INSTALLATION AND REPLACEMENT INSTRUCTIONS:

**Warning:** It is the installer’s responsibility to comply with appropriate safety procedures for working with gases under pressure and for toxic and other hazardous gases. If installer is unsure of proper procedures, appropriate authority must be consulted prior to beginning installation and/or removal of a filter.

**Caution:** GasShield GasketFilters are preconditioned with clean, dry nitrogen. Extreme care should be taken to minimize the time which elapses between the removal of the packaging and the installation of the filter to minimize contamination of the filter.

**Caution:** Like any VCR compatible gasket, the GasShield GasketFilter is intended for one-time use. Re-use of the GasketFilter could result in system leaks.

1. Close valves upstream and downstream of the filter.
2. Perform cycle purge to the gas system to get the component to be removed, inerted and depressurized.
3. Disassemble the connection and remove the used filter or gasket.
4. Inspect all sealing surfaces and clean or replace as needed.
5. In order to avoid contamination of the filter media, do not handle the GasketFilter without wearing clean gloves. Do not open the inner package until ready for immediate installation.
6. Remove the filter from the bag. Make certain that the filter will be installed so that the flow direction agrees with illustration 'A'.
   
   **Note:** The GasketFilter is effective in either flow direction.
7. Immediately insert the filter while being careful not to damage the connection sealing surfaces. **DO NOT INSTALL ADDITIONAL GASKETS.** Tighten the connection.
8. Perform cycle purge to the gas system to get the installed component inerted and free from atmospheric contamination.

9. Install the metal tag provided with each filter on the gas line, adjacent to the connection, by forming the tag around the line, and inserting the tab into the slot. Bend the tab back to secure the tag to the line. (Illustration ‘B’ - Metal Tag)
10. helium leak test connections for integrity.
11. Close vent line valve if installed.
12. Open upstream and downstream valves.

**SPECIFICATIONS:**

Retention: Greater than 99.9999999% (9 LRV) removal of all particles measured down to 0.003 micron.

Flow Direction: Bidirectional Flow

Operating Conditions:

<table>
<thead>
<tr>
<th>Description</th>
<th>Rated Flow</th>
<th>Porous Material</th>
</tr>
</thead>
<tbody>
<tr>
<td>GSG-V4-1-N</td>
<td>1</td>
<td>Nickel</td>
</tr>
<tr>
<td>GSG-V4-3-N</td>
<td>3</td>
<td>Nickel</td>
</tr>
<tr>
<td>GSG-V4-1-2</td>
<td>20</td>
<td>Nickel 0.4 Micron Filtration</td>
</tr>
<tr>
<td>GSG-V4-1-2N</td>
<td>50</td>
<td>Nickel 0.4 Micron Filtration</td>
</tr>
<tr>
<td>GSG-V4-1-S</td>
<td>1</td>
<td>316L Stainless Steel</td>
</tr>
<tr>
<td>GSG-V4-3-S</td>
<td>3</td>
<td>316L Stainless Steel</td>
</tr>
<tr>
<td>GSG-V4-1-2S</td>
<td>20</td>
<td>316L Stainless Steel 0.4 Micron Filtration</td>
</tr>
<tr>
<td>GSG-V5-1-2S</td>
<td>50</td>
<td>316L Stainless Steel 0.4 Micron Filtration</td>
</tr>
</tbody>
</table>

Maximum Differential Pressure at 20°C
Forward Flow: 1000 psid
Reverse Flow: 1000 psid

Maximum Operating Temperature: 450°C Inert Gases

Gasket Material: Unplated Nickel

Recommended Changeout Interval: System Dependent