Belzona repairs flange and offers protection against corrosion

ID: 9506

Industry: Chemical & Petrochemical Customer Location: Petrochemicals, Brazil

Application: VPF-Valves, Pipes and Fittings Application Date: August 2015

Substrate: Carbon steel

Products: Belzona 1311 (Ceramic R-Metal), Belzona 1321 (Ceramic S-Metal), Belzona 9411 (Release Agent)

Problem

An RTJ flange at a petrochemical plant was exposed to high salt and H2S content from the pumping activities, leading to a loss of substrate and subsequent leakage.



Damaged flange face due to high salt and H2S content



Surface preparation on the groove



RTJ groove shaping



Flange face repair complete and ready to put back in service

Application Situation

This RTJ flange facilitated the passage of water produced at 50°C and 90 kgf/cm².

Application Method

After hydro-blasting with ultra high pressure for decontamination, salinity measurement and abrasive blasting were performed on the flange surface to achieve the SA 2 1/2 standard.

The application was then carried out in accordance with Belzona Know-How System Leaflet VPF-9 and VPF-13 to restore the flange profile.

Belzona Facts

The flange was subjected to a pressure of 150 kgf/cm2 and this application method was approved to be used on all flanges in the station. There was no need to replace the flanges with new ones to stop the leaks. This repair solution helps improve efficiency in the field and environmental preservation.