Brine Heat Exchanger Cover Refurbishment

ID: 9732

Industry:	*Chemical & Petrochemical*	Customer Location:	*Teesside*
Application:	*HEX-Heat Exchangers*	Application Date:	*September 2024*
Substrate:	*Carbon steel*		
Products:	*Belzona 1511 (Super HT-Metal),Belzona 1593,Belzona 9111 (Cleaner Degreaser),Belzona 9411 (Release Agent)*		

Problem

The water box cover had suffered severe pitting corrosion and the separator channel and edges needed to be rebuilt to prevent bypass of the separator plate. In addition, the client required a lining to prevent further attack to the tube face.

Pitting damage of the cover after grit blasting.

Belzona 1511 rebuild reforming separator channel.

Belzona 1593 application first coat.

Belzona 1593 application complete.

Application Situation

Brine Heat Exchanger operating up to 130°C.

Application Method

After removing the existing coating, soluble salts were removed from all surfaces prior to starting the Belzona application. Surfaces were then rebuilt using Belzona 1511, before applying the high temperature coating Belzona 1593.
The refurbishment also included the water box and tube face on this heat exchanger.
Applications were carried out in accordance with Belzona Know-How System Leaflet HEX-1, HEX-2 and HEX-3.

Belzona Facts

Belzona 1511 is a high temperature resistant paste grade and was used to rebuild metal loss and resurface the pitted areas.
All parts of the heat exchanger were then protected with a simple brush application of Belzona 1593 which is capable of withstanding immersion conditions of 160°C.
The client was delighted with the refurbishment, which had been completed for a fraction of the cost of a replacement.