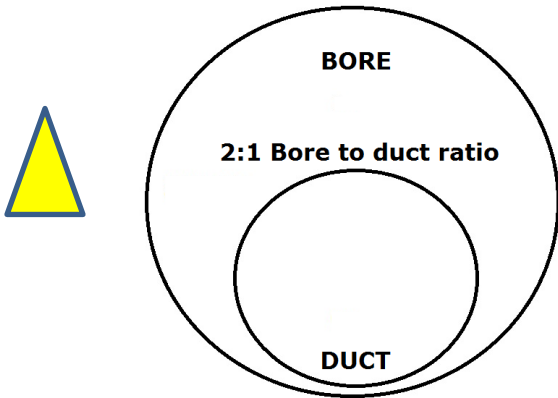


TRACE-SAFE® RT180X INSTALLATION GUIDE

TRACE-SAFE is available in two tensile strengths a rugged version which is designed for Horizontal Directional Drilling, (HDD), and a light duty version for either open trenching, pull back inside or blowing into an innerduct. Both products are made with high tenacity water blocking yarn, 0.9 mm solid copper conductors and double jacket protecting the copper conductor. Both products are available in different colors for different industries, (see data sheet for part number ordering details). The key differences between the two is the tensile strength of the yarn. The rugged version, or RT, has approx. 818 kg of pulling capability and the trench version, or TST, has approx. 272 kg of pulling capability. This document covers the RT version of Trace- Safe.

RT180x is typically pulled back with innerduct in a horizontally directionally drilled bore.



Pulling innerduct back through an HDD bore generates a tremendous amount of pressure and it is important to drill a bore hole large enough to minimize excessive pressure. For difficult, stony soil conditions, we recommend doing 2 holes, i.e. a pre-drilling before final drilling to keep the bore hole stable.

For retraction, we recommend a 2:1 ratio of the final hole to the outer diameter of the empty tube or the channel package. As an example, a 100 mm pipe should be pulled through a 200 mm hole.

TRACE-SAFE and recommended HDD Installation



Large diameter duct pulling eye



Attach small anchor shackle to duct pulling eye and secure with anchor pin.



Thread TRACE-SAFE through anchor shackle with several loops & secure with several knots.



As an option and for added security of the knots insert cable ties through the knots and zip closed.



Cover knots and TRACE-SAFE with fabric-reinforced adhesive tape.



Overwrap TRACE-SAFE with fabric-reinforced adhesive tape around entire duct for at least half a meter.



Shearing forces act on the head when pulling and not on TRACE-SAFE.

Connectors

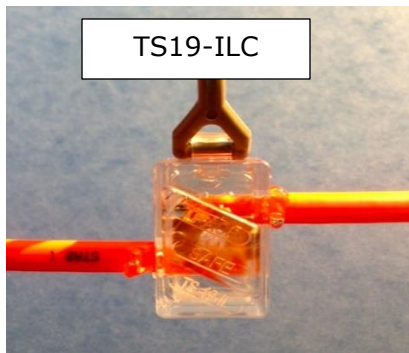


TRACE-SAFE is a system that is complete when the no-strip poly carbonate connectors are installed. The connectors are designed with an insulation piercing contact plate and water blocking compound. The water blocking compound will backfill the pierce points into the jacket and prevent water ingress.

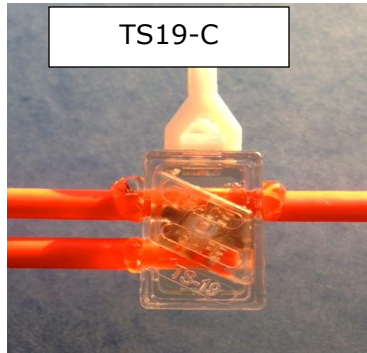
RT 180x has an oval shape and to properly use the connector, the wire should be inserted and clicked into place oval side first and twisted so the flat side of the wire is facing the



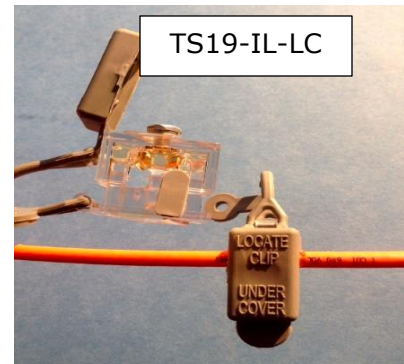
Each connector has instructions printed on the packaging and it is important that they be followed.



End to end splice used to connect between bore access points



Main line to lateral used to connect a perpendicular leg

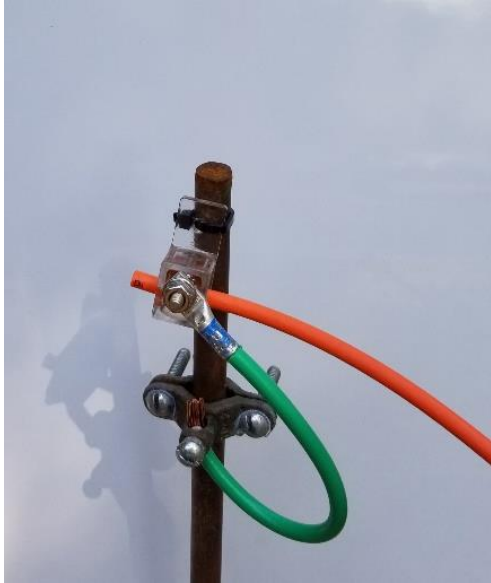


Locate clips are usually placed at the termination point and allow the locator convenient access to TRACE-SAFE

Grounding TRACE-SAFE

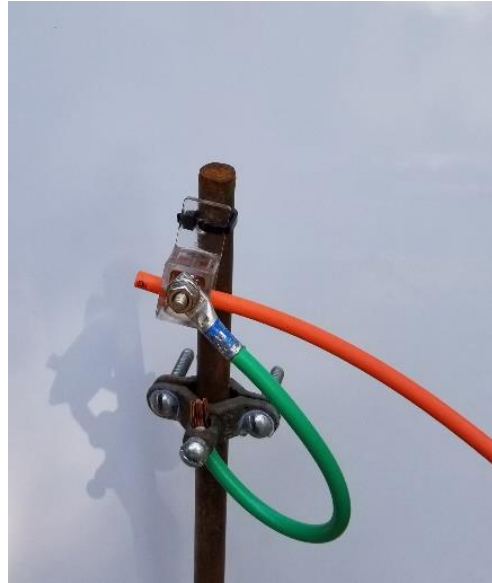
For best locating results, TRACE-SAFE should be grounded following the practices of your company or client. We recommend grounding every km or at least every 1.5 km. Following are basic techniques that can be adopted to suit your company or client's practices.

GROUNDING ROD 4,11 mm CU



PLACEHOLDER ONLY

GROUNDING ROD 2,05 mm CU



PLACEHOLDER ONLY

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