

# Belzona Impeller Repair

ID: 8086

Industry: Fluid Flow  
Application: CEP-Centrifugal Pumps  
Substrate: Steel  
Products: \* Belzona 1311 (Ceramic R-Metal) ,  
\* Belzona 4311 (Magma CR1) ,  
\* Belzona 9111 (Cleaner Degreaser) ,

Customer Location: Wrexham, United Kingdom  
Application Date: February 2019

## Problem

The pump and impeller were corroded due to contact with sulfuric acid at approximately 20% concentration, caused by back feed into the system, with the primary contact of waste or rinse water.



## Photograph Descriptions

- \* Damaged impeller with corrosion after being exposed to sulfuric acid and water. ,
- \* Impeller profile restored using Belzona 1311 (Ceramic R-Metal). ,
- \* Belzona 4311 (Magma CR1) coated impeller. ,
- \* Side-view of the finished coated and rebuild impeller. ,

## Application Situation

Corroded pump impeller.

## Application Method

Application carried out as per Belzona Know-How System Leaflets CEP-1 & CEP-3. Surface contamination was removed and degreased with Belzona 9111, then blasted the surface to achieve SA 2 ½. The impeller was then rebuilt to profile using Belzona 1311 and reinforcing materials. Two coats of Belzona 4311 was then applied to protect against further chemical attack.

## Belzona Facts

Belzona was chosen to rebuild the impeller as a cost-effective and efficient option rather than replacement. Belzona also offers protection against any further corrosion with the coating. This application was carried out by Belzona, specialist applicators of

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ISO 9001:2015  
FS 695214  
ISO 14001:2015  
EMS 695213

Belzona products are  
manufactured under an ISO  
9000 Registered Quality  
Management System.

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Belzona in the UK. They were selected due to their extensive experience in these type of workshop applications.

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