

# GASSHIELD® DIFFUSER SERIES

## ALLOY 22\* FILTER MEDIA DIFFUSERS



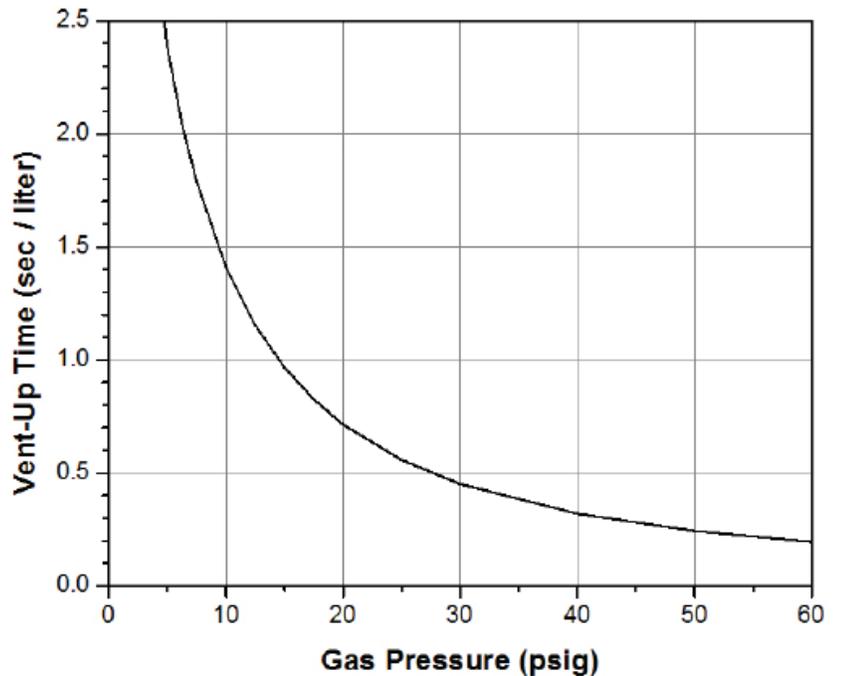
### 1.5 nm PARTICLE CAPTURE 3,000,000 CYCLES

Superior corrosion resistance over stainless steel and nickel, and product integrity for over 3 million cycles at high operating pressures are now available with Mott GasShield® Alloy 22\* diffusers.

GasShield® Diffusers quickly vent vacuum chambers to atmosphere, decreasing cycle time and increasing throughput while providing uniform and laminar gas flows without disturbing particles in the chamber. GasShield® Diffusers are proven to remove particles down to 0.0015  $\mu\text{m}$ .



Performance Data for Mott GSE-FLG-2.0-F1-NW50-C22 Diffuser



## APPLICATIONS

Use Mott diffusers with the most corrosive gases 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.

## SPECIFICATIONS

Particle Removal Size:	Confirmed down to 0.0015 $\mu\text{m}$
Particle Shedding:	Zero particle contribution above background (<1 particle/ft <sup>3</sup> ) per SEMIF43-0308 test method

## CONNECTIONS

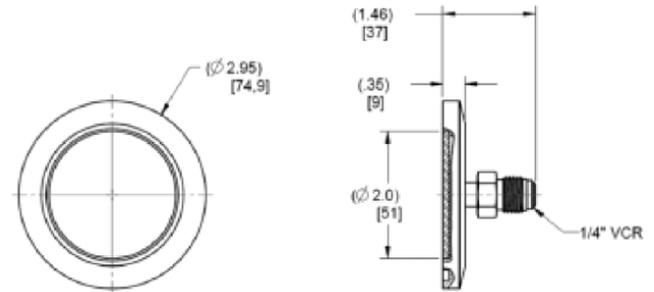
- » Inlet: 1/4" Male Swivel VCR
- » Outlet: ISO NW50 (Designed for bulkhead mount with standard ISO bulkhead clamps)
- » O-Ring Material: Viton
- » O-Ring Size: 2-229
- » O-Ring Groove ID: 2.36" (59.9 mm)
- » O-Ring Groove OD: 2.67" (67.9 mm)
- » O-Ring Groove Depth: 0.102" (2.6 mm)

## MATERIALS

- » Hardware: 316L SS or Alloy 22\*
- » Filter Medium: Alloy 22\*
- » Wetted Hardware Surface Finish:  $\leq 10 \text{ Ra}$

## OPERATING CONDITIONS

- » Max Operating Pressure: 60 psig (4.1 barg)
- » Max Operating Temperature for Inert Gas  
860°F (460°C) without o-ring  
212°F (100°C) with o-ring
- » Max Differential Pressure: 75 psid (5.2 bar)



## ORDERING INFORMATION

Part Description	Part Number	Fitting Type	Hardware	Outlet Connections
GSE-FLG-2.0-F1-NW50-C22	6894044	1/4" Male Swivel Face Seal	Hastelloy C-22	ISO NW50 (Bulkhead mount with standard ISO bulkhead clamps)

Other custom designs and fittings available. Contact a Mott representative for more information.

## 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.

\*Alloy 22 or UNS N06022 is a nickel-chromium-molybdenum super-alloy commonly referred to as Hastelloy® C-22®.