

Belzona Superwrap II Application inside Marine Sewage Tank

ID: 8414

Industry: Marine
Application: VPF-Valves, Pipes and Fittings
Substrate: Stainless steel
Products: * Belzona 1121 XL Metal ,

Customer Location: Scotland
Application Date: July 2020

* Belzona 1981 (Superwrap II) ,
* Belzona 9381 ,
* Belzona 9382 ,
* Belzona 5811 Immersion Grade ,

Problem

No hot work was allowed in the area so welding was out of the question. Cold plate bonding was first considered over the full floor & up the walls of the tank. Due to the small size of manway into the tank many small rolled plates would be required. The geometry within the tank was also challenging. There were right angled corners leading to a small sump at the base of the tank. The welded corners here were badly corroded & needed repairing.



Photograph Descriptions

- * 1 - The areas of metal loss are marked in red here ,
- * 2 - Surface preparation, the tight access is apparent. Aluminium Oxide grit was used to achieve the required surface profile on stainless steel. ,
- * 3 - Belzona Superwrap system applied to walls & tank base. The ability to encapsulation complex geometry is shown here ,
- * 4 - Belzona 5811 applied ,

Application Situation

A stainless steel marine sewage tank was experiencing extensive metal loss through pitting corrosion. The welds within the tank were being badly affected & the customer was concerned the tank would soon begin to leak.

Application Method

The application was carried out in accordance with a modified version of Belzona System Leaflet VPF-11 and VPF-02

The tank was first grit blasting to SA2.5 & minimum 75 microns. The pitting areas were then faired with Belzona 1121. Following this the Belzona Superwrap II system was applied as a four layer system. Once this was dimensionally stable the area was abraded again,

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ISO 9001:2015
FS 695214
ISO 14001:2015
EMS 695213

Belzona products are
manufactured under an ISO
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two coats of Belzona 5811 Immersion grade were applied throughout the tank for corrosion protection.

Belzona Facts

Belzona Superwrap II was chosen due to its ability to be applied over complex geometry. It could be mixed outside the tank, passed in through the tight manway & applied seamlessly over the curves & corners within the tank. The full Belzona system reinforced the corroded areas of the tank whilst providing long term corrosion protection. The application was carried out within a five day shutdown window.

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