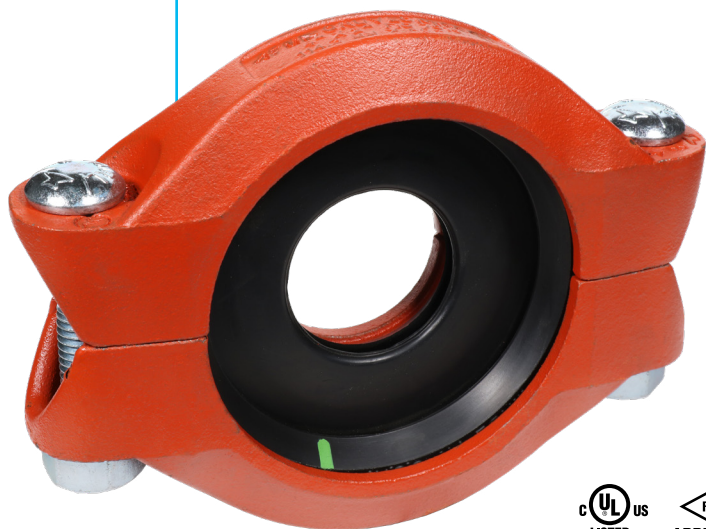


Reducing Coupling Fig. 7010



The Fig. 7010 Reducing Coupling makes it possible to directly connect two different pipe sizes, eliminating the need for two couplings and a reducing 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.

For Listings/Approval Details and Limitations, visit our website at www.asc-es.com or contact an ASC Engineered Solutions™ Sales Representative.

Material Specifications

Bolts

SAE J429, Grade 5, Zinc Electroplated
ISO 898-1, Class 8.8, Zinc Electroplated
followed by a Yellow Chromate Dip

Heavy Hex Nuts

ASTM A563, Grade A, Zinc Electroplated
ISO 898-2, Class 8.8, Zinc Electroplated
followed by a Yellow Chromate Dip

Material Specifications (continued)

Hardware Kits

304 Stainless Steel (available in sizes up to ¾")

Kit includes:

- (2) Bolts per ASTM A193, Grade B8 and
- (2) Heavy Hex Nuts per ASTM A194, Grade 8.

EcoGuard (available in sizes up to ¾")

Kit includes:

- (2) Bolts per SAE J429, Grade 5, with EcoGuard corrosion-resistant zinc flake coating and
- (2) Heavy Hex Nuts per ASTM A563, Grade A, EcoGuard corrosion-resistant zinc flake coating.

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)

Gaskets

Properties as designated in accordance with ASTM D2000

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 for Grade "L")



PROJECT INFORMATION	APPROVAL STAMP
Project:	Approved
Address:	Approved as noted
Contractor:	Not approved
Engineer:	Remarks:
Submittal Date:	
Notes 1:	
Notes 2:	

Reducing Coupling Fig. 7010

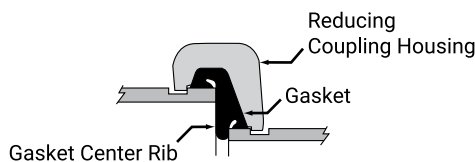
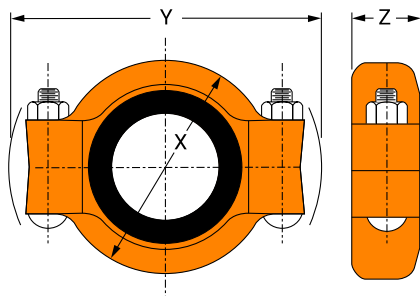


Fig. 7010 Coupling with Gasket

Nominal Size	Larger O.D.	Smaller O.D.	Max. Working Pressure †	Max. End Load	Range of Pipe End Separation	Deflection From \varnothing Per Coupling	Deflection From \varnothing of Pipe	Coupling Dimensions			Coupling Bolts Qty.	Coupling Bolts Size	Specified Torque §		Approx. Wt. Ea.
								X	Y	Z			Min.	Max.	
In./DN(mm)	In./mm	In./mm	PSI/bar	Lbs./kN	In./mm	Deg(°)-Min(')	In./Ft.-mm/m	In./mm	In./mm	In./mm	In./mm	Ft.-Lbs./N-m	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 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 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 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 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 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 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 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 0-2.38	1° 58'	0.20 16.8	7¼ 184	10⅝ 270	2⅞ 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 0-2.38	0° 49'	0.17 14.1	8¼ 210	11⅝ 295	2⅞ 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	5.563 141.3	500 34.5	17,236 76.67	0-¾ 0-2.38	0° 49'	0.17 14.1	8½ 216	11⅝ 295	2⅞ 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 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 ASC Engineered Solutions™ 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.



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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.



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.

6 Assembly is 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 even metal-to-metal contact on both sides of the coupling.

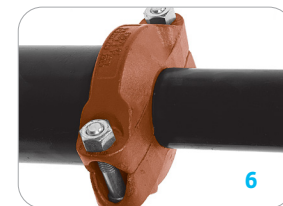
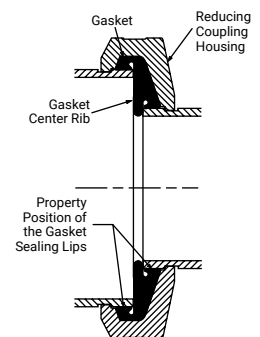


Fig. A

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.



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