

# BELZONA STRESS CRACK LEAK SEALING AND PLATE BONDING ON EXTERNAL SURFACE OF CRUDE OIL EXPORT PUMP.

ID: 9474

Industry: Oil & Gas

Customer Location: RAS LAFFAN, QATAR

Application: CEP-Centrifugal Pumps

Application Date: June 2022

Substrate: Stainless-steel

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

## Problem

The pump is suffering from leakage due to a combination of tensile stress and a corrosive environment which is the chloride content of the medium.

Leak due to stressed crack line which requires a crack sealing technique and plate bonding.



WIDENED CRACK LINE DRILLED ON BOTH ENDS.



DRY FITTING OF THE PLATE PRIOR TO HOLE SEALING AND PLATE BONDING



COMPLETED PLATE BONDING USING BELZONA 1311



TOP COATING COMPLETED FOR FOR THE BONDED PLATE PROTECTION.

## Application Situation

A fabricated plate which is curved according to the groove of the external profile of the pump plate was prepared to completely cover the whole affected area.

The crack has to be sealed externally due to insufficient or limited access on internal area of the pump.

## Application Method

Application was done using stiff bristled brush by manual application. Plate bonding was recommended to build additional wall thickness on the affected part of the pump.

The Application was done in accordance with Belzona System Leaflet CEP-06

## Belzona Facts

Belzona Ceramic Rebuilding and Coating Grade has a high resistance against erosion-corrosion. Solution provided was accepted and approved by client instead replacing the whole pump. According to the client's feedback, after putting the pump back in service

For more examples of Belzona Know - How In Action, please visit <https://khia.belzona.com>

ISO 9001:2015

Belzona products are

FS 695214

manufactured under an ISO

ISO 14001:2015

9000 Registered Quality

EMS 695213

Management System.

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offshore, the equipment continues to perform well in operation.

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