

BELZONA RESTORES SEAWATER COOLING PUMP IMPELLER

ID: 10016



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PROBLEM

Customer had an emergency docking and sourcing a new impeller would of taken 6 to 8 weeks delivery. Impeller was severely eroded and required urgent rebuilding and coating protection from salt water as this was the vessels sea water cooling pump.

APPLICATION SITUATION

The customer could not wait to source a new impeller in 6 to 8 weeks from an OEM and required urgent assistance, Belzona coating came in a third of the price compared to a new impeller and application needed to be completed within 5 days.

APPLICATION METHOD

1. Received impeller, washed with SaltAway and grit blasted clean for inspection and measurement purposes.
2. Top plate made and formed to 260mm OD with ID to suit suction wear-ring OD.
3. Plate and impeller re-blasted prior to being bonded in place with Belzona 1111.
4. A further bottom plate was cut to 260 OD with an ID to suit existing out vanes.
5. Plate and impeller grit blasted and plate bonded in place with Belzona 1111.
6. Sheet metal cut and folded over to rebuild width, length and thickness for damaged vanes rebuild.
7. After blasting, the 6 new vanes bonded in position and the edges and surrounding impeller metal smoothed out with Belzona 1111 and allowed to cure.
8. The complete impeller was re-blasted and 2 coats of Belzona 1321 applied throughout.
9. The suction wear-ring was then over-built with Belzona 1111 for machining to correct OD by MSC Technical prior to balancing.
10. After balancing, touch-up undertaken where the balancing damaged the Belzona 1321 coating.

BELZONA FACTS

The Customer chose Belzona as they have chosen to protect their assets by reducing repair time and saving on repair costs.

Price of a new bronze impeller - R38750,00 (6-8 Weeks)

Belzona repair - R12500,00 (3.5 Days)

A massive costly saving.

INDUSTRY

Marine

LOCATION

Durban - South Africa

APPLICATION DATE

September 2025

PRODUCTS

Belzona 1111 (Super Metal)

Belzona 1321 (Ceramic S-Metal)

SUBSTRATE

Bronze

PHOTOS

1. Damaged Impeller Received From Customer.
2. Stainless Plates Cold bonded, Clamped And Shaped To Rebuild Lost Areas.
3. Metal Plates Bonded And Rebuilt On Vanes, Top And Bottom Of Impeller.
4. Impeller Completed And Restored.

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