

# Belzona Repairs Nozzles with Through-wall Defect Online on Offshore Platform

ID: 8571

**Industry:** Oil & Gas  
**Application:** VPF-Valves, Pipes and Fittings  
**Substrate:** Carbon Steel  
**Products:** \* Belzona 1111 (Super-Metal) ,  
 \* Belzona 1983 (Superwrap II Resin) ,  
 \* Belzona 9381 ,  
 \* Belzona 9382 ,  
 \* Belzona 9111 (Degreaser) ,  
 \* Belzona 9611 ,

**Customer Location:** China  
**Application Date:** 2017

## Problem

The nozzles of closed drain drum had developed thin-wall defect and through-wall defect due to CUI.



## Photograph Descriptions

- \* 1. Nozzle with through-wall defect ,
- \* 2. During Belzona Superwrap II application ,
- \* 3. Complete application of Belzona Superwrap II application ,
- \* 4. View of nozzles after 3 years ,

## Application Situation

Nozzles of closed drain drum on offshore platform suffering from corrosion and significant thickness loss. The design pressure is 0.35MPa, the design temperature is -3°C~110°C.

## Application Method

The repairs were designed in accordance with ISO24817 standard. The application was completed by Belzona trained and validated installers in accordance with Belzona Know-How System Leaflet VPF-11. Belzona supervisor and the on-site representative of BV supervised the whole process. The whole application involved 2 one and half-inch nozzles, 15 two-inch nozzles, 1 three-inch nozzle and 4 four-inch nozzles. One of the 2" nozzles has developed through-wall defect.

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

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

Belzona products are  
 manufactured under an ISO  
 9000 Registered Quality  
 Management System.

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## Belzona Facts

For conventional welding, the whole closed drain drum need to be shut down and isolated, with thorough cleaning and water injection, which costs at least 15 days of downtime and affects the production. Welding in confined space may also cause hazards. Therefore, the customer has been looking for the solutions with no hot work required but also accepted by classification society. Meeting the standard of ISO24817 and ASME PCC-2, Belzona Superwrap II can repair the nozzles of pressure vessels on-site, with no downtime or hot work required. The application is still in good condition after 3 years.

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