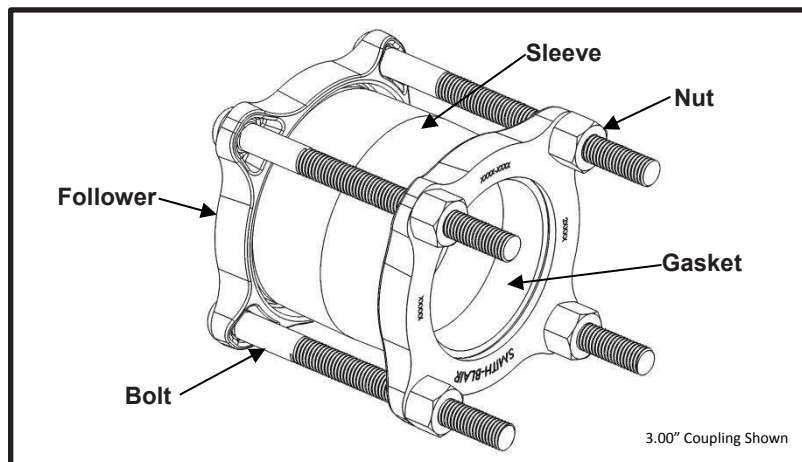




# SPECIFICATION

## OMNI™ CAST COUPLING – STD SLEEVE

### MODEL 441



#### APPLICATIONS

- **Typical Uses**
  - Joining plain-end pipe of same outside diameters
  - Joining plain-end pipe of different outside diameters with same nominal size
  - Replace split or excessively damaged pipe
- **Standard Pipe Sizes**
  - 2" to 16" nominal
- **Type of Pipe**
  - Carbon Steel, Stainless Steel, Ductile Iron, Asbestos Cement, PVC, HDPE (*with stiffeners*)
- **Working Pressure**
  - 250 psi

#### MATERIALS

- **Follower**
  - Cast using Ductile Iron 65-45-12 per ASTM A536
  - Flexi-Coat® fusion bonded epoxy finish
  - Flanges color coded for rapid and correct installation: Red for Iron pipe size, Blue for Ductile Iron pipe size, and Gray for Asbestos Cement
  - Permanently marked with part number and pipe size range for proper selection
  - Integral bolt head pocket for one wrench installation
- **Sleeve**
  - Cast using Ductile Iron 65-45-12 per ASTM A536
  - Flexi-Coat® fusion bonded epoxy finish
  - Single sleeve design for each nominal pipe size reducing inventory
  - Designed to provide up to 2.40" of range with a single assembly
- **Gasket**
  - Nitrile (Buna-N) per ASTM D2000
  - Compounded to resist water, oil, natural gas, acids, alkalies, most (aliphatic) hydrocarbon fluids, and many other chemicals
  - Temperature range: -20°F to +180°F
  - For Ductile Iron and Asbestos Cement pipe, the gaskets sealing surface has molded in ribs for maximum sealing on textured pipe
  - Permanently marked with part number and pipe size range for proper selection



# SPECIFICATION

## OMNI™ CAST COUPLING – STD SLEEVE

### MODEL 441

- **Bolts**
  - High Strength Low Alloy (HSLA) Steel per AWWA C111/A21.11
  - 5/8”-11UNC, Track Head Oval Neck
  - Rolled threads for improved physical characteristics, greater thread accuracy, and smooth surface finish
- **Nut**
  - HSLA Steel per AWWA C111/A21.11
  - 5/8”-11UNC, Heavy Hex Semi-Finished

#### LISTINGS

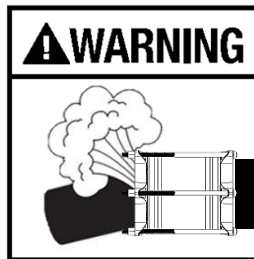
- Certified to NSF/ANSI 61 and NSF/ANSI 372
- Meets applicable portions of AWWA C219
- Flexi-Coat® Fusion-Bonded Epoxy Coating meets requirements of AWWA C213

#### OPTIONS

- 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.)
- Protected gasket (brass spring molded into leading edge)
- Anode connector
- Insulating boot

#### NOTES

- Pipe stiffeners **are required** when this product is used on HDPE
- Flexi-Coat® is a registered trademark of Smith-Blair, Inc.
- Omni™ is a 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 website for part numbers and ordering information
- See the Smith-Blair website for warranty information
- See the Smith-Blair website for corrosion notice



THIS PRODUCT DOES NOT RESTRAIN PIPE MOVEMENT. Proper anchoring is required to prevent pipe pullout. Failure to anchor or improper anchoring can result in dangerous pipe content escape, property damage, serious injury, or death. Read the product installation instructions prior to installing this product.



36 Hudson Rd  
Sudbury MA 01776



800-225-4616  
www.tisales.com

# SPECIFICATION

## OMNI™ CAST COUPLING – STD SLEEVE MODEL 441

---

### Recommended Pipe to Pipe Centerline Gaps

| Sleeve Length   | Optimum Gaps |                  | Maximum Gap          |
|-----------------|--------------|------------------|----------------------|
|                 | Straight Run | Deflected Joints |                      |
| 5"              | 1/2"         | 1"               | 2"                   |
| 7"              | 1/2"         | 1-1/2"           | 3"                   |
| 10"             | 1"           | 2-1/4"           | 4-1/2"               |
| Longer Than 10" | 1"           | 2-3/4"           | "Sleeve Length" – 6" |

*Pipe gap to be centered in coupling sleeve.*

### Total Maximum Allowable Axial Pipe Movement per Coupling

| Coupling Size      | Allowable Movement |
|--------------------|--------------------|
| 3/4" to 2"         | 1/8"               |
| 2-1/2" to 10"      | 1/4"               |
| 10-3/4" and Larger | 3/8"               |

### Pipe End Tolerances

| Nominal Pipe Size | Minus Tolerance | Plus Tolerance |
|-------------------|-----------------|----------------|
| 1/2" up to 16"    | -0.06           | +0.06          |

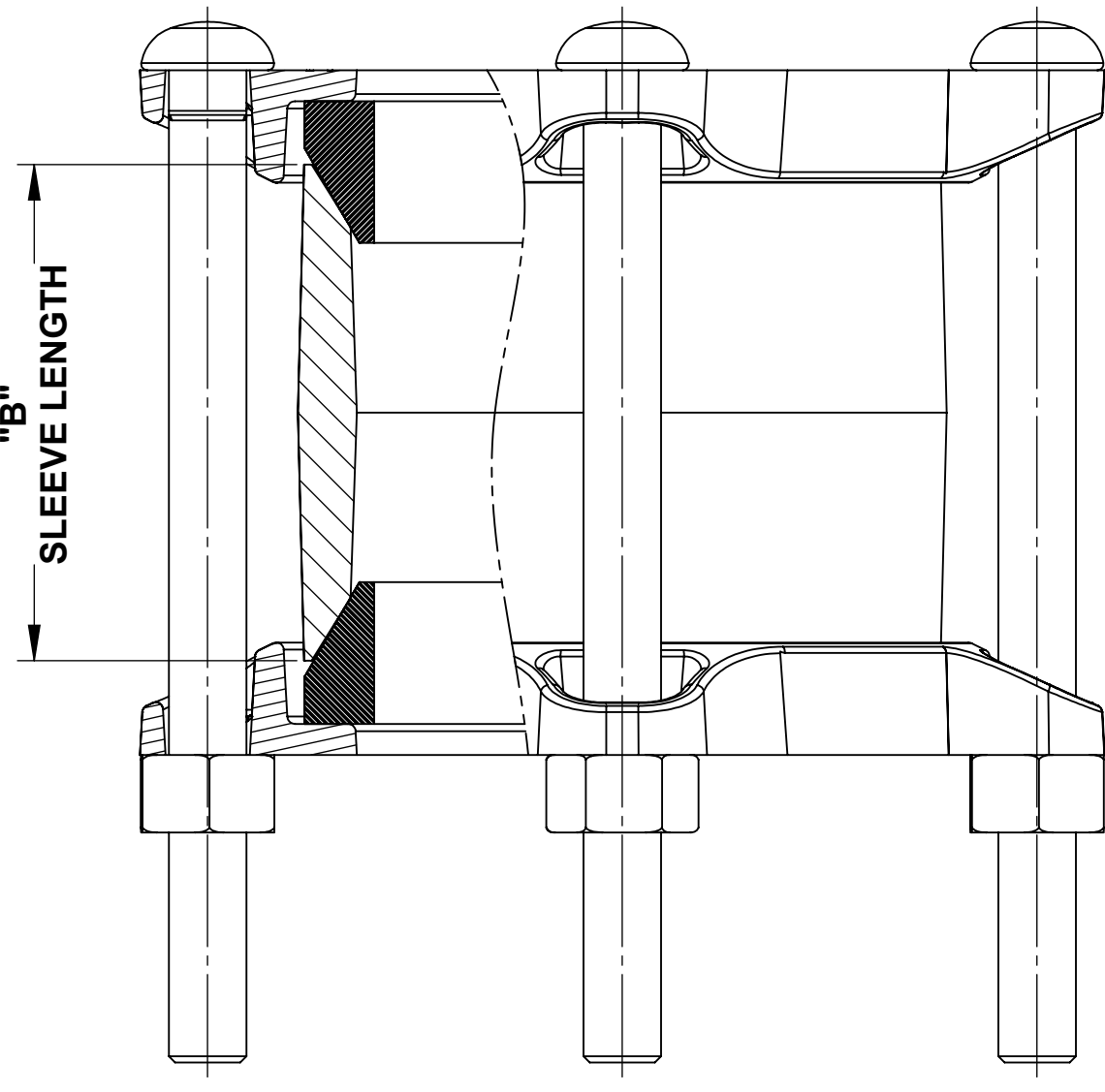
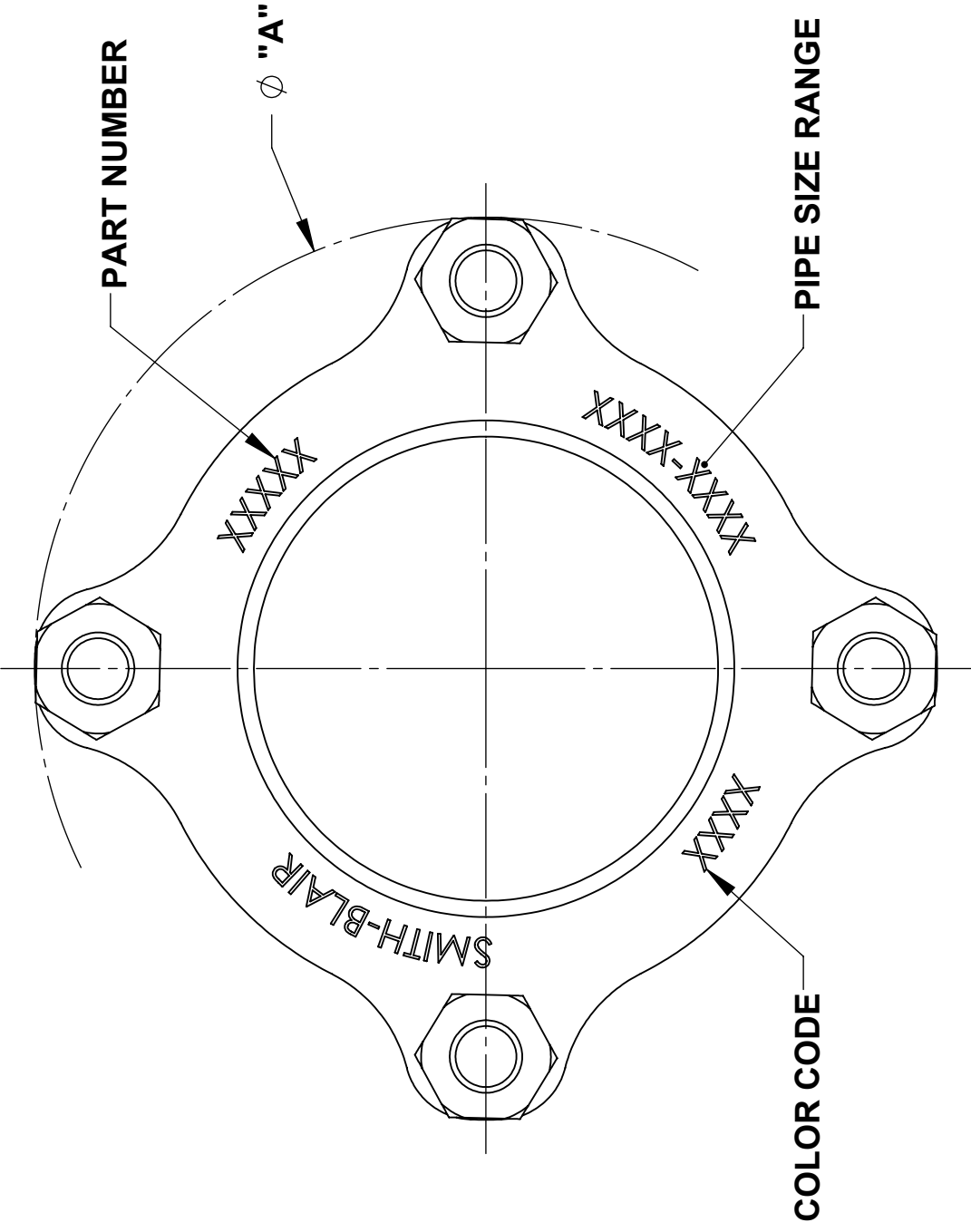
**Maximum Angular Deflection per Coupling 4° (Pipe-to-Pipe) 2° (Pipe-to-Sleeve)**



36 Hudson Rd  
Sudbury MA 01776



800-225-4616  
www.tisales.com



- NOTES:**  
 1. SEE SMITH-BLAIR CATALOG FOR PIPE RANGE AVAILABILITY  
 2. 6" COUPLING SHOWN OTHER SIZES SIMILAR

| NOM. PIPE SIZE | PIPE O.D. RANGE | A     | B    | HARDWARE |               | APPROX WEIGHT (LBS) |
|----------------|-----------------|-------|------|----------|---------------|---------------------|
|                |                 |       |      | QTY.     | SIZE          |                     |
| 2              | 2.34 TO 2.63    | 6.01  | 4.00 | 2        | 5/8" X 8.00"  | 9                   |
| 2.50           | 2.65 TO 2.88    | 6.52  | 4.00 | 2        | 5/8" X 8.00"  | 9                   |
| 3              | 2.85 TO 4.14    | 7.78  | 4.00 | 4        | 5/8" X 8.00"  | 14                  |
| 4              | 4.00 TO 5.45    | 9.01  | 5.00 | 5        | 5/8" X 8.00"  | 15                  |
| 6              | 6.00 TO 7.65    | 11.28 | 5.00 | 5        | 5/8" X 8.00"  | 25                  |
| 8              | 8.00 TO 9.85    | 13.48 | 5.00 | 5        | 5/8" X 9.00"  | 31                  |
| 10             | 10.00 TO 12.20  | 15.83 | 6.00 | 6        | 5/8" X 10.50" | 47                  |
| 12             | 12.00 TO 14.40  | 18.30 | 6.00 | 8        | 5/8" X 10.50" | 52                  |
| 14             | 15.30 TO 16.90  | 20.55 | 6.00 | 8        | 5/8" X 9.00"  | 59                  |
| 16             | 17.40 TO 19.20  | 22.93 | 6.00 | 10       | 5/8" X 10.50" | 71                  |

| WRENCH SIZE CHART |         |
|-------------------|---------|
| NUT               | SIZE    |
| 5/8"-11UNC HH     | 1-1/16" |

|   |            |         |
|---|------------|---------|
| TOLERANCES U.N.O.<br>XX= ±.03<br>XXX= ±.015<br>FRACTIONS= ±.01<br>ANGLES= ±1°<br>MACH. FIN= | APP'D      | DATE    |
|   | CK'D       | DATE    |
|   | DRN        | DATE    |
| NOTES:<br>REMOVE BURRS<br>AND SHARP EDGES<br>DO NOT SCALE DWG.                              | SCALE: N/A | CHD     |
| ALL DIMENSIONS ARE IN INCHES.   |            | 1/13/16 |
| <b>TITLE</b>  |            |         |
| <b>OMNI™ CAST COUPLING - STD SLEEVE</b>   |            |         |
| <b>MODEL 441</b>  |            |         |
| P/N   |            | N/A     |
| SMITH-BLAIR, Inc.   |            |         |
| TEXARKANA, ARKANSAS   |            |         |
| SPEC_441.DRW  |            | 1 OF 1  |
| DWG. NO.  |            | 10/5/16 |
|   |            | REV.    |