Graver Technologies

FILTRATION | SEPARATION | PURIFICATION

QMA™ Series Filter Cartridges

"Absolute" Rated High Performance Pleated Polypropylene Filter Cartridge

Product Specifications

Media: Polypropylene

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

Micron ratings:
0.2, 0.45, 1, 2.5, 5, 10 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)

Surface Area: up to 7.0 ft^2

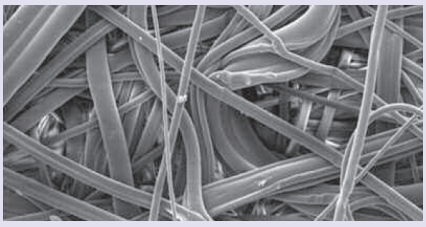
Operating Parameters

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 filter is constructed with a high surface area melt blown polypropylene media for low initial pressure drop, high dirt holding capacity, and high efficiency performance.

FEATURES & BENEFITS

- Micron ratings from 0.2 to 20 µm — broad application range
- "Absolute" Efficiency — rated at 99.98% (Beta 5000)
- High surface area — high flow rate, and long service life — minimize maintenance cost
- Fixed pore construction — resists dirt unloading at maximum differential pressure
- Polypropylene construction — inert to many process fluids
- Various gasket/O-ring materials — compatible with many fluids
- Heavy duty molded cage — high structural strength
- Highly consistent melt blown media for consistent performance

CERTIFICATIONS

- USP Class VI: Meets USP Class VI Biological Test for Plastics
- FDA Listed Materials: All materials comply with FDA Title 21 of the Code of Federal Regulations Sections 174.5, and 177.1520, as applicable for food and beverage contact.
- European Directive for Direct Food Contact: European Regulation No. 1935/2004 and European Regulation 10/2011: Tested for migration behavior and is suitable for contact with all kinds of foodstuffs with minimal rinse-up. Data available upon request.

TYPICAL APPLICATIONS

- Food & beverage
- Aqueous solutions
- Chemicals
- Bottled water
- Pharmaceuticals
- Cosmetics
- Process water
- RO Prefilters
- Inks

PERFORMANCE SPECIFICATIONS

- Cleaning/Sanitization: Compatible with most common chemical cleaning, sanitizing and sterilizing agents and with pH range from 1–14. Consult factory for specific compatibility information. Cartridge will withstand hot water at 176°F (80°C) at 5 psid (0.35 bar) for 30 minutes.
- Steam/Autoclave: Cartridges may be autoclaved for 30 minutes at 250 °F(121°C) under no end load conditions. Cartridges fitted with steam insert may be steamed for at least 10 thirty minute cycles @ 275°F (135°C) not to exceed 3 psid (0.21 bar).

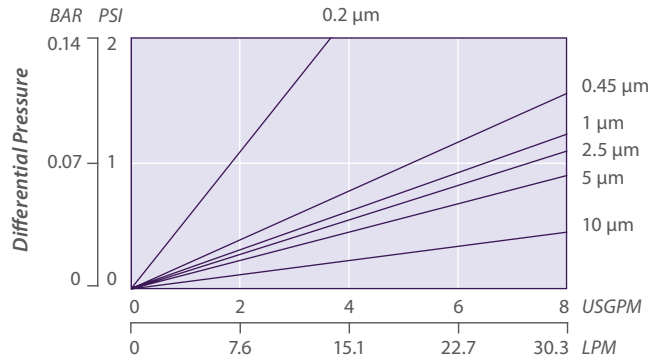
QMA NOMENCLATURE INFORMATION

Filter Type	Retention Rating (microns)		Nominal Length (inches)		End Configuration		Gasket or O-Ring		Options	
QMA Series	0.2	5	–5	–29.25[1]	P	Double Open End	B	Buna-N	–I	End Cap Insert for Steaming
	0.45	10	–9.75[1]	–30	P2	226/Flat Single Open End	E	EPDM	–R	Factory Pre-Rinse
	1	20	–10	–39[1]	P3	222/Flat Single Open End	S	Silicone		
	2.5		–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				
					PX	Extended Core				
					AM	Single Open End, Internal O-Ring	T	Teflon Gasket		
Example: QMA 1–20P3V–R					NPC	Double Open End, Internal O-Ring	V	Viton		
QMA	1		–20		P3		V		–R	

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

QMA 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 5000 99.98%	Beta 100 99%	Beta 50 98%
0.2 µm	0.20	0.10	0.05
0.45 µm	0.45	0.30	0.20
1 µm	1.0	0.60	0.30
2.5 µm	2.5	2.0	1.5
5 µm	5.0	4.0	3.0
10 µm	10.0	8.0	7.0

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

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-259 10-21**

DISTRIBUTED BY

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