

# SENTRY SERIES PENTA® NICKEL FILTER MEDIA

**mott**  
MISSION CRITICAL PRECISION

## DESCRIPTION

The Sentry is a line of cost effective all-metal Ultra High Purity (UHP) gas filters that utilizes the Mott Patented Penta nickel media. The Sentry filter provides 9 LRV filtration down to 0.0025  $\mu\text{m}$ .

## 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: 3000 psig (207 barg)
- » Maximum Operating Temperature for Inert Gas: 450°C
- » Maximum Differential Pressure: 500 psid (34.5 bar)

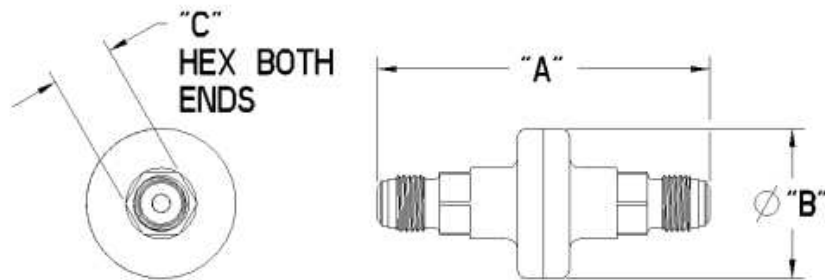
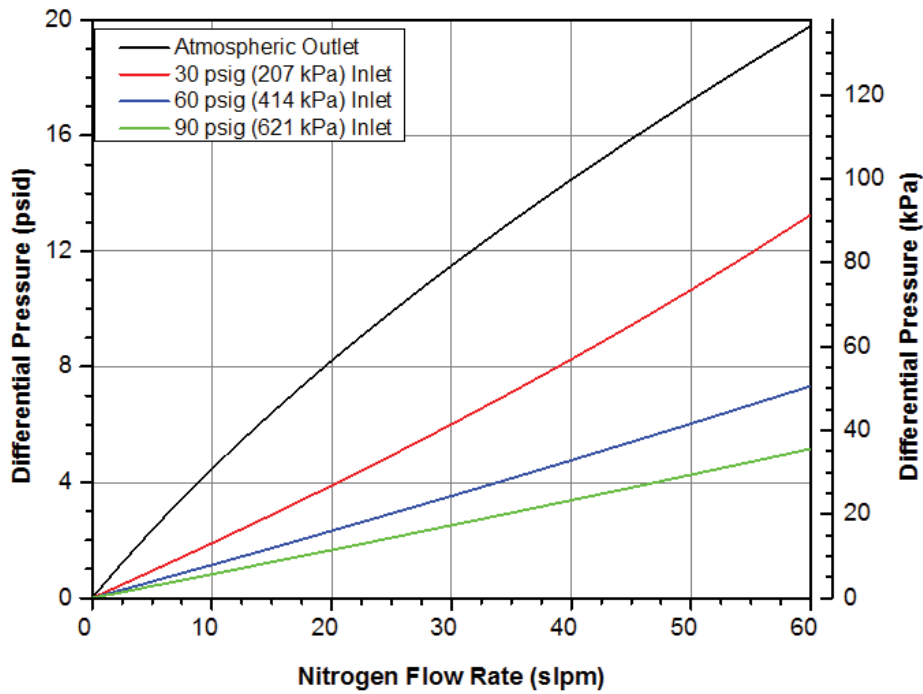
## MATERIALS

- » Hardware: 316L SS
- » Filter Medium: Penta Nickel
- » Wetted Hardware Surface Finish: 10 Ra, Electro-polished

## SPECIFICATIONS

Particle Removal Size:	$\geq 0.0025 \mu\text{m}$
Filter Efficiency (Log Reduction Value):	9 LRV (99.9999999% reduction in particles). Confirmed at the most penetrating particle size of 0.08 $\mu\text{m}$ per SEMI F38-0699 test method
Helium Leak Rating:	$1 \times 10^{-9}$ 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 <sup>3</sup> ) per SEMI F43-0308 test method

**Mott SEN331N 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
SEN331NFF11	6815001	1/4 inch Male/Male Face Seal	3.31/84.0	1.50/38.1	0.625/15.9
SEN280NFP11	6815005	1/4 inch Male/Female Face Seal	2.81/71.3	1.50/38.1	0.625/15.9
SEN112NTT11	6815004	1/4 inch Butt Weld Tube Stubs	1.12/28.4	1.50/38.1	N/A

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