation and Angular Deflection values are for roll grooved pipe and may be doubled for cut groove pipe. See the Technical Data Section of the Gruvlok Catalog for details.
 For Misalignment, Deflection and Curve Layout Calculations, refer to the Technical Data Section of the Gruvlok Catalog.
[†] 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 Gruvlok Catalog.
[§] - For additional Bolt Torque information, see the Technical Data Section of the Gruvlok Catalog.
 See Installation & Assembly directions on next page.
 Not for use in copper systems.

FIG. 7010
Reducing Coupling



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. Be careful that foreign particles do not adhere to lubricated surfaces.



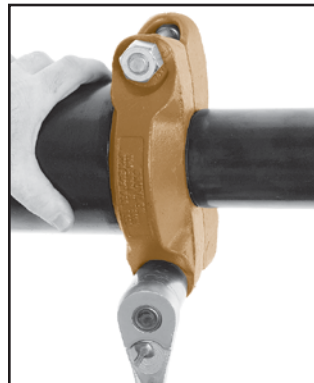
2 GASKET INSTALLATION— Place the smaller opening of the gasket over the smaller pipe. Angle the gasket over the pipe end and pull the gasket lip open around the circumference of the pipe. The center leg of the gasket should make flush contact with the pipe end and will prevent telescoping of the smaller pipe inside the larger.



3 ALIGNMENT— Align the adjoining pipe center lines, and insert the larger pipe end into the gasket. Angle the pipe end slightly to the face of the gasket and tilt the pipe into the gasket to ease assembly.

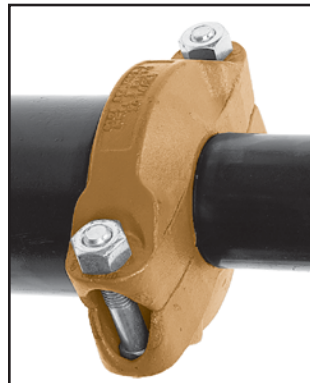


4 HOUSINGS— Place the coupling housing halves over the gasket making sure the housing keys engage the grooves. Insert bolts and turn nuts finger tight.

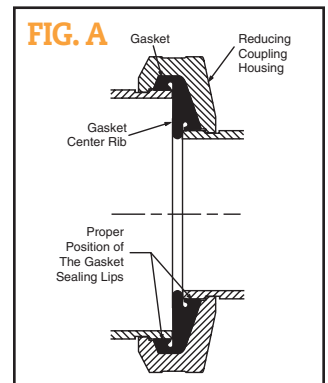


5 TIGHTEN NUTS— Tighten the nuts alternately and equally to the specified bolt torque. The housing bolt pads must make metal-to-metal contact.

CAUTION: Uneven tightening may cause the gasket to pinch.



6 ASSEMBLY COMPLETE— Visually inspect the pipe joint to assure the coupling keys are fully engaged in the pipe grooves and the bolt pads are in firm metal-to-metal contact on both sides of the coupling.



NOTE: Fig. A illustrates the correct position of the Fig. 7010 Reducing Coupling gasket and housing properly assembled onto adjacent pipe ends.

CAUTION: In vertical installations the pipes must be supported to prevent telescoping during installation.

CAUTION: Proper torquing of coupling bolts is required to obtain specified performance. Over torquing the bolts may result in damage to the bolt and/or casting which could result in pipe joint separation. Under torquing the bolts may result in lower pressure retention capabilities, lower bend load capabilities, joint leakage and pipe joint separation. Pipe joint separation may result in significant property damage and serious injury.