

## BELZONA SAVES IMPELLER AFTER CHEMICAL EXPOSURE

**CUSTOMER**  
Bristol, UK

**APPLICATION DATE**  
Feb 2019

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

**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.

**PRODUCTS**  
Belzona 1311 (Ceramic R-Metal)  
Belzona 4311 (Magma CR-1)  
Belzona 9111 (Cleaner/ Degreaser)

**SUBSTRATE**  
Mild Steel

**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 Know-How System Leaflet CEP-1.

**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.

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



1.



2.



3.



4.

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

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