

Belzona provides cavitation repair and protection for a large hydropower unit impeller

ID: 9115

Industry: Power

Customer Location: a large hydropower plant in Hunan, China

Application: FBC-Fans, Blowers and Compressors

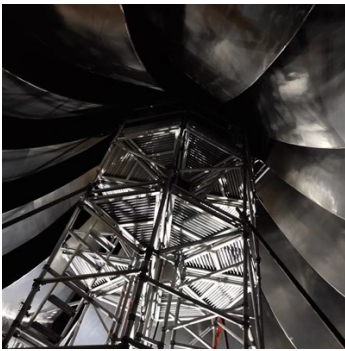
Application Date: March 2022

Substrate: Stainless-steel

Products: Belzona1311, Belzona1341, Belzona2141, Belzona2941,

Problem

Cavitation occurs at the top of Francis impeller in a hydropower station unit



the image of affected impeller

Pitting corrosion before repair

the surface after Belzona 1341 application

application completed

Application Situation

The hydropower station locates in the main stream of Yuan River, the capacity of which is 2.4 million kW.

Application Method

The application was carried out in strict accordance with Belzona Know How leaflets FBC-1 and FBC-2. Belzona 1311 was used to repair the cavitation areas after grit blasting. Then, applied two coats of Belzona 1341 to improve fluid efficiency for the equipment. Finally, Belzona 2941 and Belzona 2141 were applied to protect the outer surface against cavitation and corrosion.

Belzona Facts

The impellers have been affected by cavitation for many years. In the past, they were repaired by welding every two years. After a period of time, cavitation occurred again. This caused repeated deformation of the impellers, resulting in power generation

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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efficiency decrease and increasing maintenance frequency and maintenance time. One year after the application of Belzona 2141, the impellers have been checked and witnessed few cavitation of Belzona 2141. Overall, the impellers were well protected and clients were satisfied.

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