Graver Technologies

FILTRATION | SEPARATION | PURIFICATION

GFP™ Series Filter Cartridges

High Temperature Glass Fiber Cartridges

Product Specifications

Media: Borosilicate Microfiberglass with Acrylic Binder

Inner Core: Polyester

Support Layers: Polyester

Cage, End Caps: Polyester

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

Micron rating:
0.2, 1, 10, 30 µm

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: 2.7" (6.86 cm)

Inside diameter: 1.0" (2.54 cm)

Operating Parameters

Maximum operating temperature: 230°F (110°C)

Maximum differential pressure:
75 psid @ 70°F (5.2 bar @ 21°C)
60 psid @ 200°F (4.1 bar @ 93°C)
50 psid @ 230°F (3.4 bar @ 110°C)

Maximum reverse pressure:
40 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. The polyester supports of the GFP filter cartridge provide enhanced thermal tolerance for applications for higher temperature applications. The nominally-rated borosilicate microfiber depth matrix has a natural positive charge that aids in the retention of negatively charged particulates and combined with the depth characteristics of glass media, works well in the removal of both deformable and non-deformable particles. The GFP filter cartridge is an economical solution for both liquids and gases in a wide variety of filtration applications.

FEATURES & BENEFITS

- Polyester hardware extends application range beyond the limits of polypropylene.
- Higher temperature capability of 230°F (110°C)
- Micron ratings from 0.2 to 30 µm — Broad application range
- Uniform pore size — High removal efficiency
- High surface area — High flow capability and dirt holding capacity
- Long service life — Minimizes maintenance costs
- Fixed pore construction — Eliminates dirt unloading at maximum differential pressure

TYPICAL APPLICATIONS

- Petrochemicals
- Chemicals
- Solvents
- Inks
- Oil & Gas
- Lube Oil

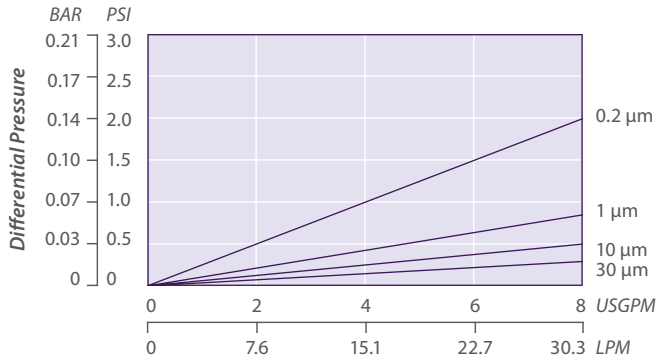
GFP NOMENCLATURE INFORMATION

Filter Type	Retention Rating (microns)	Nominal Length (inches)		End Configuration		Gasket or O-Ring	
GFP Series	0.2	–5	–29.25*	P	Double Open End	B	Buna-N
	1	–9.75*	–30	P2	226/Flat Single Open End	E	EPDM
	10	–10	–39*	P3	222/Flat Single Open End	S	Silicone
	30	–19.5*	–40	P7	226/Fin Single Open End	T	Teflon encap. Viton (O-Rings only)
		–20		P8	222/Fin Single Open End	T	Teflon Gasket
						V	Viton
Example: GFP 1–10P3B							
GFP	1	–10		P3		B	

*Available only for DOE (P) configuration

GFP 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%
0.2 µm	0.2	0.3	0.6	0.8	1.0
1 µm	1.0	1.3	2.0	3.5	4.0
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-318 4-21**

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