



Graver Technologies

FILTRATION | SEPARATION | PURIFICATION



GFC™ Series Filter Cartridges

Glass Microfiber 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),
Teflon (gaskets), Viton

Micron rating:

0.2, 0.45, 1*, 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: 2.7" (6.86 cm)

Inside diameter: 1.0" (2.54 cm)

Operating Parameters

Maximum operating

temperature: 176°F (80°C)

Maximum differential pressure:

75 psid @ 70°F (5.2 bar @ 21°C)

30 psid @ 176°F (2.0 bar @ 80°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 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. The GFC filter cartridge is an economical solution for both liquids and gases in a wide variety of prefiltration applications.

FEATURES & BENEFITS

- Micron ratings from 0.2 to 30 μm — Broad application range
- Uniform pore size — High removal efficiency
- High surface area — High Dirt Capacity
- Long service life — Minimizes maintenance costs
- Fixed pore construction — Eliminates dirt unloading at maximum differential pressure
- Small diameter fibers — High flow rates at low pressure drops

TYPICAL APPLICATIONS

- Wine prefiltration (1 μm only)
- Chemicals
- Blowdown post filter
- Inks
- Oil & Gas
- Cutting oils
- Distilled Spirits

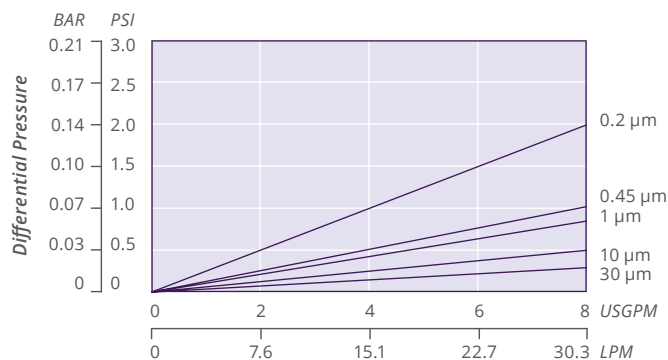
GFC NOMENCLATURE INFORMATION

Filter Type	Retention Rating (microns)		Nominal Length (inches)		End Configuration		Gasket or O-Ring		Options	
GFC Series	0.2	10	−5	−29.25 ¹	P	Double Open End	B	Buna-N	−I	End Cap Insert for Steaming
	0.45	30	−9.75 ¹	−30	P2	226/Flat Single Open End	E	EPDM		
	1	−10	−39 ¹	P3	222/Flat Single Open End	S	Silicone			
		−19.5 ¹	−40	P7	226/Fin Single Open End	T	Teflon encap. Viton (O-Rings only) ²			
		−20	P8	222/Fin Single Open End	V	Viton				
		AM	Single Open End, Internal O-Ring							
		NPC	Double Open End, Internal O-Ring							
Example: GFC 1-10P7B-I										
GFC	1		−10		P7		B		−I	

¹Available only for DOE (P) configuration ²Not available in AM style

GFC 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
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
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

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