

GASSHIELD® POINT-OF-USE BULK FILTERS

1.5 nm FILTRATION

mott
MISSION CRITICAL PRECISION

BGF 610 - PENTA® NICKEL MEDIA

DESCRIPTION

Mott High Purity Bulk Filters provide 9-log filtration of particles down to 0.0015 μm 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 polymer products on the market today. Refer to flow rate data on the back page for more information.

APPLICATIONS

Mott provides the high-strength, all-metal solution to filtration requirements for gas flow streams at the gas pad. Mott bulk filters are ideally suited to the higher temperatures that can be encountered downstream of a purifier during heated dry down operations.



OPERATING CONDITIONS

- » Maximum Operating Pressure: 450 psig (31.0 barg)
- » Maximum Operating Temperature for Inert Gas: 450°C
- » Maximum Differential Pressure: 250 psid (17.2 barg)

MATERIALS

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

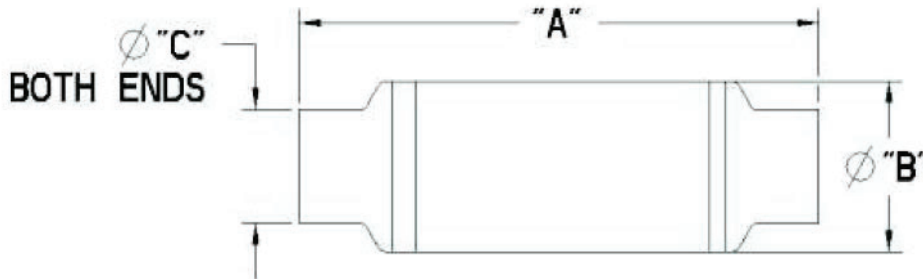
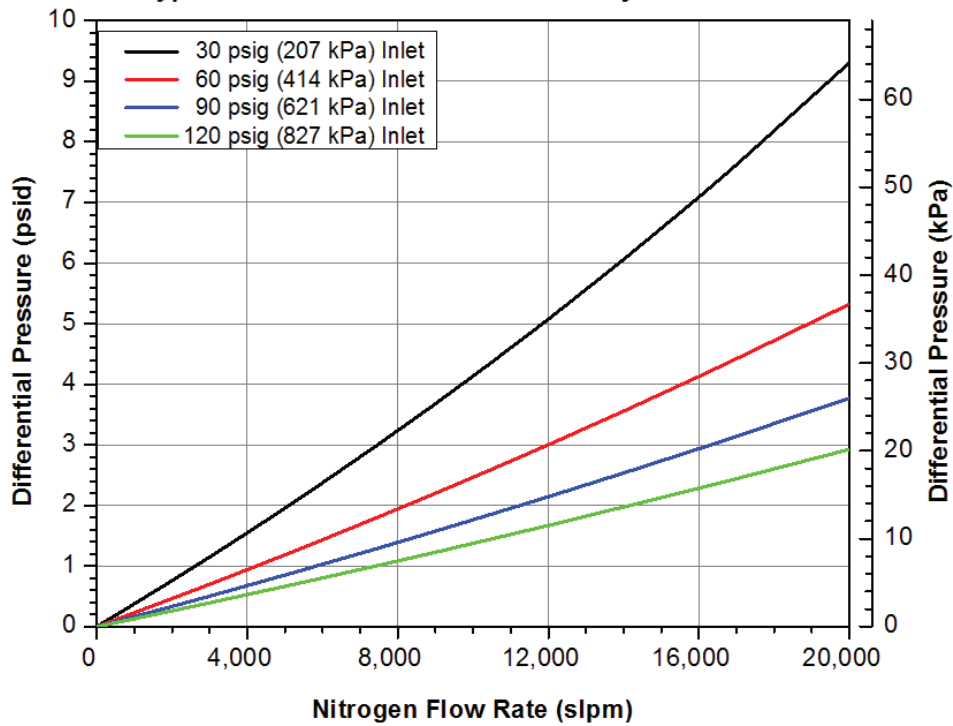
SPECIFICATIONS

| | |
|--|---|
| Particle Removal Size: | $\geq 0.0015 \mu\text{m}$ |
| Filter Efficiency (Log Reduction Value): | ≥ 9 LRV (99.9999999% reduction in particles). Confirmed at the most penetrating particle size of 0.08 μm per SEMI F38-0699 test method |
| Helium Leak Rating: | 1×10^{-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 BGF-610 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 |
|---------------------|-------------|----------------|-------------|-------------|-------------|
| BGF-610-4TS-N-19M | 6825312 | 4" Tube Stub | 18.40/467.4 | 6.00/152.4 | 4.00/101.6 |
| BGF-610-2TS-N-19M | 6825311 | 2" Tube Stub | 24.86/631.4 | 6.00/152.4 | 2.00/50.8 |
| BGF-610-1.5TS-N-19M | 6825314 | 1.5" Tube Stub | 24.86/631.4 | 6.00/152.4 | 1.50/38.1 |
| BGF-610-1TS-N-19M | 6825313 | 1" Tube Stub | 24.86/631.4 | 6.00/152.4 | 1.00/25.4 |

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