

ONTARIO
**KNOW-HOW
IN ACTION**

BELZONA[®]
GREAT LAKES

007/2021

**OIL & GAS
FLOATING HEAD
COATING**


BELZONA[®]
Repair • Protect • Improve
AUTHORIZED DISTRIBUTOR

THE PROJECT

FLOATING HEAD PROTECTION

APRIL, 2015

The transfer of heat between two or more fluids is vital for applications in space heating and air-conditioning, power generation, chemical processing, and many others. This is possible through the use of heat exchangers, and maintaining their efficiency and reliability is important for asset owners and industrial processes.

One of the biggest maintenance challenges on a heat exchanger is controlling the corrosion rate in its tube sheet, water box and floating head or end covers. The presence of dissimilar metals can accelerate galvanic corrosion, in addition to impacts of erosive flow and chemical attack.

If left untreated, the loss of metal can cause leakages of the coolant and contamination of the chilled or heated fluid.

PROTECTIVE LINING

A manufacturer recognized as a world leader in the supply of specialized and standard shell and tube heat exchangers was looking to provide an extended service life to an oil and gas client in Ontario. To ensure optimum performance, a Belzona ceramic coating was selected to be applied at the construction stage.

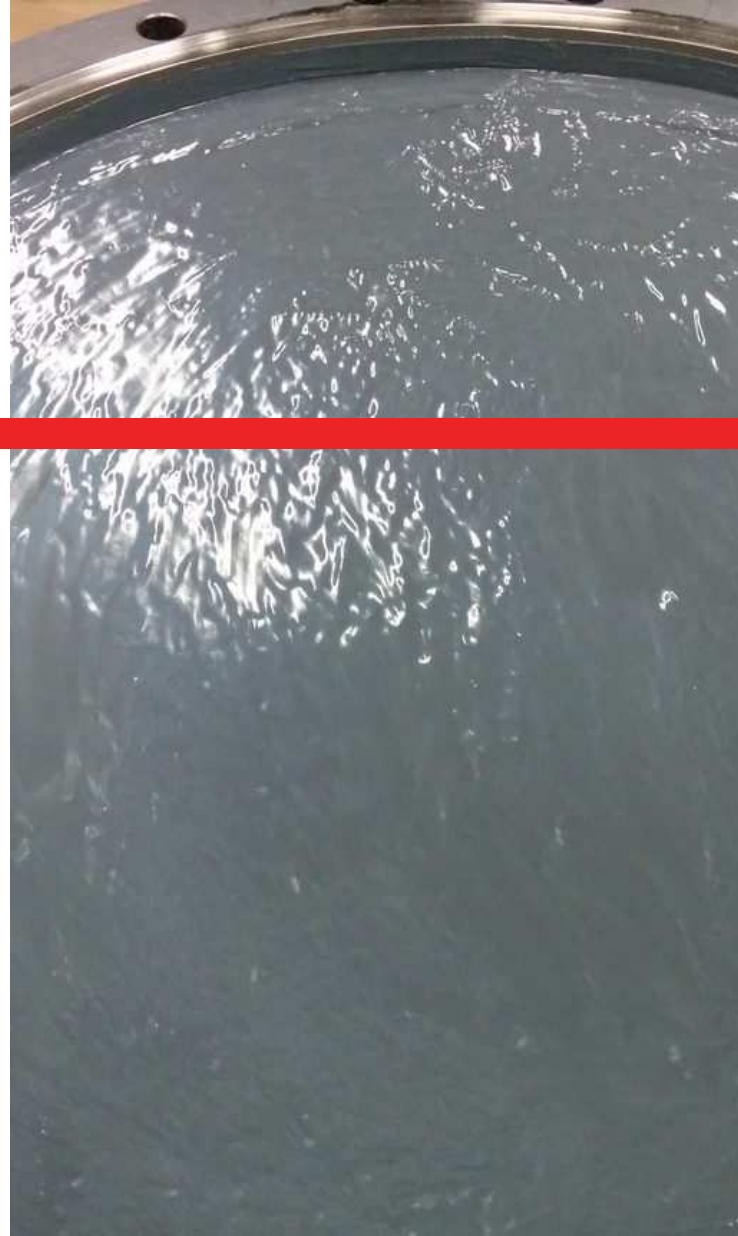


THE SOLUTION

Belzona 1321 (Ceramic S-Metal) was specified as the lining material because of its outstanding mechanical properties and the protection it offers to equipment subjected to the effects of corrosion and erosion.

The surface of the floating head was prepared via grit blasting following SSPC SP10. Masking tape was placed at the outer edge of the rebate grooves in order to highlight the area to be coated and to give a neat and clean finish. Then, the selected Belzona product was mixed and an even coat was applied at the specified thickness, using stiff short bristled brushes.

CERAMIC FILLED



Then, it was made sure that the coating was finished into the rebate grooves. Wet film thickness gauges were used to ensure the recommended film thickness was achieved. The masking tape was removed immediately. As soon as the first coat was stable, the second coat was applied.

Belzona 1321 (Ceramic S-Metal) is a solvent-free epoxy system with ceramic fillers that not only offers good chemical resistance, but also excellent erosion and wear resistance. Since this product exhibits a high strength as an structural adhesive it is also widely used for bonding or for creation of irregular load bearing shims.