

Challenge

Background

The wear area of a 25" suction bell from a large vertical turbine pump was severely damaged.

Goal

The customer wanted this suction bell replaced but this involved a 16+ week lead time, so the customer asked a Chesterton partner to repair the pump with [ARC Industrial Coatings](#).

Root Cause

Influent water containing small amounts of suspended solids caused wear over the years of service.

Solution

Preparation

- Decontaminate surfaces, machine back the wear area.
- Grit blast to Sa 2 mils (75 µm) angular profile.

Application

After machining the wear ring area, [Chesterton® ARC 858](#) was applied. The [ARC 858](#) is a 100% solids, thick film, ceramic reinforced abrasion control epoxy compound that can rebuild surfaces and protect against erosion. The Chesterton partner was able to repair the suction bell in only two days!

Results

Client Reported

- Increased savings on time and money by repairing with ARC 858 .
- Chesterton was able to save the company over three months of uptime vs. waiting for a replacement.
- The customer also saved approximately \$10,000 by going with the repair instead of buying a new suction bell.



Severely damaged suction bell before repaired with [ARC 858](#).



Suction bell being machined after [ARC 858](#) was applied.



Suction bell successfully repaired with [ARC 858](#).

\$ = USD