

Challenge

Issue

High anode consumption and poor corrosion resistance by previous coating increased maintenance spend to >\$250K per year. Heat exchangers required bi-annual inspection and repair.

Goals

- Reduce anode consumption
- Increase corrosion protection and reduce maintenance spend

Root Cause

High chloride levels accelerated corrosion rates at tube sheet and water box surfaces.



Refinery heat exchangers

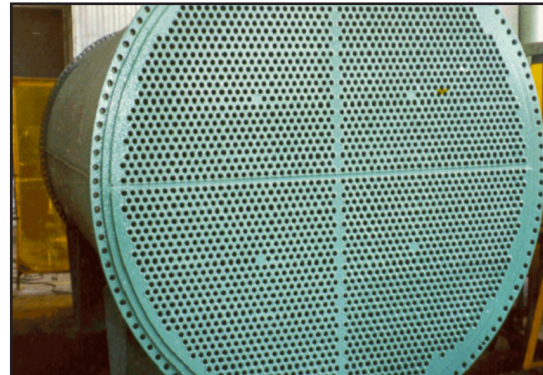
Solution

Preparation

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

Application

1. Apply **ARC S2** @ 20-30 mils (500-750 µm) to all internal surfaces (tube sheets, water boxes and covers)



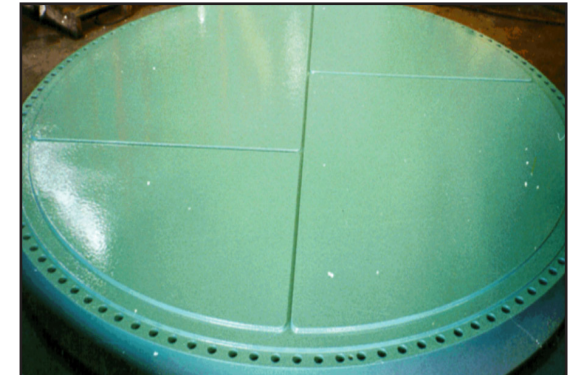
Tube sheet protected with ARC S2

Results

Client Reported

- Anode consumption reduced by >80%
- ARC lined heat exchangers providing >5 years service
- Over 1,500 heat exchangers have been coated at this facility

\$=USD



Waterbox, end cover and channel covers all protected with ARC S2