

# A.W.W.A MANUAL M11 HARNESS RESTRAINT



## MATERIAL SPECIFICATIONS

**RESTRAINT RINGS:** This weldment is manufactured from ASTM A36 Steel with a minimum yield stress of 36,000 psi. Two of these are required, one on each side of the coupling.

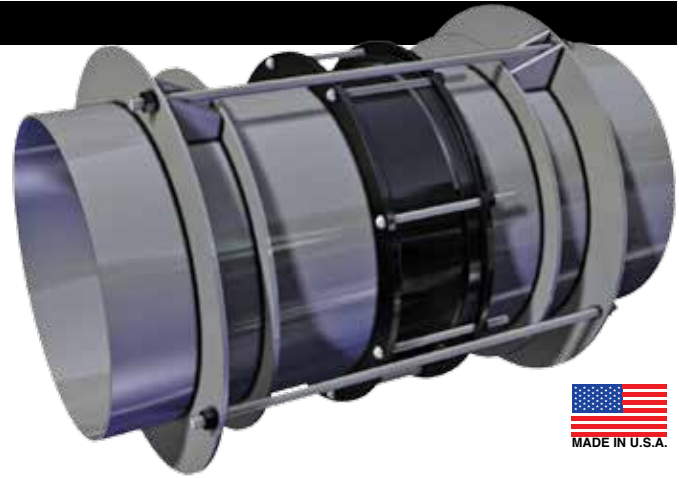
**TIE RODS:** High tensile alloy steel per ASTM A193 grade B7. Type 304 or 316 stainless steel is optional and requires twice as many rods.

**COATING:** Bare, unless otherwise specified.

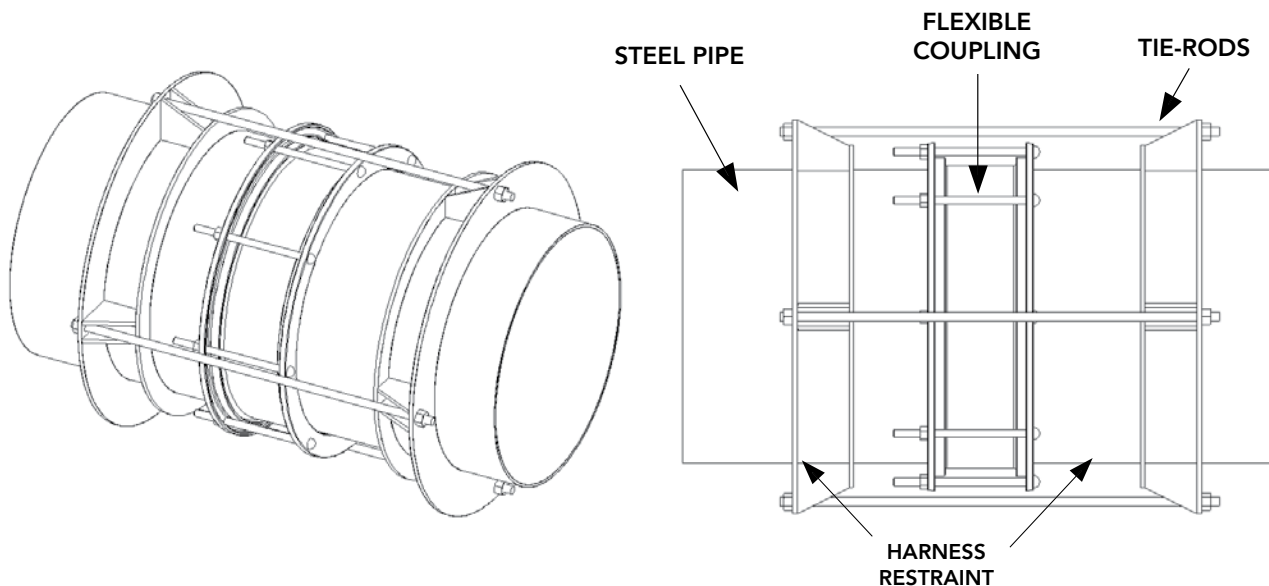
**PRESSURE:** The standard design pressures of 50, 100, 150, 200, & 250 psi are specified in the AWWA M11 manual. These pressures specify the tie rod quantities and diameter. Other pressures can be accommodated.

**RING TOLERANCE:** The Harness weldment inner diameter (ID) is manufactured with a 3/16 inch (on diameter) clearance between the specified pipe OD up through 24 inch and 1/4 inch larger than 24 inch.

**SIZES:** 6"- 96" for steel pipe. Other sizes available on request.



**ROMAC MANUFACTURES JOINT HARNESSES AS SPECIFIED PER AWWA M11, CHAPTER 13, DESIGNED TO RESTRAIN FLEXIBLE COUPLINGS (STYLE 501 AND STYLE 400) ON STEEL PIPELINES. THESE HARNESS ASSEMBLIES ARE FIELD WELDED IN PLACE.**



Contact your Romac representative for more information.

**ALL PRICES:** Priced On Application.