

# SYLWRAP Case Study

## Corroded Steel Gas Pipe Refurbishment

An industrial plant refurbish and repair a three metre section of corroded steel pipe hung from a ceiling and carrying natural gas as part of a CHP system



*The pipe was heavily corroded where water had been trapped between a protective PVC tape and the line*



*Rust, grime and paint were ground off the pipe and the three metre section coated in Liquid Metal*



*SylWrap HD increased the thickness of the weakened area where the pipe had contact with the U-support*



*A second Liquid Metal coating was applied over SylWrap HD and the pipe fixed to the U-support*

### Defect

The pipeline ran for 365 metres through the plant. It hung on a series of U-shaped supports welded to I-beams suspended from the ceiling of the building.

When installed, the pipe had been wrapped with a protective PVC tape. Incorrect application had left a three metre section where water could become trapped between the tape and the line.

This had caused heavy corrosion, particularly weakening the pipe area resting on the U-support.

### Solution

The U-support was cut away to better access the line and the tape removed. The pipe was cleaned before **Liquid Metal Epoxy Coating** was applied.

Liquid Metal formed a smooth, hard-wearing, outer metallic surface which acted as shield for the line against external corrosion and chemical attack.

A **SylWrap HD Pipe Repair Bandage** was wrapped around the section which had contact with the U-support, increasing the thickness of the weakened area and providing additional protection.

Another coating of Liquid Metal was added over the SylWrap Bandage to improve the appearance of the pipe. The U-support was welded back in place and the pipe fixed to it via a clamp to reduce vibrations.

### Result

Refurbishing the pipe was carried out with no impact to operations at the plant.

It prevented an expensive and disruptive future repair or replacement being needed when corrosion eventually ate through the line.