



ELIQUO | HYDROK

Off-site construction

Off-site constructed pre-fabricated solutions



Off-site construction

THE GROWING WATER INDUSTRY REQUIREMENT FOR OFF-SITE MANUFACTURING IN ORDER TO REDUCE ONSITE HEALTH AND SAFETY RISK, SPEED UP INSTALLATION TIME AND IN MANY CASES TO REDUCE DISRUPTION TO THE GENERAL PUBLIC WHILST ALSO HELPING TO REDUCE ON-SITE COSTS, FITS PERFECTLY WITH ELIQUO HYDROK'S APPROACH TO THE DESIGN AND BESPOKE MANUFACTURING OF ENGINEERED SOLUTIONS FOR THE INDUSTRY.

STAINLESS STEEL FABRICATION HAS ALWAYS BEEN A PART OF THE ELIQUO HYDROK SERVICE DELIVERY AND CAN BE USED FOR SEVERAL OF THE ELIQUO HYDROK WATER TREATMENT PROCESSES SOLUTIONS. THESE CAN BE TAILORED TO THE WATER COMPANY NEEDS IN THE FACTORY, DELIVERED AND INSTALLED.

TERTIARY FILTRATION TREATMENT

An ELIQUO HYDROK-Mecana Pile Cloth Media Filtration tank can be built and installed as a complete unit. The Mecana range of pile cloth media filters are available to treat flows ranging from 3 l/sec to 250 l/sec in individual stainless steel tank units, with a modular approach for larger flows.

All units are produced to Swiss quality standards in Mecana's factory in Switzerland, with the stainless steel tanks and control systems manufactured in the UK by ELIQUO HYDROK. The Mecana Pile Cloth Media Filter offers a superior operational performance to that of any micro-screen or micro-strainer in the market today as it is a true filter with depth filtration being the dominant particle removal mechanism.



APPLICATIONS

Tertiary Filtration for TSS reduction downstream of humus or secondary settlement tanks (< 5mg / l TSS achievable)

Tertiary phosphorus removal in combination with precipitation/flocculation - bespoke design for P_{tot} consent from 1 mg / l to less than 0.1 mg / l

Micro-pollutant priority substance removal

As an alternative to fixed film biological treatment humus tanks for removal of TSS

Pre-filtration for fixed bed nitrification stages

Storm overflow filtration



Pre-manufactured stainless steel tanks ready for speedy installation.

ADVANTAGES

Highly efficient solids separation

High throughput and able to withstand shock loads

Continual operation during backwashing

Gravity flow typical - only 300 mm head required

Filters full flow even during backwashing

Small Footprint - off-site build

Easy cloth replacement

Low power costs and low maintenance costs

DIFFUSER LIFTOUT GRIDS

Where aeration solutions are required ultra fine bubble diffusers can be in-built into frames ready to be lowered into the tanks and connected.

Diffuser Liftout Grids are specifically designed to allow the operator to remove and maintain the diffusers without the costly need to drain the aeration tank. The grids are advantageous to sites that have one, two or three tanks as it allows the operational capacity of the plant to be completely maintained whilst the liftout grids are being removed. In most circumstances, the ELIQUO HYDROK unique guiderail system allows the liftout grids to be installed and commissioned without the need to drain the tanks.

The liftout grids are particularly suitable for retrofit applications as all the necessary installation work can be completed externally with the liftout grids lowered into place, brought online and commissioned. We also have a range of liftout grids that we can hire out on short or long term. These are generally used on sites that have the need for temporary or emergency aeration requirements.



IFAS

Integrated Fixed-Film Activated Sludge

The ELIQUO HYDROK IFAS aeration solution, combining diffusers with biotextil cleartec material, is where the ELIQUO HYDROK IFAS cage systems can be utilised. ELIQUO HYDROK are able to construct a bespoke cage system which incorporates both elements, this allows them to be lifted for routine maintenance without interfering with the operational activity of the plant. The IFAS cages are built at the factory as concertina systems for ease of delivery which then open up to full size when installed. This makes installation an efficient process and reduces the number of deliveries to the site as more can be fitted on a lorry.



HY-SAF PACKAGE TREATMENT PLANT

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. The HY-SAF package treatment plant uses the ELIQUO HYDROK IFAS system.

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.





Speeding up installation, a cost-effective solution.

Version 001

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