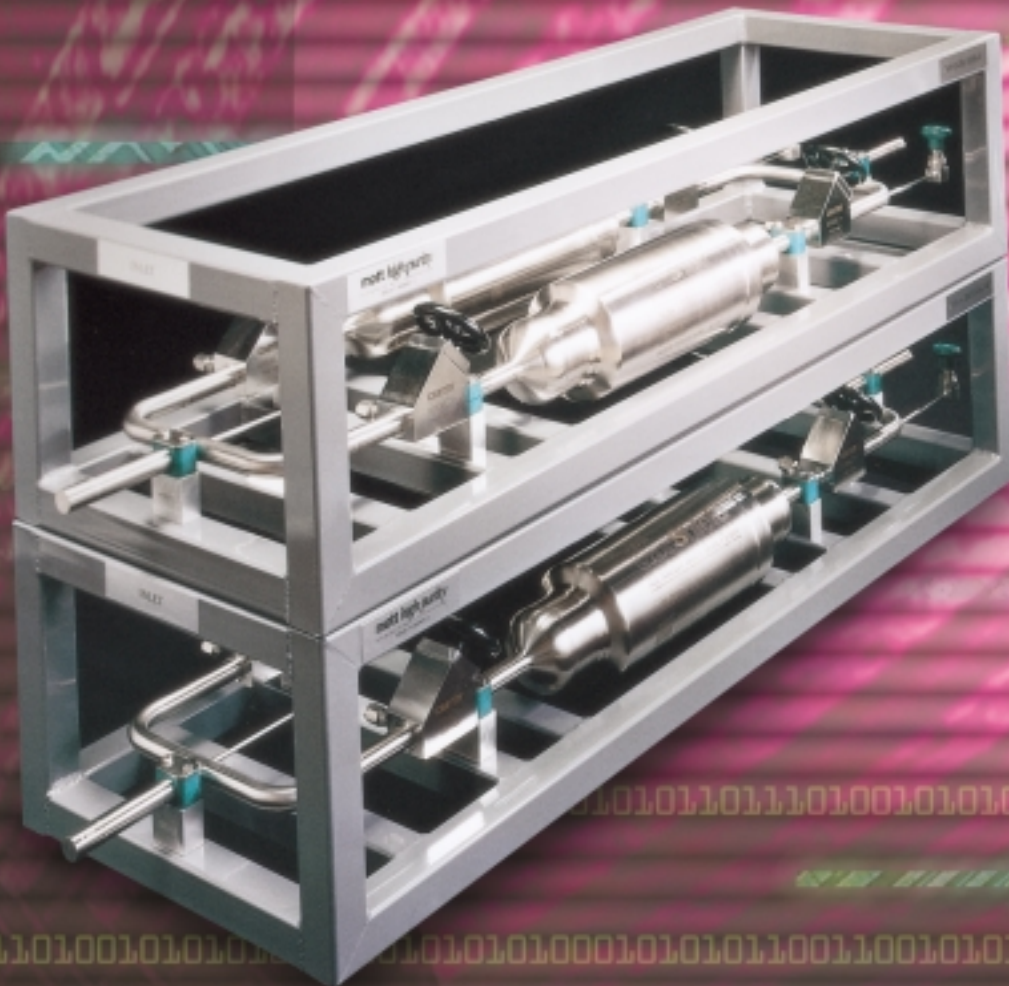


Mott Utility Line and Bulk Filters.



Mott Utility Line and Bulk Filters.

The high-strength, highly reliable alternative to fluoropolymer filters.

Mott provides the high-strength, all-metal solution to filtration requirements for utility lines inside the wafer fab, as well as flow streams at the gas pad. Unlike the *Teflon*[®]-based filters used historically for these applications, Mott's Utility Line and Bulk Filters are not subject to failure caused by high temperatures and pressure spikes – which would otherwise cause reduced product yield and increased service requirements.

The optimum filtration media.

Mott filters are constructed with a patented sintered nickel porous media that offers unsurpassed filtration characteristics. The media is not susceptible to failure from pressure and flow fluctuations, and is ideally suited to the higher temperatures that can be encountered downstream of a purifier during a heated dry down of a gas supply system. Like all Mott High Purity filters, the Utility Line and Bulk Filters provide 9-log filtration of particles down to 0.003µm in diameter, resulting in particle-free gas.

In addition, the flow versus differential pressure performance of the filter is equal or superior to the performance of competitive *Teflon*[®] products on the market today.

9 log reduction value.

- Greater than 99.9999999% removal of all particles down to 0.003µm; confirmed at the most penetrating particle size of 0.08µm.

Consistent operation under challenging conditions.

- Operating temperatures up to 450°C (inert gas).

- Able to withstand 300 psid (3" housing) 150 psid (6" housing) differential pressure at 20°C (inert).
- Maximum inlet pressure rated at 300 psi/1200 psi (high-pressure).
- All units are He leak-rated at maximum 1×10^{-9} atm cc/sec.
- Parts per trillion dry down achievable.
- >1 trillion particles retained at twice the rated flow with zero particles detected downstream of tested filters.
- Recommended for use with all process gases – 100% 316L stainless steel and nickel filter elements are available.

Rugged, high-quality construction.

- 10 Ra surface finish on all internal hardware components.
- Our media is sintered with no binders or slurry so "the only material of construction of the media is the media."
- Optimized filtration area maintains specified particle retention at controlled pressure drop.
- All-welded construction assures elimination of out-gassing due to polymer seats and structures.

Clean start-to-finish packaging.

- Preconditioned with pulsed clean dry nitrogen at >200°C.
- Class 100 clean room double-bagged – internal bag is Nylon 6, outer bag is poly.
- Bulk filters are shipped in wooden crates for added protection.



High strength, high precision. GasShield[®] bulk filters consist of manifolded filter elements within 3" or 6" housings – 100% metal construction through-and-through – to sustain high flow rates, high pressures and corrosive gases for many years with 9-log filtration efficiency.

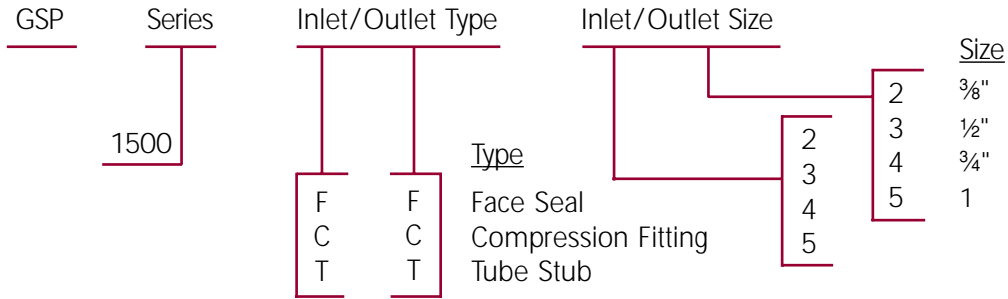
Benefits

- All-metal construction for high-temperature and pressure capabilities
- All-welded construction eliminates leaky seals
- Fully sintered PENTA[®] media offers high flow and low differential pressure



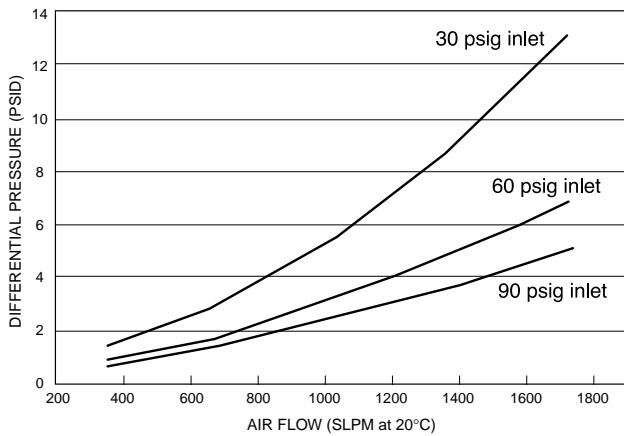
Utility Line Filters

PRODUCT CONFIGURATION



PRODUCT SPECIFICATIONS

DIFFERENTIAL PRESSURE VS. FLOW RATE

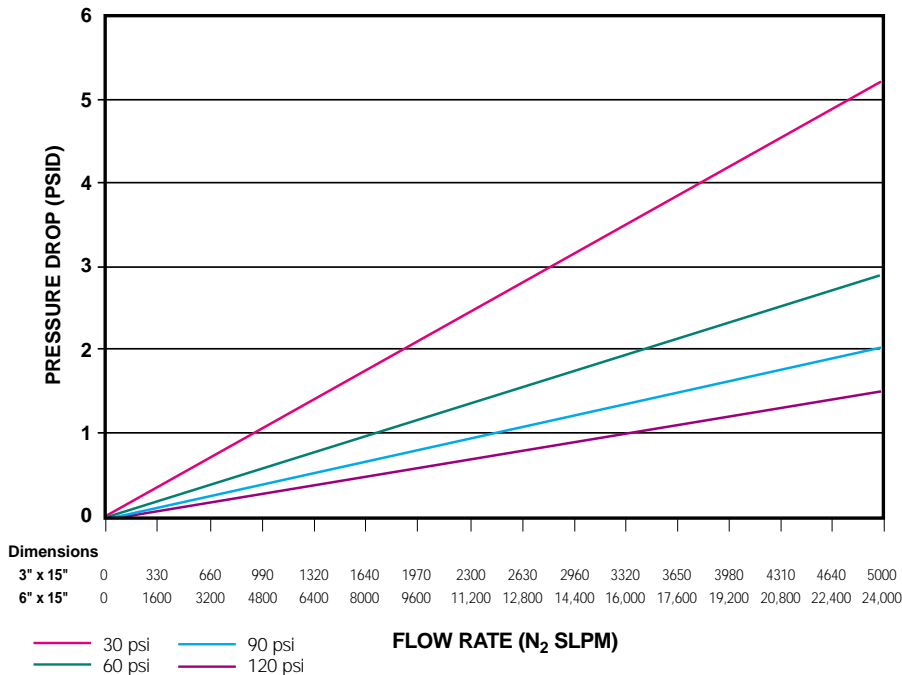


FILTER SPECIFICATIONS

Overall Length	9.0"
Outside Diameter	3.0"
Maximum Flow @ 9LRV	1500 slpm
Maximum ΔP	250 psid
Maximum Inlet Pressure	500 psig
Helium Leak Rating	1 x10 ⁻⁹ atm cc/sec
Maximum Operating Temperature with Inert Gas	450°C (842°F) @125 psig
Wetted Surface Finish	10 Ra

Bulk Filters

FLOW CHARACTERISTICS



SPECIFICATIONS

Dimensions	End Type	OAL
3" x 15"	1.5" Tube Stubs	29.42"
3" x 15"	2.0" Tube Stubs	22.98"
6" x 15"	2.0" Tube Stubs	23.41"
6" x 15"	4.0" Tube Stubs	29.89"
Maximum ΔP	250 psid	
Maximum Inlet Pressure	3" x 15" 650 psig 6" x 15" 400 psig	
Helium Leak Rating	1 x 10 ⁻⁹ atm cc/sec	
Maximum Operating Temperature with Inert Gas	450°C (842°F) @125 psig	
Wetted Surface Finish	10 Ra	

Note: Bulk Filters also available in stainless steel for special applications.

Limited Warranty

Mott Corporation ("Mott") warrants its GasShield® bulk gas filter will meet the specified retention and media integrity standards for a period of fifteen 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 also warrants its utility line filter under those same provisions for a period of five years. 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.

mott corporation

84 Spring Lane, Farmington, CT 06032-3159
860-747-6333 Fax 860-747-6739



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