



AMBR MEMBRANE BIOREACTOR PILOT PLANT

Membrane Bioreactor (AMBR) pilot plant for on site proving trials treating high strength industrial wastewater streams

Aquabio has designed and constructed a transportable Membrane Bioreactor Pilot Plant for on site wastewater treatment & water reuse proving trials. The unit has the versatility to treat wastewaters with total COD ranging from 1,000mg/l to around 50,000 mg/l. A variety of UF membrane modules enables process and equipment optimisation to suit the specific requirements of each wastestream. The plant is fully automated with PLC control and data logging of key process parameters (e.g. flows, dissolved oxygen, pH, temperature etc.) A JETOX™ aeration and mixing system is incorporated to achieve the necessarily high rates of oxygen mass transfer into the concentrated biomass. The aeration system can operate either with, or without, blower assistance and has air flow monitoring.



The intensive aerobic environment created in the bioreactor (with MLSS levels in excess of 15,000mg/l) combined with high relative sludge ages means that high quality final effluent can be achieved in a much smaller space. The ultrafiltration biomass separation system also opens up opportunities for water reuse and/or significantly reduces investment in conventional post-treatment technologies before discharge to watercourse and/or to further 'ultra-clean' treatment (e.g. reverse osmosis).



AMBR™ Industrial Market Areas (strong wastewaters)

- Pharmaceutical
- Pulp & Paper
- Chemicals/synthetics
- Landfill leachate
- Tanneries and rendering
- Food & drinks processing
- Breweries & distilleries
- Textiles & associated industries (pesticide removal)
- Petro-chemical & refinery

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

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