

# TruGrip FAQs

**Revision: 3.27.26**

**Question:** What will this cost?

**Response:** While TruGrip is a better product than traditional wedge type MegaLug restraints, our intent is to price TruGrip PVC & Ductile restraints the same as the PVC restraint pricing of traditional wedge type restraints.

**Question:** What is the difference between TruGrip and MegaLugs, or traditional wedge type restraints:

**Response:** When we set out to design this new restraint product, we had three main objectives: 1) Quick and easy assembly for the operator in the ditch; 2) Eliminate or reduce the most common installation errors; 3) Design a product that could be cost-competitively produced within our domestic and off-shore manufacturing capabilities.

The TruGrip product delivers on all three of those main objectives:

1. The installation process is quick and simple, requiring no special tools or the use of a torque wrench. There are no secondary steps required to set or engage wedges and no need for extra hand-digging around the joint for clearance room to be able to set wedges.
2. The most common installation error for traditional wedge type restraints is from not properly setting or engaging each and every wedge. The wedge twist-off nuts can be turned in the wrong direction, twisting off without the wedge engaged with the pipe and all too often we find the bottom wedges on the underside of the pipe get missed. The TruGrip assembly only requires incrementally tightening the T-bolts in a Star Pattern with a wrench or impact driver and there is a built-in Mechanical Stop to provide both a physical and visual indicator that the joint is fully assembled. The incremental Star Pattern assembly is exactly like installing an MJ Gland or the first assembly steps of a traditional or MegaLug type restraint.
3. 6" traditional wedge-type restraints have 10 cast components within their parts lists, and 12" traditional wedge-type restraints have 25. The TruGrip design only has 2 cast components for each size. While the TruGrip design requires a higher and more expensive grade of iron, the lower part count and lower assembly labor allows us to produce TruGrips at a competitive cost basis.

In addition to its ease of assembly in the ditch, TruGrip has a significantly higher contact area than traditional wedge type restraints with near full connection with the pipe O.D. which helps protect the pipe and linings from damage compared to the more point loading of some traditional wedge type restraints.

**Question:** When will this be available?

**Response:** 6" TruGrip restraints are readily available for field trial and evaluation testing, with 4", 8", 10" and 12" samples available soon. We anticipate having inventory of 4" and 6" import restraints available in July and the broader (4"-12") import product line available in August followed by larger sizes later in the year. Inventory for Domestic TruGrip restraints will phase in during the 2<sup>nd</sup> half of the year.

**Question:** Will the domestic version be AIS compliant?

Domestic TryGrips will be fully compliant with AIS and any other domestic specification.

**Question:** Will TruGrip have a MegaBond type coating?

**Response:** Our standard coating will be a high-grade Cathodic Epoxy Coat for the Gripper Ring and an Alkyd Enamel coating for the Follower Gland. Based upon the market need, we may offer a Cathodic Epoxy Coat or Thermoset Polyester for the Follower Gland.

**Question:** Can TruGrip be used for IPS diameter PVC or HDPE?

**Response:** The Phase-One product will only be Ductile pipe and C900 & C909 PVC pipe. Those TruGrip restraints cannot be used on IPS diameter, nor will they be recommended for all classes of Cast Iron pipe. There will be IPS diameter versions for PVC and HDPE pipe introduced 1Q 2027 as a product line expansion.

**Question:** What is the difference between the Ductile and PVC TruGrip restraints, and will you be offering a dual wedge type design that can be used on both Ductile and PVC pipe?

**Response:** The Ductile pipe design for TruGrip has a single tooth that is hardened using an induction heat treating process whereas the PVC pipe design has three teeth that are "as cast." Because Ductile pipe is a harder material than PVC you want to concentrate the available biting force using a single tooth design whereas for the softer PVC material you want to more distribute the available biting force.

A dual design where the same restraint can be used for both PVC and Ductile pipe is possible for the TruGrip design with further development work. We will likely start that development work once all the initial planned product offerings are in production.

**Question:** Why don't you recommend TruGrip for Cast Iron pipe?

**Response:** Cast Iron class B, C and D pipe and certainly older pit Cast Iron pipe has a different nominal O.D. and tolerance than ductile pipe that meets the current AWWA specifications. We have not done enough testing on all the variants of Cast Iron pipe to be able to recommend using TruGrip on it at this point. We are considering versions compatible with Cast Iron class B, C and D pipe for the future as well as guidelines for using our ductile TruGrip restraint with class A Cast Iron pipe.

**Question:** Will this replace the TufGrip product?

**Response:** At this point, we plan to maintain the TufGrip product line for the near future.

**Question:** Will Kits be available with Stainless Steel or CoreBlue T-bolts and different gaskets from the standard SBR material?

**Response:** Initially the basic Kits will have standard T-Bolts and SBR gaskets, but Kits with specialty T-bolts or gaskets will be available at some point, or the TruGrip restraint, T-bolts and gaskets can be purchased separately.

**Question:** Will sizes beyond 12" be available?

**Response:** The Phase-One product launch will be with (4"-12") restraints that cover the vast majority of total restraints sold. We have started development work on larger TruGrip restraints and should be able to provide production availability timing once additional sample testing has been completed.

**Question:** What do you torque the T-bolts to?

**Response:** TruGrip was designed to accommodate the real world in-the-ditch environment where installers typically use an impact driver. TruGrip does not require using a torque wrench or a specific torque setting. The assembly is complete when the Follower Gland makes contact with all the built-in Mechanical Stops providing both a physical and clear visual indicator of when the assembly process is complete. The applied torque should not be beyond what the T-bolts are capable of handling, causing either excess stretching or failure of the threads.

**Question:** Can you disassemble and then re-install this restraint?

**Response:** The joint can be disassembled by tapping the Follower Gland back to its original position to relieve the bite on the pipe. Whether the restraint can be re-installed with the original pressure rating depends on several factors. Please contact Tyler Union Engineering before re-installing a restraint from a fully pressurized joint.

**Question:** Can the restraint be used on HDPE pipe?

**Response:** The TruGrip restraints used on PVC should also be fully capable of being used with HDPE pipe up to the pipe's rated pressure when used with an approved stiffener Ring insert. Our computer simulation modeling is showing favorable results for being able to restrain DR17 or thicker HDPE pipe without the stiffener ring required by most other restraints, but physical confirmation testing is required. While we expect to be able to have specific HDPE application guidelines in the future, we are currently focusing our development and testing efforts on expanding the size range for the more common PVC 900 and 909 and Ductile pipe applications.

**Question:** What is the deflection rating

**Response:** For UL and FM certification we are using the same rated deflection as EBAA Megalug restraints, or 3 degrees for (4"-12"). While some other manufactures state, "up to 5 degrees", there are dimensional constraints with the inside bell dimensions of the mechanical joint that will not allow that much deflection if the pipe is fully inserted or the bell dimensions are on one side of their allowable tolerances.

**Question:** What pressure are TruGrip restraints rated to?

**Response:** When properly installed, TruGrip restraints can be used at working pressures equal to the pressure rating of the installed pipe up to 350 psi. For FM and UL ratings, our rating pressures will be equal to or higher than EBAA's MegaLug product.

**Question:** Can I use 3.5" T-bolts rather than the 4" T-bolts supplied in the Kits?

**Response:** We recommend  $\frac{3}{4}$ " x 4" T-bolts for the (4"-12") TruGrip restraints. The 4" length ensures ease of assembly for both C153 and C110 flange thicknesses. 3.5" T-bolts could be used on most C153 applications if the gasket is properly pressed into the bell socket to ensure enough threads are exposed to hand tighten the nuts before using an impact driver. For C110 fittings, it may be difficult or not possible to assemble the joint with shorter T-bolts.

**Question:** What is the difference between TruGrip and Romac's Grip Ring Restraint?

**Response:** Grip Ring requires the extra installation step of putting their Gripper Ring on the pipe and field reports indicate the Gripper Ring is prone to pre-maturely locking up if the gland is not drawn down evenly, requiring the joint to be disassembled then reassembled. Additionally, Grip Ring does not have Mechanical Stops like TruGrip to provide a visual and physical indicator of when the assembly process is complete, instead like other wedge type restraints the instructions recommend tightening the T-

bolts to within a specified torque range, which requires the use of a torque wrench. Romac also recommends torquing the bolts, waiting 10-minutes, then setting the torque again for “Best Results”. The Grip Ring is also not recommended for C909 PVC pipe, whereas TruGrip can be used on either C900 or C909.

**Question:** How much torque is required to fully assemble the joint.

**Response:** The amount of torque required to fully hit the Mechanical Stops varies by the type of pipe used and whether the pipe O.D. is near its maximum or minimum value. For typical installations we see between 90 to 125 ft-lbs. of required torque and even for extreme cases, the required torque is below what the recommended T-bolts are capable of handling.

**Question:** Without the need to use a torque wrench, can the T-bolts be overtightened?

**Response:** The assembly instructions for TruGrip calls for partially or incrementally tightening, (2-3 turns at a time), each nut using a Star Pattern until the Follower Gland contacts the built-in Mechanical Stops to ensure that the joint is fully assembled. Once contact has been fully made with the Mechanical Stops, the nuts can be further tightened, ( $\frac{1}{4}$  turn). Overly tightening the nuts beyond full contact with the Mechanical Stops does not improve the joint’s performance and aggressive overtightening could exceed the limits of what the T-bolts are capable of handling.

**Question:** Some traditional wedge-type restraint manufacturers are specifying a maximum surface hardness condition for Ductile pipe, will TruGrip have that requirement?

**Response:** That more recent maximum surface hardness requirement for Ductile pipe stems from field issues associated with one Ductile pipe manufacturer, mainly on larger diameter pipe from over-annealing. TruGrip is no more susceptible to or tolerant of this condition than traditional wedge type restraints.

**Question:** Some inspectors use the Torque Nuts missing from the Wedge assemblies of MegaLug type restraints as a visual indicator that the joint is restrained when walking along the trench from above. From above the trench, how would an inspector know that a TruGrip joint is restrained.

**Response:** Using missing Torque Nuts as confirmation of a MegaLug type joint being restrained could give a false positive since an installation error is turning the Torque Nuts in the wrong direction so that they twist off without the wedge being set. For a TruGrip there is a more reliable visual indicator of a fully assembled and restrained joint by seeing that the Follower Gland is in contact with the Mechanical Stops on the

Gripper Ring. Additionally, when the TruGrip restraint joint is fully assembled, you can see that the teeth are biting into the surface of the pipe.