

# GASSHIELD® POINT-OF-USE SERIES GSP3753 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: 500 psid (34.5 bar)

## MATERIALS

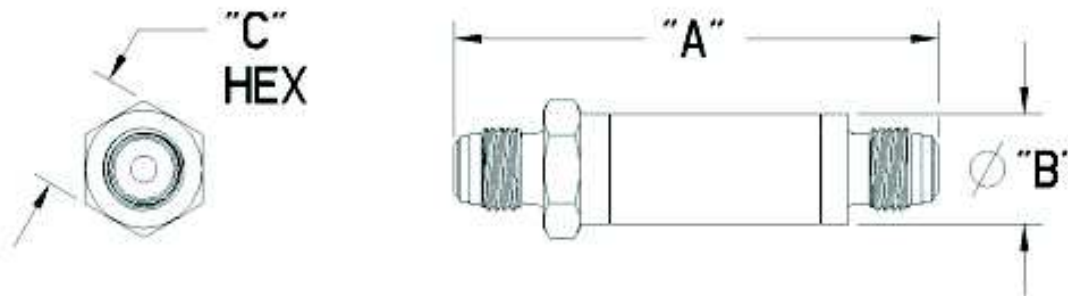
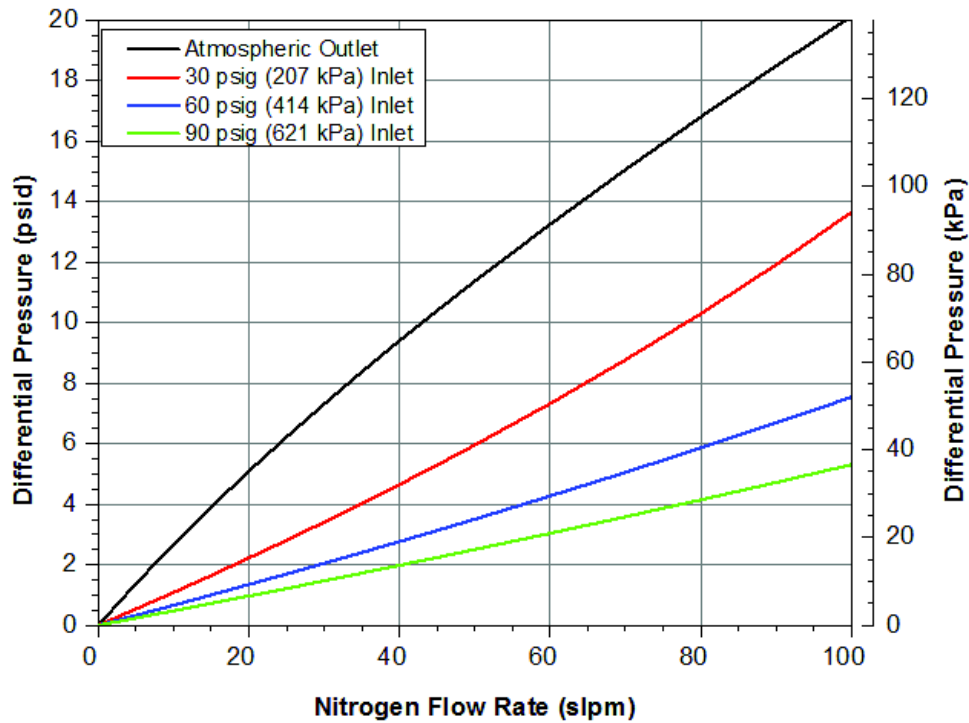
- » Hardware: 316L SS
- » Filter Medium: Penta Nickel
- » Wetted Hardware Surface Finish: 5 Ra, Electro-polished

## 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

# FLOW DATA

**Mott GSP3753 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
GSP3753FF11	6812002	1/4 inch Male/Male Face Seal	3.31/84.0	0.75/19.0	0.812/20.6
GSP3753TT11	6812012	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.