ASC Engineered Solutions

Rigidlok® Coupling
Fig. 7401–2

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: 16" 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).

Material Specifications (Continued)

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 ASC Engineered Solutions™ Representative.

Gasket 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)

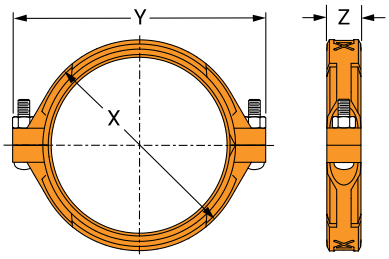
Lubrication
☐ Standard
☐ Gruvlok Xtreme

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.

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:	

Rigidlok® Coupling
Fig. 7401-2



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
16 400	16 406.4	350 24.1	70,372 313.03	0-0.25 0-6.35	18 5/16 465	22 558	3 76	2	1 x 5 1/2 –	46.0 20.9
18 450	18 457.2	350 24.1	89,064 396.18	0-0.25 0-6.35	20 3/4 527	24 1/4 615	3 1/8 79	2	1 x 5 1/2 –	62.5 28.3
20 500	20 508.0	350 24.1	109,956 489.11	0-0.25 0-6.35	23 582	27 1/8 691	3 1/8 79	2	1 1/8 x 5 1/2 –	73.5 33.3
24 600	24 609.6	350 24.1	158,336 704.31	0-0.25 0-6.35	27 1/4 688	31 1/8 791	3 3/16 81	2	1 1/8 x 5 1/2 –	90.5 41.1

Note:

Maximum end load is defined as the max allowable force from the combination of internal pressure thrust at the pipe joint and external loads based on the use of standard ASME B36.10 pipe that is grooved in accordance with ASC's groove specification.

Pressure ratings and end loads may differ for other pipe materials and/or wall thicknesses.

asc-es.com

Building connections that last™

Fig. 7401-2 Two-Piece Large Diameter Groove Couplings

WARNING

Read and understand all instructions before use.

Ensure system is drained and depressurized before installation or service.

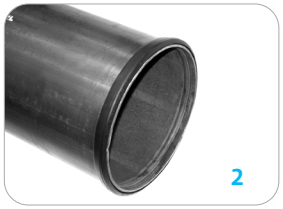
Use appropriate personal protective equipment.

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

Pipe Preparation

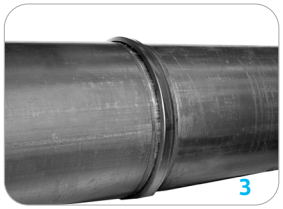
Check Pipe ends for proper grooved dimensions and to ensure that the pipe is free of indentations, projections, or other imperfections that would prevent proper sealing of the gasket.

- 7401-2 bolts must be lightly coated with Gruvlok Xtreme lube before installation. See chart for torque requirements.
- Minimum wall pipe suitable for 16" – 24": 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. Securely tighten nuts alternately and equally, keeping the gaps at the bolt pads evenly spaced.

Maximum Bolt Torque

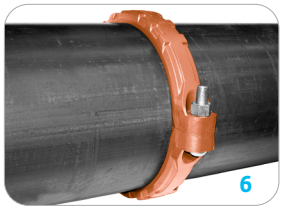
Bolt Size (In.)	Wrench Size (In.)	Ft-Lbs	Lubrication
16	1	900	Gruvlok Xtreme Lubricant
18	1	900	
20	1⅛	900	
24	1⅛	900	

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

WARNING:
Proper tightening of coupling bolts is required to obtain specified performance. Over tightening the bolts may result in joint damage. Pipe joint separation may result in significant property damage and serious injury.

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.



asc-es.com

Building connections that last™