

TruGrip

Series 1000 for Ductile Iron Pipe

How it works

As the T-head bolts are tightened, the Follower Gland first starts compressing the gasket for sealing then in sequence engages the Gripper Ring's teeth to bite into the pipe surface to effectively restrain mechanical joints for all pressure classifications of ductile iron pipe.



Features

- Faster assembly and reduced installation errors than traditional wedge action restraints:
 - No secondary steps are required to set or engage wedges.
 - Positive mechanical stops provide a clear visual indicator of assembly completion.
 - No additional digging required to gain access to the wedge torque bolts.
 - No special tools required.
- 350 psi pressure rating
- The Gripper Ring's unique design provides significantly greater contact area than traditional wedge action restraints. **TruGrip's** near full circumferential contact more evenly distributes the gripping force providing more reliable restraint with less potential damage to the pipe wall or cement lining during installation, even on thinner pressure classes of ductile pipe.

Materials

- Gripper Ring and Follower Gland: Ductile iron per ASTM A536
- Engagement teeth heat treated to a minimum hardness of 370 BHN
- T-head bolts & nuts produced from high strength low alloy weathering steel per ANSI/AWWA C111/A21.11 and ASTM A242

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For more information go to
www.tylerunion.com/trugrip

Installation Instructions

TruGrip 1000 series for Ductile Iron Pipe



Series 1000 **TruGrip** joint restraints are designed for use with ductile iron pipe conforming to ANSI/AWWA C151/A21.51 (all thickness classes) and are compatible with all mechanical joint sockets conforming to ANSI/AWWA C111/A21.11, C110/A21.10 and C153/A21.53 Standards.

- Not for use on Steel Diameter pipe, Sigot end of P.E. x MJ fittings or P.E. x P.E. fittings. Contact Tyler Union Engineering for restraining unburied pipe applications without earth support or non-axial load applications.



1) Clean the socket & pipe plain end. Lubricate gasket O.D. and/or socket and gasket I.D. and/or pipe plain end with soapy water or approved pipe lubricant meeting ANSI/AWWA C111/A21.11. Place the TruGrip restraint onto the pipe with the lip extension toward the pipe plain end followed by the gasket with the narrow edge of the gasket toward the pipe plain end.



2) Insert the gasket along with the pipe into the fitting socket and seat or press in the gasket firmly and evenly into the gasket cavity, keeping the joint straight and aligned.

Use 3/4" x 4" T- head bolts for (4"- 12") pipe diameters. Make sure the threads are clean and free of debris. Nuts should freely hand turn on at least the first 1" of threads.



3) Push the TruGrip restraint toward the fitting socket and center it around the pipe with the lip extension evenly and firmly against the seated gasket. Insert the T-head bolts with the T-head on the fitting side. **For proper assembly, snugly hand tighten all nuts before using a driver.** Make any joint deflection after hand tightening the nuts and before applying further torque. Maximum deflection is 3 degrees for (4"-12") pipe diameters



4) Tighten the bolts while at all times maintaining approximately the same distance between the TruGrip's follower gland and the face of the fitting flange at all points around the socket. This can be accomplished by **partially tightening** the bottom bolt first, then the top bolt, next the bolts on either side, finally the remaining bolts – (STAR PATTERN). Repeat the process **partially tightening the nuts only (2-3) turns at a time** until the follower gland evenly contacts all the mechanical stops on the gripper ring. **Inspect or feel to make sure the follower gland is in contact with all the mechanical stops to ensure complete assembly of the joint.** Do not torque beyond the limits of the bolts.

Note: In cold weather (below 40F) warm the gasket prior to using to facilitate assembly and sealing of the joint.