

TYPE 274 BELL JOINT LEAK CLAMP 2" - 12" SIZES INSTALLATION INSTRUCTIONS



This clamp is for use on all types of Cast Iron Bell and Spigot Pipe Joints, either Rubber Push-on or Caulked Type, Class A through D.



- Clean pipe joint thoroughly on back of bell, on bell face and on spigot where gasket will seat. Dirt, loose rust and scale must be removed from gasket seating area.
- For caulked joint installations, caulking should be flush with bell face as far as practical. Caulking should not extend beyond bell face. If recessed more than 1/8", it should be faced up with a suitable material. Keep excess material off the spigot and bell face.
- Wrap gasket around pipe with beveled side facing away from bell face and connect ends. <u>Gasket is provided with an extension piece</u> which is only to be used on larger diameter class C-D pipe. (See Figure 1)
- Assemble Spigot Ring onto pipe. (See Figure 2)
- Assemble Bell Ring onto pipe. (See Figure 3)
- Install bolts and nuts hand tight being sure that all components are in alignment. Nuts should be located on spigot end. (See Figure 4)
- Wrench tighten uniformly and progressively to approximately 60 70 foot lbs. torque. (See Figure 5)

Installation should be checked for leakage before backfilling.





TYPE 274 BELL JOINT LEAK CLAMP 14" SIZES INSTALLATION INSTRUCTIONS



This clamp is for use on all types of Cast Iron Bell and Spigot Pipe Joints, either Rubber Push-on or Caulked Type, Class A through D.



- Clean pipe joint thoroughly on back of bell, on bell face and on spigot where gasket will seat. Dirt, loose rust and scale must be removed from gasket seating area.
- Wrap gasket around pipe with beveled side facing away from bell face. (See Figure 1)
- Carefully trim any extra gasket length with a sharp knife, being sure to maintain the bias cut angle. The gasket can be held in place by stapling the two ends together using a common office stapler.
- Assemble two flange halves on each side of the bell with the beveled gasket-sealing surfaces facing the bell. Connect flange halves by installing cap screws in the side flanges. Tighten screws. (See Figures 2&3)
- Install bolts and nuts in loops, hand tighten. Be sure that all components are in alignment. Nuts should be located on spigot end. (See Figure 4)
- Wrench tighten uniformly and progressively to approximately 60 70 foot lbs. torque. (See Figure 5)

Check for leakage and recheck bolts for proper torque, prior to backfilling.

Installation should be checked for leakage before backfilling.





Installation Instructions 274 Bell Joint Leak Clamps 16'' thru 36''

FOR USE WITH EITHER CAULKED OR RUBBER RING STAB TYPE CAST IRON BELL AND SPIGOT JOINTS



1

Remove all dirt, rust and scale from the face of the bell and surface of the pipe at the joint.

2

If it is a caulked joint, the caulking material should not extend beyond the face of the bell, or be recessed more than 1%". Cut off the caulking or recaulk where necessary.



3

The KEE - LOK* feature (16" thru 24") allows the gasket to be adjusted to fit either Class A, B, C or D cast iron pipe. Place the gasket around the pipe.

If the ends of the gasket can be snapped together without the KEE - LOK[®] extension piece, the extension piece should be discarded. If the gasket does not reach around the pipe without the KEE - LOK[®] extension piece, it should be used to extend the gasket around the pipe. The 30" and 36" sizes utilize a bias cut gasket that has been partially cut at predetermined lengths to facilitate segment removal. Place gasket around pipe with "BELL FACE" mark against the bell face. Determine the correct gasket length and finish removing unneeded segment(s) with a sharp knive being careful to maintain the correct bias cut. A gasket long enough so that the ends easily contact is much better than a short gasket that requires stretching.

The pipe can also be measured with a diameter tape to determine whether or not the KEE - LOK[®] extension piece is needed.

| | Pipe O.D. | |
|----------------------------|---|---|
| Clamp Catalog Number | Class A&B Cast Iron Kee-Lok* Extension Piece Not Needed | Class C&D** Cast Iron Kee-Lok* Extension Piece Needed |
| | Inches | Inches |
| 274-1740-000 | 17.40 | 17.80 |
| 274-1950-000 | 19.50 | 19.92 |
| 274-2160-000 | 21.60 | 22.06 |
| 275-2580-000 | 25.80 | 26.32 |
| *274-3174-000 | 31.74 | 32.74 |
| *274-3796-000 | 37.96 | 38.70 |

* Available with bias cut gaskets only. * Class "D" not available in 36" size.



Lubricate the gasket and the pipe surface where the gasket will seat with soap or an acceptable gasket lubricant. Place the gasket around the pipe with large vertical flat surface against the bell face. The 30" and 36" gaskets should be placed around the pipe with the "BELL FACE" mark against the bell face.





5

The cast ring segments that make up the bell ring and spigot ring are identical and interchangeable. Each segment has two notches on one end and a single notch on the opposite end that mate with lugs in the connector links to allow the rings to be assembled at different positions to accommodate either Class A, B, C or D pit cast or centrifugally cast iron pipe.







When the connector link lugs are engaged with the second ring segment notch. the ring segment ends will be close enough together to provide a continuous compression surface against the gasket. When the connector link lugs are engaged with the first ring segment notch, there will be a gap approximately 5/8" wide between the ends of the ring segments.



8

A cast spacer should be inserted in this gap with the angular surface of the spacer aligned with the angular surface of the ring segments to provide a continuous compression surface against the gasket.

9

In the same manner (Instruction 6) install the remaining ring (bell ring) in back of the bell with the front side with the angular surface facing the bell.



6

Assemble the spigot ring adjacent to the gasket. The front side with the angular inner surface should be facing the gasket. The connecting links should be put on with the lugs engaging the notches on the ring segments to form the smallest circle that will fit around the pipe. It may be necessary to drive the connector link on with a hammer to obtain a secure connection between link and spigot ring.



10

Install bolts and nuts and torque successively in diametrically opposite positions to 50 to 70 ft. - pounds.



11 Check for leakage and recheck bolts for proper torque, prior to backfilling.

Other sizes available from Smith-Blair. See CC-274 for additional information.

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SMITH-BLAIR INC. INSTALLATION INSTRUCTIONS

FABRICATED MODEL 274 BELL JOINT LEAK CLAMP WITH PLATE FLANGES

- 1. Clean the pipe joint thoroughly on all bell faces and pipe surfaces where the gasket will seal. Dirt, loose rust and scale must be removed from gasket seating area.
- 2. Wrap the gasket around the pipe with the beveled side facing away from the bell face.
- 3. Carefully trim any extra gasket length with a sharp knife, being sure to maintain the bias cut angle. The gasket can be held in place by stapling the two ends together using a common office stapler.
- 4. Assemble two flange halves on each side of the bell with the beveled gasket-sealing surface facing the bell. Connect flange halves by installing cap screws in the holes in the side flanges. Tighten screws.
- 5. Install studs in flange holes and hand tighten. Be sure that all components are in alignment. Tighten all bolts evenly to 85-90 ft. lbs.
- 6. Check for leakage and recheck studs for proper torque, prior to backfilling.

