

PUMP DIFFUSER REPAIRED USING BELZONA 1300 SERIES

ID: 8500



PROBLEM

Corrosion and erosion from seawater was causing the leading edge of the diffuser vanes to wear away. Approximately 50 to 75mm of the leading edge was gone when this pump component was taken out for service. Weld repairs were not an option due to the steel alloy material.

APPLICATION SITUATION

Sea water cooling system pump for thermal power plant.

APPLICATION METHOD

The application was carried out in accordance with Belzona Know-How System Leaflet CEP-1 to repair the leading edges of the diffuser vanes, and CEP-3 to line the internal surfaces to protect from the effects of corrosion, erosion, cavitation and provide some efficiency enhancement.

BELZONA FACTS

The customer needed a very fast turnaround to return this pump component to service. Welding was also not a possibility due to incompatibilities with the alloy substrate. The high market price of steel also made this repair very economical.

INDUSTRY

Power

LOCATION

Nova Scotia, Canada

APPLICATION DATE

May 2021

PRODUCTS

Belzona 1311 (Ceramic R-Metal)
Belzona 1341 (Supermetalgilde)

SUBSTRATE

Steel Alloy

PHOTOS

1. Pump diffuser in poor condition on vane leading edges and widespread pitting.
2. Diffuser blasted and steel mesh tack welded into place to support Belzona 1311 rebuilding process.
3. Leading edges of the vanes re-built with Belzona 1311.
4. Diffuser fully coated with two coats of Belzona 1341 Supermetalgilde.

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