SPECIFICATION
STEEL INSULATING FLANGED COUPLING ADAPTER
MODEL 933

APPLICATIONS

- Typical Uses
  - Joining and insulating plain-end pipe to flanged fittings, meters, valves, or other miscellaneous flanged service equipment
  - Replace cracked pipe or spooled flanges while insulating
  - Ideal for connecting butterfly or wafer valves while insulating

- Standard Pipe Sizes
  - 3” & Larger

- Type of Pipe
  - Carbon Steel, Stainless Steel, Ductile Iron, Cast Iron

- Working Pressure
  - 3” – 12” nominal pipe size = 175 psi
  - Greater than 14” nominal pipe size = 150 psi
  - See options for higher working pressure design

MATERIALS

- Followers
  - Cast Follower (3” – 12”)
    - Cast using Ductile Iron 65-45-12 per ASTM A536
    - Flexi-Coat® fusion bonded epoxy finish which meets application methods AWWA C213
    - Permanently marked with part number and pipe size range for proper selection
    - Integral bolt head pocket for one wrench installation
  - Steel Follower (14” & Larger)
    - Carbon Steel C1020 per ASTM A576
    - Flexi-Coat® fusion bonded epoxy finish which meets application methods AWWA C213
    - Integral bolt head pocket for one wrench installation

- Sleeve
  - Material: 3 – 5” nominal pipe size = Carbon Steel per ASTM A513 or A53
    - 6” – 24” nominal pipe size = Carbon Steel per ASTM A283C
  - Flexi-Coat® fusion bonded epoxy finish which meets application methods AWWA C213
  - Larger O.D. sleeves provided with hanging ring(s) for ease of installation
  - Total angular deflection up to 1-1/2° per joint

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- **Flange**
  - Carbon Steel per ASTM A36
  - Type: 3” - 5” nominal pipe size = ANSI 150# Flat Face
    6” & larger nominal pipe size = AWWA C207 Class D 150#

- **Gasket**
  - Nitrile (Buna-N) per ASTM D2000
  - NSF/ANSI 61 and 372 certified
  - 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 sizes, 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

- **Insulating Boot**
  - Nitrile (Buna-N) per ASTM D2000
  - NSF/ANSI 61 and 372 certified
  - Compounded to resist water, oil, natural gas, acids, alkalies, most (aliphatic) hydrocarbon fluids, and many other chemicals
  - Temperature range: -20°F to +180°F
  - Positive stop molded into boot for pipe end

- **Anchor Loop**
  - Carbon Steel per ASTM A36

- **Bolts**
  - HSLA Carbon Steel per AWWA C111/A21.11
  - 5/8”-11UNC, Oval Neck Track Head
  - Rolled threads for improved physical characteristics, greater thread accuracy, and smooth surface finish

- **Nut**
  - HSLA Carbon Steel per AWWA C111/A21.11
  - 5/8”-11UNC, Heavy Hex Semi-Finished

- **Washer**
  - Carbon Steel per ASTM F844
  - Fe/Zn coated per ASTM F1941-10
  - 5/8” Type A Plain
  - Utilized to preserve corrosion resistance of epoxy coated surfaces and increase bearing surface

**LISTINGS**
- UL certified to NSF/ANSI 61 & 372
- Meets applicable AWWA C219 standards

**OPTIONS**
- Other materials of construction (e.g. 304SS, 316SS, etc.)
- 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.)
- Anode connector
- Anchor studs (Pipe Restraint)
- Pipe stops incorporated into sleeve
- Higher working pressure design
- Custom sleeve length and thickness
- Any industry standard flange
- Transition gasket for undersized pipe
NOTES

- This product does not restrain the pipe from pulling out of the fitting
- Flexi-Coat® 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

Minimum 3” pipe insertion required

Total Maximum Allowable Axial Pipe Movement per Coupling

<table>
<thead>
<tr>
<th>Coupling Size</th>
<th>Allowable Movement</th>
</tr>
</thead>
<tbody>
<tr>
<td>3/4” to 2”</td>
<td>1/16”</td>
</tr>
<tr>
<td>2-1/2” to 10”</td>
<td>1/8”</td>
</tr>
<tr>
<td>10-3/4” and Larger</td>
<td>3/16”</td>
</tr>
</tbody>
</table>

Pipe End Tolerances

<table>
<thead>
<tr>
<th>Pipe OD</th>
<th>Minus Tolerance</th>
<th>Plus Tolerance</th>
</tr>
</thead>
<tbody>
<tr>
<td>1/2” up to 16”</td>
<td>-0.06</td>
<td>+0.06</td>
</tr>
<tr>
<td>&gt;16” up to 24”</td>
<td>-0.08</td>
<td>+0.08</td>
</tr>
<tr>
<td>&gt;24” up to 42”</td>
<td>-0.10</td>
<td>+0.10</td>
</tr>
<tr>
<td>&gt;42”</td>
<td>-0.06</td>
<td>+0.12</td>
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</table>

Maximum Angular Deflection per Coupling

<table>
<thead>
<tr>
<th>Nominal Pipe Size</th>
<th>Center Sleeve Length</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>5”</td>
</tr>
<tr>
<td>1/2” up to 2”</td>
<td>3-1/2°</td>
</tr>
<tr>
<td>&gt;2” up to 12”</td>
<td>2°</td>
</tr>
<tr>
<td>&gt;12” up to 24”</td>
<td>3/4°</td>
</tr>
<tr>
<td>&gt;24” up to 36”</td>
<td>-</td>
</tr>
<tr>
<td>&gt;36” up to 42”</td>
<td>-</td>
</tr>
<tr>
<td>&gt;42” up to 60”</td>
<td>-</td>
</tr>
<tr>
<td>&gt;60” up to 80”</td>
<td>-</td>
</tr>
<tr>
<td>&gt;80” up to 100”</td>
<td>-</td>
</tr>
<tr>
<td>&gt;100”</td>
<td>-</td>
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NOTES:
1. SEE SMITH-BLAIR CATALOG MODEL 913 FOR FLANGE O.D., BOLT QTY & SLEEVE THICKNESS/LENGTH DESIGN CALLOUTS
2. 8" STANDARD SLEEVE LENGTH COUPLING SHOWN OTHER SIZES SIMILAR

3" - 12"
CAST FOLLOWER

- SEE CATALOG DIM. "E"
- SEE CATALOG DIM. "B"
- SEE CATALOG DIM. "A"

WRENCH SIZE CHART

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<thead>
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<th>NUT</th>
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<tr>
<td>5/8&quot;-11UNC HH</td>
<td>1-1/16&quot;</td>
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CERTIFIED TO NSF/ANSI 61-G & 372

SMITH-BLAIR, Inc.
TEXARKANA, ARKANSAS
NOTES:
1. SEE SMITH-BLAIR CATALOG MODEL 913 FOR FLANGE O.D., BOLT QTY & SLEEVE THICKNESS/LENGTH DESIGN CALLOUTS
2. 14" STANDARD SLEEVE LENGTH COUPLING SHOWN OTHER SIZES SIMILAR

14" & LARGER STEEL FOLLOWER

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TOLERANCES U.N.O.
NOTE: ALL DIMENSIONS GIVEN ARE IN INCHES.
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DATE CHD
3/16/16 1/13/16

SCALE: N/A

P/N N/A

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REV.

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