

SYLWRAP Case Study

Pipe Flange Sealed Against Tree Root Ingress

After a tree penetrated a flange on an underground 1800mm steel pipe, a wastewater treatment plant seal the line to prevent future root ingress



The flange connected a steel pipe to a chlorine tank

Defect

The pipe brought wastewater to a chlorine contact tank. After a reduction in performance was noticed, the pipe was excavated to identify the problem.

A tree root had penetrated between two flange plates. The pipe was seeping and partly blocked, causing possible recontamination of water which had undergone most of the treatment process.

Solution

Once the root had been removed, the wastewater treatment plant needed to seal the leak and protect the flange from tree root ingress occurring in future.



Wrap & Seal was applied all around the flange to seal the leak. It was then overwrapped with SylWrap Pipe Repair Bandage

Wrap & Seal Pipe Burst Tape was wrapped over the point where the flange plates connected. Several Tapes were applied over each other, bonding together to build pressure resistance.

Once no more water was seeping from the flange, **SylWrap Pipe Repair Bandage** was applied over the top. A SYL412HD Bandage was used as its 100mm width fitted perfectly over the flange.

SylWrap Bandage cured to form a rock-hard shell around the flange. This reinforced the initial leak repair and ensured the line could not be penetrated through the weak spot between flange plates again.



A SYL412HD Bandage was the perfect 100mm width to wrap around the flange, curing to form a rock-hard shell which tree roots would not be able to penetrate in future

Result

Completing the repair took less than one hour. The water company operating the plant were delighted with the speed and lack of disruption.

The plant remained fully operational, compared to the downtime it would have faced in isolating the tank and pipe had the flange needed replacing.