

HEAT EXCHANGER RELIABLY REFURBISHED WITH BELZONA

ID: 6074



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.

APPLICATION SITUATION

Straight Tube Heat Exchanger

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.

INDUSTRY

Chemical & Petrochemical

LOCATION

Petrochemical Plant, Teesside, UK

APPLICATION DATE

2009

PRODUCTS

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

SUBSTRATE

Carbon Steel

PHOTOS

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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