

# Heavily eroded heat exchanger components are revitalised

ID: 9797

**Industry:** Oil & Gas  
**Application:** HEX-Heat Exchangers  
**Substrate:** Carbon steel  
**Products:** Belzona 1391T, Belzona 1511 (Super HT-Metal)

**Customer Location:** United Kingdom  
**Application Date:** February 2025

## Problem

Four components from various vessels required internal repairs and coating to restore them to the required specification.



Heavily eroded heat exchanger components were in need of repair



Components are grit blasted back to expose eroded areas and produce a minimum surface profile



After the components are reprofiled using Belzona 1511, the first coat of Belzona 1391T is applied



Two coats of Belzona 1391T and the components are protected against erosion and ready to go back into commission

## Application Situation

Each component was in a heavy state of erosion suspected from chemical attack. After surface preparation, the components were reprofiled with Belzona 1511, then coated with Belzona 1391T to protect the components from future chemical attack.

## Application Method

Substrate preparation was carried out with conventional grit blasting with an angular abrasive to achieve a minimum surface profile of 75µm and a surface cleanliness of SA 2½.

Following surface preparation, technicians applied Belzona 1511 to areas requiring reprofiling, restoring the internal body to an acceptable condition.

Where the internal diameter of nozzles were under 75mm, premanufactured nozzle inserts were installed. A two-coat system of Belzona 1391T was applied, with each coat achieving a target thickness of 450µm.

## Belzona Facts

Belzona 1391T was chosen for the repairs due to its proven success on other process vessels at their site over the years.

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FS 695214  
ISO 14001:2015  
EMS 695213

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