

# Belzona Saves Impeller After Chemical Exposure

ID: 7907

Industry: *General Industry*  
Application: *CEP-Centrifugal Pumps*  
Substrate: *Mild Steel*  
Products: *\* Belzona 1311 (Ceramic R-Metal) ,*  
*\* Belzona 4311 (Magma CR-1) ,*  
*\* Belzona 9111 (Cleaner/ Degreaser) ,*

Customer Location: *Bristol, UK*  
Application Date: *Feb 2019*

## Problem

*A pump and impeller were badly damaged by accidental contamination with sulfuric acid at 20% concentration. Lead time for a new unit was 12 weeks, leaving the end user with an expensive period of prolonged downtime. The impeller needed rebuilding to make it operational, and then coating to protect from any further incidental contact.*



## Photograph Descriptions

- \* 1- Corroded impeller ,
- \* 2- Close up of interior damage ,
- \* 3- Profile after grit blasting ,
- \* 4- Completed repair after coating ,

## Application Situation

A circulation pump required its impeller rebuilding after it became worn through accidental acid exposure.

## Application Method

Substrate was grit blasted to 75 microns and cleaned to SA 2.5. The damaged areas of the impeller were then rebuilt, to as near to the original profile as possible, using Belzona 1311. Some areas were required rebuilding due to the extensive damage. Once the Belzona 1311 had cured, two coats of Belzona 4311 were applied to protect against further incidental contact. This was completed in accordance with Belzona System Leaflet CEP-1.

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

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

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

[www.belzona.com](http://www.belzona.com)

**BELZONA**  
Repair • Protect • Improve

## Belzona Facts

Due to the long lead time of a replacement, rebuilding the impeller was the only option to get the customer up and running as quickly as possible. The rebuild was a complete success and the customer was delighted with the standard of work which such a fast turn around.

---

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

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

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

[www.belzona.com](http://www.belzona.com)

