

Hydromaster MBR

Containerized Membrane Bioreactor



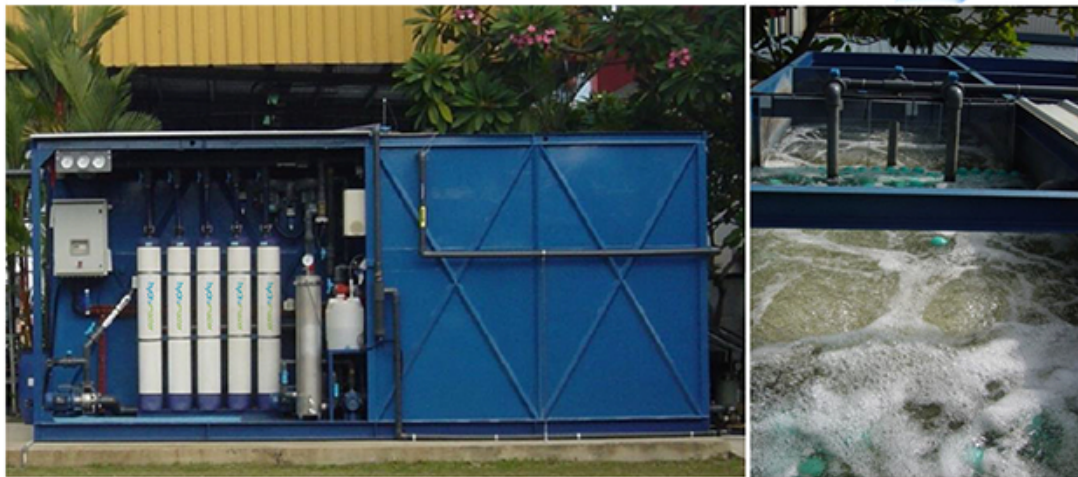
Hydromaster MBR is a side stream pressurized Membrane Bio-Reactor system. Influent enters the Bio-Reactor, and is brought into contact with the bio-mass. Intense aeration takes place in the specially configured bio-chambers. Bio-reaction is enhanced through using specially designed bio-medium.

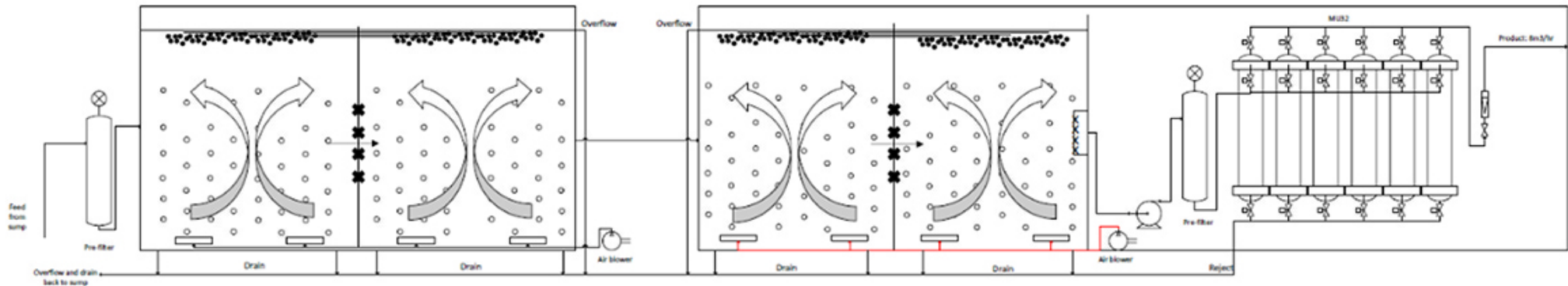
The mixed liquor then flows through the U740 Ultra-Filtration membrane. The permeate is collected for reuse or discharge, while the entire bio-mass is returned to the bio-chamber. Excess sludge is pumped out in order to maintain a constant sludge age and the membrane is regularly cleaned by backwashing, chemical washing, or both.

Further options include Equalisation Tank, UV and Nano-Filtration system could be added to enhance water quality for reuse.

Special Features:

- Design for treatment of grey water, sewage water, and high organic content industrial water
- A compact system with small footprint and easily transported in standard containers
- Has negligible odor emission and sludge generation
- Has no messy maintenance and membrane cleaning routine
- Low operating cost and no chemical needed for the treatment
- Design to treat sewage and grey water for reuse





Applications:

Decentralized municipal sewerage

- Small industrial estates and residential communities
- Hotels and resorts
- Condominiums
- Remote work sites
- High BOD and COD industrial wastewater e.g.
 - Tannery
 - Pharmaceutical
 - Abattoir
 - Landfill
 - Food

System Includes:

- Containerized Bio-Reactor (mild steel, epoxy coated)
- U740 Ultra-Filtration membrane cartridges
- Feed pump
- Guard filter
- Control valves, flow meter and pressure gauge
- Aeration diffusers and blower
- PVC piping, hoses and quick couplings
- Electrical control panel

Optional:

- Equalisation Tank
- Additional U740
- UV unit
- Nano-Filtration / Reverse Osmosis unit
- Air compressor

Specification*

Design	Bio-Reactor with Ultra-Filtration membrane
Capacity (grey water / sewage)	50 ~ 200 m ³ /day
Operating Temperature	10°C - 45°C
Maximum Pressure	< 3 bar
Feed Water	COD < 5,000 mg/L TSS < 1,000 mg/L
Product Water	COD up to 90% reduction Turbidity < 1.0 NTU
Power Requirement	400V, 50 Hz, 3 Phase
Dimension, Weight (MBR-50)	6 (W) x 2.4 (L) x 2.4 m (H), ~4500 kg

*Subject to feed water condition