

SYLWRAP Case Study

Leaking Welded Saddle Joint Repair

A 150mm steel pipe connected to a pumping house leaking from both ends of a welded saddle joint is sealed in a repair built up and over a 20mm step



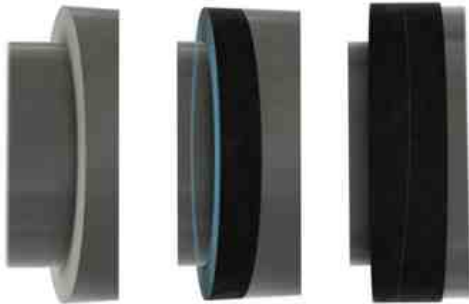
Water was seeping from both ends of the saddle joint, one of which was suffering from heavy corrosion

Defect

The saddle joint had been welded in place to reinforce a capped tee on the 150mm steel pipe. The joint sat 20mm higher than the original line.

Water had been found seeping out of the joint. The pipe could not be isolated or replaced as this would involve shutting down the pumping house.

Several repair methods had been tried, including a clamp and epoxy putty. None had been successful due to the pipe being live and the difficulty of sealing around the step.



Wrap & Seal application began next to the saddle, was built up until level with the step and then continued across onto the joint

Solution

Sylmasta recommended using **Wrap & Seal Pipe Burst Tape** to build a repair up and over the joint, encompassing and sealing either end of the saddle.

Wrap & Seal was first applied directly next to the step. Each rotation added another layer until the step was bridged, after which wrapping continued 50mm across the saddle.

Wrapping then returned to the edge of the joint, where a ridge was created over the leak area to increase the pressure resistance of the repair.

Three Wrap & Seals were used to seal one end of the saddle, after which the process was repeated at the other end of the joint.



Once the joint ends had been encapsulated, Wrap & Seal was applied directly over the leak to create a ridge increasing the pressure resistance of the repair

Result

Because the joint had been seeping slowly, the only way to check the effectiveness of the repair was to inspect several days later.

When the pipe surface was found to be dry, the application was deemed a success.



Wrap & Seal was applied to both ends of the saddle joint, successfully sealing the pipe