

# Belzona modifies flanges

ID: 8229

Industry: Oil & Gas

Customer Location: Germany

Application: VPF-Valves, Pipes and Fittings

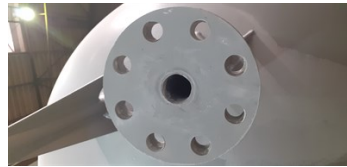
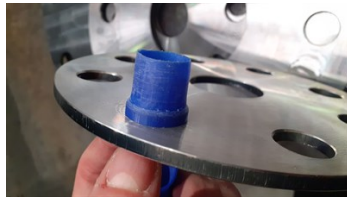
Application Date: February 2020

Substrate: Carbon steel

Products: \* Belzona 1111 (Super-Metal) Belzona 9411 (Release Agent) ,

## Problem

The standard flange face formers could not be used so a brand new technique was created using a series of 3D printed collars that fit within the bolt holes and gave shimming of 5mm so the Belzona would cover the RF of various sizes 2, 4, 8 inch.



## Photograph Descriptions

\* 1. Shot of Vessel 2. Collars within former 3. Repaired flange with nozzle insert 4. Final View of repaired flanges ,

## Application Situation

Vessel required flanges to be modified to accept pipe connections when delivered to site. Due to an error at the manufacturing and design stage, raised face (RF) flanges were incorrectly welded onto the pipe inlets and outlets, these required to be flat face (FF) flanges.

## Application Method

The repair was completed with a modified version of Belzona system Leaflet GSS-06 using steel formers and 3D printed collars.

## Belzona Facts

The vessel had already been manufactured and the cost of replacing the flanges at this late stage would result in late delivery of the vessel to the client.

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ISO 9001:2015

FS 695214

ISO 14001:2015

EMS 695213

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