

**ROMAC INDUSTRIES, INC.**  
**FJ-RESTRAINT BALL JOINT RESTRAINT FITTING**  
**MECHANICAL JOINT ENDS 30” THROUGH 48”**  
**SUBMITTAL INFORMATION**

**USE** The FJ-Restraint is a flexible ductile iron fitting, developed to accommodate pipeline forces that would otherwise result in damaged pipe or loss of service. The FJ-Restraint is designed to compensate for expansion, contraction, rotation, bending and settlement of your pipeline all at the same time, with one fitting. Designed for use in buried applications or above ground service.

**MATERIALS**

**Castings** The Casing, Ball and Sleeve are cast of ductile (nodular) iron, meeting or exceeding ASTM A 536, Grade 65-45-12.

**MJ Ends** Mechanical Joint ends meet the dimensional requirements of either ANSI/AWWA C111/A21.11 or ANSI/AWWA C153/A21.53 depending on size. Standard MJ gasket is used with this fitting.

**MJ Restraint** To securely fix MJ ends of the FJ-Restraint, Romac RomaGrips for ductile iron can be supplied.

**Lock Ring** Series 403 stainless steel. Limits expansion and contraction of FlexiJoint up to maximum working pressure.

**Ring Gaskets** Ball and casing gaskets are made of dual durometer Ethylene Propylene Diene Methylene rubber (EPDM) compounded for water and sewer service. Also available in Styrene Butadiene Rubber (SBR).

**Casing Covers** Covers are made of Chloroprene Rubber (CR) compounded for water and sewer service. Good Ozone resistance.

**Bolts and Nuts** Standard MJ tee-bolts and nuts are used with this fitting. See ANSI/AWWA C111/A21.11 for specifications.

**Coatings** The entire fitting is lined and coated with fusion bonded epoxy, applied and tested in accordance with AWWA C213. All exposed exterior surfaces are 12 to 18 mils.

**Protective Sleeve** Polyethylene sleeve, 8 mils thick to cover entire FlexiJoint assembly after installation. Provided with flexible rubber bands to secure to pipe ends and FJ-Restraint.

**PRESSURE:**

SIZE	MAXIMUM WORKING PRESSURE	MAXIMUM TEST PRESSURE
30 in	232 psi	290 psi
36 in	232 psi	290 psi
42 in	145 psi	217 psi
48 in	145 psi	217 psi