

Belzona Repairs Glass Lined Manway Cover during a Turnaround

ID: 10106

Industry: Chemical & Petrochemical

Application: VPF-Valves, Pipes and Fittings

Substrate: Carbon steel

Products: Belzona 1511 (Super HT-Metal), Belzona 1593, Belzona 9111 (Cleaner Degreaser)

Customer Location: Greater Houston, TX

Application Date: October 2025

Problem

The customer has a large glass lined tank with a manway cover that experienced external corrosion from a leak dripping on it, and chipping to the glass lining at the sealing area. The neck of the nozzle experienced pitting and made it difficult to reattach the flange to create a proper seal. Also, the outer lip was almost gone due to corrosion, which created issues when trying to seal with clamp. They noticed this during a turnaround, so time was limited for a return to service for them to stay on schedule.



Before image of the manway cover



After abrasive blasting the externals, SSPC-SP10



Rebuild with Belzona 1511 to create the proper lip around the circumference and rebuild pitting on the neck.



After Belzona 1593 was applied to provide corrosion protection

Application Situation

Being in a turnaround, the customer needed a quick cost effective solution. To replace the manway was not feasible because to manufacture the cover and apply a glass lining to the internals, at the same dimensions would be difficult, costly and take too much time. Also, it would not stop the external corrosion so an external coating would still be needed, and the existing external white paint failed already.

Weld repair was not possible due to it causing damage to the glass liner. Internally, the glass lining can not be touched up or repaired in situ due to glass lining application process making it not feasible. The ability to pick up the manway take it to our shop, Belzona it, and return it back to customer over a weekend was the best option. This allowed them to stay on schedule during the turnaround, saving time and money.

For more examples of Belzona Know - How In Action, please visit <https://khia.belzona.com>

ISO 9001:2015

FS 695214

ISO 14001:2015

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Application Method

1. Abrasive blasted the external of the manway cover, SSPC-SP10. Solvent wipe with Belzona 9111.
2. We hand sanded some of the glass lining at the sealing surface, so we can tie into with coating. We did not grit blast the glass.
3. Applied Belzona 1511 by stiff bristled brush & applicator to rebuild pitting and help create a smooth neck/nozzle for the flange to reattach.
4. Applied two coat system of Belzona 1593.
5. Customer applied UV resistant paint in the field.

Belzona Facts

Belzona 1511/1593 were chosen due to their ability to handle high temps and chemical resistance. The asset ran at elevated temperatures and the previous external corrosion is expected to be caused by a chemical spill from neighboring asset onto the manway. Our quick return to service, material in stock in town, turn key capabilities, and quality craftsmanship is what led the customer to choosing Belzona.

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