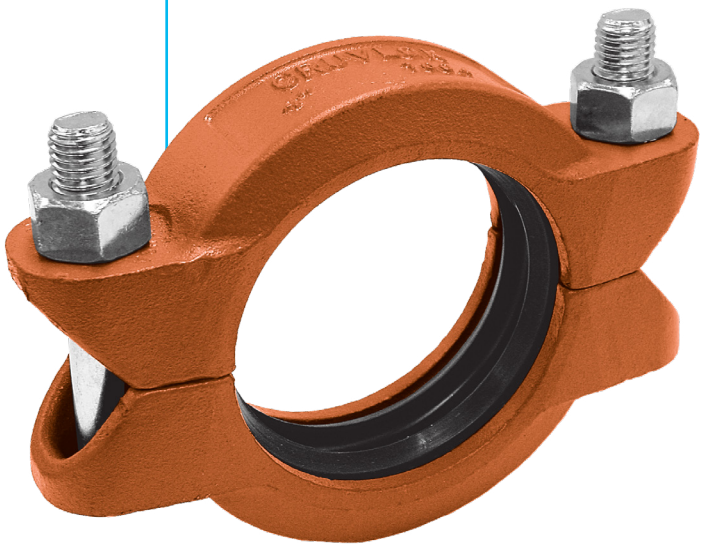
ASC Engineered Solutions

Coupling
Fig. 7004



The Gruvlok Fig. 7004 is designed to provide the versatility of a grooved joint while providing a rigid pipe joint.

The Fig. 7004 coupling permits working pressure ratings up to 1200 psi (82.7 bar).

This coupling is also suited for lower pressure systems which experience pressure pulses. Systems used for high pressure, including auto and truck washes, will benefit from the increased pressure capability.

Working Pressure & End Load values are based on grooved standard wall pipe.

Fig. 7004 provides a rigid joint and does not allow for expansion or contraction. The Fig. 7004 coupling is an ideal choice for higher pressure applications such as elevator services.

Note: Fig. 7004 can be used with EG fittings as a commercial joint only.

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

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.

Material Specifications (continued)

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 ASC Engineered Solutions™ Representative.

Gasket Materials
Properties as designated in accordance with ASTM D2000
☐ **Grade "EP" EPDM** (Green and Red color code) Standard
-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 Extreme Temperature lubricant is recommended.
☐ **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.
☐ **Grade "O" Fluoro-Elastomer** (Blue color code)
Size Range: 2" - 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)
Size Range: 2" - 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.

Gasket Type
☐ Standard C Style (2" - 12")
☐ Flush Gap (2" - 12")

Lubrication
☐ Standard Gruvlok
☐ Gruvlok Xtreme (Do Not use with Grade "L")

Working Pressure, End Load, Pipe End Separation & Deflection from Center Line
Based on standard wall steel pipe with cut or roll grooves in accordance with Gruvlok specifications. See technical data section for design factors.

GRUVLOK
An ASC Engineered Solution

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

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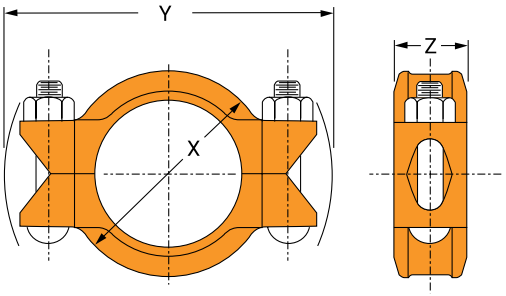
Coupling
Fig. 7004



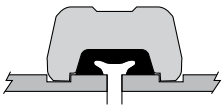


Fig. 7004 with Standard Gasket

Nominal Size	O.D.	Max. Wk. 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
2 50	2.375 60.3	1200 82.7	5,316 23.6	0-1/32 0-0.79	3 5/8 92	6 1/4 159	1 7/8 48	2	5/8 x 2 3/4 –	3.9 1.8
2 1/2 65	2.875 73.0	1200 82.7	7,790 34.7	0-1/32 0-0.79	4 1/4 108	6 7/8 175	1 7/8 48	2	5/8 x 3 1/2 M16 x 85	4.6 2.1
3 80	3.500 88.9	1200 82.7	11,545 51.4	0-1/32 0-0.79	4 7/8 124	7 1/2 191	1 7/8 48	2	5/8 x 3 1/2 M16 x 85	5.2 2.4
4 100	4.500 114.3	1200 82.7	19,085 84.9	0-3/32 0-2.38	6 1/4 159	9 1/2 241	2 1/4 57	2	3/4 x 4 1/2 M20 x 110	8.6 3.9
5 125	5.563 141.3	1000 68.9	24,306 108.1	0-3/32 0-2.38	7 1/2 191	11 279	2 1/4 57	2	7/8 x 5 1/2 M22 x 150	14.0 6.4
6 150	6.625 168.3	1000 68.9	34,472 153.3	0-3/32 0-2.38	8 3/4 222	12 1/8 308	2 1/4 57	2	7/8 x 5 1/2 M22 x 150	15.5 7.0
8 200	8.625 219.1	800 55.2	46,741 207.9	0-3/32 0-2.38	11 1/8 283	14 7/8 378	2 5/8 67	2	1 x 5 1/2 –	25.6 11.6
10 250	10.750 273.1	800 55.2	72,610 323.0	0-3/32 0-2.38	13 1/2 343	17 432	2 5/8 67	2	1 x 6 1/2 –	32.3 14.7
12 300	12.750 323.9	800 55.2	102,141 454.4	0-3/32 0-2.38	15 7/8 403	19 1/4 489	2 5/8 67	2	1 x 6 1/2 –	43.9 19.9

Note:

† 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.

See Installation & Assembly directions on next page.

Not for use in copper systems.

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Fig. 7004 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.

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

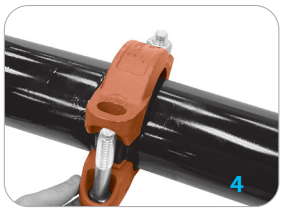
Slip the gasket over the pipe end, making sure the gasket lip does not overhang the pipe end.

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.

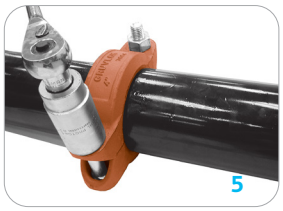
4 Housings

Place each housing halves on the pipe making sure the housing key fits into the groove. Be sure that the tongue and recess portions of the housing mate properly. Insert the bolts and run up the nuts finger tight.



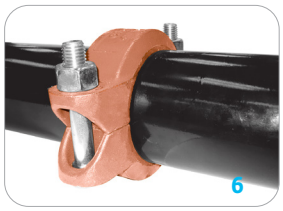
5 Tighten Nuts

Securely tighten nuts alternately and equally to the required indicator. For 2" - 4" 7004 couplings, please use the table below for required torque values. For 7004 5" and larger, tighten nuts till housings are in metal-to-metal contact.



6 Assembly is Complete

Visually inspect the pipe joint to assure the coupling keys are fully engaged in the pipe grooves. For 2" - 4", ensure the gaps on each side are evenly spaced, and for 5" and larger couplings ensure the housings are in firm even metal-to-metal contact on both sides.



Specified Bolt Torque

Size	Bolt Size	Torque
In.	In.	Ft.-Lbs
2	5/8	100-130
2½	5/8	100-130
3	5/8	100-130
4	3/4	100-130
5	7/8	*
6	7/8	*
8	1	*
10	1	*
12	1	*

* Torque required to bring housing metal-to-metal contact.

Caution: When using an impact wrench, verify that the output of the impact wrench is within the required torque range. It is recommended that a torque wrench be used for accurate assembly in order to obtain specified performance.

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