When there is a need to withstand shear forces, deflection & improved alignment

### Flex- Seal® ARC Coupling - Submittal

**MR51 ARC Series**

Performance Couplings for Similar and Dissimilar Pipe Sizes and Materials

- **PROJECT**
- **ENGINEER**
- **CONTRACTOR**

**MATERIALS**

- Worm Drive Clamp: 300 series ASTM stainless steel
- Nut & Bolt Clamp: 316 series ASTM stainless steel
- Shield: 301 series ASTM stainless steel 0.012" thick
- Gasket: This gasket is fabricated from a compound with high-quality elastomeric properties to meet physical testing.

**MEETS:**

- ASTM C 425
- ASTM C 1173
- ASTM A240/A240M
- CSA B602
- UPC 4224

**Used to Join** - MR51 ARC Series couplings are used to join asbestos cement or ductile iron to cast iron or plastic.

**Mission’s Flex-Seal® ARC Adjustable Repair Coupling** is a shielded sewer repair coupling designed to provide superior performance and excellent resistance to heavy earth loads, shear forces, deflection and improved alignment. Coupling consists of two (2) 300 series stainless steel worm drive clamps, two (2) or four (4) surgical grade 316 stainless steel Nut & Bolt clamps and a heavy duty 301 series stainless steel shield, over a molded one-piece elastomeric sealing gasket. MR51 ARC Series couplings are available in sizes 4" to 18".

**Corrosion Resistant** - Surgical grade 316 stainless steel Nut & Bolt clamps and 300 series stainless steel components provide outstanding protection in severe environments; such as marine applications, poorly aerated or moist soils, contaminated ground conditions (particularly industrial fill sites) and where the ground water contains chloride, sulfates or bicarbonates.

**Superior Rigidity** - .012" thick 301 series stainless steel shield provides superior load bearing control between the coupling and pipe surface. The coupling’s rugged construction provides excellent sealing properties, and the stainless steel shield provides excellent resistance to shear forces and helps with alignment, while maintaining flexibility.

**Withstands Tension and Compression** - Synthetic rubbers permit a substantial degree of distortion without change in basic physical resistance, unlike other manufacturers’ thermoplastic coupling materials. Molded synthetic rubber gasket is strong, durable and resilient to ultraviolet rays, ozone, fungus growth, natural erosive properties of soil and normal sewer gases. More pliable and easier to install in cold weather applications than an elastomeric PVC gasket.

**Pre-Set Calibration** - All ARC couplings are designed to be installed with a pre-set torque wrench calibrated to 60 in/lbs. maximum to accommodate the 300 series stainless steel .062" hex head screw.

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**MISSION MADE®**

**ASTM C 425**

**TEST**

<table>
<thead>
<tr>
<th>GASKET PHYSICAL TESTS (ASTM C 425)</th>
<th><strong>ASTM C 425</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Tensile Strength</td>
<td>1000 PSI minimum</td>
</tr>
<tr>
<td>Elongation</td>
<td>250% minimum</td>
</tr>
<tr>
<td>Durometer (Shore A)</td>
<td>55 minimum 70 maximum</td>
</tr>
<tr>
<td>Accelerated Aging</td>
<td>85% of original tensile strength</td>
</tr>
<tr>
<td>All determined after oven aging at 70˚C for 7 days</td>
<td>D573</td>
</tr>
<tr>
<td>Compression Set</td>
<td>20% maximum of original deflection</td>
</tr>
<tr>
<td>Ozone Cracking</td>
<td>No visible cracking at 2X magnification of the gasket after 24 hours exposure in 0.5 PPHM ozone concentrations at 40˚C. Testing and inspection to be on gasket which is loop-mounted to give approximately 20% elongation of outer surface.</td>
</tr>
<tr>
<td>Water Absorption</td>
<td>3% maximum by weight after 7 days at 70˚F</td>
</tr>
</tbody>
</table>

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**When there is a need**

**ductile iron to cast iron or plastic.**

**prevent pipe slippage and create a more positive seal.**

**to tighten independently to accommodate variances in the outside diameters of**

**resistant to both infiltration and exfiltration. Axially slotted clamps enable bands**

**Increased band tension of surgical grade 316 stainless steel**

**gasket. MR51 ARC Series couplings are available in sizes 4" to 18".**

**Nut & Bolt clamps ensure a water-tight, leak-proof and root-proof seal that is**

**Superior Rigidity**

**Withstands Tension and Compression**

**Rev. 12/18**