

# SYLWRAP Case Study

## Oil Refinery Repair Leaking Water Cooling System

An oil refinery carry out a significant pipe repair programme after microbially induced corrosion caused welded joints in the water cooling system to fail



### Defect

The stainless steel water cooling system was meant to have a lifespan of 50 years, yet numerous welded joints had started leaking after less than half that time.

Microbially induced corrosion (MIC) was found to be the cause, attacking the pipe interior where welding had damaged the stainless steel's passivation layer.

This represented a major problem at a relatively new and expensively built facility. The system could not be replaced due to cost and disruption.

Every welded joint was now a potential point of failure. A live leak repair method was essential as shutting down the system resulted in five days lost production and vast costs for diversion of water.



*Multiple Wrap & Seal applied to leaking welding joints built repairs capable of holding 10 bar pressure*

### Solution

Over 1,700 **Wrap & Seal Pipe Burst Tape** and 500 **SylWrap Pipe Repair Bandages** were sent to the refinery. Sylmasta also flew to the Middle East to train installers and supervisors on using the products.

Whenever a leak now develops, **Wrap & Seal** and **SylPad Pressure Resistance Multiplier** are on-site and ready to make online repairs capable of holding the 10 bar pressure the system operates at.

After sealing, each welded joint is overwrapped with SylWrap Bandage for a permanent, reinforced repair.

### Result

Since Sylmasta's visit, the refinery have repaired numerous leaks - including to overhead and difficult-to-access sections of pipework in constrained spaces.

With eliminating MIC from impossible, instant live leak repair has proven the best solution for the refinery.



*Repairs were reinforced with SylWrap Bandage - and were made to difficult sections of overhead pipe*