

# FJ-RESTRAINT FLEXIBLE BALL JOINT RESTRAINT MECHANICAL JOINT ENDS 14" THROUGH 24"

## 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. Transition gaskets may be used for iron pipe size pipe.

### MJ RESTRAINT

To securely fix MJ ends of the FJ-Restraint, Romac Grip Rings (for DI, C900 OR IPS PVC) or Roma Grip (for DI or 3"-12" IPS steel) can be supplied.

### LOCK RING

Series 400 stainless steel. Limits expansion and contraction of FJ-Restraint up to maximum working pressure.

### RING GASKETS

Ring gaskets are made of dual durometer Ethylene Propylene Diene Methylene rubber (EPDM) compounded for water and sewer service.

## PRESSURE

When properly installed the FJ-Restraint can be used at working pressures up to 350 psi.

## SIZES & RANGE

See Catalog.

### CASING

14 - 24 inch covers are Protective Polyethylene debris cover.

### 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, NSF 61 Certified, applied in accordance with AWWA C213.

### PROTECTIVE SLEEVE

Polyethylene sleeve, 8 mils thick per AWWA C105 to cover entire FJ-Restraint assembly after installation. Provided with flexible rubber bands to secure to pipe ends and FJ-Restraint.

02/2018

Document # 5-8-0016 14 - 24 inch