

# BELZONA REPAIRS A BROKEN HYDRO ELECTRIC TURBINE RUNNER

ID: 924

Industry: Power  
Application: CEP-Centrifugal Pumps  
Substrate: Cast Steel  
Products: Belzona® 1311 (Ceramic R-Metal)<div>Belzona® 1321 (Ceramic S-Metal)</div><div>Belzona® 1341 (Supermetalgilde) </div>

Customer Location: Hydro Electric Plant, U.S.A  
Application Date: May, 2007

## Problem

Loss of balance and horsepower.



## Photograph Descriptions

\* Broken runner blade , \* Expanded metal tack welded , \* Blades rebuilt with Belzona® 1311 , \* Completed application after coating runner ,

## Application Situation

Wicket gate came loose and fell into turbine breaking three blades on runner.

## Application Method

Application carried out in accordance with the Belzona Know-How System Leaflets CEP-1 & -3. Expanded metal was tack welded in place before rebuilding with Belzona® 1311. Complete runner then coated.

## Belzona Facts

At a cost of less than \$5,000.00 in Belzona products, the hydro electric plant saved many thousands of dollars by repairing the turbine instead of sending it out to be repaired. Overall efficiency has been increased by 5-7 kilowatts per hour.

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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manufactured under an ISO  
9000 Registered Quality  
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