

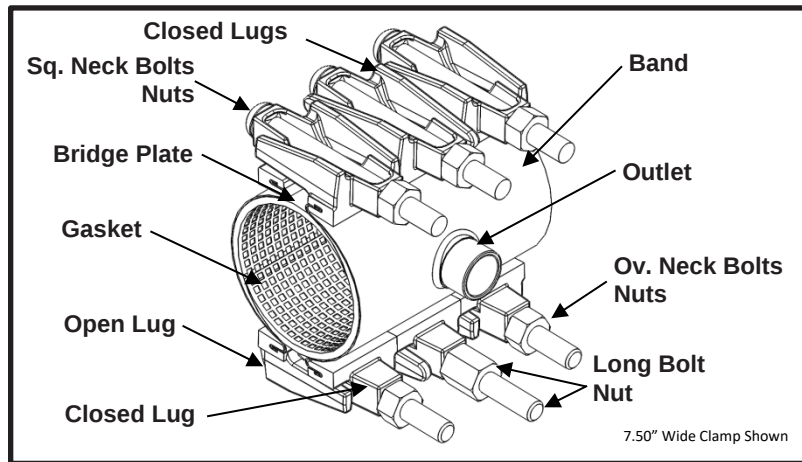


Smith-Blair  
a xylem brand

# SPECIFICATION

## FULL CIRCLE<sup>®</sup> TAPPED REPAIR CLAMP

### MODEL 235



***Do not tap through this product!!!***  
***Only use for repair or installations where the pipe is drilled prior to installation.***

#### APPLICATIONS

- **Typical Uses**
  - Repair leaks at broken or torn out service connections or branch lines
  - For use on installations where the pipe is drilled prior to installation
- **Standard Pipe Sizes**
  - 4" to 12" nominal
- **Standard Taps**
  - NPT: 1/2", 3/4", 1", 1-1/4", 1-1/2", 2"
  - See Smith-Blair catalog for available pipe diameter and tap size combinations as some combinations are not available
- **Standard Widths**
  - 7.5", 10", 12.5", 15"
- **Type of Pipe**
  - Carbon Steel, Stainless Steel, Cast Iron, Aluminum
- **Working Pressure**
  - 125 psi

#### MATERIALS

- **Band**
  - Type 304 Stainless Steel per ASTM A240
  - Band Thickness: 20 gauge thick for clamps 6.90" diameter and smaller  
19 gauge thick for clamps 8.63" diameter and larger
  - Hemmed ends for lug removal in tight applications
- **Lugs**
  - Cast using Ductile Iron 80-55-06 per ASTM A536
  - Flexi-Coat<sup>®</sup> 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



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- **Gasket**
  - Nitrile (Buna-N) per ASTM D2000
  - Gasket Thickness: 0.250"
  - Compounded to resist oil, natural gas, acids, alkalis, 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
- **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
- **Outlet**
  - Type 304 Stainless Steel per ASTM A276
  - Tap size marked on outlet neck for rapid identification
  - Welds accomplished using qualified welders
  - GTAW weld process utilized
- **Bolts**
  - High Strength Low Alloy (HSLA) Steel
  - Size: 5/8"-11UNC x 6.00" long, Track Head Oval Neck (closed lug to open lug)  
5/8"-11UNC x 6.88" long, Track Head Square Neck (closed lug to closed lug)
  - Rolled threads for improved physical characteristics, greater thread accuracy, and smooth surface finish
  - Fe/Zn coated per ASTM F1941-10
  - Drop in replaceable bolts
- **Long Bolt**
  - HSLA Steel
  - 5/8"-11UNC x 6.88" long, Track Head Oval Neck (closed lug to open lug)
  - Rolled threads for improved physical characteristics, greater thread accuracy, and smooth surface finish
  - Fe/Zn coated per ASTM F1941-10
  - Used on clamps 4.80" diameter and smaller to facilitate the initial clamp installation
  - Drop in replaceable bolts
- **Nuts**
  - HSLA Steel
  - 5/8"-11UNC, Heavy Hex Semi-Finished
  - Fe/Zn coated per ASTM F1941-10
  -
- **Long Nut**
  - HSLA Steel
  - 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



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#### LISTINGS/STANDARDS

- Meets applicable D.O.T. Title 49 Section 192 regulations
- Flexi-Coat<sup>®</sup> Fusion-Bonded Epoxy Coating meets requirements of AWWA C213

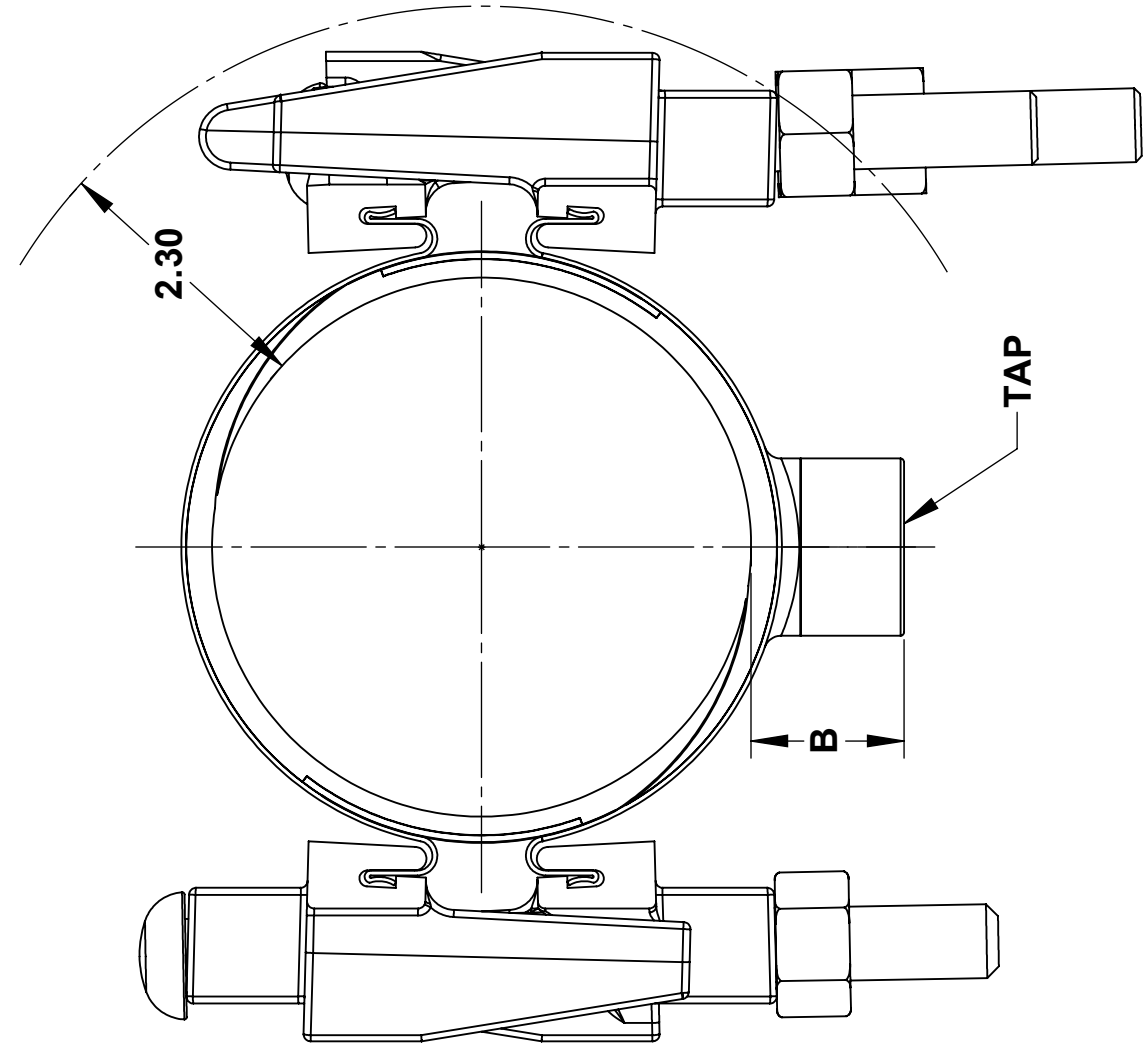
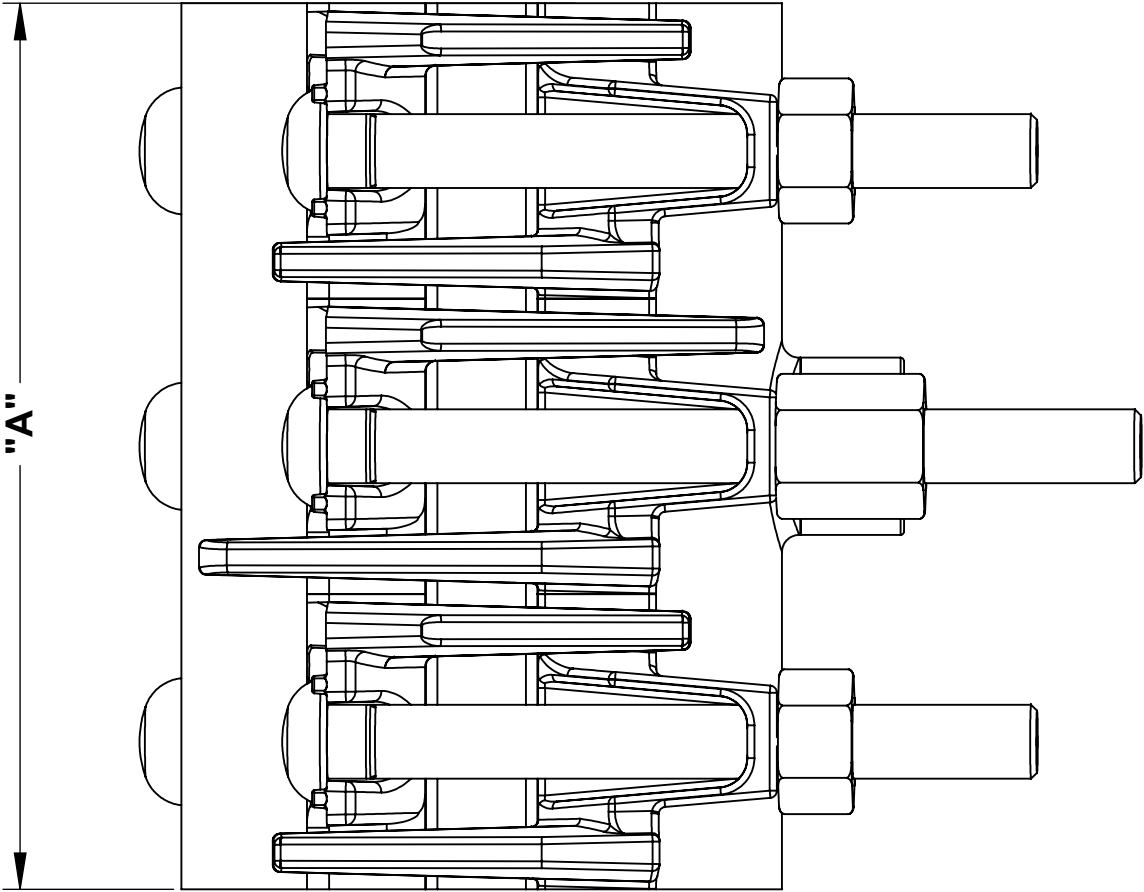
#### OPTIONS

- 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. Buna-N, EPDM, etc.)
- Conductivity feature
- Clamps up to 30" wide

#### NOTES

- Full Circle<sup>®</sup> is a registered trademark of Smith-Blair
- These product specifications were correct at the time of publication and are subject to change without notice
- See the Smith-Blair website for part numbers and ordering information
- See the Smith-Blair website for warranty information
- See the Smith-Blair website for corrosion notice

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

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| A     | BOLT QUANTITY |      |             |       |   | LONG NUT QUANTITY | SOCKET SIZE |
|-------|---------------|------|-------------|-------|---|-------------------|-------------|
|       | OVAL NECK     |      | SQUARE NECK | TOTAL |   |                   |             |
|       | SHORT         | LONG |             |       |   |                   |             |
|       | 7.50          | 2    | 1           | 3     | 6 |                   |             |
| 10.00 | 2             | 2    | 4           | 8     | 2 |                   |             |
| 12.50 | 3             | 2    | 5           | 10    | 2 |                   |             |
| 15.00 | 4             | 2    | 6           | 12    | 2 |                   |             |

| TAP CHART |        |     |  |
|-----------|--------|-----|--|
| B         | SIZE   | NPT |  |
| 1.30      | 1/2"   | 03  |  |
|           | 5/8"   | -   |  |
|           | 3/4"   | 06  |  |
| 1.50      | 1"     | 08  |  |
|           | 1-1/4" | 10  |  |
|           | 1-1/2" | 12  |  |
|           | 2"     | 14  |  |

|                                                                                                                          |                                                                |                                  |             |
|--------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------|----------------------------------|-------------|
| TOLERANCES U.N.O.<br>XX= +.03<br>XXX= +.015<br>FRACTIONS=<br>ANGLES=+1°<br>MACH. FIN=                                    | NOTES:<br>REMOVE BURRS<br>AND SHARP EDGES<br>DO NOT SCALE DWG. | APP'D                            | DATE        |
|                                                                                                                          |                                                                | CK'D                             | DATE        |
|                                                                                                                          | SCALE: N/A                                                     | DRN                              | CHD         |
| ALL DIMENSIONS ARE IN INCHES.                                                                                            |                                                                | DRN                              | DATE        |
| TITLE                                                                                                                    |                                                                | SPECIFICATION                    |             |
|                                                                                                                          |                                                                | FULL CIRCLE® TAPPED REPAIR CLAMP |             |
|                                                                                                                          |                                                                | MODEL 235                        |             |
|  <i>Smith-Blair</i><br>a xylem brand |                                                                | P/N N/A                          |             |
|                                                                                                                          |                                                                | SPEC_235.DRW                     | 4 OF 4      |
|                                                                                                                          |                                                                | DWG. NO.                         | 8/1/17 REV. |