**Two-Stage Systems**

Complex odors associated with various municipal wastewater treatment processes can be difficult to treat. That is why Biorem offers a robust and cost effective approach by combining our biotrickling filters and biofilter technologies. The first stage consists of a customizable biotrickling filter that is used as a roughing scrubber to remove elevated hydrogen sulfide concentrations, allowing the second stage biofilter to concentrate on the more difficult organic sulfides and VOCs.

**Applications**

- Total odor removal
- Elevated inlet \( \text{H}_2\text{S} \) air stream
- Headworks
- Bar screens
- Biosolids management
- Grit removal
- Pumping stations
- Industrial applications for VOC removal

<table>
<thead>
<tr>
<th>Features</th>
<th>Benefits</th>
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</thead>
<tbody>
<tr>
<td>Handles difficult applications</td>
<td>Our dual stage systems can handle the most difficult air stream applications, providing long term consistent total odor removal</td>
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<tr>
<td>Variety of Vessel Types</td>
<td>Can be constructed using a variety of material types to meet budgets, delivery requirements and plant aesthetics</td>
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<td>Media</td>
<td>The engineered mineral based media is homogenous and uniform in shape, providing consistent performance with less maintenance when compared to other media</td>
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<td>Water recirculation system</td>
<td>Reduces wastewater generation and water consumption</td>
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<td>Automated Controls</td>
<td>Operator friendly and compatible with most SCADA systems</td>
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<tr>
<td>Dual Stage</td>
<td>Handles peak variations, shock loads and process upset with ease</td>
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</tbody>
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SK SERIES

Small footprint, high performance two-stage biofilter is skid mounted for simple installation and perfect for sites with limited space requirements.

Application

Specifically designed for low air flow applications typically found at pump and lift stations where high concentrations of H₂S are found and total odor removal is required.

Features

- Small footprint for tight space requirements
- Simple Installation as skid mounted unit is shipped complete to site
- High performance permanent media(s)
- Total odor removal >95%
- H₂S removal of >99%
- Available in two sizes
  - Up to 250 cfm (425 m³/h)
  - Up to 450 cfm (680 m³/h)
- Tank material: High Density Polyethylene with UV inhibitors
- NFPA 70 and NFPA 820
- Nema 4x control panel
- Nema 4x water box