e.com

RSE: rapid spray evaporation is being developed and patented by AquaSonics International, based in Georgia, USA, to desalinate seawater at a cost, the company claims, is around a third of the cost of conventional desalination technology. An additional benefit is that RSE does not generate brine but instead creates a dry by-product - in the case of seawater is known as sea salt - a tradeable commodity. The company has produced portable units capable of converting up to 11,000 litres of water a day and is now scaling up the technology for much larger projects. RSE claims to attain near 100% efficiency for recovery of feedwater. In industrial application this means that wastewater discharges are eliminated and treated water can be reused as process water. See:www.aquasonics.com

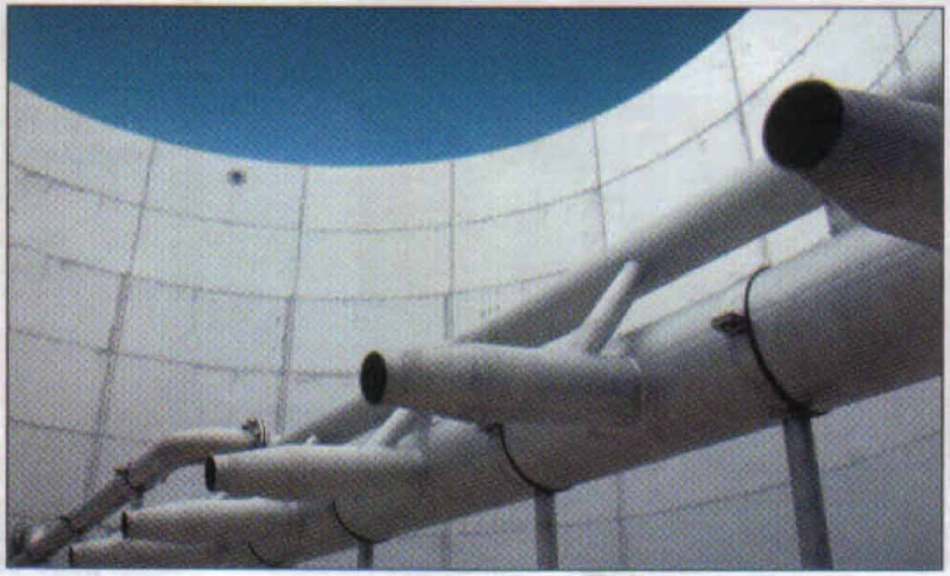
To counter these problems, AII sent in the solution.

www.aii.com

Oxygen ingestion into tannery tank

The UK's Aquabio has designed and installed a JETOX aeration and mixing system for a major crossflow MBR plant for a tannery in southern Spain. The system is designed to provide 20 tonnes of oxygen/day into a single 4,000 metre^3 bioreactor tank.

Four separate 16 nozzle JETOX aeration and mixing manifolds will help achieve high rates of oxygen mass transfer within the bioreactor, and have both high constant biomass turnover and high relative alpha factor performance in concentrated biomass.



The four JETOX blower-assisted multi-nozzle jet aeration and mixing manifolds (rated at SOTR of 200kg02/hr each) are provided with an air supply from a common air main and three two twin speed air blowers housed in a nearby building.

The mixed liquor from the tank is recirculated, using a dry mounted centrifugal pump, through specially designed stainless steel JETOX nozzles. The pump is installed at ground level outside the tank so that it can be easily isolated for routine maintenance. At the nozzles, air arrives from the 2-speed blowers and bubbles are created as intimate mixing occurs with the recirculating liquid.

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