Why you need sterile tank vent filters

To reduce batch contamination, spoilage, and product loss, effective sterile submicron filtration is a necessary part of your process. Especially important in the food, beverage, and pharmaceutical industries, sterile filtration protects your product from harmful submicron particle contamination and bacterial transfer or growth.

To maintain safe balanced pressure during the filling or emptying of a storage vessel, tank vent or breather filters are essential to reduce the possibility of contaminating your product.

How Micropure does it better

Micropure Segmented Tank Vent Filters feature a patented design that offers significant advantages over conventional filter cartridges.

Self-sealing PTFE membranes with a 0.2 micron retention efficiency for air and gas are sandwiched between perforated stainless steel segments within an stainless steel housing. The independently functioning modular segments are clamped together by a stainless steel tension rod that provides continued support upstream and downstream of the filter membrane. The required cartridge length and diameter are determined by your application.

Unlike conventional pleated cartridges that degrade with each sterilization, Micropure filters can be steam sterilized in place up to 150 times with no loss of filtering effectiveness, as validated by an internationally recognized food laboratory. Other sterilization or cleaning methods commonly used are autoclave, hydrogen peroxide, steam, or a variety of sanitizing agents.*

When membrane replacement becomes necessary, the operational-and disposal-cost is considerably lower than for other filters. With Micropure filters, only the small membrane media are replaced-not the entire cartridge.

Due to the porosity of our double-layer PTFE membrane, Micropure filters permit higher flow rates than conventional filters, while maintaining submicron, bacterial retention efficiency.**

The rugged, reliable design of Micropure Segmented Filters has been subjected to extensive testing in Europe and the United States, with more than 5,000 systems installed in food-and beverage-processing applications.

The results are unquestionable: MicroPure Segmented Filters, designed for two-way flow, ensure consistent, uncompromised security for any application.

Perforated Stainless Steel Modular Segments
- allows for bi-directional flow during sterile breathing on tanks and containers
- Clean-in-place with steam (150 times) or common sanitizing agent*

Durable Materials of Construction—Stainless Steel and PTFE
- broad range of chemical compatibility
- autoclavable, high temperature tolerance
- low extractable levels

Unique Flat, Double Layer Membrane Design
- low replacement cost compared to conventional cartridge
- long operational periods due to high throughput, initial pressure drop and high capacity.
- Simple, on-site visual inspection or “plating” or individual filter membrane; easily removable for laboratory analysis or culture.

Simplicity of Design
- Easily mounted on tanks or containers
- excellent breathing properties with weatherproof cover
- capacity increased by adding segmented discs.

No other filter offers this combination of features:

*Check for chemical compatibility of PTFE prior to selecting a sanitizing agent in the application.
**Reference laboratory report RP5268-challenge organism bacillus Stearothermophilus at a concentration of 1 x 10^5 spores/ml.
**Tank Vent Filter**

**Flow Rate vs. Differential Pressure Charts**
All flow rates are based off 15 psi tank pressure

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**Technical Data**

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Value</th>
<th>Unit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maximum Operating Pressure</td>
<td>232 psig</td>
<td>16 bar</td>
</tr>
<tr>
<td>Maximum Differential Pressure</td>
<td>75 psid</td>
<td>5.2 bar</td>
</tr>
<tr>
<td>Maximum Reverse Pressure</td>
<td>75 psid</td>
<td>5.2 bar</td>
</tr>
<tr>
<td>Maximum operating temp</td>
<td>250°F/121°C</td>
<td></td>
</tr>
<tr>
<td>Maximum Intermittent temp</td>
<td>400°F/204°C</td>
<td></td>
</tr>
<tr>
<td>Pore Sizes</td>
<td>.2 micron absolute.</td>
<td></td>
</tr>
<tr>
<td><strong>Material of Construction:</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Housing</td>
<td>304 SS</td>
<td></td>
</tr>
<tr>
<td>Segmented Filter Discs</td>
<td>304 SS</td>
<td></td>
</tr>
<tr>
<td>Filter Media</td>
<td>304 SS</td>
<td></td>
</tr>
<tr>
<td>Rainproof Cover</td>
<td>304 SS</td>
<td></td>
</tr>
</tbody>
</table>

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**Warranty**

Micropure Filtration, Inc. provides a five year limited warranty on all parts except O-rings and media. A one year warranty on filter media is based a maximum loading of 140 million particles per cubic meter (normal conditions). These warranties extend only to media purchased from Micropure or a certified Micropure Filtration Vendor.

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**Recommended Sterilization Procedures**

- Saturated Steam: 20 mins @ 250°F
- Hot Air: 12 hrs @ 250°F

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**Micropure Filtration**

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