



BioMOD™ MBR

Packaged Membrane Bio Reactor

Aquatech's BioMOD™ MBR provides proven wastewater treatment with a flat sheet membrane configuration to reduce fouling and a breakthrough reverse diffusion technique to give a better control of flux, while providing optimal energy consumption and UF-grade product quality. Aquatech's BioMOD MBR provides all of these benefits for end-users in industries ranging from Food & Beverage to Pharmaceutical. In addition, BioMOD MBR offers added value to the customer through flexible design, rapid implementation and automation built to minimize manual intervention and operating costs.

www.aquatech.com



BioMOD™ MBR

Mobile. Agile. Efficient

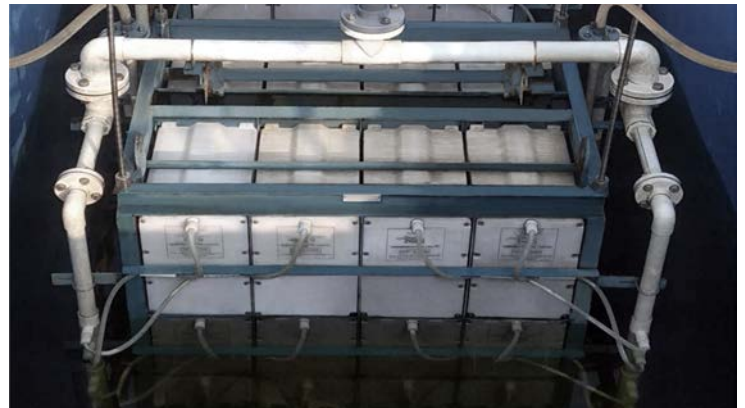
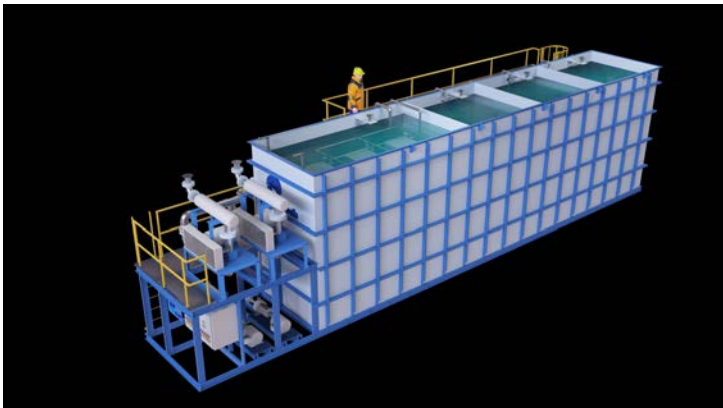
Aging infrastructure and increasing demand for high capacity biological water treatment have created a need for more efficient, compact and affordable solutions. Integrated treatment systems must be easy to operate and install while minimizing capital expenditure. These new systems must also be capable of addressing frequent changes in feed water. A mobile, packaged solution is thus key to enabling companies to manage their wastewater with the most efficient technology at the lowest cost.

Service Features

- Various packaged models are available to accommodate treatment needs across a variety of industries and feed water conditions.
- Packages are capable of being operated in series or parallel modes for flexibility in effluent quality and flow rate, respectively.
- All process components are included within a single skid to simplify transport, layout and operation. Within our 53' length scope, we include aeration blowers, feed pumps, PLC and controls.
- Quick assembly and delivery is guaranteed with our unique MBR design.
- One BioMOD™ MBR package can be used for multiple projects and occupy minimal footprint. For clients with these types of needs, we can easily transport the packaged system with the use of a standard freight truck.
- By minimizing the client expenditure for production, installation, commissioning, and operation, the BioMOD™ MBR provides a highly economical solution.
- Simplified operation and service through automated systems, which are able to regulate frequency of reverse diffusion cleaning. Additionally, service needs can be easily handled with Aquatech's support.

Typical Applications

Food & Beverage
Municipal/Commercial
Pulp & Paper
Pharmaceutical
Hotels/Resorts
Industrial Parks
Residential Complexes
Malls
Military/Work Camps



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Operational Benefits

- Employs EnviQ, a patented flat sheet PVDF membrane with ultrafiltration quality permeate, allowing for the system to be directly followed by RO
- Can handle MLSS concentrations 3,000-15,000 mg/L
- Low downtime due to reverse diffusion cleaning method instead of backwash
- 20 - 60 GPM capacity MBR plant which comes fully preassembled
- Effluent quality suitable for further recycling and reuse
- Membrane can operate even after damage due to auto-cure capability
- Low frequency of chemical cleaning due to elimination of dead pockets, which cause biofouling in competing products
- Low energy consumption
- Simplified transportation, installation and operation

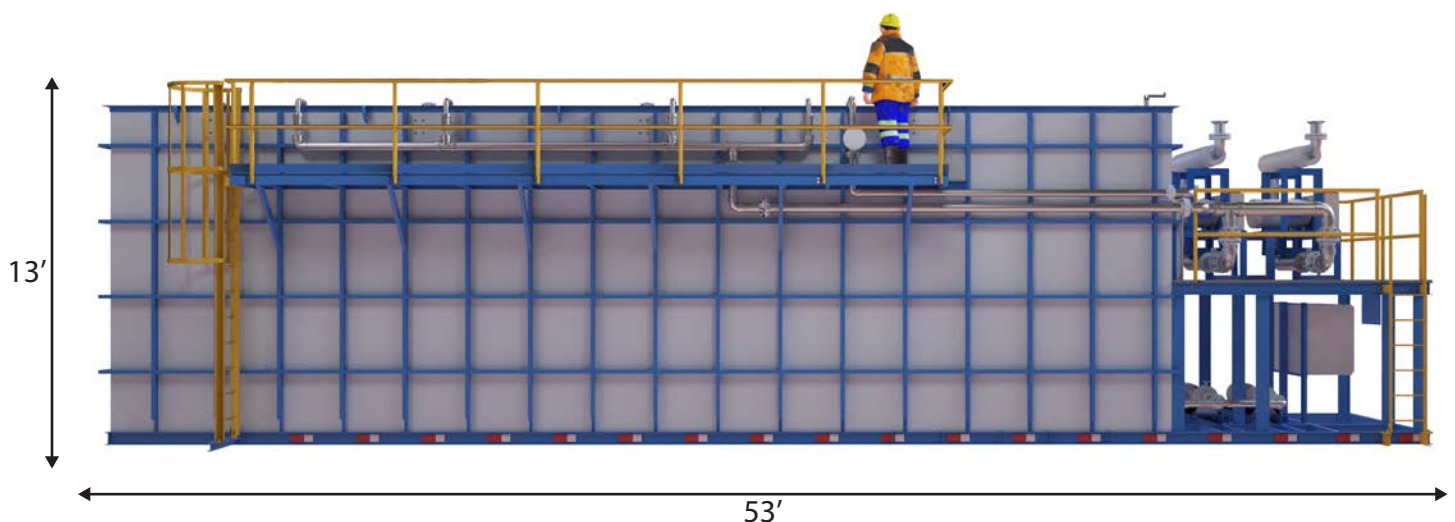
BioMOD™ MBR Configurations

Unit	Capacity		
	20 GPM	40 GPM	60 GPM
Length (ft)	53	53	53
Width (ft)	8	8	8
Height (ft)	13	13	13

Note: The above information is for guidance only. Please contact factory for validating design with detailed wastewater analysis

Outlet Water Quality

Parameter	Unit	Outlet
BOD	mg/lit	> 95% Removal
TSS	mg/lit	< 3.0 mg/L
Turbidity	NTU	< 1.0 NTU



Dimensions : 53' Length x 8' Width x 13' Height

*Given wastewater is assumed to contain no constituents which may be toxic or inhibitory to the microorganisms responsible for biodegradation

BioMOD™ MBR

Product Advantages

- Enhanced automation enabling ease of operation and optimum efficiency
- Limited infrastructure construction or modification required
- Consistent product quality regardless of feed load variance
- Extensive experience innovating in membrane technology
- Product capacity accurately determined based on client specifications.
- User-friendly operation and support
- Fast delivery and installation
- Optional integration with direct solar energy

