

# BELZONA SAVES REFINERY FROM DAILY LOSSES OF £1.5M

ID: 4661

Industry: Oil & Gas  
Application: VPF-Valves, Pipes and Fittings  
Substrate: Steel  
Products: \* Belzona 1221 (Super E-Metal) ,  
\* Belzona 1161 (Super UW-Metal) ,  
\* Belzona 4301 (Magma CR1 Hi-Build) ,

Customer Location: Petrochemical Refinery, UK  
Application Date: June 2013

## Problem

Severe external corrosion had reduced wall thickness. The client required a fast solution to this problem with minimal service disruption. After all, every day of shutdown was costing them £1.5 million.



## Photograph Descriptions

- \* Corroded and pitted pipework ,
- \* Temporary wrap over holed area ,
- \* Application of chemical resistant wrap ,
- \* Final wrap and flange encapsulation ,

## Application Situation

Flare line at refinery.

## Application Method

The application was carried out in accordance with Belzona Know-How System Leaflet VPF-11. The application team worked on live equipment, hence shutdown was not necessary. Where leaks were present, a plate was bonded using Belzona 1221 over a holed area. A temporary wrap was created around that area using the same material. Then the whole pipe was wrapped using Belzona 4301. Belzona 1161 wrap was applied on top and also used to encapsulate the adjacent flange.

## Belzona Facts

This composite system was chosen so that any subsequent through wall corrosion in the pipeline caused by the internal acidic gases

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

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would initially meet Belzona 4301, which has excellent acid resistance. Belzona 1161 in turn adds mechanical strength, while at the same time protecting the pipework from external damage. The Belzona solution was applied online, hence a shutdown estimated to cost the refinery £1.5M/day was not required. The application only took 3 days to complete.

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