

## COLD APPLIED BELZONA VESSEL LININGS TAKE THE HEAT

**CUSTOMER**  
FPSO, Brazil

**APPLICATION DATE**  
September, 2009

**APPLICATION SITUATION**  
2 Dual Frequency Electrostatic Desalters, Dual Frequency Electrostatic pre Dehydrator and a Production Separator were manufactured to be used on an FPSO at the Jubarte field, Brazil. Each vessel weighing 70 ton with a total internal area of 1,100 m<sup>2</sup>. Vessels were designed to handle crude oil with 160°C design and 120°C operating temperature. Design pressure: 1451.3 kPa g, operating pressure up to 882.6 kPa g.

**PROBLEM**  
Pressure vessels required a corrosion resistant coating able to resist the high in-service temperatures. Adjacent flange faces and nozzles also required corrosion protection.

**PRODUCTS**  
Belzona 1591 (Ceramic XHT Metal)  
Belzona 1511 (Super HT-Metal)

**SUBSTRATE**  
Steel

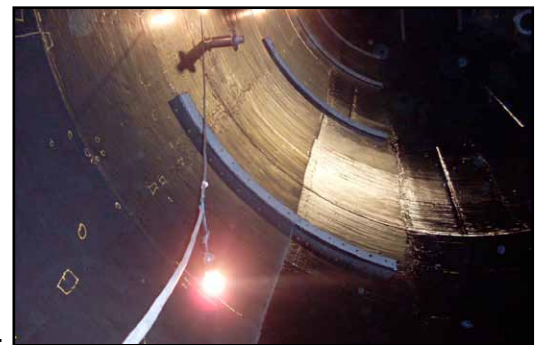
**APPLICATION METHOD**  
Application was carried out in accordance with Belzona Know-How System Leaflets - TCC-5 for protecting and rebuilding steelwork, TCC-16b for protecting the small bore nozzles and VPF-13 for sealing and repairing the flange faces.

**BELZONA FACTS**  
Belzona system was chosen due to its excellent heat resistance properties and proven longevity. The work was carried out in September 2009 and in February 2013 one of the desalters was opened for inspection. The condition was described as "flawless". The lining, flange faces and small bore nozzles all showed no signs of deterioration.

- PICTURES**
1. Vessel, outer view
  2. Lining application
  3. Flange face sealed and nozzle insert installed
  4. Inspection in 2013



1.



2.



3.



4.

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



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