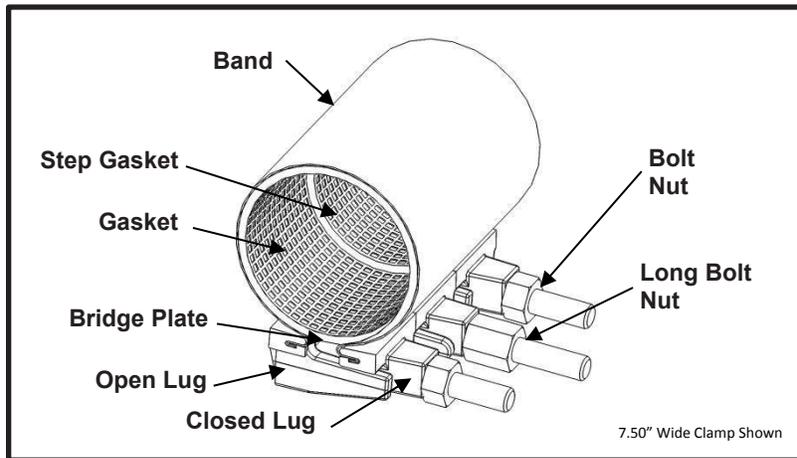


SPECIFICATION

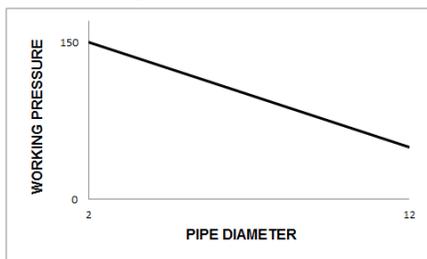
FULL CIRCLE[®] COLLAR-LEAK REPAIR CLAMP

MODEL 229



APPLICATIONS

- **Typical Uses**
 - Repair leaking PVC solvent weld bell pipe end (.25" maximum bell height).
 - Repair leaks at threaded steel couplings (.25 maximum coupling height).
- **Standard Pipe Sizes**
 - 2" to 12" nominal
- **Standard Widths**
 - 7.5", 12.5"
- **Type of Pipe**
 - Class 160 PVC Solvent Weld Bells, Carbon Steel
- **Working Pressure**
 - Up to 150 psi depending on type of pipe, type of repair, pipe diameter, service conditions and installation workmanship



MATERIALS

- **Band**
 - Type 304 Stainless Steel per ASTM A240
 - Band Thickness: 24 gauge thick for clamps 4.50" diameter and smaller
20 gauge thick for clamps 4.80" diameter and larger
 - Hemmed ends for lug removal in tight applications



SPECIFICATION

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- **Lugs**
 - Cast using Ductile Iron 80-55-06 per ASTM A536
 - Flexi-Coat[®] fusion bonded epoxy finish
 - Slot cast in lug to capture band hem
 - Designed for drop in replaceable bolts
 - One open loop lug and one closed loop lug. The bolts do not have to be removed to install clamp, preventing lost hardware
 - Long interlocking fingers allow for up to 0.40 inches of range in clamp
 - Interchangeable lugs allow combining smaller diameter clamps to create larger diameter clamps
 - Mutually supporting sliding fingers assures proper bolt alignment and permits maximum clamping without bending bolts
- **Gasket**
 - Nitrile (Buna-N) per ASTM D2000
 - Gasket Thickness: 0.192" thickness for clamps 4.50" diameter and smaller
0.218" thickness for clamps 4.80" diameter and larger
 - Certified to NSF/ANSI 61-G & 372
 - Compounded to resist water, oil, natural gas, acids, alkalies, most (aliphatic) hydrocarbon fluids, and many other chemicals
 - Temperature range: -20°F to +180°F
 - Full 360° gridded face gasket provides maximum pipe support, reinforcement, and sealing pressure
 - Tapered ends allow for full circumferential sealing
 - Step gasket designed to compensate for the differential in the O.D. between the coupling or bell and the mating pipe (0.25" maximum O.D. differential)
 - Step gasket provides a shoulder to compress against the end of the coupling or bell to form an effective seal at the point of leak
- **Bridge Plate**
 - Type 304 Stainless Steel quarter-hard per ASTM A240
 - Molded and recessed into gasket
 - Preformed for uniform distribution of gasket pressure over the entire pipe circumference
- **Bolts**
 - HSLA Carbon Steel per AWWA C111/A21.11
 - 5/8"-11UNC x 6.00" long, Track Head Oval Neck
 - Fe/Zn coated per ASTM F1941-10
 - Rolled threads for improved physical characteristics, greater thread accuracy, and smooth surface finish
 - Drop in replaceable bolts
- **Long Bolts**
 - HSLA Carbon Steel per AWWA C111/A21.11
 - 5/8"-11UNC x 6.88" long, Track Head Oval Neck
 - Rolled threads for improved physical characteristics, greater thread accuracy and smooth surface finish
 - Fe/Zn coated per ASTM F1941-10
 - Used on clamps 4.50" diameter and smaller to facilitate the initial clamp installation
 - Drop in replaceable bolts
- **Nuts**
 - HSLA Carbon Steel per AWWA C111/A21.11
 - 5/8"-11UNC, Heavy Hex Semi-Finished
 - Fe/Zn coated per ASTM F1941-10



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- **Long Nuts**
 - HSLA Carbon Steel per AWWA C111/A21.11
 - 5/8"-11UNC x 1.00" long, Heavy Hex Semi-Finished
 - Fe/Zn coated per ASTM F1941-10
 - Used to provide hand tightening during initial clamp installation

LISTINGS

- Certified to NSF/ANSI 61-G & 372
- Meets applicable AWWA C230 standards

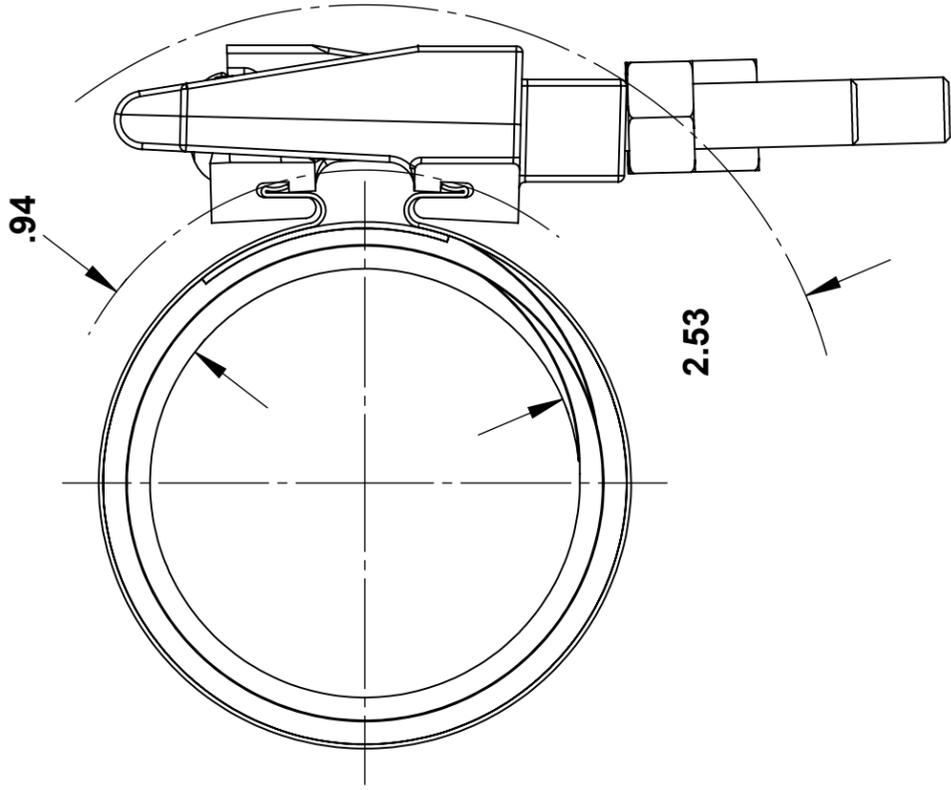
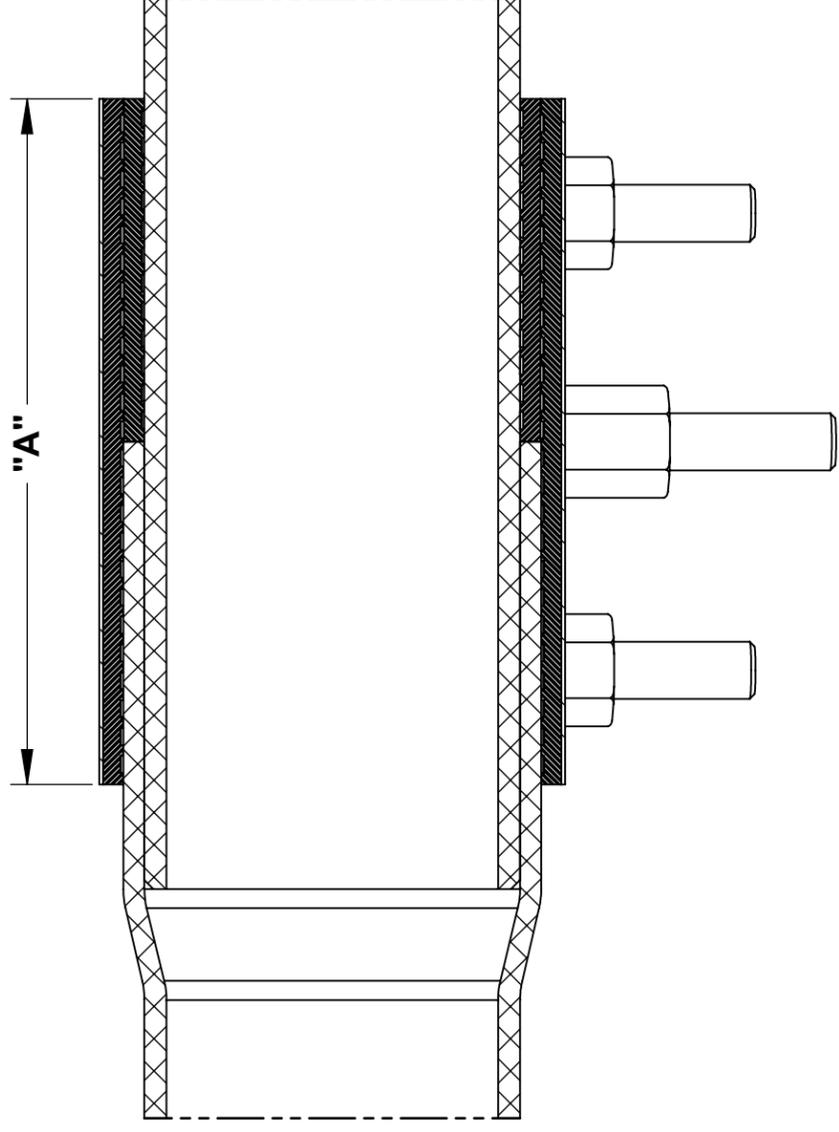
OPTIONS

- Step on both ends
- Type 316 Stainless Steel band
- Type 304 Stainless Steel hardware with fluoropolymer coated nuts to prevent galling
- Type 316 Stainless Steel hardware with fluoropolymer coated nuts to prevent galling
- Alternative gasket material (e.g. Viton, EPDM, etc.)
- Taller bell or fitting heights

NOTES

- This product **does not** restrain the pipe from pulling out of the fitting
- Full Circle[®] is a registered trademark of Smith-Blair Inc.
- These product specifications were correct at the time of publication and are subject to change without notice
- See the Smith-Blair[®] web site for part numbers and ordering information
- See the Smith-Blair[®] web site for warranty information
- See the Smith-Blair[®] web site for corrosion warnings

30 Globe Ave, Texarkana, AR 71854
Ph: 870-773-5127 • Fax: 870-773-5212
Toll-Free Numbers: Ph: 800-643-9705 • Fax: 800-648-6792



TYPICAL INSTALLATION

- NOTES:**
1. LONG OVAL NECK BOLTS ONLY PROVIDED ON CLAMPS 4.50" DIAMETER AND SMALLER
 2. 7.50" WIDE CLAMP SHOWN OTHER SIZES SIMILAR
 3. SEE SMITH-BLAIR CATALOG FOR AVAILABLE PIPE DIAMETER AND WIDTH COMBINATIONS AS SOME COMBINATIONS ARE NOT AVAILABLE

| A | BOLT QUANTITY | | LONG NUT QUANTITY | SOCKET SIZE |
|-------|---------------|------|-------------------|-------------|
| | SHORT | LONG | | |
| 7.50 | 2 | 1 | 1 | 1-1/16" |
| 12.50 | 3 | 2 | 2 | |

CERTIFIED TO NSF/ANSI 61-G & 372

| | | | |
|---|--|-------|------|
| TOLERANCES U.N.O. XX= ±.03 XXX= ±.015 FRACTIONS= 1/16 ANGLES= ±1° MACH. FIN= | NOTES: REMOVE BURRS AND SHARP EDGES DO NOT SCALE DWG. | APP'D | DATE |
| ALL DIMENSIONS ARE IN INCHES. | SCALE: N/A | CK'D | DATE |
| | | DRN | DATE |

TITLE
SPECIFICATION
FULL CIRCLE® COLLAR-LEAK REPAIR CLAMP
MODEL 229

| | | |
|---|---------------------|--------------|
| SMITH-BLAIR, Inc. TEXARKANA, ARKANSAS | P/N | N/A |
| | SPEC_229.DRW | 1 OF 1 SHEET |
| | DWG. NO. | 2/22/16 REV. |