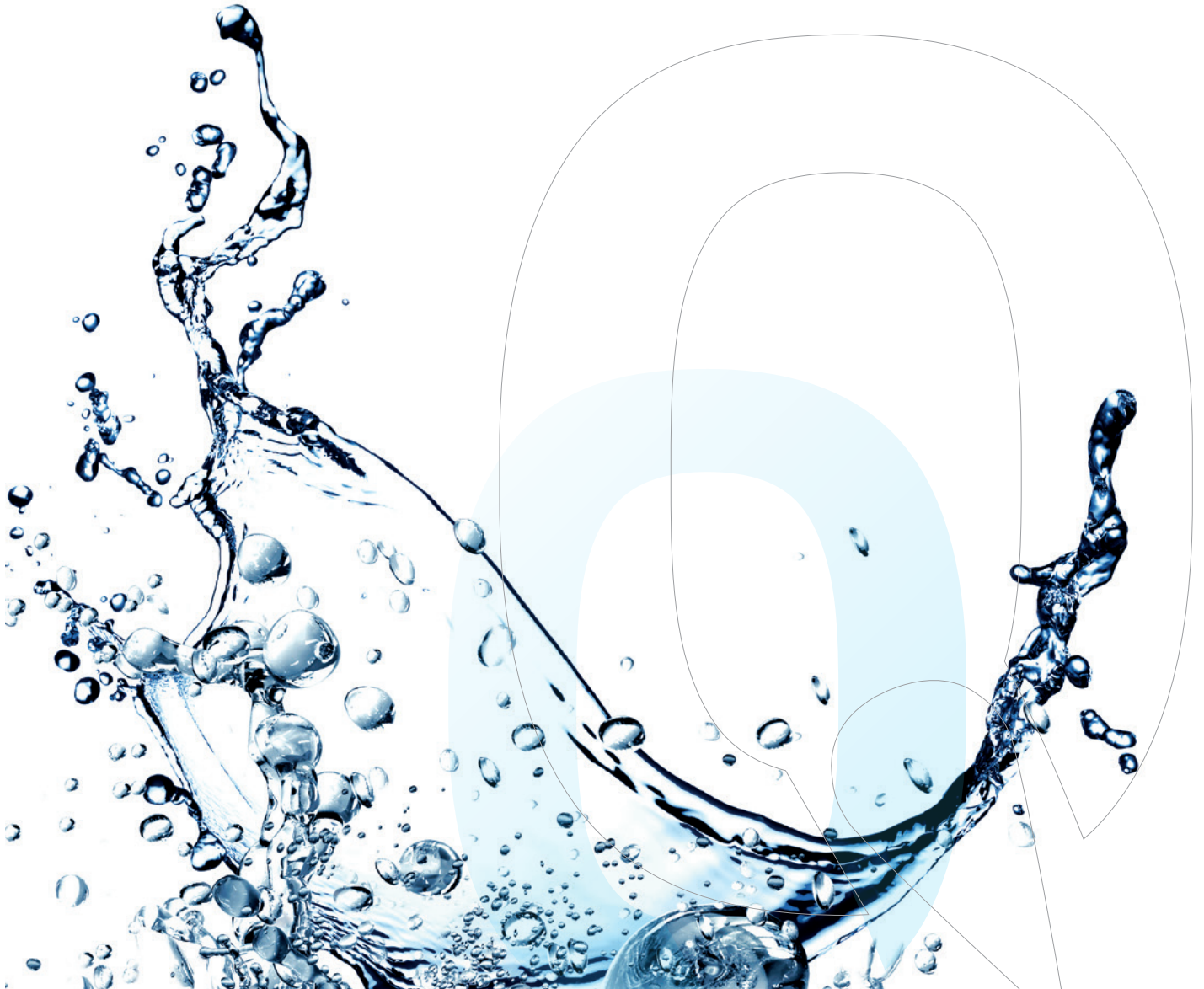


ELIQUO | HYDROK

HY-SAF

High Efficiency Package Biological Wastewater Treatment Plant



HY-SAF

THE ELIQUO HYDROK HYBRID SUBMERGED AERATED FILTER (HY-SAF) OFFERS A POWER EFFICIENT, ROBUST, SMALL FOOTPRINT BIOLOGICAL WASTEWATER TREATMENT SOLUTION INDIVIDUALLY DESIGNED TO ACHIEVE THE FINAL EFFLUENT CONSENT STANDARD REQUIRED.

HY-SAF units can be combined to deliver wastewater treatment for 100 - 3,000 PE.



ADAPTABLE CONFIGURATIONS

HY-SAF package treatment works are suitable for treating municipal wastewater for 100 - 3,000 PE (Population Equivalent) and industrial effluents - offering a complete modular turnkey package. With no moving parts in the main tank, the HY-SAF is simple to operate and low in maintenance. In order to minimise power costs, we incorporate control software linked to a highly efficient motor control centre, this ensures effective and accurate blower control/air delivery whilst maintaining the most efficient treatment process conditions.

APPLICATIONS

Permanent wastewater treatment plants

Mobile emergency response treatment units

Temporary treatment during planned maintenance

To supplement biologically overloaded works

Green Leachate treatment

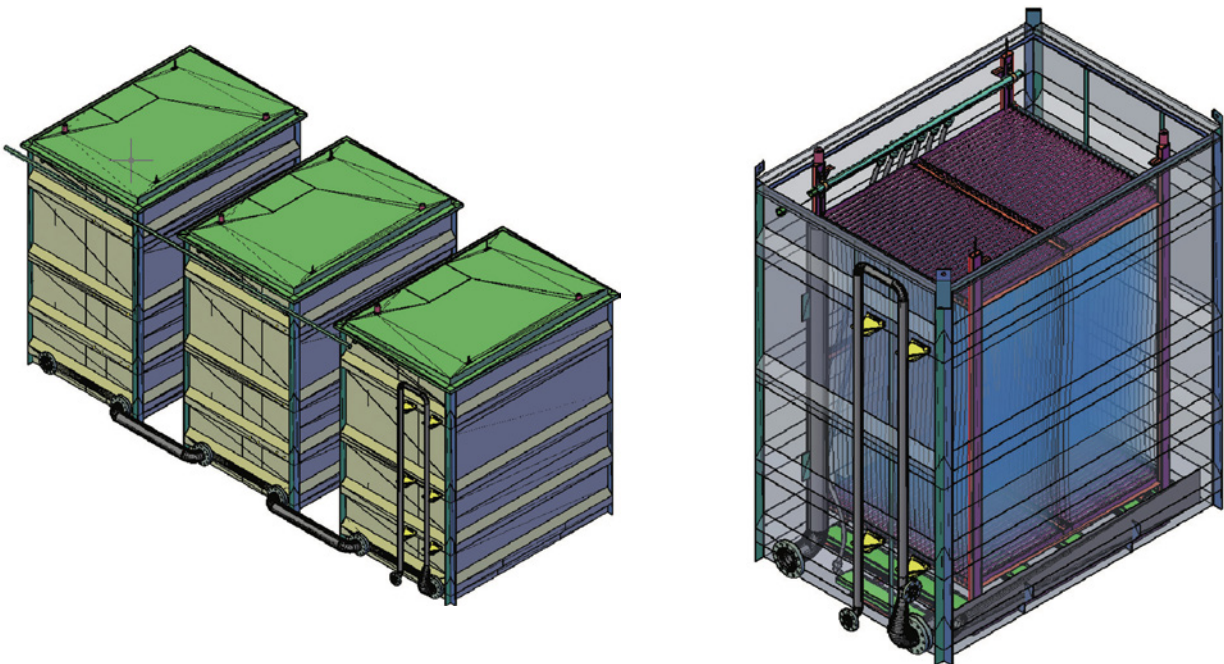
Industrial waste treatment

Pilot treatability studies

HY-SAF SELECTION GUIDE

MODEL	HY-SAF 300	HY-SAF 600	HY-SAF 900
Population Equivalent*	300	600	900
BOD Capacity (kg/d)	12.6	25.2	37.8
Max Flow (l/sec)	3.0	6.0	9.0
Power absorbed (kW)	2.2	3.0	4.2
Module size (LxDxH) metres	2 x 3 x 3.5	2 x 3 x 3.5	2 x 3 x 3.5
Number of modules	1	2	3
Overall footprint metres	2 x 3	4 x 3	6 x 3

* Population Equivalent based on 60gms BOD/h/d crude and 30% removal through primary tank to give 42 gms/h/d



OPERATING PRINCIPLE

The **Hybrid HY-SAF** treatment plants are fabricated from stainless steel cells. Each cell houses a number of the Aqua-consult **AEROSTRIP®** fine bubble membrane diffusers, which are mounted below a Biotextil **Cleartec®** media.

Cleartec media has many advantages over conventional SAF block or random packed media. It is a fixed media IFAS (Integrated Fixed-Film Activated Sludge) system utilising sheets of textile supported by a rigid frame. For this reason, it is not susceptible to clogging, which can reduce the effective treatment area and treatment efficiencies of conventional SAF systems.

The **AEROSTRIP®** diffusers provide air to efficiently maintain a healthy treatment system, releasing dead biomass and removing the need for backwashing. The media and diffusers are mounted within a removable frame assemble which can be simply lifted from the cell for maintenance or inspection.

Flow enters the first **HY-SAF** cell at high level, passes through the media within each cell in turn, and exits the final cell also at high level. This arrangement ensures that the Biotextil **Cleartec®** media is constantly submerged and the **HY-SAF** remains permanently active during periods of low or no flow.

The Cleartec and **AEROSTRIP®** technology within the **HY-SAF** has a well proven performance record supported by many installations throughout the wastewater industry.

The **HY-SAF** has a rapid seeding time from commissioning, quickly reducing BOD and likely to be 100% effective within 2-4 weeks of start-up; this may be accelerated through the introduction of activated sludge seeding, or by the addition of proprietary bacteria.



ADVANTAGES

Unlike conventional SAF units, no media clogging or sludge retention

No retained dead weight after draining down of cells

Reduced power consumption compared to conventional SAF units

Above or below ground modular solution

Robust performance

Simple in operation

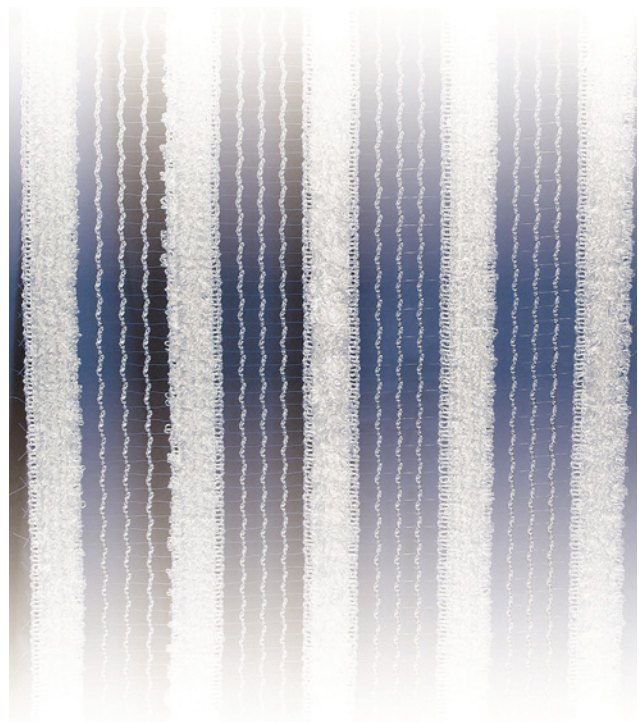
No moving parts in main tank


Low maintenance

Rapid installation

High performance – Ultra low COD / BOD and total N removal options

Hire units available





Package treatment works suitable for treating
municipal wastewater and industrial effluents.

Version 001

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