ROMAC INDUSTRIES, INC.

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 size marked on the restrainer to ensure you have the right product.

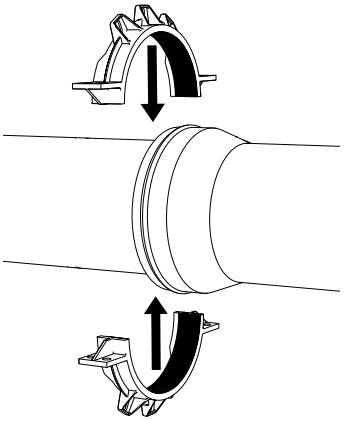
14" - 36" 611 Restrainer

for Bell Joints and Couplings

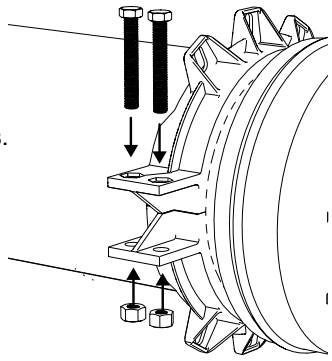
NOTE: For use on C905.

Step 1 • Assemble pipe bell joint or plain end pipe with coupling to manufacturer's recommendations.

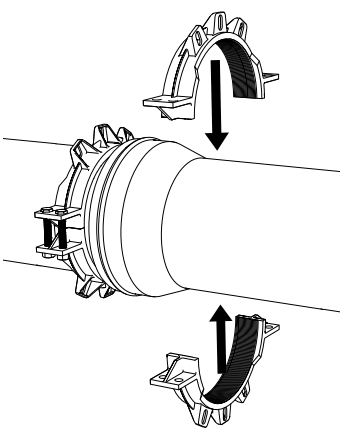
Step 2 • Assemble a pair of style 600 half rings on the spigot pipe or plain end pipe approximately two inches behind the insertion mark on the pipe. The flat side of the restrainer ear should face away from the fitting to insure proper direction of the angled serrations.



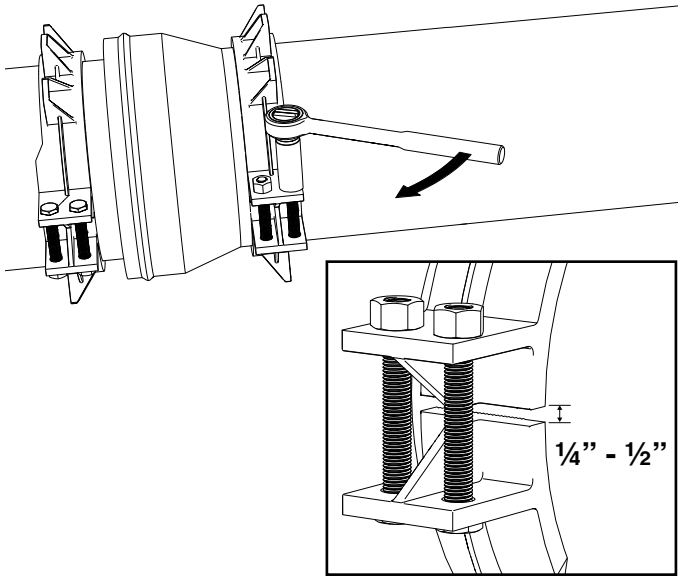
Step 3 • Insert clamping bolts.



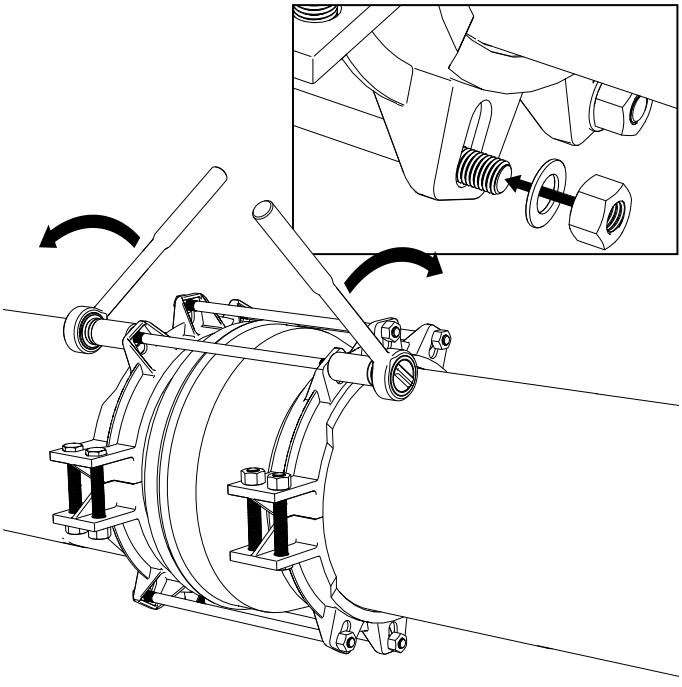
Step 4 • Install the other pair of style 600 half rings immediately behind the pipe bell end or on other plain end pipe. The flat side of the restrainer ear should face away from the fitting to insure proper direction of the angled serrations. Align the restraining ears to the previously installed style 600 so that the tie rods will run parallel to the pipe.



Step 5 • Tighten the side clamping bolts evenly to 130 ft-lbs. Expect ¼" to ½" gap on each side of the restrainer.



Step 6 • Connect the two style 600 restrainers using the tie rods provided. Place a washer & nut behind each restrainer ear and snug all of the tie rod nuts. Do not overtighten, approximately one turn with a wrench.



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INSTALLATION INSTRUCTIONS

14" - 36" 611 Restrainer

for Bell Joints and Couplings

PRESSURE RATINGS						
NOMINAL PIPE SIZE	C905					
	DR18	DR21	DR25	DR32.5	DR41	DR51
14	235	200	165	125	100	-
16	235	200	165	125	100	-
18	235	200	165	125	100	80
20	235	200	165	125	100	80
24	235	200	165	125	100	80
30	235	200	165	125	100	80
36	235	200	165	125	100	80

PRECAUTIONS

1. Check diameter of pipe to make sure you are using the correct product.
2. Clean pipe to remove as much dirt, coatings, and corrosion as possible from the surface.
3. Make sure no foreign materials become lodged between the restrainer halves or between the restrainer and pipe.
4. Avoid loose fitting wrenches, or wrenches so short that achieving proper torque is difficult.
5. Keep threads free of foreign material to allow proper tightening.
6. Bolts are often not tightened enough when a torque wrench is not used. Take extra care in this situation to make sure bolts are properly tightened.
7. Over-tightening the restraining rod nuts can dislodge the bell joint (coupling) and draw the pipe ends together. This can put excessive stress on the pipe.
8. Pressure test for leaks before backfilling.
9. Backfill and compact carefully around pipe and fittings.

COMMON INSTALLATION PROBLEMS

1. Not enough torque on clamping bolts.
2. Debris lodged between restrainer halves or between restrainer and pipe.
3. Dirty threads on bolts or nuts.
4. Not using the proper size restrainer for the pipe.
5. Forgetting to tighten clamping bolts and/or coupling bolts.

IF RESTRAINER MUST BE REMOVED

1. Make sure pipe is not pressurized. Removing the restrainer could cause the pipe joint to separate.
2. Make sure a restraining system is in place before re-pressurizing pipe.

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