

INSTALLATION INSTRUCTIONS

Read installation instructions first before installing. Check parts to ensure that no damage has occurred during transit and that no parts are missing. Also check the diameter of the pipe and the range marked on the coupling to ensure you have the proper size.

Style 400 Fabricated Steel Coupling (Smaller than 60")

PIPE ENDS

Step 1 • Pipe End Preparation: The pipe ends shall be free from indentations, projections or roll marks for a distance 2" greater than the length of the coupling. The pipe ends shall conform to the diameter and roundness tolerances stated in the table below.

NOMINAL PIPE SIZE	OD TOLERANCE		ROUNDNESS
	+	-	MIN/MAX ¹
1/2" TO ≤ 16"	0.06"	0.06"	1/8"
> 16" TO ≤ 24"	0.08"	0.08"	1/8"
> 24" TO ≤ 42"	0.10"	0.10"	1/8"
> 42" TO < 60"	0.12"	0.06"	1/8"

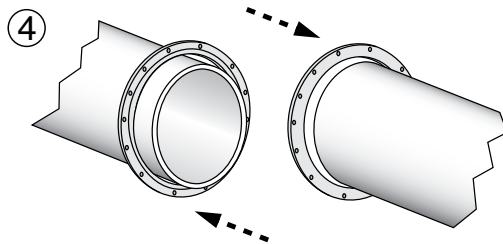
¹ Out of roundness conditions are required to be correctable so that the difference between the minimum and maximum diameters is not greater than this dimension.

ASSEMBLY

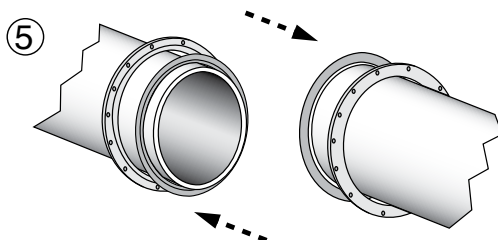
Step 2 Clean pipe ends for a distance of 2" greater than length of the coupling. Check area where gaskets will seat to make sure there are no dents, projections, gouges, etc. that will interfere with the gasket seal. Welds must be ground flush.

Step 3 Place a reference mark on pipe an equal distance from each pipe end for centering coupling over the pipe ends. If the coupling has anchor pins, see Anchor Pin Installation Guide for pipe insertion.

Step 4 Place one end ring on each pipe end.

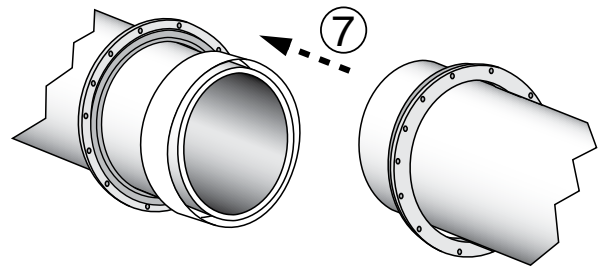


Step 5 Clean gaskets and place one gasket next to each end ring with beveled edge toward the pipe ends.

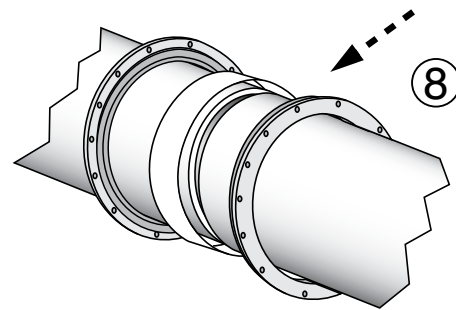


Step 6 Lubricate the gaskets and pipe surface with a suitable gasket lubricant.

Step 7 Slide center ring onto pipe end.



Step 8 Bring the other pipe end into position. Maintain recommended gap between pipe ends. See table below.



RECOMMENDED GAP BETWEEN PIPE ENDS

Center Ring Length	Straight-Run Pipe*	Deflected Joints**	Maximum Permissible In-Service Centerline Gap*
5"	0.5"	1"	2"
7"	1"	1.5"	3"
10"	1"	2.25"	4.5"

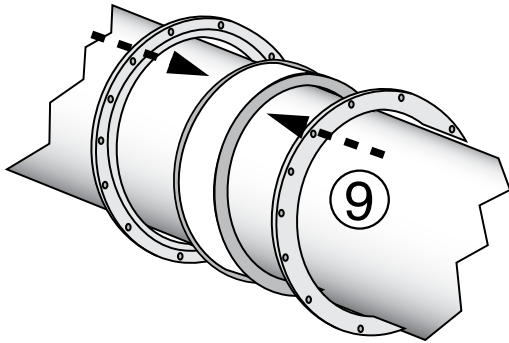
*Recommended gap between pipe ends that is not expected or able to deflect greater than 25% of stated deflection values. See Romac Catalog Page 2-25, "400 Coupling Options."

**Recommended gap between pipe ends to achieve maximum deflection. The maximum allowable deflection should only be used when the pipes will not move in service.

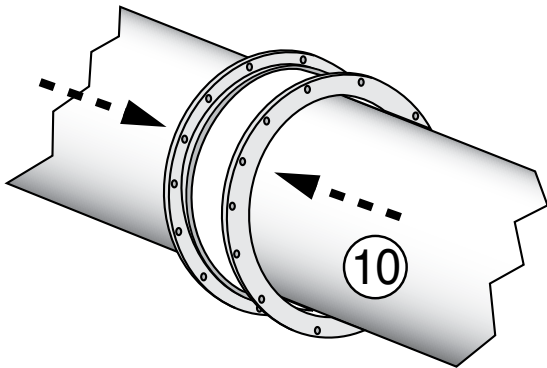
Installation Instructions continued on back

Style 400 (continued from front)

Step 9 Center ring should be positioned such that pipe entrance is equal. Slide gaskets into position with the beveled edge engaging the flared end of center ring.



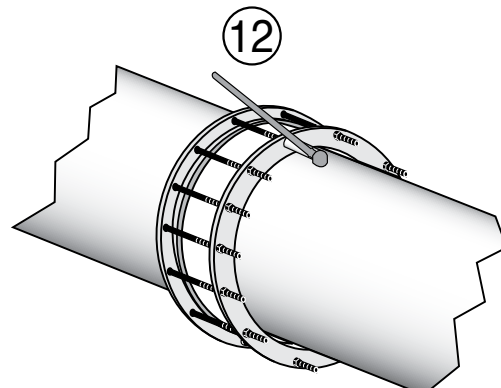
Step 10 Slide the end rings into position against the gaskets and rotate one end ring until the bolt holes line up.



Step 11 Check coupling for proper positioning over pipe ends using reference marks. (See Step 2).

Step 12 Insert and make all bolts finger-tight. It is convenient to tighten bolts by downhand wrenching. Insert the bolts so that the nuts are on the left-hand side as the installer faces the pipe.

Tighten bolts evenly, alternating to diametrically opposite positions to bring bolts to the recommended tightness. (60-70 ft-lbs. for 5/8" bolts and 85-95 ft-lbs. for 3/4" bolts).



Step 13 After pipe is pressurized check for leakage and re-torque as necessary. Test pressure is 1.5 X working pressure.



CAUTION: A pipe section should not be allowed to hang in the coupling either before or after making up the joint. Couplings are designed to "float" on the pipe ends. They are not designed to support the pipe.

CAUTION: Couplings with a step in the center ring have the potential for migrating along the pipe; therefore some form of restraint should be used.

CAUTION: When reinstalling parts with stainless steel hardware there may be a loss in pressure holding ability due to worn or damaged threads during the original installation.

CAUTION: Flexible couplings do not provide protection against axial force. Suitable anchorage should be provided.