



## Mission Rubber Company LLC

1660 Leeson Lane  
 Corona, CA 92879  
 (800) 854-9991 • Fax (800) 637-4601  
 missionrubber.com

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

**MEETS:**  
 ASTM C 425  
 ASTM C 1173  
 ASTM A240/A240M  
 CSA B602  
 UPC 4224



## Flex-Seal® ARC Coupling - Submittal MR51 ARC Series

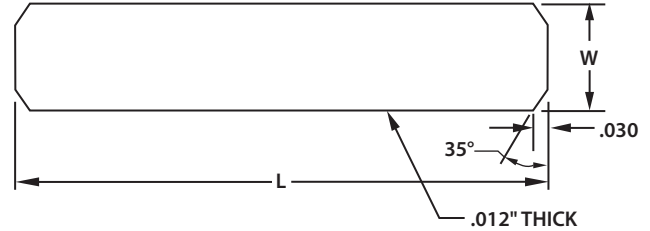
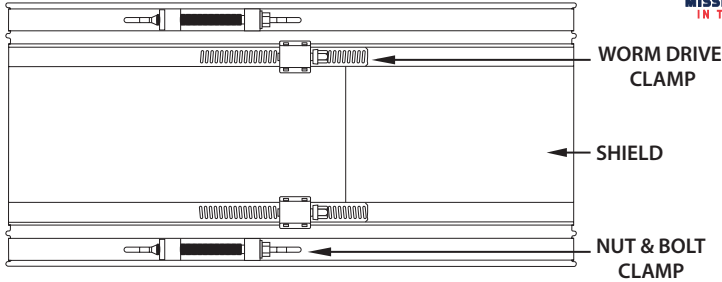
*Performance Couplings for Similar and Dissimilar Pipe Sizes  
 and Materials*

PROJECT \_\_\_\_\_

ENGINEER \_\_\_\_\_

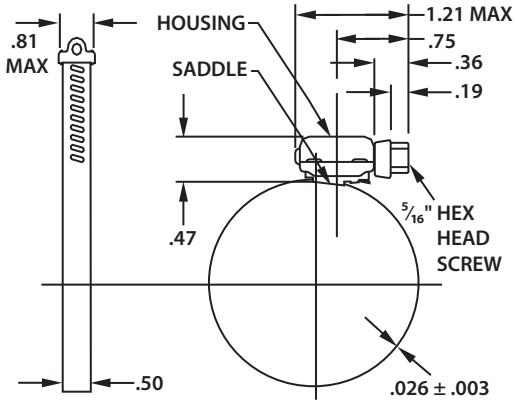
CONTRACTOR \_\_\_\_\_

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.

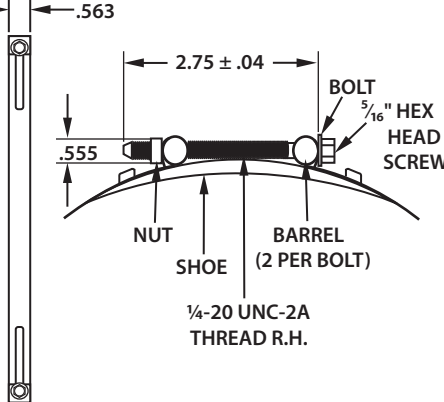


SHIELD DETAILS

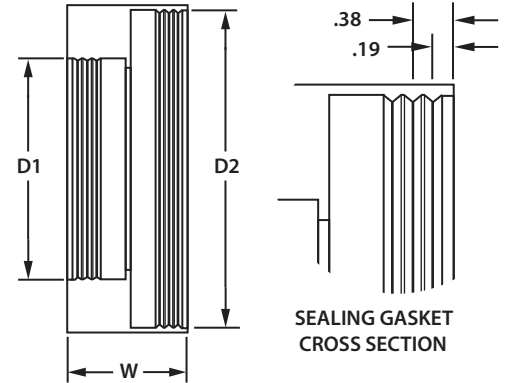
WORM DRIVE CLAMP DETAILS



NUT & BOLT CLAMP DETAILS



SEALING GASKET DETAILS



MISSION REFERENCE MR51 SERIES	SHIELD DIMENSIONS		SEALING GASKET DIMENSIONS		
	L	W	D1	D2	W
MR51 43 ARC	19.75	1.88	3.50	4.93	4.00
MR51 44 ARC	18.25	2.12	4.50	4.93	4.00
MR51 55 ARC	24.25	3.81	5.62	5.93	5.00
MR51 56 ARC	25.50	3.81	5.93	6.62	5.80
MR51 66 ARC	25.50	3.81	6.62	7.12	6.00
MR51 86 ARC	31.50	3.81	6.62	9.25	6.00
MR51 88 ARC	31.50	3.81	8.62	9.25	6.00
MR51 1008 ARC	40.13	3.38	8.62	11.20	6.00
MR51 1010 ARC	40.13	3.38	10.80	11.20	6.00
MR51 1210 ARC	47.38	3.38	10.80	13.50	6.00
MR51 1212 ARC	47.38	3.38	12.80	13.50	6.30
MR51 1615 ARC	61.13	5.75	15.40	17.90	10.00
MR51 1818 ARC	66.50	5.75	18.80	19.60	10.00

TEST	GASKET PHYSICAL TESTS (ASTM C 425)	ASTM C 425
Tensile Strength	1000 PSI minimum	D412
Elongation	250% minimum	D412
Durometer (Shore A)	55 minimum 70 maximum	D2240
Accelerated Aging	85% of original tensile strength 85% of original elongation All determined after oven aging at 70°C for 7 days	D573
Compression Set	20% maximum of original deflection	D395
Ozone Cracking	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.	D1149
Water Absorption	5% maximum by weight after 7 days at 70°F	D471

**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".

**Leak-Proof Seal** - Increased band tension of surgical grade 316 stainless steel Nut & Bolt clamps ensure a water-tight, leak-proof and root-proof seal that is resistant to both infiltration and exfiltration. Axially slotted clamps enable bands to tighten independently to accommodate variances in the outside diameters of the pipe to be joined. Sealing "O" Rings are installed under each sealing clamp to prevent pipe slippage and create a more positive seal.

**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 for 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 5/16" hex head screw.