

Offshore Production Platform Process Water Heat Exchangers

Oil & Gas — Upstream
ARC HT-T Coating
Case Study 097

Challenge

Issue

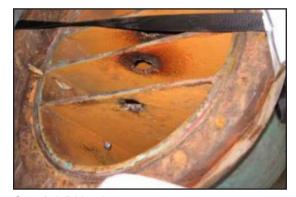
Severe corrosion effected performance, resulting in reduced production capacity from well heads. Reduced reliability required weld repair of heat exchangers every 15-18 months.

Goals

- Increase operation availability >18 months
- Eliminate weld repair and protect heat exchanger internals

Root Cause

High temperature sea water with high chlorides accelerates corrosion of unprotected steel.



Corroded divider plates

Solution

Preparation

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

Application

- Apply ARC HT-T @ 40-60 mils (1-1.5 mm) to fare smooth pitted surfaces
- 2. Critical sealing surfaces required machined molds to achieved required tolerances

Results

Client Reported

- Exceeded 18 month maintenance cycle goal
- Inspection at 30 months showed no signs of corrosion damage

Prior maintenance cycle cost: (30 mo.) \$83K

ARC repair cost: (30 mo.)\$22K

Client Reported Savings \$61K

\$=USD



Completed tube sheet



Repaired divider plates

