

## MARINE CASE STUDY



**Customer:** DeepOcean.

DeepOcean provide safe, high quality, innovative services and technologies for the subsea industry

**Vessel:** Maersk Connector. 2016 Latest Generation Cable Layer. 10,000 Tons

**System:** HPU Cooling water pipes.

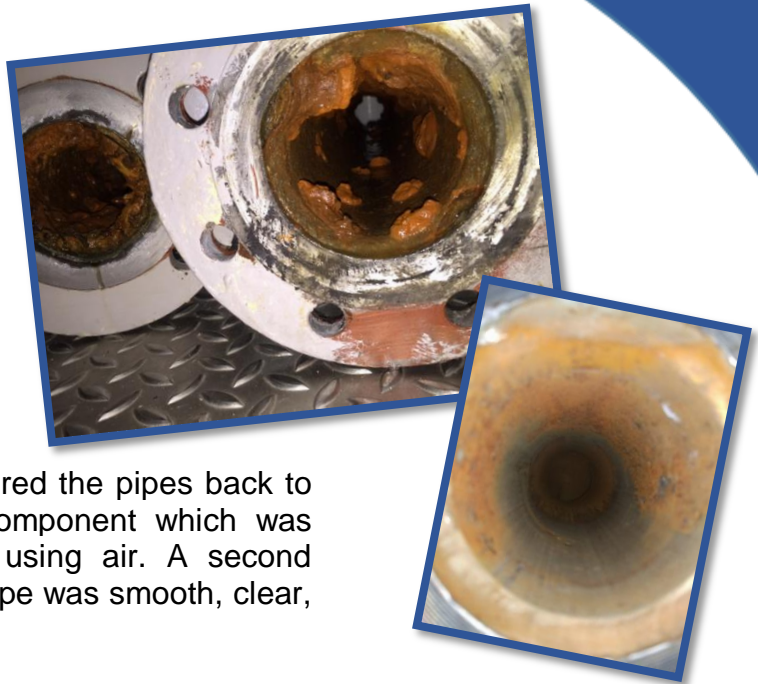
2.5" 316 Stainless steel



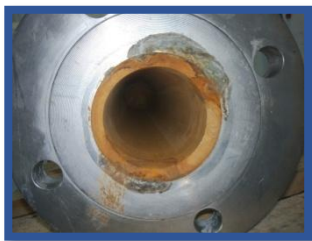
**Problem:** Cooling Pipes supplying the Hydraulic power unit was suffering from internal corrosion resulting in leaks and loss of performance. This vessel operates on a tight schedule, time for repair was limited.

**Circumvention:** Due to the cooling system being compromised, a traditional pipe replacement would have required more time to fabricate new stainless sections .

**Solution:** R2 Pipetech's highly skilled technicians were able to solve this problem for the customer without causing any damage to the Ship. Firstly the team inspected the condition of the corroded pipes and assessed the nature of the problem. Borescope pictures revealed areas of the pipe with pitting and through-wall corrosion.



The R2 Pipetech team cleaned and restored the pipes back to their original state using an abrasive component which was shot-blasted through the entire system using air. A second inspection was conducted to ensure the pipe was smooth, clear, and ready for the liner to be installed.



R2 Pipetech's unique lining Epoxy was used to line the HPU Cooling system. The liquid Epoxy was blown through the system to evenly coat the walls of the pipes, forming a smooth barrier between the pipe and water. This barrier coating was then cured before final inspection confirmed that the system was restored to the highest standard of quality.

The R2 Pipetech System was used to offer a permanent solution to the customer's problem and prevent future corrosion from occurring. Our team of skilled experts were able to inspect, clean, and line the HPU pipelines over a weekend.

Furthermore, no interior or exterior damage or destruction was caused to the Ship during this time. This is the only small-diameter relining solution suitable for this application. The estimated life expectancy of the Epoxy is approximately 20 years. Recent inspection has revealed the coating is performing well, halting corrosion and pitting in the system.

