

# Structural Reinforcement of Nozzle with Belzona SW II

ID: 8137

Industry:

Customer Location: *Sao Paulo, Brazil*

Application:

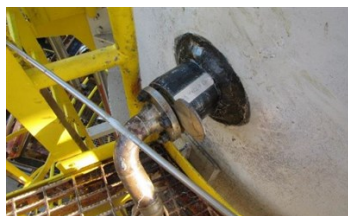
Application Date: *December 2018*

Substrate: *SA516 Gr 70*

Products: *\* Belzona 1311 (Ceramic R-Metal) ,  
\* Belzona 1982 (Superwrap II) ,  
\* Belzona 9381 (Carbon Fiber Reinforcement Mesh) ,  
\* Belzona 9382 (Release Film) ,*

## Problem

*Nozzle welded to the bottom of the tank showing accelerated signs of internal corrosion. Fluid: Oxygen Scavenger Pressure: 1 kg/cm2 Temperature: 26°C Original Wall Thickness: 8.7mm Final Wall Thickness: 4mm*



## Photograph Descriptions

\* 1. Overall view of finished repair 2. Overall view of finished repair 3. Overall view of finished repair 4. Close-up view with metallic id tag ,

## Application Situation

Nozzle of process vessel suffering from internal corrosion and significant thickness loss. A carbon fiber polymeric compliant repair was needed, to comply with the structural reinforcement design of the equipment, and allowing for its operational continuity and reliability.

## Application Method

Surface preparation was performed in accordance with SSPC SP11 with a MBX, achieving the required surface roughness for the application. After surface cleaning to get rid of oil and contamination, Belzona 1311 was used to bond a metallic coupler. The Belzona Superwrap II system was then applied around the nozzle and in part of the tank wall, with a final thickness of 6mm.

## Belzona Facts

Application performed on site with certified Belzona applicators in accordance with ASME PCC-2. By restoring the structural integrity of the equipment with a non-metallic repair the end user was able to save on a lot of labor and safety of its employees.

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

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