

# BELZONA RESTORES CRITICAL TOLERANCES IN LIQUID RING VACUUM PUMP

ID: 2154

Industry: *Pulp & Paper*  
 Application: *FBC-Fans, Blowers and Compressors*

Customer Location: *Paper mill, Australia*  
 Application Date: *December 2005*

Substrate: *Stainless steel*  
 Products: *\* Belzona® 1111 (Super Metal) ,*

## Problem

*The pump is subjected to corrosion and “carry over” of the paper pulp. The tolerance between the outside diameter of the cone and the internal taper of the rotor was no longer correct, due to the wear on the cone flange, clearly visible near the bolt holes.*



## Photograph Descriptions

- \* A dismantled vacuum pump from Paper Mill ,
- \* Cone from 14,000 CFM vacuum pump undercut prior to the application ,
- \* The stainless steel cone repaired with Belzona® 1111 after 4 years in service ,
- \* The stainless steel rotor is showing significant wear, whereas the Belzona® 1111 applied to the adjacent cone is not ,

## Application Situation

Stainless steel cone from a 14,000 CFM vacuum pump. The tolerance between the outside diameter of the cone and the taper of the rotor is critical and must be maintained to allow the pump to operate efficiently.

## Application Method

Application was carried out in accordance with Belzona Know-How System Leaflet FBC-10. The stainless steel cone in this pump was rebuilt with Belzona® 1111 and machined to correct dimensions and taper angle.

## Belzona Facts

The pump cone was inspected after 4 years in service. Despite the aggressive conditions, the Belzona® 1111 is showing virtually no wear. The stainless steel rotor is showing significant wear whereas the Belzona® 1111 applied to the adjacent part (the cone) is not.

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  
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