

# Pump Diffuser Repaired Using Belzona 1300 Series

ID: 8500

Industry: Power  
Application: CEP-Centrifugal Pumps  
Substrate: Steel Alloy  
Products: \* Belzona 1311 (Ceramic R-Metal) ,  
\* Belzona 1341 (Supermetalgilde) ,

Customer Location: Nova Scotia, Canada  
Application Date: May 2021

## Problem

Corrosion and erosion from seawater was causing the leading edge of the diffuser vanes to wear away. Approximately 50 to 75mm of the leading edge was gone when this pump component was taken out for service. Weld repairs were not an option due to the steel alloy material.



## Photograph Descriptions

- \* 1. Pump diffuser in poor condition on vane leading edges and widespread pitting. ,
- \* 2. Diffuser blasted and steel mesh tack welded into place to support Belzona 1311 rebuilding process. ,
- \* 3. Leading edges of the vanes re-built with Belzona 1311. ,
- \* 4. Diffuser fully coated with two coats of Belzona 1341 Supermetalgilde. ,

## Application Situation

Sea water cooling system pump for thermal power plant.

## Application Method

The application was carried out in accordance with Belzona Know-How System Leaflet CEP-1 to repair the leading edges of the diffuser vanes, and CEP-3 to line the internal surfaces to protect from the effects of corrosion, erosion, cavitation and provide some efficiency enhancement.

## Belzona Facts

The customer needed a very fast turnaround to return this pump component to service. Welding was also not a possibility due to incompatibilities with the alloy substrate. The high market price of steel also made this repair very economical.

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

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