

Waste Water Treatment Works

Greater Manchester



PVC waterbar

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Type of building:

Completion:
2017

Project link:

<https://www.unitedutilities.com/help-and-support/about-us/greater-manchester/davyhulme-treatment/>

MAX FRANK supplied a “self-supporting” concrete jointing system, permanent formwork and sealing solutions to the largest Waste Water Treatment Works in the UK.

The scheme, an expansion of existing treatment works, included 6 circular new primary settlement tanks, an activated sludge plant and 10 circular final settlement tanks. As part of offsite manufacturing philosophy, precast concrete was utilised for many structures on this project.

Stremaform[®], a permanent “self-supporting” concrete jointing system, was used to create a rebate in the primary settlement tank (PST) slabs to accept the precast Abetong tank wall units. Pecafil[®] permanent formwork, an alternative to traditional timber shutters, was used to construct the PST hoppers and base slabs.

In the activated sludge plant (ASP), ‘twinwall’ units sat on top of in-situ concrete walls where MAX FRANK Fradiflex[®] coated metal waterstop was installed. Fradiflex[®] was selected to seal the slab-wall and wall-crown joints because it can be left in place for long periods and is unaffected by wet weather conditions. Fradiflex[®] limited the use of more costly PVC waterbar to only the few movement joints in the structure.

Stremaflex[®] is a version of Stremaform[®] which includes an integral waterstop to ensure concrete joints are watertight and was used in various structures on the project. Stremaflex[®], which is fully compatible with the Fradiflex[®] waterstop, was installed at the wall base so a continuous system of sealing was achieved.

Synko-Flex[®] non-expanding waterstop was cast into the PST Abetong wall units, manufactured by Bison, and slab rebates to ensure a watertight joint once in-filled with grout. MAX FRANK also supplied PVC waterbar for movement joints and connections between new

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and existing structures.

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Products used:



Permanent formwork Pecafil®



Stay-in-place formwork for working joints Stremaform®



Stay-in-place formwork for working joints Stremaform® with coated metal water stop



Metal waterstop Fradiflex®



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