

### Model 621 Fabricated Joint Restrainer

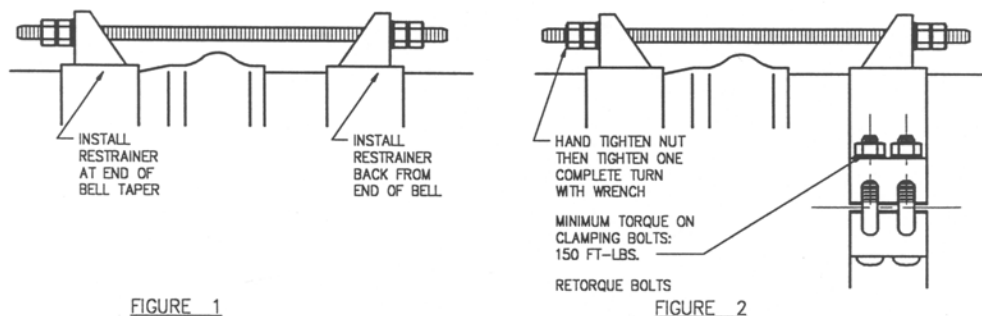
Clean and scrape pipe. Remove any scale, pipe wrap, debris or dirt that may interfere. Inspect pipe for integrity, size, outside diameter and surface irregularities. Confirm the proper size and range of restrainer. Inspect fitting to ensure all parts are included.

1. Clean pipe for distance of 2 feet from center of joint.
2. Assemble one set of restrainer rings on Spigot end of pipe, back from lip of bell. (Make certain the hollow side of the restrainer ears face toward the Bell, or center of the joint.) See Figure 1 below.

**Note 1:** For installation of restrainers prior to joint make-up, clamping bolts should be loosely tightened to maintain placement of restrainer during joint make-up. Over tightening of clamping bolts prior to joint make-up may result in ovalation of the pipe. After Bell/Spigot joint make-up is complete, tighten clamping bolts to recommended torque levels.

3. Assemble a second set of restrainer rings, back from the 15 degree angle of the Bell on the Bell end of pipe.
4. Insert long oval head bolt, or all thread rod, through center ear of both sides of the Spigot end restrainer and align with the Fitting end restrainer. Place washer and nut on thread to hold in place.
5. Tighten clamping bolts to minimum of 150 ft/lbs. Wait a few minutes and re-torque bolts again. (This should leave a gap of approximately 1/2 inch between the restrainer ends.) See Figure 2 below.
6. Insert balance of restrainer bolts. Place a washer and nut on end(s) of each bolt or rod and hand tighten. Then tighten each nut one full turn.
7. Install second nut on restrainer bolts or rods to lock into place (T621-0797)

Note: It is recommended that restrainers not be placed closer than four (4) feet on same length of pipe.



\*Ensure fitting is suitable for application (confirm size, materials, pressure ratings, line content, meets local governing & association standards, etc.). Pipeline operation forces, including pressure fluctuations, thermal expansion/contraction, movement/shifting, etc. will influence the success of the application. Inspection of the pipe integrity is the responsibility of the end user. JCM recommends the use of calibrated torque wrench. Failure to follow installation instructions will result in voided product warranty.