

## Challenge

### Issue

The pump required disassembly and recoating every 2 years.

### Goal

- Substantially increase the MBTR of this critical pump from biannual to multiyear

### Root Cause

The coal tar epoxy coating suffered under-film corrosion resulting in severe pitting and subsequent performance loss.

## Solution

### Preparation

- Remove old coating
- Clean of contaminates and soluble salts
- Abrasive blast to Sa 2.5 with 3 mil (75 µm) angular profile

### Application

- Rebuild pump to original dimensions using [ARC 858](#)
- Restore critical tolerances using [ARC 858](#)
- Apply 2 coats of [ARC 855](#)

## Results

### Service Life Since Coating with ARC

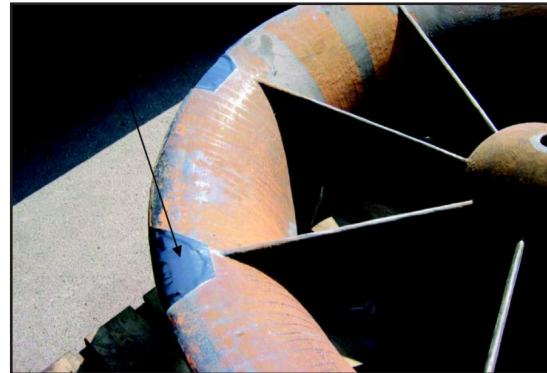
10 years with some minor touch-ups

### Client Reported Savings

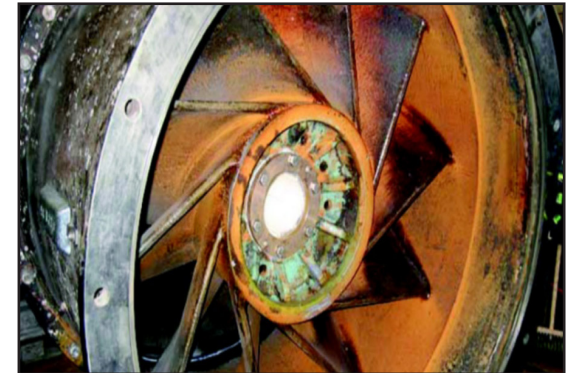
- Plant avoided an expected 10 year purchase of a new pump: DKK 6M (\$1,000,000)
  - Client estimated additional cost savings by eliminating the bi-annual pump disassembly, maintenance and recoating: DKK 1M (\$175,000)
- Total 10 Year Savings: >\$2,750,000**



Pump condition after removal of the old coal tar coating



Suction intake after 10 years service. A few small spot repairs were required



Diffuser after 10 years. The red color is due to a corrosion inhibitor that leaves a thin deposit on the ARC coating

\$=USD