Mott High Purity GasShield® Diffusers
GSE Series / GSE-FLG-1.4-F1-NW40-316L
Stainless Steel Filter Media

Description
Mott GasShield Diffusers quickly vent vacuum chambers to atmosphere which decreases cycle time and increases throughput. Mott stainless steel diffusers provide uniform and laminar gas flows without disturbing particles in the chamber. These diffusers also remove particles greater than 0.003 µm from incoming gas minimizing defects on the wafer. Stainless steel diffusers can withstand higher operating pressures and maintain product integrity for over 3 million cycles – the longest lifetime in the industry.

Applications
Mott diffusers are used in vent applications on load lock chambers, transfer chambers, cooling chambers, and process chambers of Semiconductor equipment interfaces (CVD, PVD, Etch, Epi) or other vacuum chambers.

For More Information
For more information on Mott GasShield Diffuser offerings for 150/200/300/450 mm system applications, contact Mott High Purity Sales.

Materials of Construction
Hardware: 316L SS
Filter Medium: 316L SS
Wetted Hardware Surface Finish: ≤ 10 Ra
Connections:
Inlet: ¼” Male Swivel VCR
Outlet: ISO NW40 (Designed for bulkhead mount with standard ISO bulkhead clamps)
O-Ring Material: Viton
O-Ring Size: 2-224
O-Ring Groove ID: 1.73” (44 mm)
O-Ring Groove OD: 2.05” (52.1 mm)
O-Ring Groove Depth: 0.102” (2.6 mm)

Performance Specifications
Particle Removal Size: ≥ 0.003 µm
Particle Shedding: Zero particle contribution above background (<1 particle/ft³) per SEMI F70-0302 test method
Reliability: 5 years or 3,000,000 cycles at max operating pressure (See warranty statement)

Operating Conditions
Maximum Operating Pressure: 60 psig (4.0 barg)
Max Operating Temperature for Inert Gas: 840°F (450°C) without O-Ring
212°F (100°C) with O-Ring
Maximum Differential Pressure: 75 psid (5.0 bar)

Warranty:
Mott Corporation (“Mott”) warrants its GasShield diffuser will meet the specified retention and media integrity standards for a period of five years or 3,000,000 cycles whichever comes first from the date of purchase, providing the diffuser is properly installed and used in accordance with the specified flow, pressure, temperature, and chemical compatibility as published by Mott. Mott will replace or grant a purchase price refund for any GasShield diffuser which proves defective under the terms of this limited warranty. No other remedies apply. Mott disclaims all other warranties, either expressed or implied, including any warranty of merchantability or fitness for a particular purpose. Mott shall have no liability for consequential, incidental, special or punitive damages, lost profits or savings, or damages from lost production or damage to other materials.
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NOTE: Dimensions in [Brackets] are in millimeters

Ordering information:

<table>
<thead>
<tr>
<th>Part Description</th>
<th>Part Number</th>
<th>Inlet Connection</th>
<th>Outlet Connections</th>
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</thead>
<tbody>
<tr>
<td>GSE-FLG-1.4-F1-NW40-316L</td>
<td>6894036</td>
<td>¼&quot; Male Swivel Face Seal</td>
<td>ISO NW40 (Bulkhead mount with standard ISO bulkhead clamps)</td>
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Mott GSE-FLG-1.4-F1-NW40-316L Performance Data

![Performance Data Graph](chart.png)