

Mott High Purity GasShield® Diffusers

GSE Series / GSE-FLG-2.0-F1-NW50-316L

Stainless Steel Filter Media

TEESING

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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 Diffusers offerings for 150/200/300/450 mm system applications, contact Mott High Purity Sales.

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.

Materials of Construction

Hardware:	316L SS
Filter Medium:	316L SS
Wetted Hardware Surface Finish:	$\leq 10 \text{ Ra}$
Connections:	
Inlet:	1/4" Male Swivel VCR
Outlet:	ISO NW50 (Designed for bulkhead mount with standard ISO bulkhead clamps)
O-Ring Material:	Viton
O-Ring Size:	2-229
O-Ring Groove ID:	2.36" (59.9 mm)
O-Ring Groove OD:	2.67" (67.9 mm)
O-Ring Groove Depth:	0.102" (2.6 mm)

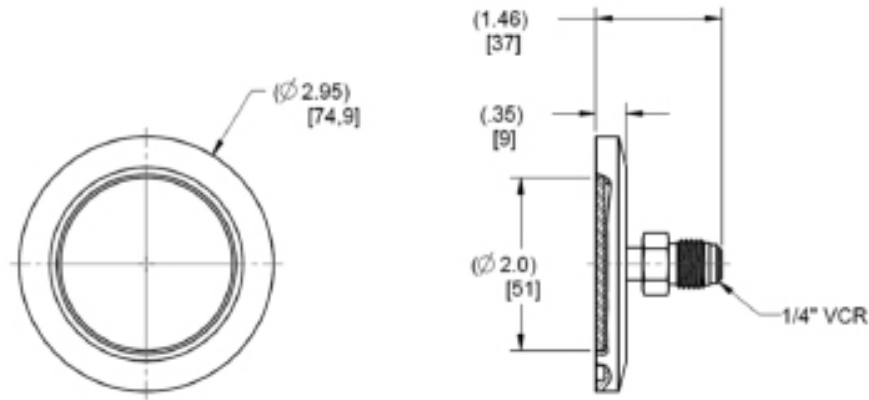
Performance Specifications

Particle Removal Size:	$\geq 0.003 \mu\text{m}$
Particle Shedding:	Zero particle contribution above background (<1 particle/ft ³) 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)

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NOTE: Dimensions in [Brackets] are in millimeters

Ordering information:

Part Description	Part Number	Inlet Connection	Outlet Connections
GSE-FLG-2.0-F1-NW50-316L	6894035	1/4" Male Swivel Face Seal	ISO NW50 (Bulkhead mount with standard ISO bulkhead clamps)

Performance Data for Mott GSE-FLG-2.0-F1-NW50-316L Diffuser

