

BELZONA PROTECTS PELTON TURBINE NOZZLE HEAD

ID: 4875

Industry: Power Customer Location: Hydro power plant, Kaunertal, Austria

Application: VPF-Valves, Pipes and Fittings Application Date: May 2003

Substrate: Steel

Products: * Belzona 2141 (ACR Fluid Elastomer),

Problem

The nozzle head (hat) is exposed to a very high flow rate with a water pressure of 80 bar and with glacial debris in the water. Protection required to prevent erosion.









Photograph Descriptions

- * Nozzle head after grit blasting,
- * Application of Belzona 2141,
- * Completed application before installation in May 2003,
- * After more than 10 years of operation Belzona 2141 in perfect condition ,

Application Situation

Pelton turbine with an output of 266MW and head of about 800m. The nozzle head is the leading part of the nozzle assembly which regulates the water flow rate through the turbine.

Application Method

Application was carried out in accordance with Belzona System Leaflet VPF-2. After preparing surface by grit blasting (80 micron profile achieved) Belzona 2141 system was applied at 1mm thickness.

Belzona Facts

The Belzona system was originally applied in May 2003 and when inspected in February 2014 after more than 10 years in service was found to be in perfect condition.

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FS 695214 manufactured under an ISO
ISO 14001:2015 9000 Registered Quality
EMS 695213 Management System.

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