

# GASSHIELD® POINT-OF-USE SERIES

## GSP3754

## PENTA® NICKEL FILTER MEDIA



### DESCRIPTION

For maximum gas filtration efficiency, strength and reliability, GasShield Penta® all-metal gas filters are ideal for Ultra High Purity (UHP) gas delivery applications. They are offered in all welded 316L stainless steel housings with Mott's patented Penta® nickel filter media alloys. They are compatible with most high purity semiconductor process gases. For more point-of-use filters, check out the Mott line of GasShield POU, Sentry, and Defender filter lines.

### APPLICATIONS

UHP gas sticks for Semiconductor, LED, Photovoltaic and MEMS Equipment Hookup. UHP filtration in valve manifold boxes, gas cabinets, tool isolation gas boxes, on-board gas delivery boxes or 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: 750 psid (51.7 bar)

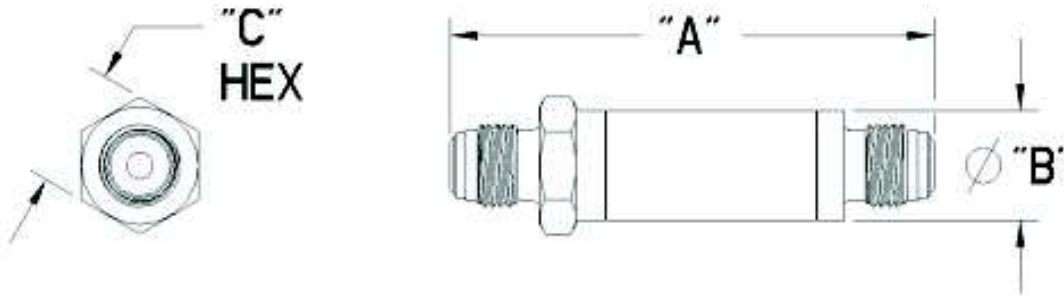
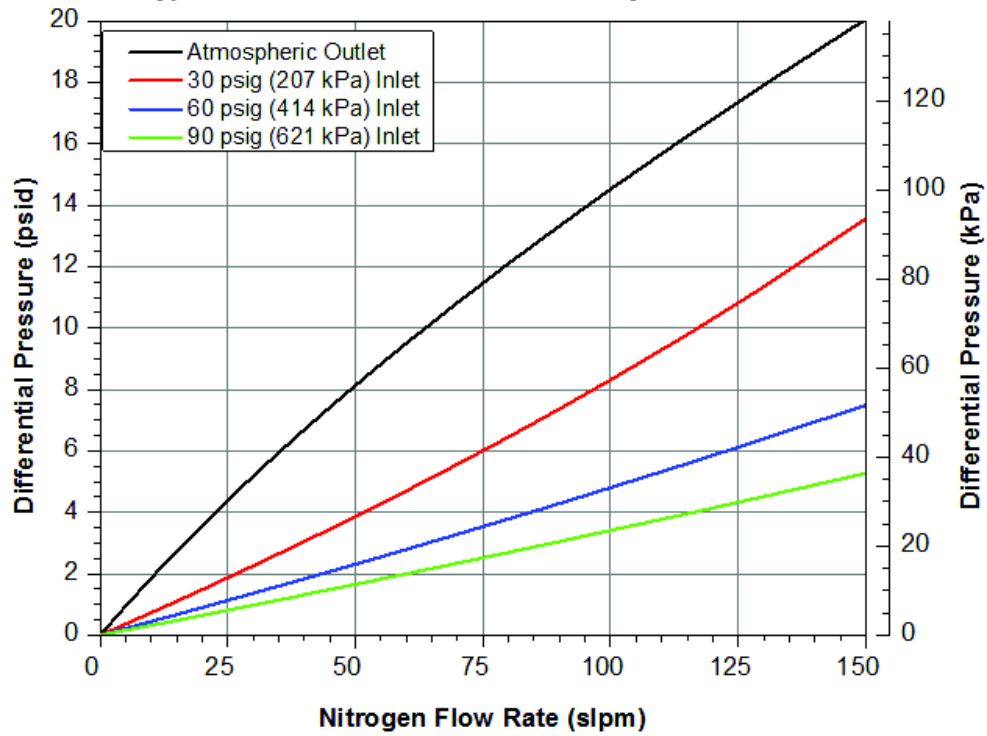
### MATERIALS

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

### SPECIFICATIONS

Particle Removal Size:	≥ 0.0025 µm
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 x 10 <sup>-9</sup> 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 <sup>3</sup> ) per SEMIF43-0308 test method

**Mott GSP5754 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
GSP5754FF11	6812005	1/4 inch Male/Male Face Seal	5.00/127.0	0.75/19.0	0.812/20.6
GSP5754TT11	6812014	1/4 inch Butt Weld Tube Stubs	5.00/127.0	0.75/19.0	N/A
GSP5754FF33	6812010	1/2 inch Male/Male Face Seal	5.00/127.0	0.75/19.0	0.875/22.2

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