# Restrained Joint Ductile Iron Pipe Mech-Lok™ Rigid Restrained Joint Pipe

Some pipeline construction projects require rigid restrained joint pipe for use on bridges or other elevated structures. Mech-Lok™ combines the proven mechanical joint with a rigid restraining system. This product can be used to span piers at 40 ft. spacings. The joints should be located at the quarter points to minimize bending movements acting on the joints.

# FLG. DIA. PIPE D.D. A.S.T.M.-A325 TYPE III 3/4" T-HEAD CORTEN BOLT & NUTS 1/2" SG. CORTEN RING PIPE D.D. RESTRAINING FLANGE, 60-42-10 DUCTILE IRON D RING LOCATION

8" BOLT LGTH.

### **Dimensions**

Pipe Size	Max. Defl. Angle	Pressure Rating (P.S.I.)	A Fig. Width	B Fig. O.D.	C B.C. Dia.	No. of Bolts	D Ring Loca.	E Pipe O.D.
6	2°-30'	250	3/4"	11¹/s"	91/2"	6	71/8	6.90
8	2°-30'	250	1"	13³/s"	113/4"	6	63/4	9.05
10	2°-30'	250	1"	15 <sup>5</sup> /8"	14"	8	63/4	11.10
12	2°-0'	250	1"	17 <sup>7</sup> /8"	16 <sup>1</sup> / <sub>4</sub> "	8	61/4	13.20
14	2°-0'	250	11/4"	201/4"	183/4"	10	<b>7</b> <sup>1</sup> /8	15.30
16	2°-0'	250	1 <sup>1</sup> /2"	221/2"	21"	12	<b>7</b> <sup>1</sup> /8	17.40
18	2°-0'	250	1 <sup>5</sup> /8"	253/4"	231/4"	12	<b>7</b> <sup>1</sup> /8	19.50
20	2°-0'	250	13/4"	285/16"	251/2"	14	71/8	21.60
24	2°-0'	250	2"	327/16"	30"	16	<b>7</b> <sup>1</sup> /8	25.80

## **Specifications**

Pipe shall be ductile iron manufactured in accordance with the requirements of ANSI/AWWA C151/A21.51. Mechanical joints for such pipe shall be in accordance with ANSI/AWWA C111/A21.11. Pipe shall be Griffin Mech-Lok™ or equal. Pipe thickness shall be designed in accordance with ANSI/AWWA C150/A21.50 and shall be based on laying conditions and internal pressure as specified in the project plans.

Pipe shall have cement mortar lining and seal coating, where applicable, in accordance with ANSI/AWWA C104/21.4.

### **Assembly Procedure**

- Assemble mechanical joint as per recommended procedure keeping MJ gland square with MJ flange. Hand tighten MJ nuts.
- 2. Assemble restraining flange over bolts and hand tighten restraining nuts.
- 3. Uniformly torque mechanical joint nuts to 12-150 ft.-lbs.
- For applications which require subsequent joint deflection, such as buried pipe lines, the restraining nuts should only be finger tightened.
- 5. For rigid joints, such as long span, the restraining nuts should be tightened to 120-150 ft.-lbs. torque prior to final tightening of MJ nuts to assure that the spigot is tight against the socket. After tightening the MJ bolts, retorque the restraining nuts.

Note: To make the joint rigid, the spigot end must be fully home in the socket and bear against the shoulder of the socket.