Sea Water Pipe Column Rescued From Marine Corrosion

Oil and Gas – Offshore
ARC 858 and ARC SD4i
Case Study 150

Challenge

Issue
Severe marine corrosion within pipe suction throat led to corrosion/erosion damage and a hole in pipe, reducing lift pump effectiveness.

Goals
Repair and protect pipe to avoid new pipe section purchase.

Root Cause
High flow of raw seawater caused the nickel aluminum bronze pipe column to erode and corrode.

Solution

Preparation
- Hot water pressure wash.
- Grit blast to Sa 2.5 with 3 mil (75 µm) angular profile.

Application
- Hole was patched with ARC 858 and steel mesh at internal and external sides of hole.
- Covered external and internal fares with ARC 858 and then top-coated with three coats of ARC SD4i to internals. Two coats to externals.

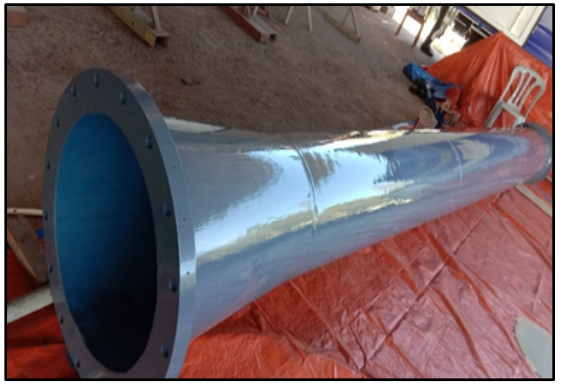
Results

Client Reported
Customer satisfied with repair and the performance of the coatings. The repaired solution continued in service without failure.

Customer avoided purchase of new pipe section and has now elected to coat the sea water lift pump as well.

Pipe section after hot water pressure wash.

Pipe hole on left and patch section on right.



Completed pipe repair and internal/external coating with ARC 858 and ARC SD4i.

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