



## Eco-SAF Wastewater Treatment Technology

The **EcoSAF** (Submerged Aerated Filter) is a high performance biological filter for the treatment of both domestic and industrial wastewater where connection to mains sewer is impracticable. It is a low capital cost and robust secondary biological process that can be installed as a stand-alone module, part of a complete packaged treatment system or as a modified 'Nitrifying' Module. Anoxic zones enhance the **EcoSAF** performance. Population equivalents ranging from 20 to 1000 persons can be accommodated in a single module or the Industrial equivalent of 368m<sup>3</sup>/day (largest single module).

The **EcoSAF** system is 'Modular' pre-Fabricated units, therefore Installation time is kept to a minimum and the system can be added to at a later stage. Effluent quality reduction to 20mg/l BOD, 20mg/l TSS, 2mg/l NH<sub>4</sub> is attainable without Tertiary treatment. With no moving parts within the treatment process the maintenance routine is minimal, with the added benefit of no downtime to the process as the Aeration can be lifted out for servicing without stopping the process or requiring the removal of the filter media.

The Eco-SAF Aeration system is designed to maximise floor coverage with fine bubble diffusers. Why is this important? It is beneficial that **all** the wastewater that flows through each aerated cell becomes enriched with oxygen. By eliminating any dead zones (Circular tanks can have less than 60% contact between the wastewater and oxygen) optimum contact is achieved throughout the whole module between the filter media and wastewater.

The complete packaged treatment system comprises of a Primary settlement tank(s) and Final Clarifier(s). The Primary tank provides sludge storage and incorporates a Bar screen and a Balance chamber to ensure uniform forward flow through the **Eco-SAF** module. The Final Clarifier is designed as an upward flow settlement tank to facilitate sludge consolidation and return to the Primary tank. Lamella packs can be fitted in the Clarifier to increase performance. Grease removal systems and Tertiary treatment systems are also supplied.

### Features

- Fully modular system. Allowing additional capacity to be installed without disruption to process.
- Adaptable to Nitrification processes.
- Duty/Standby blowers selected for quiet operation.
- Service air diffusers without disrupting process.
- Minimal operating and maintenance costs.
- Non-Corrosive stainless steel aeration system
- Mild Steel or stainless Steel options with paint options for steel: WIMES or BS EN 12944.
- Rental systems available
- Phosphate dosing and DO probe options
- Designed and built to ISO 9000 standard



### Applications

- Small communities, Villages etc.
- Hotels and restaurants.
- Industrial effluents.
- Caravan Parks & Holiday Villages.
- Municipal sites emergency back-up.
- Nitrification and De-Nitrification.
- Leachate.

