



CLIENT: **Birse Construction**
 SERVICE: **Amex[®]-10-Seal**
 PROJECT: **Sandon Dock Waste Water Treatment Works, Liverpool**

QUICK ACTION, USING AMEX-10 INTERNAL SEALING TECHNOLOGY, FIXED UNDERGROUND PIPELINE LEAKS AT UNITED UTILITIES' SANDON DOCK WASTEWATER TREATMENT WORKS IN LIVERPOOL.

Framework contractors for UU, Birse Construction, brought in PMP following hydraulic tests on a new treatment tank. PMP used the renowned Amex-10-Seal to repair leaking joints in a buried 1000mm diameter outlet pipe under a head of around 3 bar, after water appeared between paving blocks at the WwTW site. The problem joints were located directly under a building and posed a threat to foundations.

A four-man team from PMP completed the work within 48 hours. They gained access to the pipeline through the outlet in the tank floor and fitted four pipe joints, including a steel-to-concrete pipe joint, with the Amex seal. This is a low profile mechanical seal with a robust, abrasion resistant section of rubber that spans the joint. It is fitted using hydraulic expansion of stainless steel compression rings and is able to accommodate substantial joint movement.

Ground settlement was a suspected cause of the leaks. Sandon Dock WwTW is built on a Victorian dock site, with in-filled basins and buried masonry structures. Birse Construction Manager, Tom Gilfeather explained that this was no straightforward job:

"Because of the location of the outlet we could not get access to control the water in the pipe until we had built a weir wall inside the tank. Once this was achieved we conducted a CCTV survey but the results were inconclusive. Therefore we had all four joints sealed.

"PMP proved this was the best solution. They worked rapidly and effectively using conventional safety procedures, so I would not hesitate to recommend their services."

Tom Gilfeather

Construction Manager, Birse Construction