



JETOX NEWS

JETOX technology provides Aeration and Mixing for Balance Tank.

Aquabio has designed and constructed a turnkey wastewater treatment & water re-use facility at a food processing factory in Worcestershire. To provide the necessary aeration and mixing in the upstream balancing facilities, two self-entraining JETOX jet aeration & mixing units were installed.

Two 11kW JETOX self-entraining single nozzle jet aeration and mixing units (rated at SOTR of 11 kgO₂/hr each) were installed to provide 25W/m³ mixing density in the 14 metres diameter, 800m³ Balance Tank. The JETOX units are controlled to operate simultaneously at higher liquid levels and on an alternating basis at lower liquid levels to optimise the mixing energy input.



In addition one of the JETOX units was used to drive a pH monitoring sidestream (see photo), providing a continuous flow of the Balance Tank liquor through a pH probe flow unit.



JETOX Operation

The balance tank contents are recirculated, using a dry mounted centrifugal pump, through a specially designed stainless steel JETOX nozzle. The pump is installed at ground level, outside of the tank, so that it can be easily isolated for routine maintenance. In addition the primary nozzle is also external to the tank and can be isolated for maintenance.

The pressure drop occurring at the nozzle entrains air from the atmosphere via the air entrainment pipe and fine bubbles are created as intimate mixing occurs with the recirculating liquid. The air-liquid mixture is then released into the tank as a mixing plume via the internal secondary nozzle.

For further information about this, and other, JETOX aeration and mixing systems and other products and processes, please contact us at Aquabio Limited, Worcester, UK, either by e-mail or fax.

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