# HEAT EXCHANGER RELIABLY REFURBISHED WITH BELZONA

## **CUSTOMER**

Petrochemical Plant, Teesside, UK

#### **APPLICATION DATE**

2009

#### **APPLICATION SITUATION**

Straight Tube Heat Exchanger

#### **PROBLEM**

This Propylene heat exchanger operates at up to 120°C and the tube face had suffered severe galvanic and pitting corrosion. The separator channels and tube face had to be completely rebuilt to prevent bypass of the separator plate. In addition, the client required a lining to prevent further attack to the water boxes, nozzles and the tube faces.

#### **PRODUCTS**

Belzona 1511 (Super HT Metal) Belzona 1391 (Ceramic HT)

#### **SUBSTRATE**

Carbon Steel

## **APPLICATION METHOD**

Application was carried out in accordance with Belzona Know-How System Leaflet HEX-1, HEX-2 and HEX-3.

# **BELZONA FACTS**

Belzona 1511 high temperature resistant paste grade was used to resurface the tube sheet and rebuild the separator channels. All parts of the heat exchanger were then protected with a simple brush application of Belzona 1391 which is capable of withstanding immersion conditions of 120°C. Prior to this work the client was considering a complete replacement of the asset, which would have been at least 12 times the refurbishment costs at that time. The application was in excellent condition when inspected in 2012.

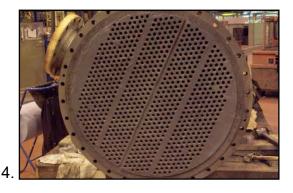
# **PICTURES**

- 1. Heat exchanger arriving in workshop
- 2. Pitting damage clearly visible after grit blasting
- 3. Tube face being rebuilt
- 4. Belzona application completed









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