Graver Technologies

FILTRATION | SEPARATION | PURIFICATION

PMG Series Filter Cartridges

Glass Fiber Cartridges

Product Specifications

Media: Borosilicate Microfiberglass with Acrylic Binder

Inner Core: Polypropylene

Support Layers: Polyester

Cage, End Caps: Polypropylene

Gaskets/O-Rings:
Buna-N, EPDM, Silicone, Teflon Encapsulated Viton (O-Rings only), Viton

Micron rating:
0.45, 1.0*, 3.0, 10, 30 µm

*1 micron grade features all FDA listed materials of construction

Dimensions

Nominal lengths:
5", 9.75", 10", 19.5", 20", 29.25", 30", 39", 40"
(12.7, 24.8, 25.4, 49.5, 50.8, 74.3, 76.2, 99.1, 101.6 cm)

Outside diameter: 2.55" (6.48 cm)

Inside diameter: 1.0" (2.54 cm)

Operating Parameters

Maximum operating temperature: 176°F (80°C)

Maximum differential pressure:
50 psid @ 70°F (3.4 bar @ 21°C)
25 psid @ 176°F (1.7 bar @ 80°C)

Maximum reverse pressure:
15 psid @ 70°F (2.8 bar @ 21°C)

Recommended change-out pressure:
35 psid (2.4 bar)

This high efficiency, economical filter element is constructed of pleated Borosilicate Microfiberglass media that combines excellent flow rates with exceptional service life to support a wide range of chemical and industrial applications. The nominally-rated borosilicate microfiber depth matrix has a natural positive charge that aids in the retention of negatively charged particulates such as colloidal materials or contaminants that may form haze within a fluid. The depth characteristic of glass media also provides enhanced retention of deformable particles as compared to typical polypropylene media. In addition, the slightly smaller diameter ensures easy retrofit in installed housings designed to accept depth filters.

FEATURES & BENEFITS

- Micron ratings from 0.2 to 30 µm — Broad application range
- Uniform pore size — High removal efficiency
- Long service life — Minimizes maintenance costs
- Fixed pore construction — Eliminates dirt unloading at maximum differential pressure
- Manufactured in continuous lengths up to 40 inches

TYPICAL APPLICATIONS

- Chemicals
- Blowdown post filter
- Inks
- Oil & Gas
- Cutting oils
- Paints
- Coatings

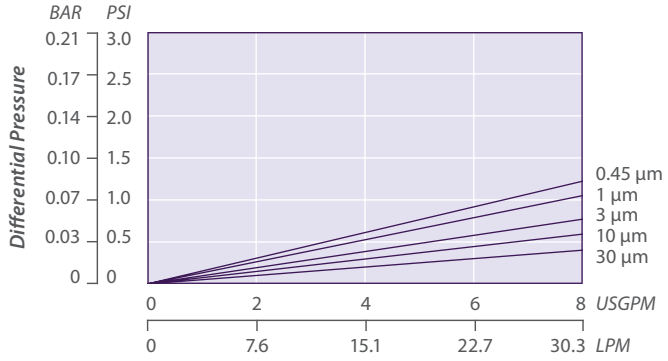
PMG NOMENCLATURE INFORMATION

Filter Type	Retention Rating (microns)	Nominal Length (inches)	End Configuration	Gasket or O-Ring
PMG Series	0.45 10 1 30 3	–5 –29.25* –9.75* –30 –10 –39* –19.5* –40 –20	P Double Open End P2 226/Flat Single Open End P3 222/Flat Single Open End P7 226/Fin Single Open End P8 222/Fin Single Open End	B Buna-N E EPDM S Silicone T Teflon encap. Viton (O-Rings only) V Viton
Example: PMG 3–10P7B				
PMG	3	–10	P7	B

*Available only for DOE (P) configuration

PMG FLOW RATE

Typical Flow Rate Clean Water at Ambient Temperature
(per 10" cartridge)



For liquids other than water, multiply pressure drop by the fluid viscosity in centipoise

REMOVAL EFFICIENCY

Beta Ratio Efficiency	Beta 10 90%	Beta 20 95%	Beta 100 99%	Beta 1000 99.9%	Beta 5000 99.98%
0.45 µm	0.45	0.6	0.8	1.8	2.0
1 µm	1.0	1.3	2.0	3.5	4.0
3 µm	3.0	4.0	5.5	9.0	10.0
10 µm	10.0	12.0	15.0	17.0	18.0
30 µm	30.0	35.0	38.0	42.0	45.0

$$\text{Beta Ratio} = \frac{\text{Upstream particle counts}}{\text{Downstream particle counts}}$$

The micron ratings shown at various efficiency and beta ratio value levels were determined through laboratory testing, and can be used as a guide for selecting cartridges and estimating their performance. Under actual field conditions, results may vary somewhat from the values shown due to the variability of filtration parameters.

Testing was conducted using the single-pass test method, water at 2.5 gpm/10" cartridge. Contaminants included latex beads, coarse and fine test dust. Removal efficiencies were determined using dual laser source particle counters.

FOR MORE INFORMATION **GTX-362 3-20**

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