

KNOW-HOW *In Action*

Belzona® 2141 protects Francis Runners from Cavitation Damage

CUSTOMER

Hydroelectric plant (Ontario, Canada)

APPLICATION DATE

August 1998 + July 2001

APPLICATION SITUATION

Twin 914mm (36") Francis Turbine Runners operating with 13m head and constructed in 1945.

PROBLEM

Cavitation had caused erosion of the parent metal and loss of performance of the turbine. Belzona® 1341 and 1421 had been applied in 1998 but had suffered erosion in this aggressive environment.

PRODUCTS

Belzona® 2141

Belzona® 2941

SUBSTRATE

Cast Iron

APPLICATION METHOD

Following gritblasting the Belzona® 2141 was applied by hand to one of the turbines, using the Belzona® 2941 conditioner to provide optimum adhesion to the substrate,

BELZONA FACTS

Inspection of the Belzona 2141® in 2002 showed no damage – further inspection after 34 months showed no sign of damage to the coating

PHOTOGRAPHS

1. Cavitation damage
2. Belzona® 2141 after application
3. Belzona® 2141 after 34 months
4. Belzona® 1341 (left) and 1421® (right) after 36 months service

