All Winery Wastewater Treatment in One System

BioBarrier® HSMBR® Wastewater Treatment System designed to treat your winery process wastewater exclusively, or in combination with sanitary wastewater from your tasting rooms, hospitality facilities, including from kitchens, sinks, and toilets wastewater – all in one single treatment system with efficient exceeding typical local regulatory requirements! Providing a sustainable, water-recycling winery wastewater treatment system based on the FITT® for-Purpose Approach.

Benefits of a BioBarrier® HSMBR® winery wastewater system:

• Produces unmatched, high quality effluent creating new opportunities for water reuse.

• Strong and durable components provide long lasting performance of your winery wastewater system.

• Ships installation ready making it easier to install, operate, and maintain than other types of treatment systems.

• Advanced features, pre-engineered, and modular design all work together to bring superior technology at an affordable price.

• Immersed membrane technology utilized in the BioBarrier® HSMBR® System allows for installation into a smaller footprint with both above or below ground tank options.

• Best in class performance: from an industry leader. The BioBarrier® MBR is the first system ever to receive NSF/ANSI Standard 350 certification for water reuse!

Awards, Technology Approvals, and Certifications

BioBarrier® MBR is the first system ever to receive NSF/ANSI Standard 350 certification for water reuse!

• 2017 “Top 10 Sustainable Products” Hoarding Rooms, Inc. Green Benefit™


• 2008 NASA Technology Innovation Award for Bio-Waste Series wastewater treatment equipment for small systems

• 2007 National Award Winner – Science, Technology, Innovation & Performance (STIP) Award for Wastewater Treatment Projects – One of 10 winners nationwide

• 2006 Presidential “E Star” Award from the U.S. Coast Guard – FAST Technology

• 2000 U.S. Export Achievement Certificate presented by U.S. Commerce Dept.

• 2011 Technology Innovation Award – The American Society of Heating, Refrigerating & Air-Conditioning Engineers

• 2010 Kansas Governor’s Exporter of the Year Award – BioBarrier® MBR – SeptiTech®

• 2009 Technology Merit Business Achievement Award – BioBarrier® MBR – SeptiTech®

• 2002 U.S. Export Achievement Certificate presented by U.S. Commerce Dept.

• 2006 Technology Merit Business Achievement Award – BioBarrier® MBR – SeptiTech®

• 2006 President’s “E” Award – BioBarrier® MBR – SeptiTech®

• 2010 Technology Innovation Award – The American Society of Heating, Refrigerating & Air-Conditioning Engineers

• 2011 Best of GreenBuild® Editor's Choice Award – BioBarrier®

• 2011 Kansas Governor’s Exporter of the Year Award – BioBarrier®

• 2011 Technology Innovation Award – The American Society of Heating, Refrigerating & Air-Conditioning Engineers

• 2012 President’s “E” Award – BioBarrier®

• 2015 New Product of the Year Award – Frost & Sullivan – FAST Technology


• 2014 “BEST of GreenBuild” Editor’s Choice Award – BioBarrier®

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Research, and Certifications


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“Wastewater management associated with wine processing is a critical subject due to potential contamination of soil, groundwater or surface water. Regulations for environmental discharges and for recycling or reuse schemes are also becoming increasingly stringent.” – Australian Grape & Wine Authority

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Awards, Technology Approvals, and Certifications

- 2015 Technology Merit Business Achievement Award – SeptiTech MBR & SeptiTech Systems up to 1500 GPD – Recognized in domestic and international trade by regulatory agencies at the local, state/province, and federal levels.
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For more information about SeptiTech MBR and SeptiTech Systems and their applications, visit www.septitech.com or contact solutions@septitech.com.
How to properly treat and dispose of wastewater is an issue for any production facility. The type of wastewater treatment in a winery will depend on the quality required for the treated water, which itself will depend on whether it is discharged into the public sewer network, into a natural waterway or whether it is to be reused in the process or to irrigate the vineyard.

The BioBarrier® HSMBR® (High Strength Membrane BioReactor) System utilizes industry-leading, immersed membrane technology for the treatment of winery wastewater. The resulting highly treated effluent can be used for vineyard irrigation, landscape area, water feature/treatment, soil control, and a variety of other water reuse applications to:

- help conserve natural resources
- protect ground/surface water
- help conserve natural resources
- overcome land constraints

Low Cost, Long Lasting Solution

The pre-engineered, modular system ships installation ready and comes complete with the BioBarrier® HSMBR® membrane units, BioAeration Grid System, control panel, blower, filtrate pump and SanTEE® efficient screen.

- Meets the most stringent State Regulatory requirements
- Effective at removing harmful pathogens, such as Fecal Coliform, E. Coli, and other harmful bacteria from wastewater
- Ideal for water reuse applications
- Make even the most difficult sites usable

Winery Wastewater System Includes:

- Durable, pre-engineered, BioBarrier® Membrane BioReactor modules ready for placement into the treatment tank.
- SanTEE® Efficient Screening Device(s) ready for installation into your settling tank(s).
- Filtrate Pump to extract your ultra-filtered, treated wastewater from the membrane modules.
- Timer and High Level Alarm floats to assure proper operating levels and immediate notification via the control panel of any abnormalities in normal operating water levels.
- Easy-to-operate Control Panel with maximum/minimum settings for the proper operation and monitoring of your BioBarrier® HSMBR® Winery Wastewater System.
- Installation Kit including necessary connectors and parts with easy to understand installation instructions.


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

**NOTE:** Use only tanks that are locally approved and manufactured using watertight materials. Electrical options are available to meet all worldwide electrical specifications (volt/phase/frequency).

![GENERAL SYSTEM INFORMATION](image-url)
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- Installation Kit including necessary connectors and parts with easy to understand installation instructions.
- Filtrate Pump (not shown) to extract resulting in clear, odorless, treated water; ready for standard dispensal or various innovative water reuse applications.

How does the system work?

1. Pretreatment & neutralization: Wastewater enters a settling tank where solids are separated and screened in the tank via the SanTEE® screening device.
2. Primary treatment: Once inside the treatment tank, suspended treatment occurs. With the additional BioAeration Grid System, specifically sized for the high BOD concentrations in the winery wastewater, the system provides ample oxygen transfer necessary for optimum biological treatment. This active aeration is critical in the treatment process.
3. Advanced treatment: Immersed in the treatment tank, the submerged Membrane Bioreactor units with air grids create upward flow between the membrane plates providing vigorous scouring action to reduce clogging. This ensures superior robust performance.
4. Electrical options are available to meet all worldwide electrical specifications (volt/phase/frequency).
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Maximize Treatment Capacity*

<table>
<thead>
<tr>
<th>Modules</th>
<th>BOD Concentration mg/L</th>
<th>Load ppd</th>
<th>Load kg/d</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>1500 (525 lb)</td>
<td>193</td>
<td>87</td>
</tr>
<tr>
<td>2</td>
<td>2500 (875 lb)</td>
<td>295</td>
<td>132</td>
</tr>
<tr>
<td>3</td>
<td>3500 (1225 lb)</td>
<td>385</td>
<td>175</td>
</tr>
<tr>
<td>4</td>
<td>4500 (1575 lb)</td>
<td>470</td>
<td>210</td>
</tr>
</tbody>
</table>

**Volume Per System**

- BioAeration Grid System 1.5: 1500 gpd (5675 lpd)
- BioBarrier® HSMBR® 1.5: 1500 gpd (5675 lpd)
- BioAeration Grid System 2.0: 3000 gpd (11350 lpd)
- BioBarrier® HSMBR® 2.0: 3000 gpd (11350 lpd)
- BioAeration Grid System 3.0: 4500 gpd (17034 lpd)
- BioBarrier® HSMBR® 3.0: 4500 gpd (17034 lpd)
- BioAeration Grid System 4.5: 6000 gpd (22712 lpd)
- BioBarrier® HSMBR® 4.5: 6000 gpd (22712 lpd)
- BioAeration Grid System 6.0: 7500 gpd (28887 lpd)
- BioBarrier® HSMBR® 6.0: 7500 gpd (28887 lpd)
- BioAeration Grid System 9.0: 9000 gpd (34069 lpd)
- BioBarrier® HSMBR® 9.0: 9000 gpd (34069 lpd)

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Awards, Technology Approvals, and Certifications

- **2014 Innovation in Marine Environmental Technology Offshore Excellence Award**
- **2014 President’s “E” Star” Award**
- **2016 President’s “E Star” Award**
- **2000 U.S. EPA Environmental Technology Innovator Award**
- **2015 “BEST of GreenBuild” Editor’s Choice Award**
- **2011 Kansas Governor’s Exporter of the Year**
- **2011 Ingenuity Central @ K-State Olathe, Ingenuity New Product of the Year Award**
- **2011 Ingenuity Award Winner, BuildingGreen, Inc.– d-Rain Joint™ Device**
- **2012 President’s “E” Award for Excellence**
- **2015 Technology Approval (LIFT) Scan Program - a growing collection of vetted, innovative technologies**
- **2016 Innovation in Marine Environmental Technology Offshore Excellence Award**
- **2016 BioBarrier® HSMBR® Wastewater Treatment System designed combination with sanitary wastewater from your tasting rooms, hospitality facilities; including from kitchens, sinks, and toilets wastewater – all in one single treatment system with ef fluent, BuildingGreen, Inc.– d-Rain Joint™ Device**
- **Russian Federation, Ministry of Natural Resources and Environmental Protection – 12977 Maurer Industrial Dr  •  Sunset Hills, MO 63127 USA (800) 652-4539  •  T: (314) 756-9300  •  F: (314) 756-9306 www.septitech.com – SeptiTech MBR, BioBarrier MBR and SeptiTech MBR 0.5, 1.0, & 1.5 Poland – Aprobata Techniczna (Technology Approval) ze Instytut Ochrony Środowiska, Ministerstwo Zdrowia P.P. 221 62-737 Bielsko-Biała, Poland (48-32) 626-24-45 or (48-35) 573-24-82 www.septitech.com • sales@biomicrobics.com (800) 753-3278 • T: (913) 422-0707 • F: (913) 422-0808 www.biomicrobics.com • sales@biomicrobics.com (800) 753-3278 • T: (913) 422-0707 • F: (913) 422-0808 www.biomicrobics.com • sales@biomicrobics.com (800) 753-3278 • T: (913) 422-0707 • F: (913) 422-0808 www.biomicrobics.com • sales@biomicrobics.com (800) 753-3278 • T: (913) 422-0707 • F: (913) 422-0808 Better Water. Better World.

With over 60,000 installations in more than 70 countries, our Fixed Integrated Treatment Technologies (FIT®) are the issuer of decades of experience, research & development, and real-world operating history.