# Stainless Steel Syringe Filter Holders

## Specifications

<table>
<thead>
<tr>
<th>Model:</th>
<th>KS13</th>
<th>KS25</th>
</tr>
</thead>
<tbody>
<tr>
<td>Part Number:</td>
<td>301000</td>
<td>301200</td>
</tr>
<tr>
<td>Materials:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Body and support screens</td>
<td>Type 304 stainless steel</td>
<td>Type 304 stainless steel</td>
</tr>
<tr>
<td>Gasket</td>
<td>PTFE (Teflon)</td>
<td>PTFE (Teflon)</td>
</tr>
<tr>
<td>O-ring</td>
<td>PTFE (Teflon)</td>
<td>PTFE (Teflon)</td>
</tr>
<tr>
<td>Connections:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Inlet</td>
<td>Female Luer-Lok</td>
<td>Female Luer-Lok</td>
</tr>
<tr>
<td>Outlet</td>
<td>Male Luer slip</td>
<td>Male Luer slip</td>
</tr>
<tr>
<td>Pressure:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Inlet</td>
<td>7 kg/cm² (100 psi)</td>
<td>7 kg/cm² (100 psi)</td>
</tr>
<tr>
<td>Differential</td>
<td>3 kg/cm² (50 psi)</td>
<td>3 kg/cm² (50 psi)</td>
</tr>
</tbody>
</table>

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<thead>
<tr>
<th>Model:</th>
<th>KS13</th>
<th>KS25</th>
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</thead>
<tbody>
<tr>
<td>Membrane filter size (mm)</td>
<td>13</td>
<td>25</td>
</tr>
<tr>
<td>Prefilter size (mm) (if used with membrane)</td>
<td>10</td>
<td>22</td>
</tr>
<tr>
<td>Filtration area (cm²)</td>
<td>0.9</td>
<td>3.8</td>
</tr>
</tbody>
</table>

## Cleaning and Maintenance

1. Disassemble the entire unit, using supplied wrenches if needed.
2. Inspect components for nicks or rough edges.
3. Clean all components with a standard, low-alkaline, non-abrasive laboratory detergent. Clean threaded connections with a stiff-bristled brush.
4. Rinse with hot tap water followed by a final rinse with distilled or deionized water.
5. Allow to air dry, do not store wet.
Assembly

1. Holding the outlet half (E) of the holder, and using Tweezers (Pad) Miracle Tip Ends or blunt forceps, carefully:
   a. Place the Teflon gasket (D) in the holder.
   b. Place the stainless steel support screen (C) on top of the gasket.
   c. Place a membrane filter (MF) on top of the screen.
   d. Center a prefilter (PF, if used) on top of the membrane.
   e. Center the Teflon O-ring (B) on top of the membrane or prefilter.
2. Screw the inlet body (A, male threads) into the outlet body of the holder until finger-tight.
3. Complete tightening with wrenches (F).

*Note: Membrane and prefilter not supplied with apparatus.

Sterilization

1. Assemble a completely dry filter holder with membrane and/or prefilter in place.
2. Tighten holder then back off one-quarter turn.
3. Wrap the entire unit in Kraft paper or an equivalent steam permeable paper.
4. Autoclave the holder at 121°C (250°F) for 30 minutes (SLOW exhaust).
5. Retighten after the holder has cooled to room temperature.
   *Note: Periodically check the actual internal autoclave temperature using a maximum registering thermometer. Overheating or prolonged autoclaving times may cause membranes to embrittle and shrink.

Operation

1. Fill a syringe with liquid to be filtered.
2. Hold syringe upright (outlet up) and press on plunger to displace air.
4. Slowly fill filter holder with fluid to avoid trapping air and causing an airlock.
**Membrane Integrity Test**
(To check for leaks and tears in membrane):

1. Remove the syringe from the filter holder.
2. Draw air into the syringe and reattach the syringe to the holder.
3. Try to force air through the membrane (wet).
   a. If resistance is felt after all the fluid on the upstream side of the membrane is displaced, the membrane should be intact and holder properly sealed.
   b. If NO resistance is felt, sterile filtration cannot be assured. Disassemble holder and check the membrane for visible tears, be sure all component parts were used when assembling the filter holder.

**Replacement parts**

<table>
<thead>
<tr>
<th>Part Description</th>
<th>KS13</th>
<th>KS25</th>
</tr>
</thead>
<tbody>
<tr>
<td>A Inlet, male</td>
<td>301001</td>
<td>301201</td>
</tr>
<tr>
<td>B O-ring, PTFE</td>
<td>301004</td>
<td>301204</td>
</tr>
<tr>
<td>C Screen, stainless</td>
<td>301003</td>
<td>301203</td>
</tr>
<tr>
<td>D Gasket, PTFE</td>
<td>301002</td>
<td>301202</td>
</tr>
<tr>
<td>E Outlet, female</td>
<td>301005</td>
<td>301205</td>
</tr>
<tr>
<td>F Universal wrenches (2/pk)</td>
<td>301006</td>
<td></td>
</tr>
<tr>
<td>Tweezers (Pad) Miracle Tip Ends</td>
<td>SSTWE</td>
<td></td>
</tr>
</tbody>
</table>
Also available from Sterlitech Corporation:

**PRESSURE FILTRATION EQUIPMENT**
- Polypropylene In-Line Holders
- Stirred Cells
- Pressure Vessels
- High Pressure Stainless Steel Holders

**OTHER FILTRATION SYSTEMS**
- Phase/fraction collectors
- Glass filter holders
- Polysulfone filter holders
- Sterility test units

**MEMBRANES AND PREFILTERS**
- Cellulose Acetate
- Nitrocellulose
- PTFE (Teflon) Laminated
- PTFE (Teflon) Unlaminated
- Polycarbonate
- Glass Fiber
- Silver Metal
- Ceramic
- Polyester
- Polyethersulfone
- Polypropylene
- Nylon

Membranes are available in a wide range of pore sizes and diameters in plain or gridded styles. See our website: [www.sterlitech.com](http://www.sterlitech.com) or call for more information.

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