

## BELZONA REPAIRS KAPLAN TURBINE BLADES IN FRANCE

### CUSTOMER

Electric supply company in France

### APPLICATION DATE

February 2000

### APPLICATION SITUATION

Kaplan turbine hydroelectric power station on the Moselle River in France.

### PROBLEM

Erosion-corrosion of the blades leading to large loss in efficiency. In particular, cavitation had caused deep erosion in localized areas.

### PRODUCTS

Belzona® 1111 (Super Metal)

Belzona® 1341 (Supermetalgilde)

### SUBSTRATE

Cast iron

### APPLICATION METHOD

The application was carried out in accordance with a modified version of Belzona Know-How System Leaflets CEP-1, -10. The blade edges were rebuilt using plastic formers to accurately restore the required profiles.

### BELZONA FACTS

After one year in service, the Belzona System was inspected and was found in excellent condition. Although no accurate measure of efficiency was available, the Belzona System will restore the original efficiency and provide power production through its smooth, hydrophobic surface.

### PICTURES

1. Cavitation-erosion damage present on the turbine blades.
2. The blade edges were particularly badly eroded
3. Blade profiles being restored with Belzona® 1111, using plastic strips to obtain edge detail.
4. Completed application. Note the smooth surface obtained with Belzona® 1341.



1.



2.



3.



4.

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



ISO 9001:2008  
Q 09335  
ISO 14001:2004  
EMS 509612

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