

> Mott High Purity All-Metal Multitube Gas Filters



All-Metal Filters Ideal for Oxygen Service

Process engineers in the biotech industry are increasingly turning to enrichment techniques to increase oxygen mass transfer and maximize cell growth.

Oxygen enrichment techniques in bioreactor systems can lead to safety challenges because elevated levels of oxygen in bioreactor airflows can increase the risk of spontaneous ignition of conventional air sterilizing filter materials like PTFE. Based on studies by an independent gas association, the use of filters with nickel elements greatly reduces the safety hazards associated with adiabatic pressure release and spontaneous ignition of oxygen systems. Mott Corporation's High Purity Segment is the first to offer a gas filter cartridge utilizing this robust and effective media.

The filter membrane is constructed of Nickel 200 material, a widely used material that is the least likely to ignite in the presence of elevated or pure oxygen levels. The 316L SS adapter and end-cap materials minimize combustibility compared to PTFE or polypropylene, a common material of construction in other gas filters.

The Mott Nickel porous filter media was evaluated by the European Industrial Gas Associations (EIGA) and found to be the least likely material to ignite in the presence of pure oxygen or enhanced oxygen levels.

Filter Cartridge Specifications

Overall Cartridge Length	10.5 Inch/266.7 mm	17 Inch/431.8 mm
Outside Diameter	3 Inch/76.2 mm	3 Inch/76.2 mm
Filtration Area	1.18 Ft ² /0.11 m ²	1.94 Ft ² /0.18 m ²
Filter Media	Nickel 200	Nickel 200
End-Caps, Adapter	316L SS	316L SS
Maximum Forward Differential Pressure in Air, Oxygen or Nitrogen	250 psid (17.23 Bar)	250 psid (17.23 Bar)
Maximum Reverse Differential Pressure in Air, Oxygen or Nitrogen	250 psid (17.23 Bar)	250 psid (17.23 Bar)
Maximum Operating Temperatures	450°C (842°F) @ 125 PSIG	450°C (842°F) @ 125 PSIG
Flow Rates	3,400 SLPM	6,500 SLPM
Particle Retention	9LRV@ 0.003 µm	9LRV@ 0.003 µm
Cartridge Connections	Double 226F with Locking Flanges O-Ring	Double 226F with Locking Flanges O-Ring

Mott High Purity all-metal filter cartridges are designed to remove particles and biomass from air and gas streams. Made with Mott PENTA® Nickel media and 316L SS hardware, these filter cartridges provide filtration levels down to 0.003 µm in gases. They include standard 226 double o-ring style adapters for easy retrofit into existing filter housings.

Other Metal Filter Membranes Available

Mott metal filter cartridges are available in all 316L SS, Hastelloy® C-22, Monel® and Nickel 200. Mott High Purity all-metal filter cartridges are designed developed and manufactured in accordance with ISO-9001 quality systems standards.

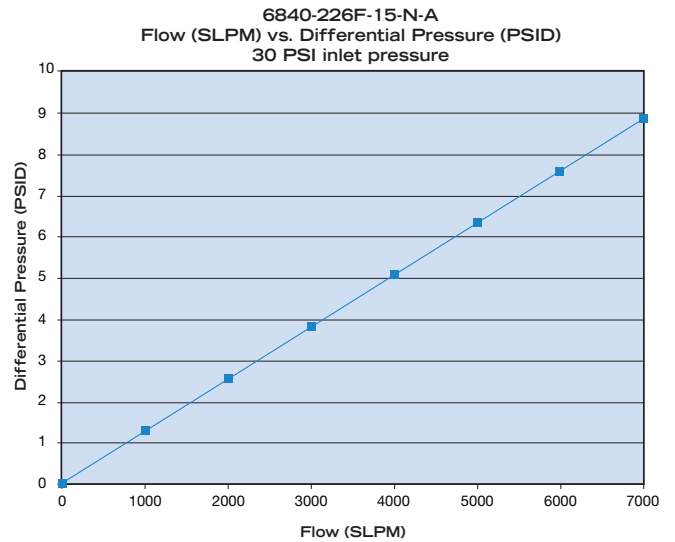
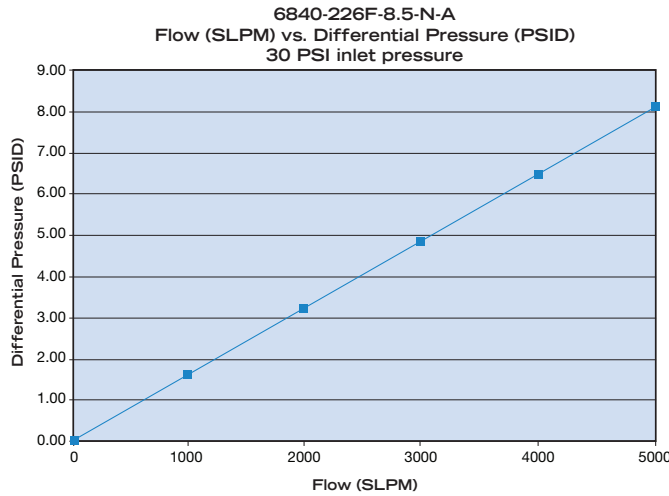
Each part is marked with part numbers and lot identification for traceability and easy identification.

Hastelloy is a registered trademark of Haynes International, Inc.
Monel is a registered trademark of Special Metals Corporation.

> high purity products

> mottcorp.com

Typical Air Flow at 70°F (21°C) and 30 psig inlet (2 bar).



Bio-Pharm Multitube Filter Cartridges for Oxygen Service Part Description

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Example: 6840 226F 15 N A

Order O-Ring Separately

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Teflon® is a registered trademark of E. I. DuPont Nemours & Co., Inc.

mott corporation

