

# BELZONA FILLS THE VACUUM

ID: 7997

Industry: Fluid Flow  
Application: CEP-Centrifugal Pumps  
Substrate: Stainless Steel  
Products: \* Belzona 4341 ,

Customer Location: Spain  
Application Date: June 2013

## Problem

*Due to chemical attack caused by the sulfuric acid at elevated temperatures, the pump has lost material on all components. As a result the tolerances no longer provide an effective vacuum and the pump is running at low efficiency.*



## Photograph Descriptions

- \* 1. Internal casing after preparation ,
- \* 2. Internal casing after coating ,
- \* 3. End covers coated ,
- \* 4. Impeller coated ,

## Application Situation

A vacuum pump in a chemical plant carrying sulfuric acid at elevated temperatures.

## Application Method

After cleaning with a solvent degreaser to remove chemical residues, the surface was grit blasted to achieve a surface cleanliness in accordance with Swedish Standard SA 2.5 "Near White Metal". The entire internal surface, end covers, and impeller were coated with 2 layers of Belzona 4341. On the impeller tips, the coating was rebuilt to an excess of 5mm, then machined back to the required tolerances. The application was in accordance with a modified version of Belzona System Leaflet CEP-03 & CEP-07.

## Belzona Facts

Belzona 4341 was chosen for its excellent resistance to inorganic acids at elevated temperatures. The 100% solids nature of the product meant that a precise thickness could be applied, easily allowing for the tolerances to be restored to the pump. The efficiency of the pump was fully regained, resulting in significant operating cost savings.

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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9000 Registered Quality  
Management System.

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