

Challenge

Goal

Restore a critical cooling water pump back to optimal efficiency to increase output and reduce electric costs.

Root Cause

Erosion and corrosion of the metal substrate and wear parts. Tolerances were substantially out of specification, leading to inefficiencies.

Solution

Preparation

- Grit blast to Sa 2.5 with 3 mil (75 µm) angular profile

Application

1. Apply **ARC 858** to areas of severe corrosion pitting and rebuild “wear ring” seats
2. Apply 3 coats of **ARC 855** with DFT of 350 microns (14 mils) per coat for abrasion and corrosion protection and enhanced flow

Results

One Year Inspection

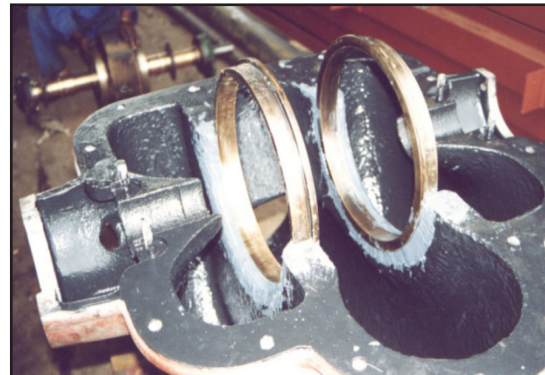
Client reports the ARC solution restored the pump to original efficiency and improved output. After 12 months, pump functions at its BEP.

Owner Evaluation

Total applied cost of the ARC repair:	-\$ 4K
Pump replacement cost avoidance :	\$14K
Sugar mill first year savings:	\$10K
Electricity savings due to pump efficiency	



Customer was considering purchasing new pumps at a cost of almost \$14K



Cooling water pump from sugar mill repaired using ARC 858 and ARC 855



Assembled pump ready for delivery

\$=USD