

GASSHIELD® POINT-OF-USE GAS FILTERS

1.5 nm FILTRATION

mott
MISSION CRITICAL PRECISION

POU-05-NS - NICKEL 200 FILTER MEDIA

DESCRIPTION

Mott High Purity Gas Filters provide 9-log filtration of particles down to 0.0015 μm resulting in particle-free gas. For maximum gas filtration efficiency, strength and reliability, GasShield POU all-metal gas filters are ideal for Ultra High Purity (UHP) gas delivery applications. They are compatible with most high purity electronics grade process gases. For more point-of-use filter offerings, check out the Mott line of Penta® nickel media or Defender fiber metal filters.



APPLICATIONS

UHP gas sticks for semiconductor tool hook-up. UHP process gas filtration in valve manifold boxes, gas cabinets, tool isolation gas boxes, and OEM gas boxes. Any process requiring ultra high purity particle removal.

OPERATING CONDITIONS

- » Maximum Operating Pressure: 3750 psig (258.5 barg)
- » Maximum Operating Temperature for Inert Gas: 450°C
- » Maximum Differential Pressure: 1000 psid (68.9 bar)

MATERIALS

- » Hardware: 316L SS
- » Filter Medium: Nickel 200
- » Wetted Hardware Surface Finish: 5 Ra, Electro-polished

SPECIFICATIONS

Particle Removal Size:	$\geq 0.0015 \mu\text{m}$
Filter Efficiency (Log Reduction Value):	≥ 9 LRV (99.9999999% reduction in particles). Confirmed at the most penetrating particle size of 0.08 μm per SEMI F38-0699 test method
Helium Leak Rating:	1×10^{-9} atm cc/sec
Moisture Contribution:	<10 ppb after 1 hour at low-flow ambient purge per SEMI F27 test method
Total Hydrocarbons:	Below detectable limits per SEMASPEC 90120396B test method
Particle Shedding:	Zero particle contribution above background (<1 particle/ft ³) per SEMI F43-0308 test method

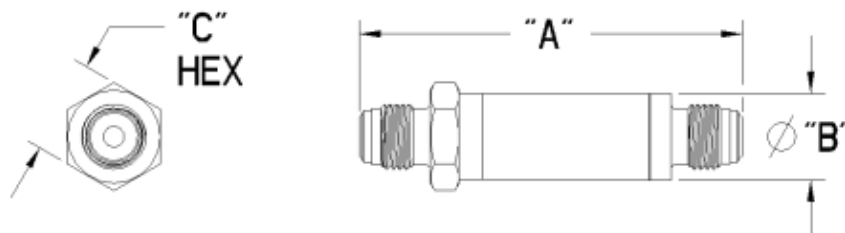
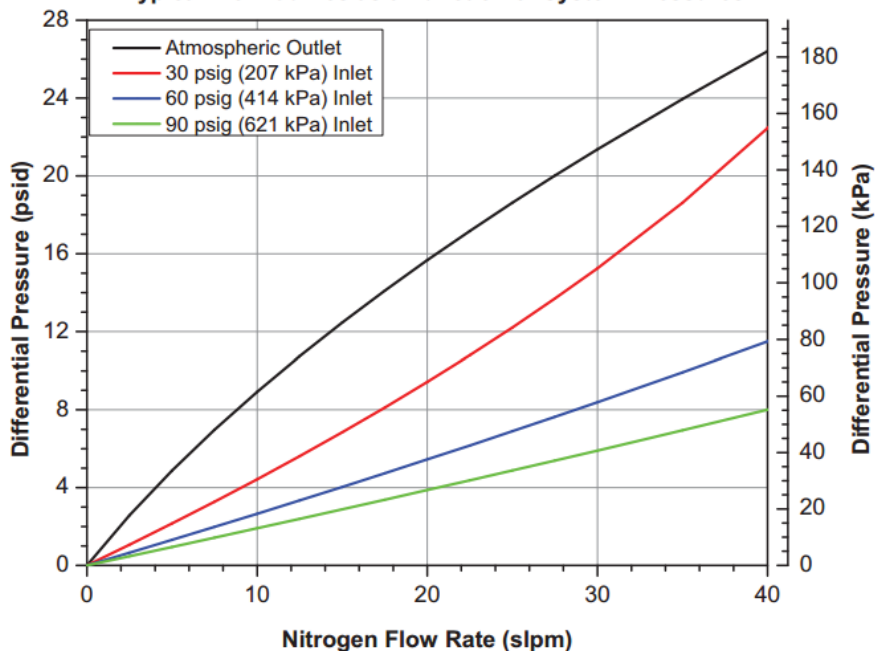
Warranty:

Mott Corporation ("Mott") warrants its GasShield filter will meet the specified retention and media integrity standards for a period of five years from the date of purchase, providing the filter 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 filter 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.

FLOW DATA

Mott POU-05-N Flow Rate vs. Differential Pressure

Typical Flow Curves as a Function of System Pressures



ORDERING INFORMATION

Part Description	Part Number	Fitting Type	A Inches/mm	B Inches/mm	C Inches/mm
POU-05-NSV1	6800052	1/4 inch Male/Male Face Seal	3.31/84.0	0.75/19.0	0.812/20.6
POU-05-NST1	6800070	1/4 inch Butt Weld Tube Stubs	3.31/84.0	0.75/19.0	N/A

*Custom designs and fittings available. Contact a Mott representative for more information.