Envirogen Built-in-Place Biofilters are custom designed solutions for mid- to high-air flow VOC and odor control applications. These systems are employed in point source or centralized emissions control applications, for air flows ranging from 2,000 to well over 100,000 cfm. Installations are based on standardized system components and multibay designs to lower installed costs, increase flexibility of design and allow for expansion as plant needs change.

Individual corrosion-resistant concrete-foundation biofilter bays are covered with UV-resistant FRP domes. Organic or inorganic biofilter media is customized to contaminants, treatment requirements and cost considerations – and can be guaranteed for up to 10-years of life. These advanced systems include irrigation & nutrient supply, featuring a programmable logic controller that monitors temperature, humidity, pressure, low pressure drop and fluid levels.

Envirogen Built-in-Place Biofilters are robust, sustainable solutions, offering:
- Efficient contaminant destruction
- Reduced chemical usage/storage
- Reduced energy usage
- Lower carbon footprint
- Lower overall emissions
- Adaptability to changing emission sources and levels

**Exacting Process Control**
Envirogen Built-in-Place Biofilters feature the latest concepts in odor and VOC control system design. They can be configured to include both biofilter and biotrickling designs for multi-zonal treatment – allowing them to efficiently address H₂S, reduced sulfur compounds (RSC) and volatile organic compounds (VOC). Beyond standardized bay designs, Envirogen can tailor a built-in-place biofilter to available space in a facility.

<table>
<thead>
<tr>
<th>Line</th>
<th>Models</th>
<th>Media (ft³)</th>
<th>CFM</th>
<th>EBRT/seconds (default)</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIP 1-bay</td>
<td>8</td>
<td>2000-16000</td>
<td>2000-24000</td>
<td>20-60 (30)</td>
</tr>
<tr>
<td>BIP 2-bay</td>
<td>8</td>
<td>4000-32000</td>
<td>4000-48000</td>
<td>20-60 (30)</td>
</tr>
<tr>
<td>BIP 3-bay</td>
<td>8</td>
<td>6000-48000</td>
<td>6000-72000</td>
<td>20-60 (30)</td>
</tr>
</tbody>
</table>
**About Envirogen Technologies**

Envirogen Technologies is an environmental technology and process solutions provider that combines experience in water and vapor phase treatment with process development expertise, delivering long-term, guaranteed solutions in a broad range of treatment and process-related applications. Today, we provide system design, process engineering, equipment and operating solutions for the treatment of process water, groundwater, wastewater, VOCs & odor as well as materials recovery for a range of industrial and non-industrial customers throughout North America.

**The Envirogen Technology Portfolio**

<table>
<thead>
<tr>
<th>Bioreactors</th>
<th>Biofilters</th>
<th>Ion Exchange</th>
<th>Physical-Chemical</th>
<th>Adsorptive</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fluidized Bed Reactors (FBR)</td>
<td>Built-in-Place (high flow)</td>
<td>SimPACK™ (400 gpm +)</td>
<td>FlexSorb™ (5-150 gpm)</td>
<td>EnviroHPA™ Media</td>
</tr>
<tr>
<td>Membrane Bioreactors (MBR)</td>
<td>I-Series (mid-flow)</td>
<td>MinX™ (100-850 gpm)</td>
<td>HyperSorb™ (35-3000 + gpm)</td>
<td></td>
</tr>
<tr>
<td>Suspended Carrier Reactors (SCR)</td>
<td>H-Series (low-flow)</td>
<td>MinFlex™ (&lt;300 gpm)</td>
<td>Reverse Osmosis</td>
<td></td>
</tr>
</tbody>
</table>

**Envirogen Biofilter Media**

- **ScorFil™**
  - inorganic, scoria lava
- **VamFil™**
  - aged bark, engineered
- **FlexFil™**
  - synthetic structural or random packed media

Up to 10-year warranty

**Corporate Office**

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700 Rockmead Dr., Suite 105  
Kingwood, TX 77339  
Tel: 877.312.8950  
www.envirogen.com

Visit our website www.envirogen.com for more information about the Envirogen Biotrickling Filters and our regional locations.

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