

## SGH Filter Housing

### Description

The SGH filter housings are designed for ultra-high purity bulk gas applications in the semiconductor industry.

- Clean “sweep tube” design
- Easy cartridge changeout
- Available in three bowl lengths
- Available in 3 or 12 around configurations
- Through bolt closure
- Code 7 (-226 double o-ring with locking tab and finned end) cartridge adaptor

### Specifications

#### Materials

|                            |   |
|----------------------------|---|
| Medium                     | All-316L stainless steel  |
| Internal surface treatment | Electropolished   |
| Surface finish options     | $\leq 0.25 \mu\text{m}$ (10 $\mu\text{in}$ ) Ra or<br>$\leq 0.63 \mu\text{m}$ (25 $\mu\text{in}$ ) Ra |
| O-ring seal                | Fluorocarbon  |

#### Connections

|           |   |
|-----------|---|
| 3 around  | <ul style="list-style-type: none"> <li>• 2 inch (0.065 inch wall) or 3 inch (0.065 inch wall) butt weld tube</li> <li>• Purge connections: ½ inch gasket seal, male (VCR<sup>1</sup> or compatible)</li> <li>• Vent: ½ inch gasket seal, male (VCR<sup>1</sup> or compatible)</li> </ul>  |
| 12 around | <ul style="list-style-type: none"> <li>• 3 inch (0.065 inch wall) or 4 inch (0.083 inch wall) butt weld tube</li> <li>• Purge connections: ½ inch gasket seal, male (VCR<sup>1</sup> or compatible)</li> <li>• Vent: ½ inch gasket seal, male (VCR<sup>1</sup> or compatible)</li> <li>• Drain: ½ inch gasket seal, male (VCR<sup>1</sup> or compatible)</li> </ul> |

#### Operating Conditions

|                                    |   |
|------------------------------------|---|
| Maximum allowable working pressure | <ul style="list-style-type: none"> <li>• 3 around:<br/>1.72 MPa at 93°C / 250 psig @ 200°F</li> <li>• 12 around:<br/>1.24 MPa at 38°C / 180 psig @ 100°F<br/>1.17 MPa at 93°C / 170 psig @ 200°F</li> </ul> |
|------------------------------------|---|



#### Certifications

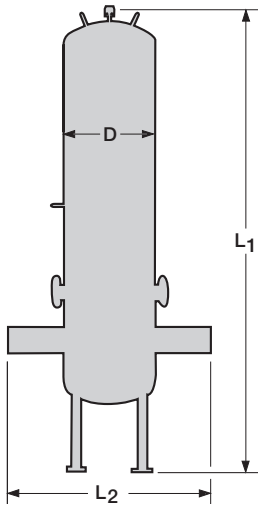
|                                 |   |
|---------------------------------|---|
| EU Pressure Equipment Directive | Housings have been evaluated for compliance with the European Union's Pressure Equipment Directive 97/23/EC and are CE marked (please refer to CE marked housing options on page 2) |
| ASME                            | Housings are designed, manufactured and stamped in accordance with the ASME BPVC Section VIII, Div. 1, including latest addendum  |

#### Leak Rating

100% Helium leak tested to  $10^{-8}$  atm-cm<sup>3</sup>/s

<sup>1</sup> VCR is a trademark of Swagelok Co..

## Dimensions



|           | Number of cartridges | Filter length | Nominal length (L <sub>1</sub> )<br>(mm / in) | Nominal diameter (D)<br>(mm / in) | Face-to-face Dimensions (L <sub>2</sub> )<br>(mm / in) |
|-----------|----------------------|---------------|---|-----------------------------------|--|
| SG[ ]H32  | 3                    | 508 / 20      | 1,295 / 51                                    | 219 / 8.63                        | 508 / 20   |
| SG[ ]H33  | 3                    | 762 / 30      | 1,549 / 61                                    | 219 / 8.63                        | 508 / 20   |
| SG[ ]H34  | 3                    | 1,016 / 40    | 1,803 / 71                                    | 219 / 8.63                        | 508 / 20   |
| SG[ ]H122 | 12                   | 508 / 20      | 1,549 / 61                                    | 356 / 14                          | 768 / 30.25  |
| SG[ ]H123 | 12                   | 762 / 30      | 1,803 / 71                                    | 356 / 14                          | 768 / 30.25  |
| SG[ ]H124 | 12                   | 1,016 / 40    | 2,057 / 81                                    | 356 / 14                          | 768 / 30.25  |

Please contact Pall Microelectronics for detailed dimensions on specific housing part numbers.

## Part Numbers / Ordering Information

SG 1 H 2 3 G7BW 4 - 5

**Table 1**

| Code  | Internal surface finish |
|-------|-------------------------|
| Blank | ≤ 0.63 µm / 25 µin Ra   |
| L     | ≤ 0.25 µm / 10 µin Ra   |

**Table 4**

| Code | Inlet / outlet connections |
|------|----------------------------|
| 32   | 2 inch tube x 0.065 wall   |
| 48   | 3 inch tube x 0.065 wall   |
| 64   | 4 inch tube x 0.083 wall   |

**Table 2**

| Code | Number of cartridges per housing |
|------|----------------------------------|
| 3    | 3 around                         |
| 12   | 12 around                        |

**Table 5**

| Code  | Pressure vessel code |
|-------|----------------------|
| Blank | ASME code, U-Stamp   |
| CE    | CE marked            |

**Table 3**

| Code | Nominal cartridge length<br>(mm / in) |
|------|---------------------------------------|
| 2    | 508 / 20                              |
| 3    | 762 / 30                              |
| 4    | 1,016 / 40                            |