ASC Engineered Solutions

Rigid Coupling
Fig. 6400

The Figure 6400 Rigid Coupling is specially designed to provide a rigid pipe connection to meet the specific demands of copper tubing installation size 2"–8". Fast and easy swing-over installation of the rugged lightweight housing produces a secure rigid pipe joint. Available with Grade "EP" Copper EPDM flush gap style gasket. Gasket has service temperature range of –40˚F to +250˚F.

Material Specifications

Housing
Ductile iron conforming to ASTM A536, Grade 65-45-12

Coatings
Rust inhibiting enamel paint
Color: Copper

For other coating requirements contact your ASC Engineered Solutions™ Representative.

Bolts
SAE J429, Grade 5, Zinc Electroplated

Heavy Hex Nuts
ASTM A563, Grade A, Zinc Electroplated

Gaskets
Grade "EP" EPDM Flush Gap Gasket (Copper Color Code)

Service Temperature Range: -40°F to +250°F (-40°C to +121°C)

Recommended for water service, diluted acids, alkaline solutions, oil-free air and many chemical services.

NOT FOR USE IN PETROLEUM APPLICATIONS.

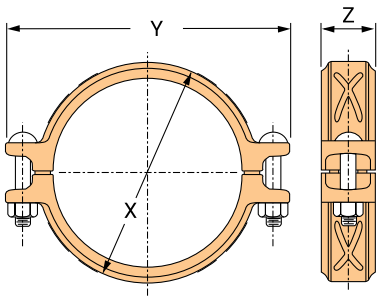
NSF 61 Certified

Lubrication
☐ Standard
☐ Gruvlok Xtreme

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:	

Rigid Coupling
Fig. 6400



Nominal Size	Copper Tube Diameter	Max Wk. Pressure	Max End Load	Range of Pipe End Separation	Coupling Dimensions			Coupling Bolts		Approx. Wt. Ea.
					X	Y	Z	Qty.	Size	
In.	In./mm	PSI/bar	Lbs./kN	In./mm	In./mm	In./mm	In./mm		In./mm	Lbs./kg
2	2.125 54.0	300 20.7	1063 4.73	0-0.08 0-2.0	3.00 76	5.00 127	1.68 43	2	⅜ x 2¼	1.53 0.69
2½	2.625 66.7	300 20.7	1623 7.22	0-0.08 0-2.0	3.50 89	5.50 140	1.68 43	2	⅜ x 2¼	1.78 0.81
3	3.125 79.4	300 20.7	2300 10.23	0-0.08 0-2.0	4.18 106	6.28 159	1.68 43	2	½ x 3	2.76 1.25
4	4.125 104.8	300 20.7	4007 17.82	0-0.13 0-2.4	5.20 132	7.50 191	1.70 43	2	½ x 3	3.27 1.48
5	5.125 130.2	300 20.7	6186 27.51	0-0.13 0-2.4	6.20 157	9.10 231	1.80 46	2	⅝ x 3¼	4.71 2.14
6	6.125 155.6	300 20.7	8835 39.30	0-0.13 0-2.4	7.20 183	10.20 259	1.80 46	2	⅝ x 3¼	5.24 2.38
8	8.125 206.4	300 20.7	15547 69.15	0-0.13 0-2.4	9.32 237	12.40 315	2.00 51	2	⅝ x 3¼	7.67 3.48

Note:

Pressure ratings and end loads are based on use with ASTM B88 Type K or L tubing. For pressure ratings on Type M and DWV, contact your ASC Engineered Solutions™ Representative.

See Installation & Assembly directions on next page.

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Building connections that last™

Fig. 6400 Rigid 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 the gasket to be sure it is compatible for the intended service. Apply a thin coating of Gruvlok® Lubricant to the entire surface, both internal and external, of the gasket. Be careful that foreign particles do not adhere to the lubricated surfaces.

2 Gasket Installation

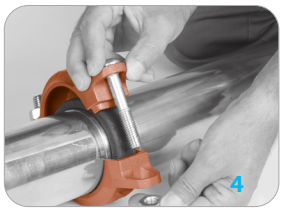
Slip the gasket over one tube, making sure the gasket lip does not overhang the tube end.

3 Alignment

After aligning the two tube ends together, pull the gasket into position, centering it between the grooves on each tube. The gasket should not extend into the groove on either tube or between the tube ends.

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 tube grooves. Swing the other housing over the gasket and into the grooves on both tubes, making sure the tongue and recess of each housing is properly mated. Re-insert the bolt and run-up both nuts finger tight.



5 Tighten Nuts

Securely tighten nuts alternately and equally to the specified bolt torque, keeping the gaps at the bolt pads evenly spaced.

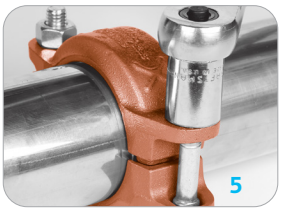
Note: Copper is a soft material, in some cases, the bolt pads may come close to metal-to-metal contact.

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

Specified Bolt Torque

Bolt Size	Wrench Size	Specified Bolt Torque*
In.	In.	Ft.-Lbs
3/8	11/16	30-45
1/2	7/8	30-45
5/8	1 1/16	60-90

* Non-lubricated bolt torques.



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.

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