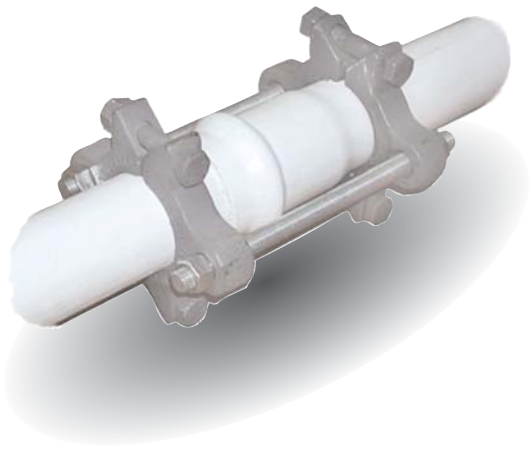
HARCO FITTINGS

Product Sheet

PIPE TO PIPE RESTRAINT



DUCTILE IRON

Eliminates Concrete Thrust Blocks

Machined Grip Rings Perform Long Term

Threaded Restraint Rods for "Even Pull"

Engineered for Durability

Eliminate Concrete Thrust Blocks

With HARCO Fitting to Pipe Restraints as well as Pipe to Pipe Restraints and Valve Restraints, underground gasketed piping can be installed without the use of concrete thrust blocks. Joint Restraint is especially useful for bridge crossings, stream crossings, unstable soils, fill areas, and places where concrete thrust blocks are awkward. Consult HARCO for a simple restrained pipe length calculation utility.

How Joint Restraint Works

Joint restraint systems tie lengths of pipe to a fitting, relying on the friction of the soil on the pipe to resist fitting thrust forces. There are times when additional lengths of pipe are required to hold the fitting. The Pipe to Pipe restraint is for this purpose. A simple restrained length calculation program allows a user to input the variables from his application and identify the joint restraint design required for his job.

The HARCO Difference

HARCO pipe grip rings are machined to ensure sharp, consistent serrations, and roundness. This allows perfect gripping of the pipe every time. Long term performance is guaranteed. The use of threaded restraint rods allowing adjustment for dimensional variations ensures that forces are distributed for even pull on the pipe and fitting. There is no danger of "cocking" that can reduce the life of the pipe. With larger fittings, forces rise considerably. HARCO's use of multiple restraint rods allow for good distribution of thrust forces about the pipe and again, assurance of long term pipe performance.

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PF132-111404

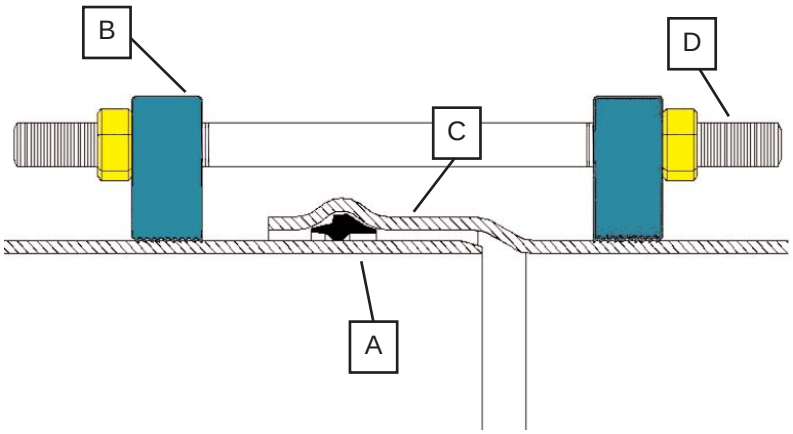
PIPE TO PIPE RESTRAINT

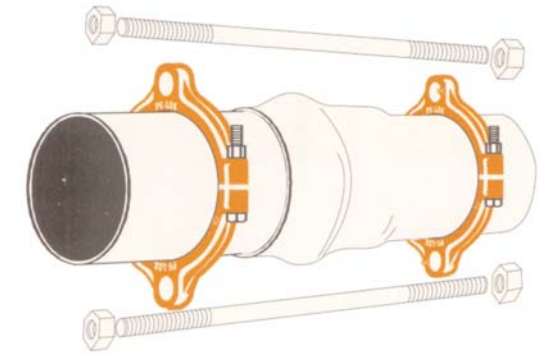
Product Sheet

ASSEMBLY INSTRUCTIONS FOR FITTING TO PIPE RESTRAINT SYSTEMS

Tools Required: (2) 12” adjustable wrenches.

Note: Exact configurations may vary from those depicted.





RESTRAINT SYSTEMS

Step 1: Assemble plain-end PVC pipe (A) into bell (C) according to pipe manufacturer's recommendations.

Step 2: Assemble the grip rings (B) on the spigot pipe, approx. 2" inches behind the insertion mark on the pipe and immediately behind the pipe bell end, making sure restraint rod holes are aligned. Tighten the side clamping bolts to 100 ft-lbs. torque (pad to pad).

Step 3: Insert the threaded rods (D) provided and snug the nuts against the grip rings. Do not over-tighten retaining nuts. Tighten nuts evenly to 5 ft.-lbs. of torque.

Ordering Information

SIZE	PART NUMBER	WEIGHT	NUMBER RESTRAINT RODS
2”	820115	7	2
2.5”	820215	7	2
3”	820615	10	2
4”	820415	14	2
6”	820615	18	2
8”	820815	26	2
10”	821015	47	4
12”	821215	52	4
14”	821415	105	6
16”	821615	115	6

Suggested Specifications

Pipe to Pipe Restraints shall meet the requirements of UNI-B-13-94. Grip ring serrations shall be machined. As cast serrations are not permitted. Restraint rods, bolts and nuts shall be of low alloy steel to AWWA/ANSI C111/A21.11. Pipe to Pipe Restraints shall be supplied by The Harrinton Corporation of Lynchburg, VA.

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