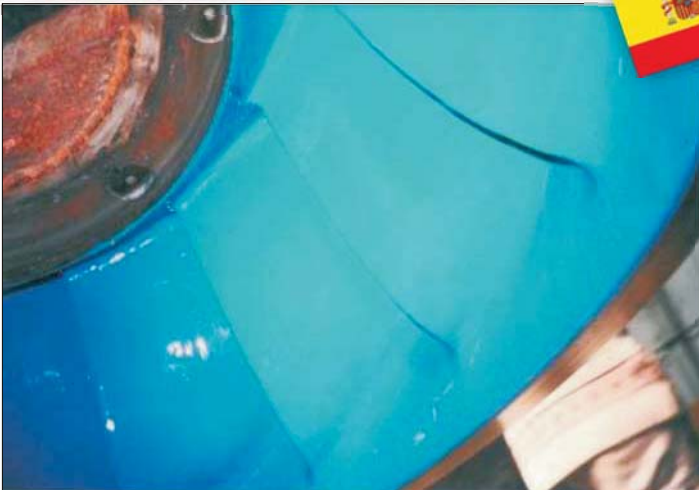


Francis Turbine at Spanish Hydroelectric Plant Repaired and Protected with CeramAlloy



This Francis turbine at a Spanish Hydroelectric plant was only in operation for 3 years before it started showing erosion damage caused by sand in the water. This erosion was causing the turbine blades to become very thin which reportedly resulted in loss of power.

The local ENECON Ibérica Fluid Flow Systems Specialist was contacted to help find a solution to this erosion problem.

He recommended that METALCLAD CeramAlloy CP+AC be used to rebuild

the turbine blades. Two coats of METALCLAD CeramAlloy CL+AC were then used to help protect the turbine blades from future erosion damage.

This turbine rotates at approximately 1,000 rpm. Now after 5 years the plant engineers have reported no further erosion or loss of power on this turbine.

Needless to say, they are very, very satisfied with this CeramAlloy application.