

Challenge

Issue

Various areas with high metal loss were found when inspecting a salt water pump, which were affecting performance.

Goals

- Resurface internals and recover efficiency
- Protect equipment form corrosive operating conditions
- Reduce 10 month delivery time for new pump

Root Cause

The corrosive conditions added to content of solids in pumped fluid, cause corrosion and erosion.



Pump body as inspected

Solution

Preparation

- Clean with 338 SRR and hot water
- \blacksquare Grit blast to Sa 2.5 with 3 mil (75 125 $\mu m)$ profile $\mbox{Application}$
- 1. Weld metal plate in cut water and apply ARC BX1 @ 250 mils (6 mm)
- 2. Apply ARC 10 @ 80 to 160 mils (2-4 mm) on flanges and machine to level
- 3. Apply ARC 858 @ 250 to 315 mils (3-8 mm), to mold wear ring seats and smoothen all internal surface
- 4. Apply ARC S2 in a 2 coat system @ 20-24 mils (500-600 $\mu\text{m})$ on all internals



Repair being performed, body and cover

Results

Client Reported

New pump:	\$126,800
New impellor and accessories:	-\$ 39,016
ARC solution:	-\$ 24,215
Total savings:	\$ 63,569
Delivery time for new pump:	300 days
Repair time with ARC:	20 days

*ARC BX1 is the "Bulk" package size of ARC 890

\$=USD



Reconstructed and finished pump

EN23650

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Technical data reflects results of laboratory tests and is intended to indicate general characteristics only.

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