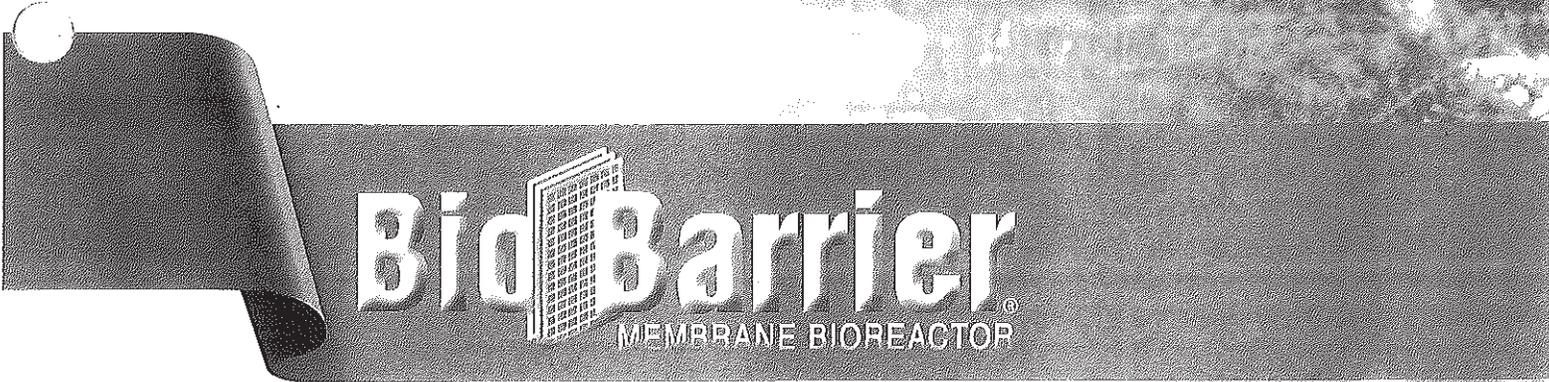


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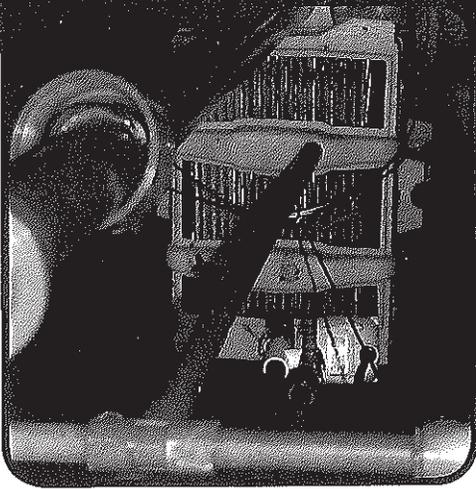
BioBarrier[®]
MEMBRANE BIOREACTOR



Residential • Community • Commercial

BIO MICROBICS[®]

BETTER WATER. BETTER WORLD.[®]



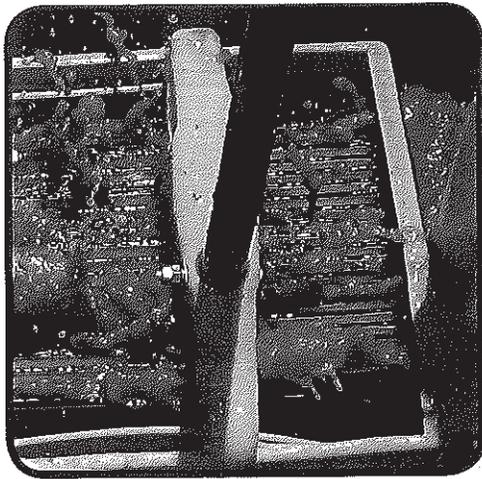
Onsite MBR Systems

Whether for a water reuse or environmental sensitive applications, end-users choose Bio-Microbics more than ever for their wastewater treatment requirements to help conserve natural resources, protect ground & surface waters, and to overcome land constraints.

With unmatched effluent quality, the BioBarrier® MBR (Membrane BioReactors) and BioBarrier® HSMBR® (High Strength Membrane BioReactors) systems help to meet the increasingly stringent and/or reuse needs of specialized on site residential and commercial wastewater treatment applications.

The submerged membrane modules and BioAeration Grid allows for a constant permeate flow, eliminates clogging, and delivers high effluent quality without costly chemicals, additives, or add on disinfection.

Always check with local regulations for guidelines to the wastewater treatment system that will fit your needs.



RESIDENTIAL

- Single-family homes
- Multi-Family Properties
- Apartment Complexes

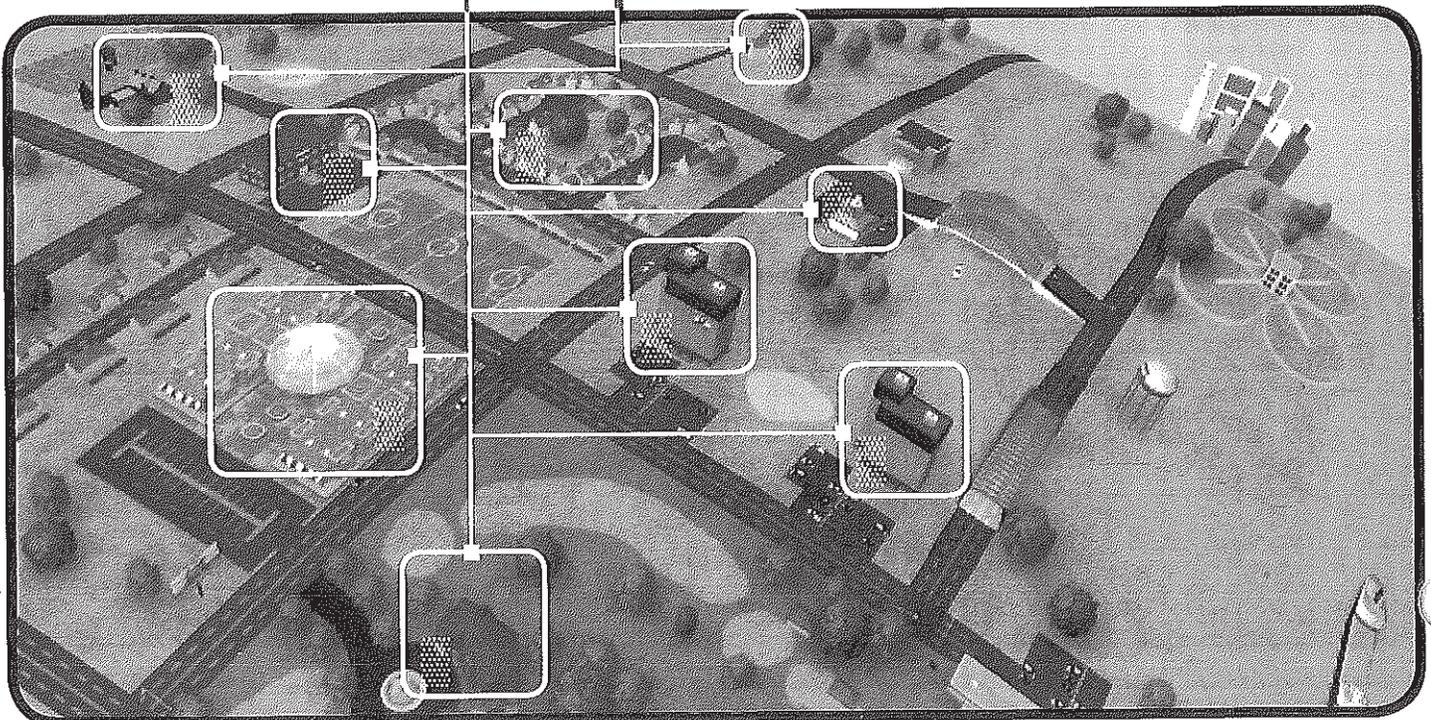
COMMERCIAL

- Schools/Universities
- RV/Mobile Home Parks
- Country Club/Golf Courses
- Restaurants/Cafes/Pubs
- Office/Business Parks
- Resort Areas/Hotels
- Shopping Centers/Food Courts
- Military Posts/Army Barracks
- Guard/Police/Fire Stations
- Recreational Facilities
- Highway/Motorways Rest Areas
- Power Stations
- Laundries
- Wineries/Farmsteads
- Supermarkets/Grocery Stores
- Food Packaging Plants
- Beverage Facilities

...and more!

BioBarrier HSMBR
HIGH STRENGTH MEMBRANE BIOREACTOR

BioBarrier
MEMBRANE BIOREACTOR



GENERAL SYSTEM INFORMATION



Maximum Treatment Capacity**

BioBarrier® MBR Model	Volume per System**	USA-rated systems	EU-rated systems	# of Modules	Module Footprint***
		People per System**	People per System**		
BioBarrier® MBR 0.5*	500 gpd (1892 lpd)	1-8	1-10	(1)	= 21" (53 cm) L x 14" (36 cm) W
BioBarrier® MBR 1.0*	1000 gpd (3487 lpd)	1-16	1-20	(2)	X 21" (53 cm) L x 14" (36 cm) W
BioBarrier® MBR 1.5*	1500 gpd (5675 lpd)	6-24	10-30	(3)	X 21" (53 cm) L x 14" (36 cm) W
BioBarrier® MBR 2.0	2000 gpd (7571 lpd)	18-32	25-40	(4)	X 21" (53 cm) L x 14" (36 cm) W
BioBarrier® MBR 2.5	2500 gpd (9464 lpd)	25-40	35-50	(5)	X 21" (53 cm) L x 14" (36 cm) W
BioBarrier® MBR 3.0	3000 gpd (11350 lpd)	35-48	45-60	(6)	X 21" (53 cm) L x 14" (36 cm) W

Module(s) Shipping Weight***

Pounds	Metric
72 lbs	33 kg
108 lbs	49 kg
144 lbs	65 kg
180 lbs	82 kg
192 lbs	87 kg

For larger applications > 3000 GPD (11350 lpd), a versatile design BioBarrier® can be used in parallel for additional flow and level of treatment.



Maximum Treatment Capacity*

BioBarrier® HSMBR Model	Volume Per System**	People Per System**
	BioBarrier® HSMBR® 1.5	1500 gpd (5675 lpd)
BioBarrier® HSMBR® 3.0	3000 gpd (11350 lpd)	Consult Factory
BioBarrier® HSMBR® 4.5	4500 gpd (17034 lpd)	Consult Factory
BioBarrier® HSMBR® 6.0	6000 gpd (22712 lpd)	Consult Factory
BioBarrier® HSMBR® 9.0	9000 gpd (34069 lpd)	Consult Factory

Module Dimensions***

Consult Factory
 Consult Factory
 Consult Factory
 Consult Factory
 Consult Factory

Shipping Weight***

144 lbs 65 kg
 288 lbs 131 kg
 432 lbs 196 kg
 648 lbs 294 kg
 864 lbs 392 kg

For larger applications >9000 GPD (34069 lpd), the BioBarrier® HSMBR®'s versatile design can be used in parallel for additional flow and treatment levels.

Please see product drawings and/or manual for further details.

*NSF/ANSI Standard 40 class 1, NSF/ANSI Standard 245 (nitrogen reduction), NSF/ANSI Standard 350 class R (water reuse) certified systems

**Treatment Capacity / Volume / People per module are given as guidelines for suggested use. BioBarrier® module capacities are rated based on biological (BOD), hydraulic and other project-specific considerations. Please Note: Only residential applications or those applications requiring treatment for only sanitary wastewater, may be designed from the volume and number of people per module. Actual capacity may vary with local conditions and performance goals.

***Module dimensions/weight can be provided for shipping specifications.

NOTE: Systems can be doubled-stacked and bolted together, which can affect final size. Please see Product Drawing for design specifications and recommended exterior tankage sizing. Treatment modules shall be installed inside tanks that are locally approved and manufactured using watertight materials.

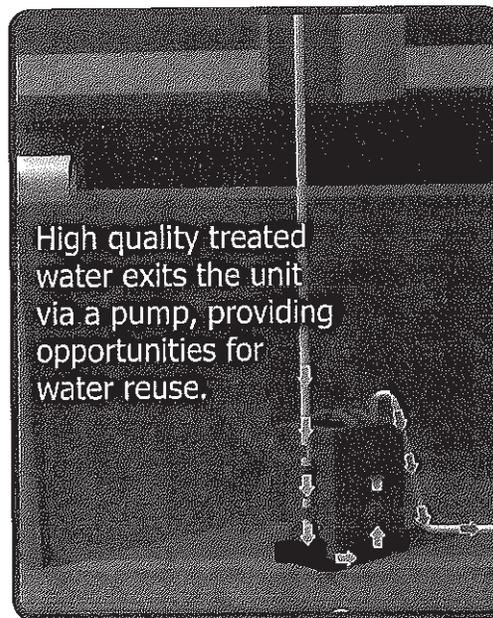
Electrical options are available to meet all worldwide electrical specifications (volt/phase/frequency).

Low Cost, Long Lasting Solution

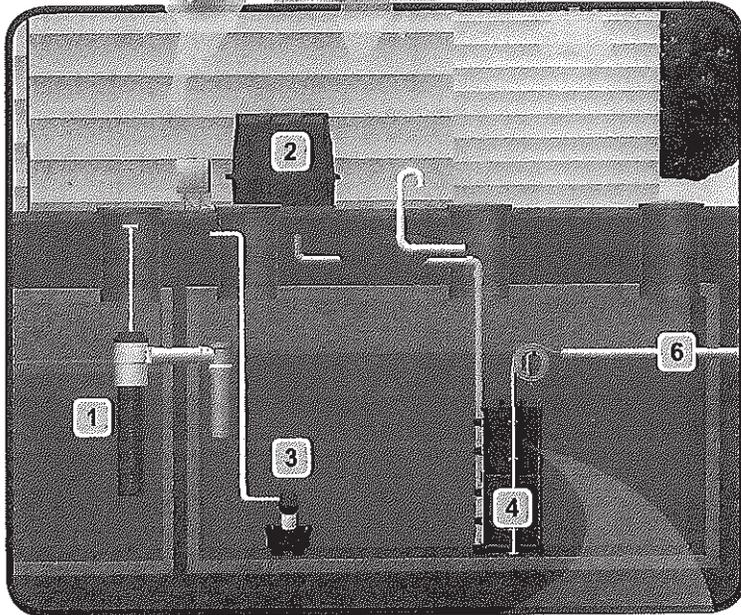
Designers, installers, regulators and property owners each benefit from BioBarrier®'s advanced features. The pre-engineered, modular system ships installation-ready for new or existing tanks. Complete with a control panel, blower, and SaniTEE®, the BioBarrier® system is easier to install, operate, and maintain than other types of treatment systems. Optional additional aeration devices (Lixor®) available.

Why use a BioBarrier® Membrane BioReactor?

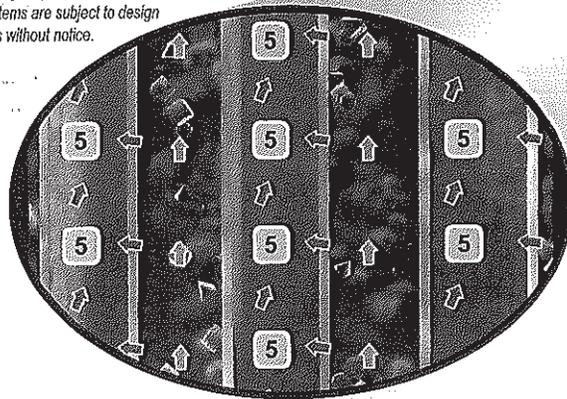
- Meets the most stringent requirements.
- Effective and proven to reduce or remove Fecal Coliform, E. Coli, and other harmful pathogens from wastewater.
- Ideal for direct discharge and water reuse applications; can make even the most difficult sites usable!
- The first system to be certified the NSF/ANSI Standard 350 for Water Reuse!



BioBarrier



In the interest of technological progress, BioBarrier® MBR and HSMBR® Systems are subject to design and/or material changes without notice.



How Does the System Work?

- 1 In the primary settling zone, a SaniTEE® device is used to prevent large solids from entering the treatment zone.
- 2 A remote, above-ground blower introduces air (oxygen) into the treatment module to facilitate a robust circulation of wastewater.
- 3 Once inside the treatment tank, suspended treatment occurs. Optional added components, such as the Lixor® System, can be used for extra aeration for higher than normal BOD concentrations.
- 4 Immersed in the treatment tank, the BioBarrier® module(s) and air grid creates an upward flow between membrane plates providing vigorous scouring action to reduce clogging. This ensures superior robust performance.
- 5 The membrane pore size specifically designed to allow for microfiltration and ultrafiltration processes.
- 6 Clear, odorless, treated water is ready for standard or innovative dispersal.

Other Systems/Products available to suit your particular needs

FAST® Wastewater Treatment Systems

- RetroFAST® Septic System Enhancement
- MicroFAST® Wastewater Treatment System
- NitrifAST® Wastewater Treatment System
- HighStrengthFAST® Treatment System
- MyFAST® Wastewater Treatment System

Horizontal Trickling Filter Technology

- SeptiTech® STAAR™ Residential
- SeptiTech® STAAR™ Commercial

Stormwater Treatment Solutions

- BioSTORM® Stormwater System
- StormTEE® Litter Control Screen

Marine Sanitation Technology

- MarineFAST® LX-Series
- MarineFAST® M-&MX-Series
- MarineFAST® DV-Series

Influent/Effluent Screening Solutions

- BioSTEP® Screened Pumping Systems
- MyTEE® Grit Control Screen
- SaniTEE® Wastewater Screen

Other Management Solutions

- Lixor® Submerged Aeration Systems
- FOGHog® Traps & Tablets
- ABC®-N Clarifiers & Devices

Water Treatment Solutions

- SciCHLOR® Hypochlorite Generators
- SciBRINE® BrineMakers
- Mighty Mike® CPT Tablets

Environmentally-Friendly Cleaning Solutions

- Mighty Mike® All Purpose Cleaner
- Mighty Mike® Laundry Detergent
- Mighty Mike® Marine Multi-Purpose Cleaner
- Mighty Mike® Marine Liquid Descaler
- Mighty Mike® Industrial Descaler

BioBarrier[®]

MEMBRANE BIOREACTOR

Single-Family & Residential Systems

BioBarrier[®] Membrane BioReactor (MBR): NSF/ANSI Standard 350 certified for Water Reuse, our advanced MBR systems are designed specifically for single-family homes to far exceed effluent requirements and provide new opportunities for wastewater recycling projects. These MBR systems are ideal for new construction, renovations, and repairs for nitrogen-sensitive areas.

Multi-Family & Community Systems

BioBarrier[®] HSMBR[®]: Exceeding typical treatment effluent requirements, our larger BioBarrier[®] HSMBR[®] (High Strength Membrane BioReactor) systems provide small communities, sub-divisions, apartment dwellings, and other residential developments with highly treated effluent for water reuse opportunities.

Small & Large Commercial Systems

BioBarrier[®] HSMBR[®]: Offering versatility and consistent high performance for commercial properties with kitchens and cafeterias, the BioBarrier[®] HSMBR[®] produces high-quality effluent specifically designed for water reuse applications.

Mighty Mike

*Mighty Tough
on Cleaning!*

Use Mighty Mike[®] environmentally-friendly Tablets & Cleaners
to effectively clean without damage or leaving residues!

Call 1-866-652-4539 or email solutions@sciencofast.com

