

TRIDENT-WRAP™

RISER REPAIR REINFORCEMENT REPAIR KIT



Description

Trident-Wrap™ Riser Reinforcement Kits repair non-leaking natural gas risers exhibiting wall loss up to 80% @ <300 psi (20.7 bar). This system enables one to repair corroded piping without shutdown or riser replacement. The Trident-Wrap System is an engineered product which is prepackaged to conform to ASME PCC-2, DOT, ISO TS24817, and CSA Z662 standards for composite repairs, and can eliminate atmospheric corrosion in accordance with DIMP. The Trident family of products was specifically designed and tested for the natural gas industry and requires Operator Qualified training and certification.

Included	Item #	Description
<input type="checkbox"/>	TWR001	Riser repair kit 1" OD x 12" (25.4mm OD x 30.5cm)
<input type="checkbox"/>	TWR002	Riser repair kit 2" OD x 12" (50.8mm OD x 30.5cm)

USE BEFORE:

Procedures to be taken in handling and storage

For ideal shelf life, store Trident-Wrap in a cool, shaded area at 72°F (23°C). Do not expose to temperatures above 110°F (44°C) or below 40°F (5°C). Care must be taken when handling Trident-Glass' hermetically sealed foil pouch to prevent puncturing or scuffing. If the protective foil pouch is punctured, the Trident-Glass will be exposed to atmospheric moisture which will cause it to cure within the foil pouch.

Made in USA

MSDS available at: <http://neptuneresearch.com/downloads/>

Kit Contents

- Step-by-Step Instructions
- Sanding Cloth
- Solvent Cleaning Wipe
- Protective Gloves
- Epoxy Spreader
- Trident-Reinforcing Epoxy
- Trident-Glass™ Outer Wrap
- Compression Film

Benefits

- No shutdown or reights
- Simple application
- No pipe replacement
- Conforms to irregular shapes
- No contractor required
- Integrity management

Typical Applications

- Repair and reinforcement of natural gas piping due to:
 - Corrosion repair
 - Atmospheric corrosion
 - Riser reinforcement
 - Mechanical protection
 - Coating repair
 - Air to soil interface
- Used above or below ground

Properties

VOCs: None

Service Temp:

-50 to 250°F (-46 to 121°C)

Application Temp:

32 to 150°F (0 to 65°C)

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READ ALL INSTRUCTIONS BEFORE OPENING PACKAGE!



1. Locate area of corrosion. If corrosion is at the air to soil interface, dig up riser to expose approximately 2" (5cm) below the length of area to be repaired, as proper repair of the riser piping requires a minimum of 1" (25.4mm) of good, non-corroded pipe above and below the pipe surface to be repaired.



2. Measure repair area to determine if one or more kits are needed for the corresponding length. Mark area 1" (25.4mm) above and below repair area to ensure proper application of composite. NOTE: If the pipe surface area to be repaired is longer than 12" (30.5cm) , a second repair kit will be required.



3. Remove pipe coating, loose rust, paint and other foreign matter using a wire brush, or included sanding cloth. Remove any oils, greases, soaps or foreign materials from pipe surface using the included solvent cleaning wipe. For engineered applications prepare surface in accordance with our Specification and Application Guide.

4. Mix the epoxy by removing the plastic separator and mixing/kneading epoxy inside of the pouch until no white or green streaks remain.



5. Put on supplied gloves and uniformly apply all of the epoxy to the entire circumference of the pipe using included epoxy spreader. Begin epoxy application at the bottom of the marked repair area and work upward to the top of the marked area up with an even, consistent coverage. Inspect the entire circumference of the repair to ensure that no bare spots are exposed. Ideally there should be 30-45 mils max epoxy coverage.

6. Put on clean gloves. Open the Trident-Glass Outer Wrap foil pouch and submerge the roll of Trident-Glass in water for 10 to 20 seconds. Start wrapping 1" (25.4mm) beyond the epoxy; for vertical applications start the wrap at the bottom of riser and work up. The first 2 layers will be applied using 100% overlap, thus providing 2 layers. Continue wrapping using a 50% overlap pattern until reaching 1" (25.4mm) beyond the epoxy, where you will again use a 100% overlap pattern before transitioning back using a 50% overlap. Continue this process, using 100% of the Trident-Glass supplied. NOTE: Each pass equals 2 layers using 50% overlap; apply 4 passes to ensure a minimum of 8 layers of coverage over the entire repair area.



7. Apply 4 layers of clear plastic compression film starting 2" (5cm) beyond the outer edge of Trident-Wrap, pulling firmly during application. Using a perforating tool or wire brush, perforate all layers of compression film to allow the gas generated by the curing process to escape. Remove compression film after 10 minutes.

8. Once the Trident-Glass Outer Wrap is fully cured, 28 minutes at 75°F (23°C), it should be protected with a UV coating, such as Syntho-Glass®UV, backfill and return to service.

Precautions

The resin used in Trident-Glass will adhere to skin and clothing and may cause skin irritation. Protective gloves should be worn while handling. Care should be exercised to avoid contact with unprotected areas of skin and eyes. Swabbing lightly with alcohol or acetone will help remove resin from skin (prior to set). If eyes are exposed to the resin, flush eyes with water 15 minutes and then contact physician. **STORE IN A COOL, SHADED AND DRY AREA.**

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