

# GASSHIELD® POINT-OF-USE BULK FILTERS

## 1.5 nm FILTRATION

**mott**  
MISSION CRITICAL PRECISION

### BGF-12P23 - FIBER FILTER MEDIA

### DESCRIPTION

Mott High Purity Fiber Bulk Filters provide filtration of particles down to 0.0015 µm resulting in particle-free gas. In addition, the flow versus differential pressure performance of these filters is equal or superior to the performance of competitive polymer products (refer to flow rate data on the following pages). Metal filter media is typically used downstream of purification systems, cryogenic systems and air separation plants to ensure gas quality and provide protection against catastrophic particle disturbances.



### APPLICATIONS

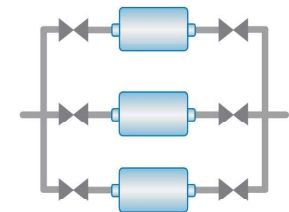
Mott provides the high-strength, all-metal solution to filtration requirements for gas flow streams at the gas pad. Mott bulk filters are ideally suited to the higher temperatures that can be encountered downstream of a purifier or during heated dry down operations.

Mott's Fiber Metal Bulk Filter



Mott's Fiber Metal Bulk Filter replace multiple filters in parallel with a single unit

Standard Porous Metal Filter Systems



Standard Porous Metal Bulk Filter Systems require multiple filter units in parallel to meet high flows

### OPERATING CONDITIONS

- » Maximum Operating Pressure: 200 psig (13.8 barg)
- » Maximum Operating Temperature for Inert Gas: 380°C
- » Maximum Differential Pressure: 175 psid (12.1 barg)

### MATERIALS

- » Hardware: 316L SS
- » Filter Medium: 316L SS Fiber
- » Wetted Hardware Surface Finish: 10 Ra

### SPECIFICATIONS

Particle Removal Size:	≥ 0.0015 µm
Filtration Efficiency:	≥ 9 LRV (99.9999999% reduction in particles) at 0.0015 µm
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 ASTM F1398 test method
Particle Shedding:	Zero particle contribution above background (<1 particle/ft <sup>3</sup> ) per SEMI F43-0308 test method

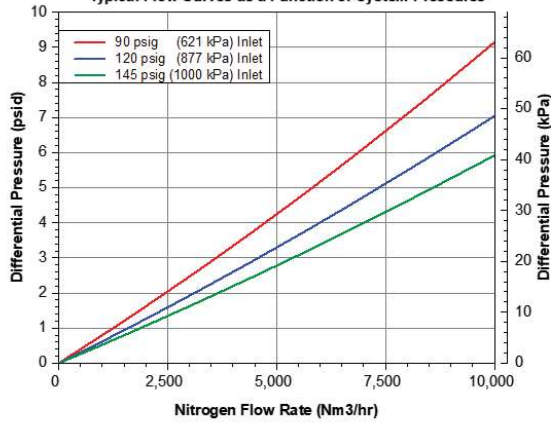
*Ask us about our entire line of point-of-use gas filters, diffusers and flow restrictors. We can retrofit your current plant and can offer bundle packages for multi-filter purchases.*

#### Warranty:

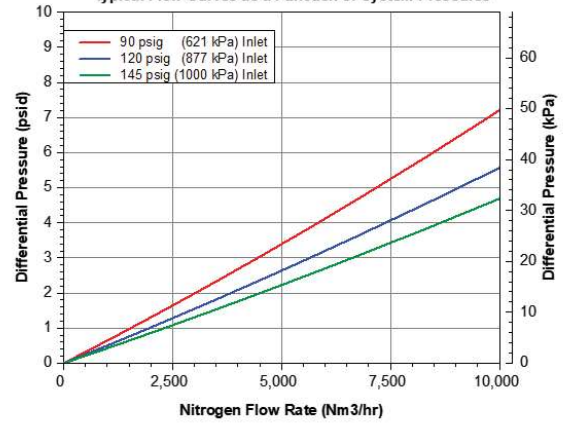
Mott Corporation ("Mott") warrants its GasShield filter will meet the specified retention and media integrity standards for a period of five years from the date of purchase, providing the filter is properly installed and used in accordance with the specified flow, pressure, temperature, and chemical 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

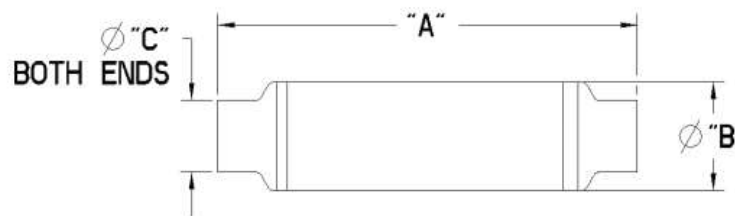
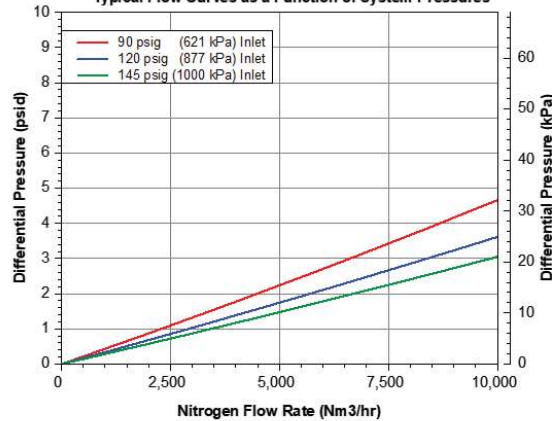
**Mott BGF-12P23-250A5S-F-70M Flow Rate vs. Differential Pressure**  
Typical Flow Curves as a Function of System Pressures



**Mott BGF-12P23-100A5S-F-90M Flow Rate vs. Differential Pressure**  
Typical Flow Curves as a Function of System Pressures



**Mott BGF-12P23-6TS-F-135M Flow Rate vs. Differential Pressure**  
Typical Flow Curves as a Function of System Pressures



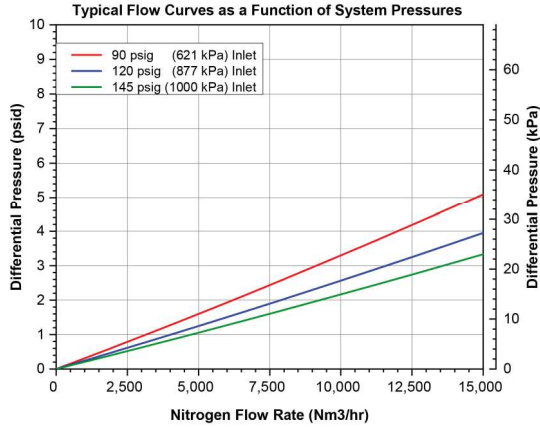
## ORDERING INFORMATION

Part Description	Part Number	Fitting Type	A Inches/mm	B Inches/mm	C Inches/mm
BGF-12P23-250A5S-F-70M	6825183	JIS250A5S	39.40 / 1000.6	12.75 / 323.9	10.53 / 267.5
BGF-12P23-100A5S-F-90M	6825185	JIS100A5S	39.40 / 1000.6	12.75 / 323.9	4.50 / 114.3
BGF-12P23-6TS-F-135M	6825328	6" Tube Stub	39.40 / 1000.6	12.75 / 323.9	6.00 / 152.4

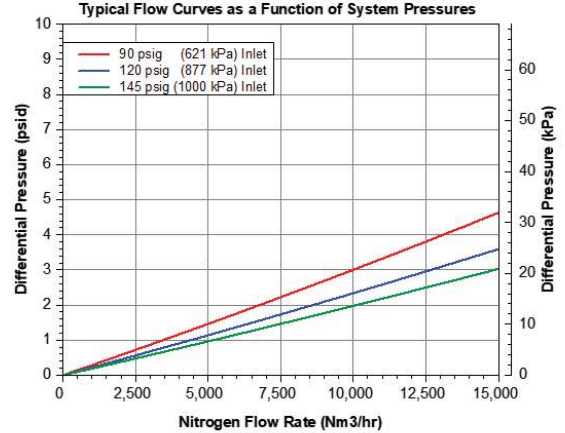
\*Other fitting types and sizes available upon request. Contact Mott Corporation for more information.

# FLOW DATA

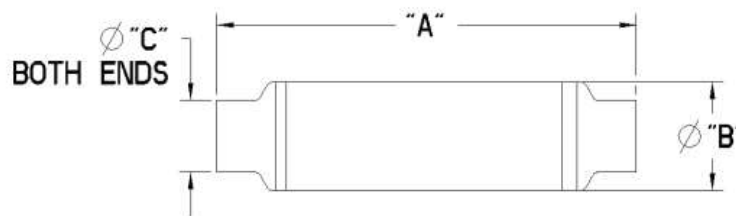
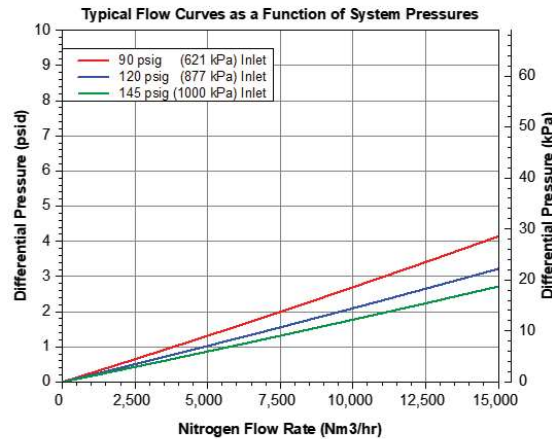
**Mott BGF-12P23-150A5S-F-170M Flow Rate vs. Differential Pressure**



**Mott BGF-12P23-6TS-F-200M Flow Rate vs. Differential Pressure**



**Mott BGF-12P23-150A5S-F-230M Flow Rate vs. Differential Pressure**



## ORDERING INFORMATION

Part Description	Part Number	Fitting Type	A Inches/mm	B Inches/mm	C Inches/mm
BGF-12P23-150A5S-F-170M	6825182	JIS150A5S	39.40 / 1000.6	12.75 / 323.9	6.50 / 165.2
BGF-12P23-6TS-F-200M	6825329	6" Tube Stub	39.40 / 1000.6	12.75 / 323.9	6.00 / 152.4
BGF-12P23-150A5S-F-230M	6825320	JIS150A5S	39.40 / 1000.6	12.75 / 323.9	6.50 / 165.2

\*Other fitting types and sizes available upon request. Contact Mott Corporation for more information.