

# TruGrip FAQs

**Revision: 8.18.25**

**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 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 are missed. The TruGrip assembly only requires 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 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:** We anticipate having production 6" import restraints available in the 4<sup>th</sup> quarter of 2025 and 6" domestic restraints in the 1<sup>st</sup> quarter of 2026 for Hydrant installations and other 6" applications. For the broader (4"-12") product line for Ductile and C900 & C909 PVC pipe, import products should be available early next year followed by domestic products during the 1<sup>st</sup> half of 2026.

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

**Response:** Yes, a 100% domestic product line will be available as well as potentially a hybrid version when allowed by the specification.

**Question:** Can TruGrip be used for IPS diameter?

**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 introduced in the future as a product line expansion during the 2<sup>nd</sup> half of 2026.

**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:** 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 24" TruGrip restraints and should be able to provide production availability timing sometime later this year.

**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 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.

**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:** Our computer simulation modeling is showing favorable results for being able to restrain DR17 – DR11 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 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:** Will you have an FBE coating option?

**Response:** The initial product offering will be finished with baked-on enamel paint on the Follower Gland which covers the vast majority of specifications. An FBE or powder coated option may be available at some future date if industry demand requires it.

**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 C153 fittings if the gasket is properly pressed into the bell socket to ensure enough threads are exposed to hand tighten the nuts on before using an impact driver. For C110 fittings, it may be difficult 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 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 110 ft-lbs. of required torque. Even for extreme cases, the required torque is well 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 call for incrementally tightening the nut in  $\frac{3}{8}$ " increments using a Star Pattern until the Follower Gland contacts each of the built-in Mechanical Stops then add  $\frac{1}{4}$  turn to each nut. This will ensure that the joint is fully assembled without overly loading the T-bolts.

**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 actually 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.