

GASSHIELD® POINT-OF-USE SERIES 1.5 nm FILTRATION

mott
MISSION CRITICAL PRECISION

FLP 515 - STAINLESS STEEL FIBER METAL MEDIA

DESCRIPTION

Mott High Purity Filters provide 9-log filtration of particles down to 0.0015 µm resulting in particle-free gas. The FLP is designed for filtration of low vapor pressure, high temperature gases generated in a direct liquid injection system, where the process utilizes a vaporization chamber. FLP515 is ideal for filtering vapor phase low pressure dopants or organometallic precursor vapors such as TEMAZ, TEOS, TiCl₄, TDMAT, TEPO, TEB, POCl₃, Z4MS, Ztomcats, Trans-LC, TMB, and others.



APPLICATIONS

The FLP is designed for filtration of low vapor pressure gases from a gases/mixture of chemical precursor vapor liquid source volatile precursors, high temperature gases generated in a direct liquid injection system, where the process utilizes a vaporization chamber.

OPERATING CONDITIONS

- » Maximum Operating Pressure: 2500 psig (172.5 barg)
- » Maximum Operating Temperature for Inert Gas: 450°C
- » Maximum Differential Pressure: 500 psid (34.5 bar)

MATERIALS

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

SPECIFICATIONS

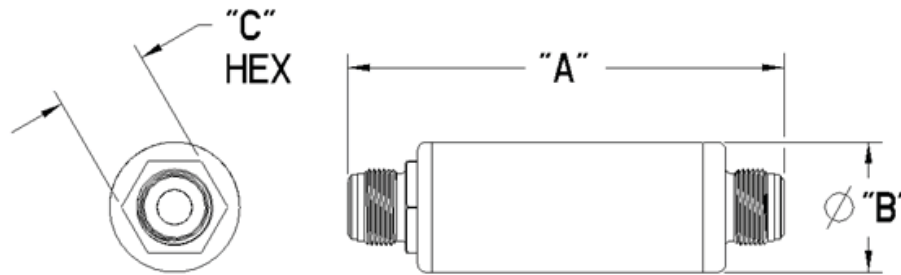
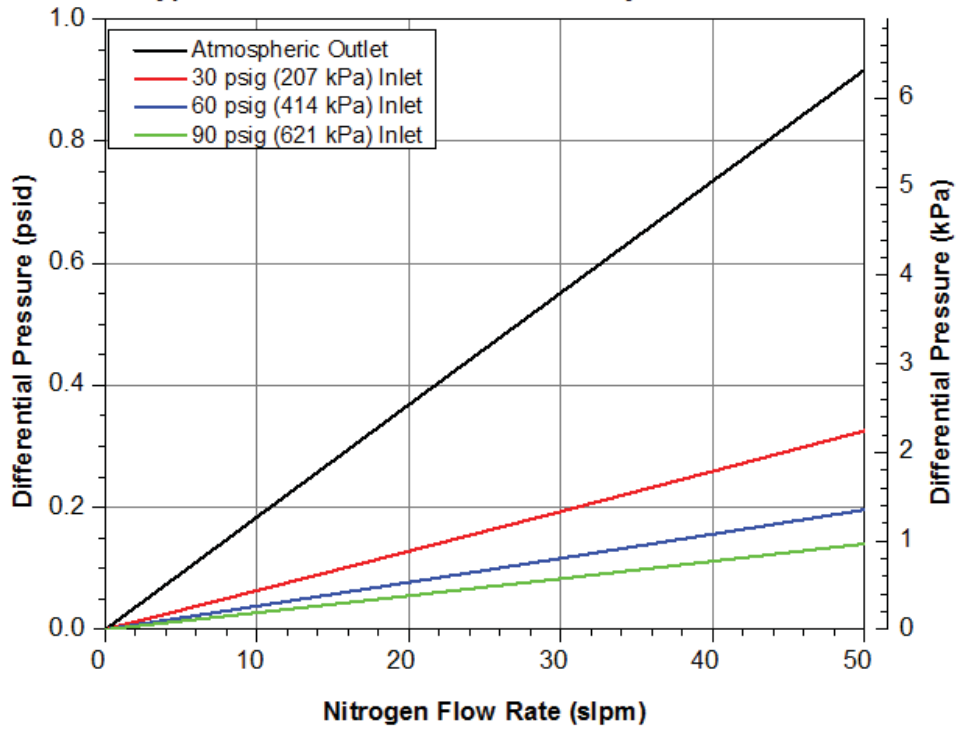
Particle Removal Size:	≥ 0.0015 µm
Filter Efficiency (Log Reduction Value):	≥ 9 LRV (99.9999999% reduction in particles). Confirmed at the most penetrating particle size of 0.08 µm per SEMI F38-0699 test method
Helium Leak Rating:	1 x 10 ⁻⁹ atm cc/sec
Moisture Contribution:	<10 ppb after 1 hour at low-flow 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 FLP515 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
FLP515FF33	6750001	1/2 inch Male/Male Face Seal	5.00/127.0	1.50/38.1	1.062 / 26.9

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