New sludge digester retrofit by Landia for Scottish Water

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Landia has won an important new order with Scottish Water to retrofit two sludge digesters with its acclaimed GasMix mixing systems.

Two partly underground cast in-situ digesters (17m by 20m) at Nigg near Aberdeen will now be served by the externally-mounted GasMix – designed for easy maintenance and greatly improved gas yields. All parts of the system are removable from the outside of the tank. The previous mixing system was problematical and under-performing.

Each digester at Nigg will be fitted with two diametrically opposite Landia chopper pumps (Landia can retrofit steel or concrete tanks), which draw thick liquid from the bottom of the tank, where solids are chopped to accelerate the digestion process and prevent clogging of pipes and nozzles.



In the first stage of the mixing process, the liquid will be injected into the upper half of the tank, while biogas is aspirated from the top of the tank and mixed into the liquid.

This not only has the benefit of reducing buoyancy at the surface of the liquid, but also continues to mix after the pumps are switched off thanks to the rising gas bubbles.

With 2x 30kW systems on each 4000m3 digester, the installed power equates to a very economical 15 watts per cubic meter. When factoring in reduced running times (as low as 20 minutes in the hour), energy savings can be substantial.

In addition, reduced running times means that pump-wear components last significantly longer.

This latest order for Landia's GasMix digester mixing system follows successful installations in London, Shropshire, Somerset, Jersey and Ireland – as well as numerous projects overseas, including Australia, Germany, the U S, Malaysia, Denmark and China.

Read more at Landiaworld.com

