

SYLWRAP Case Study

Ductile Pipe System Corrosion Protection

Corrosion protection measures are made to a 600mm ductile pipe system showing early signs of surface damage in an underground pumping station



The pipe system was covered in contaminants and showing early signs of external surface damage

Defect

The main section of pipe ran for five metres. Three outlets branched off which were two metres long with reducing spools to 200mm diameter at the isolation valves. The system contained a total of six flanges.

Conditions inside the chamber were ripe for corrosion. Rainwater, sand and other contaminants could settle on the pipe, causing early signs of surface damage.

Knowing a repair or replacement would be challenging due to the complexity of the pipework system, the water company operating the station opted to protect the pipe from corrosion to prevent future breaches.



Solution

The pipe was cleaned and the entire main section, three outlets, reducing spools and six flanges all coated with **Liquid Metal Epoxy Coating**.

Liquid Metal cured to form a smooth, metallic, hard-wearing outer surface to act as a shield against external corrosion. The protective layer was further enhanced with **SylWrap HD Pipe Repair Bandage**.

Four layers of SylWrap HD were applied, creating a rock-hard, impact resistant sleeve running as close to the flange plates as possible. A final coating of Liquid Metal was then painted over the SylWrap Bandage.



Liquid Metal and SylWrap HD combined to form a robust outer shield protecting against corrosion

Result

Liquid Metal and SylWrap HD combined to leave the pipework system with a robust outer shield protecting it from conditions in the chamber.

The application cost a fraction of a future repair or replacement. It was completed whilst the station ran at full capacity with no disruption to service.