

Materials Specification – 29 for MECHANICAL JOINT RESTRAINT

1. GENERAL:

Mechanical joint restraints shall be incorporated into the design of a follower gland. The gland shall be manufactured of ductile iron that conforms to ASTM A536. Dimensions of the gland shall be such that it can be used with the standardized mechanical joint bell and tee-head bolts that conform to AWWA C111 and C153.

2. DESCRIPTION:

The restraint mechanism shall consist of numerous individually activated gripping surfaces to maximize restraint capability. The gripping surfaces shall be wedges that are designed to spread the bearing surfaces on the pipe. Twist-off nuts, sized the same as tee-head bolts, shall be used to ensure the proper actuating of restraining devices. When the nut is sheared off, a standard hex nut shall remain.

3. PRESSURE:

The mechanical joint restraint device for ductile iron pipe shall have a working pressure of at least 250 psi with a minimum safety factor of 2.

The mechanical joint restraint device for PVC shall have a working pressure of at least 150 psi with a minimum safety factor of 2:1.

4. ACCEPTABLE MANUFACTURERS:

Mechanical Joint Restraints - Ductile Iron Pipe:

Romac	Roma-Grip	(4" - 36")
EBAA Iron, Inc.	Megalug 1100 Series	(4" - 36")
Uni-Flange	Series 1400	(4" - 36")
Star Grip	Series 3000	(4" - 36")
Sigma-One Lok	Megalug Style	(4" - 12")

Mechanical Joint Restraints - PVC Pipe:

EBAA Iron, Inc.	Megalug 2000 PV Series	(4" - 12")
Sigma-One Lok	Megalug Style	(4" - 12")
Star	Series 4000	(4" - 12")

Bell-Spigot Restraint – Ductile Iron Pipe:

EBAA Iron, Inc.	Megalug Series 1700	(3" - 20")
Star	Stargrip Series 3100P	(3" - 20")
U.S. Pipe	Field Lok Gasket	(4" - 12")
EBAA Iron, Inc.	Series 1500 TD	(4" - 12")
American	Fastgrip Gasket	(4" - 12")

Bell-Spigot Restraint – PVC Pipe:

EBAA Iron, Inc.	Series 1500 TD	(4" - 12")
EBAA Iron, Inc.	Series 1500	(4" - 12")
Star	Series 1100	(4" - 12")
Ford Meter Box Co.	Ford 1390	(4" - 12")

Bolt-Through Mechanical Joint Restraint:

Foster Adaptor

Hydrants and Valve Restraint – Ductile Iron Pipe:

Mueller Aquagrip Restraint Device

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