• Protects chromatography columns against air introduction
• Reduces pulsation
• Fully equipped for running out of the box
• Complete documentation for regulatory submissions

Removes air bubbles from the feed stream

The VERDOT Ips² bubble trap prevents air bubbles from entering process chromatography columns. An additional benefit of the bubble trap is that it reduces residual pulsation.

The VERDOT Ips² bubble trap, which is available in 0.2, 0.4, 1.7, 2.6, 4.6 L sizes, can be used with any process chromatography column. Equipped with a fixing bracket, it is easily mounted on a column with 2 screws and is connected to the column with a flexible hose. It is secured against excessive pressure with the sanitary pressure relief valve, mounted on its upper connection.

For level adjustment, low pressure process air (<0.5bar) or 0.22µm vent filter can be connected above the isolation valve. Upon demand VERDOT Ips² can propose level sensors kit.

Caution: a bubble trap is inefficient to remove bubbles below 0.2mm from water-like liquids. In case of solvent self-degassing, such as a mixing of alcohol and water, VERDOT Ips² can propose stand alone degassing unit.

Specifications

<table>
<thead>
<tr>
<th>Specification</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Operating temperature</td>
<td>3-60°C</td>
</tr>
<tr>
<td>Max service Pressure at 30°C</td>
<td>5 bar for 4.6L, 6 bar for smaller dimensions</td>
</tr>
<tr>
<td>Connections</td>
<td>2 upper connections + 2 bottom connections</td>
</tr>
<tr>
<td>Wetted material</td>
<td></td>
</tr>
<tr>
<td>Flanges &amp; connections</td>
<td>Stainless steel 316L with 3.1B certif.</td>
</tr>
<tr>
<td>Tube</td>
<td>Borosilicate glass, acrylic (USP Class VI)</td>
</tr>
<tr>
<td>Seals</td>
<td>EPDM (USP Class VI)</td>
</tr>
<tr>
<td>Surface finish of 316L parts</td>
<td>Ra ≤ 0.4µm electropolished</td>
</tr>
<tr>
<td>Integrated components</td>
<td></td>
</tr>
<tr>
<td>Pressure gauge with 316L separator</td>
<td>1.5% error - 0-7 bar with calibration certificate and 3.1B certif, mounted on a Tee.</td>
</tr>
<tr>
<td>Pressure relief valve</td>
<td>Sanitary pressure relief valve 316L with calibration certificate and 3.1B certif</td>
</tr>
<tr>
<td>Air inlet isolation valve</td>
<td>Membrane valve in 316L + EPDM USP Class VI</td>
</tr>
<tr>
<td>Flexible hose bubble trap ↔ Column</td>
<td>in braided silicone with 316L clamp connectors</td>
</tr>
</tbody>
</table>
**VERDOT Ips² Bubble trap fully equipped with fixing bracket, pressure gauge, pressure relief valve, isolation valve and flexible hose**

### Ordering Information

<table>
<thead>
<tr>
<th>Catalog #</th>
<th>Description</th>
<th>Bottom connections</th>
<th>Ideal for flow range:</th>
</tr>
</thead>
<tbody>
<tr>
<td>7390986</td>
<td>Bubble trap, 0.2 L</td>
<td>tri-clamp* 1/4”</td>
<td>1-150L/h</td>
</tr>
<tr>
<td>7390980</td>
<td>Bubble trap, 0.4 L</td>
<td>tri-clamp* 3/8”</td>
<td>20-220L/h</td>
</tr>
<tr>
<td>7390981</td>
<td>Bubble trap, 1.7 L</td>
<td>tri-clamp* 1/2”</td>
<td>25-600L/h</td>
</tr>
<tr>
<td>7390983</td>
<td>Bubble trap, 2.6 L</td>
<td>tri-clamp* 3/4”</td>
<td>40-1000L/h</td>
</tr>
<tr>
<td>7390984</td>
<td>Bubble trap, 4.6 L</td>
<td>tri-clamp* 1”</td>
<td>300-3150L/h</td>
</tr>
<tr>
<td>7390985</td>
<td>Bubble trap, 4.6 L</td>
<td>tri-clamp* 1.5”</td>
<td>450-5400L/h</td>
</tr>
</tbody>
</table>

*Tri-Clamp® is a registered trademark of Ladish Company.*