

# Model 143 Bell Joint Leak Clamp

4" - 12" Ductile Iron, Cast Iron, C-900 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.

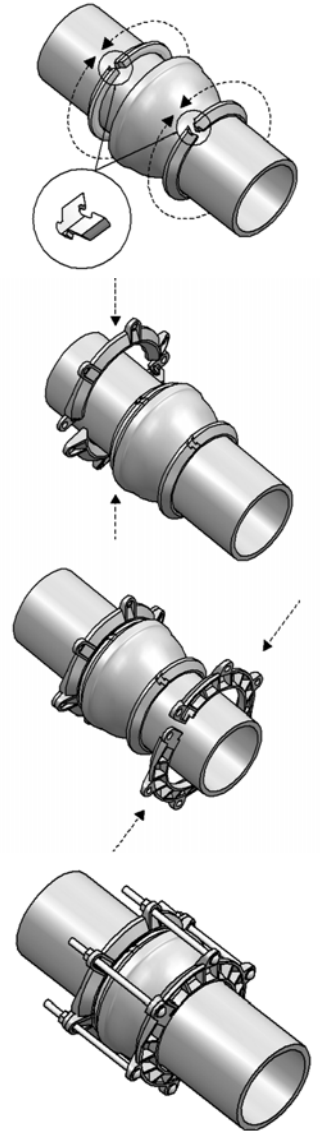
**For fittings furnished with stainless steel hardware, see reverse for fastener management.**

2. Lubricate the pipe and the fitting gasket with soapy water. **Do not use oil base pipe lubricant.**
3. Install the gasket (key locked cut for installation) 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 "key cut" gasket extender has been included to lengthen the gasket if needed. Slide the gasket toward the joint so that flat side of the gasket meets up with the face of the bell (the tapered side will fit into the ductile iron pusher ring). Interlock the key locked cut.
4. Interlock the ductile iron clamp ring segments on the spigot side of the joint. *Ensure that the ductile iron clamp ring joint is rotated 90° (1/4 turn) from the gasket joint.*

On the bell side of the joint install the second set of clamp ring segments in the same manner. Interlock the segments. To ensure proper gasket compression, rotate the ductile iron clamp ring one bolt hole turn from the spigot ductile iron ring (*i.e. do not align clamp ring joints or gasket joints*). Starting from the bell side to the spigot side, install a track head bolt through the bolts holes to hold the segments together. Complete installation by inserting the track head bolts 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. (Note: 8", 10" and 12" fittings have an additional set of long bolts to accommodate extended bells.)

5. Hand tighten the nuts and ensure the ductile iron spigot ring is centered on the pipe and is making full contact with the face of the gasket. Tighten the nuts evenly until the spigot gasket compresses against the joint and the leak stops. Tighten nuts to approximately 60 - 70 ft. lbs. of torque.

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



INT143 4-12-0115

\*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.



## Stainless Steel Fastener Management

# Model 143 Bell Joint Leak Clamp

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### JCM Quality Fitting 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. Standard 5/8" and 3/4" nuts are coated with a special blue or green (antiseize) coating. Additional lubricant may be needed. Uncoated stainless steel hardware is provided without lubrication to prevent a build up of dirt, sand or grit during shipment. **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 the **JCM 901 Master Wrench or JCM 905 Torque Wrench with Deep Socket is highly recommended.** Use of pneumatic wrench for installation could cause hardware to seize and is not recommended.