

## Joint Restraint Install Sheet

Step 1: Cut and bevel short piece of pipe 1/2" shorter than combined length of fitting and valve bells. Install pipe in fitting then install valve onto pipe pushing valve bell flush onto fitting bell.

Step 2: Assemble HARCO grip ring on pipe with the rings flush against valve bells. (as shown in diagram) After being sure of the alignment of the restraint bolt holes, tighten grip ring clamp bolts to 100 ft-lbs. of torque. For sizes up to 8" "start" the restraint rods in the grip ring before the grip ring is put in place and tightened.

Step 3: Slide restraint rods over lugs and tighten restraint rod nuts evenly to 5 ft-lbs. of torque.

