

Model 143 Bell Joint Leak Clamp Sizes 14" and Larger Ductile Iron, Cast Iron, C905 PVC

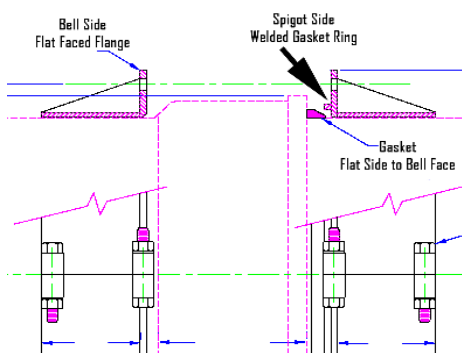
Read instructions before starting installation*

For purposes other than water, contact JCM Industries for application and product assistance.

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

For fittings furnished with stainless steel hardware, see reverse for fastener management.

2. Lubricate the pipe and the fitting gasket with soapy water. **Do not use oil base pipe lubricant.**
3. Layout the two halves (bell side, spigot side) of the fitting. The spigot half of the fitting has a raised welded gasket ring on the flange face. This half will be installed on the spigot side of the joint. The gasket ring will trap and compress the gasket into the bell cavity.



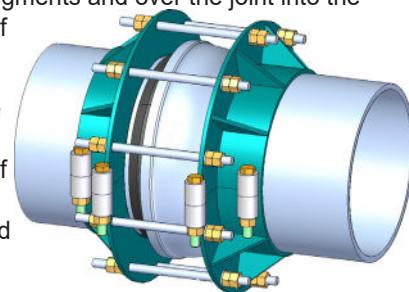
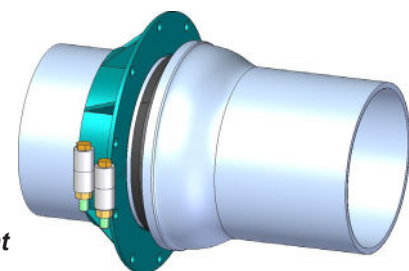
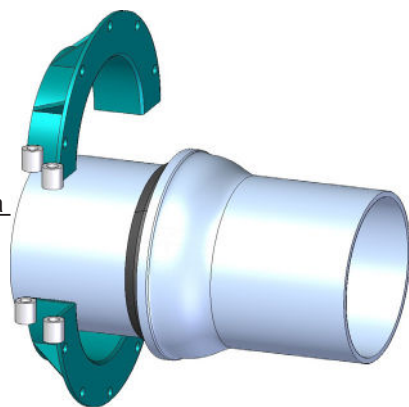
4. Install the gasket (Bevel Cut) on the spigot side of the joint with the flat side facing toward the pipe bell. For large or oversized cast iron pipe an additional gasket has been included to accommodate the pipe diameter. Gaskets may be cut to meet up. Follow original bevel angle to ensure complete match. Slide the gasket toward the joint so that flat side of the gasket meets up with the face of the bell.

Install the fabricated clamp ring segments on the spigot side of the joint. Engage the side clamping bolts loosely to allow rotation of the fitting on the pipe. **Ensure that the fabricated clamp ring joint is rotated 90° (1/4 turn) from the gasket joint.**

5. On the bell side of the joint install the second set of clamp ring segments in the same manner. Loosely bolt the segments together to allow movement. Complete installation by inserting the long rods through the segments and over the joint into the corresponding bolt holes of the opposite clamp rings. Loosely assemble nuts on the ends of the bolts.
6. Take up excess slack from side clamping bolts, but allow enough play to let the fitting move slightly on the pipe when tightening rods to compress the gasket. Hand tighten the rod nuts and ensure the spigot ring is centered on the pipe and is making full contact with the face of the gasket. Tighten the rod nuts evenly until the spigot gasket compresses against the joint and the leak stops. Tighten nuts to approximately 60 - 70 ft. lbs. of torque. Install the second set of nuts on rods and tighten to 60 - 70 ft. lbs. Complete installation by tightening side clamping bolts to approximately 80 - 100 ft. lbs. of torque.

To ensure integrity of installation, wait 15 minutes, inspect for leaking, and confirm bolt torque. If necessary, loosen clamping bolts, re-tighten rod bolts evenly as required to stop the leak. Re-tighten clamping bolts.

*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. Proper anchorage, restraint, harnessing, thrust blocks or other devices must be provided to prevent pipe movement (lateral, angular, axial) or pipe pullout from the bolt-on fitting. 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



Compliant to
NSF/ANSI 61 &
NSF/ANSI 372

INT143FAB-2025

For application review or questions contact JCM Industries at 1-800-527-8482, 903-832-2581



Stainless Steel Fastener Management and Tips and Tricks of the Trade for Successful Installation

JCM Quality Fittings Equipped With 18-8 Stainless Steel Bolts and Nuts

When not properly handled it is the nature of stainless steel fasteners to gall and freeze (seize up). This is due to the inherent properties of the stainless material. Galling and freezing is often triggered by the presence of metal chips, burrs and grains of sand on the threads of the bolts and nuts. Extra care has been taken by JCM prior to assembly and packing of this fitting to assure a trouble-free installation.

1. The nuts and bolts are made from material of different hardness so that they have different strengths.
2. Nuts are coated with a special anti-seize coating. Additional lubricant may be needed. A Molybdenum-Base lubricant is recommended.
3. Each nut is assembled by hand to be sure that it went on the bolt freely.
4. The bolts and nuts are handled carefully to avoid damage to the threads.
5. The bolts and nuts are made to exacting specifications to assure that the correct material is used and that the thread form is correct.

Stainless hardware is especially susceptible to galling. JCM supplies specially coated nuts to eliminate the galling caused by over-torquing, but the bolt threads must be kept clean, free from nicks and not pitched or thrown into the tool bucket during the installation process. Use of pneumatic wrench for installation could cause hardware to seize and is not recommended.

Tricks of the Trade

Years of field experience, special applications and product testing have revealed many subtleties regarding application and installation of bolted fittings. For maximum performance under adverse conditions take advantage of the JCM "Tricks of the Trade."

Lubricate the pipe with soap-water or water. Oil based pipe lubricants produce a film between the gasket and pipe surface that is not water soluble and can interfere with the gasket/pipe water tight seal.

Tighten the bolts in the sequence provided in the instructions. Fittings are engineered to "load" the gasket in a certain fashion. Instructions provide the "sequence" of tightening bolts. Ensure the gap between sleeve halves is equal on both sides

Confirm bolt torques with a torque wrench. Proper compression of the gasket is critical to the success of the tapping sleeve installation. A torque wrench should be used to ensure recommended levels are achieved. Most field problems are directly related to lack of proper torque levels.

Backfill carefully. Improper assembly support and careless backfilling can sabotage an otherwise perfect installation.