

## PMA™ Series Filter Cartridges

### “Absolute” Rated Pleated Filter Cartridges

This all polypropylene filter retains particles with absolute efficiency. Available in a broad range of pore sizes, it is suitable for a wide range of applications. The pleated construction provides a high surface area to offer outstanding overall filtration economy.

### Features–Benefits

- Micron ratings from 0.2 to 100 µm– Broad application range
- “Absolute” Efficiency– Rated at 99.98% (Beta 5000)
- Competitive surface area– High flow rates, and long on-line service– Minimize maintenance cost
- Fixed pore structure– Eliminates dirt unloading at maximum differential pressure
- Polypropylene Construction– Inert to many process fluids
- Various Gasket/O-Ring materials– Compatible with a variety of fluids
- Manufactured in continuous lengths up to 40 inches

### Product Specifications

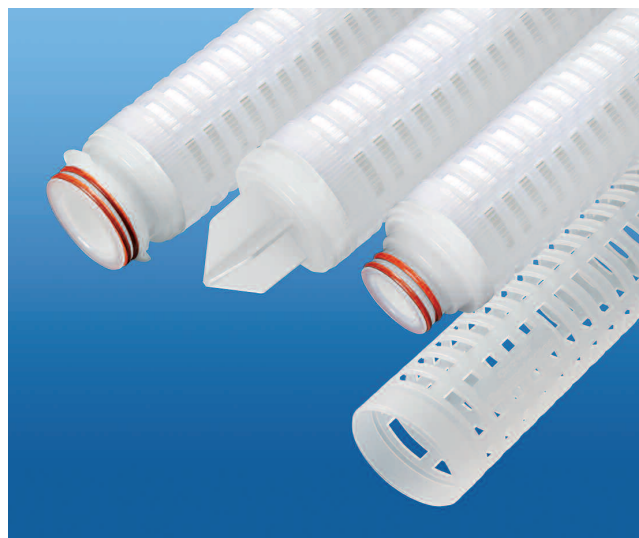
Media:	Polypropylene
Inner core:	Polypropylene
End caps:	Polypropylene
Cage:	Polypropylene
Gaskets/O-Rings:	Buna-N, EPDM, Silicone, Viton, Teflon Encapsulated Viton (O-Rings only)
Polypropylene micron ratings:	0.2, 0.45, 1.0, 2.5, 5.0, 10, 25, 50, 100µm

### Dimensions

Nominal lengths:	5", 9.75", 10", 20", 30", 40" (12.7, 24.8, 25.4, 50.8, 76.2, 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) 40 psid @ 176 °F (2.8 bar @ 80°C)
Recommended change-out pressure:	35 psid (2.4 bar)

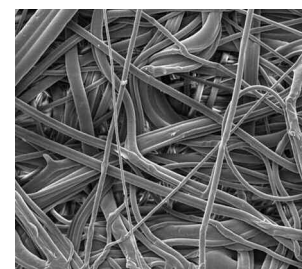


### Certifications

**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 Regulations No 1935/2004 and European directive 82/711/EEC: Tested for migration behavior in direct food contact. Minimal rinse required for use. Data available upon request.



## PMA Nomenclature Information

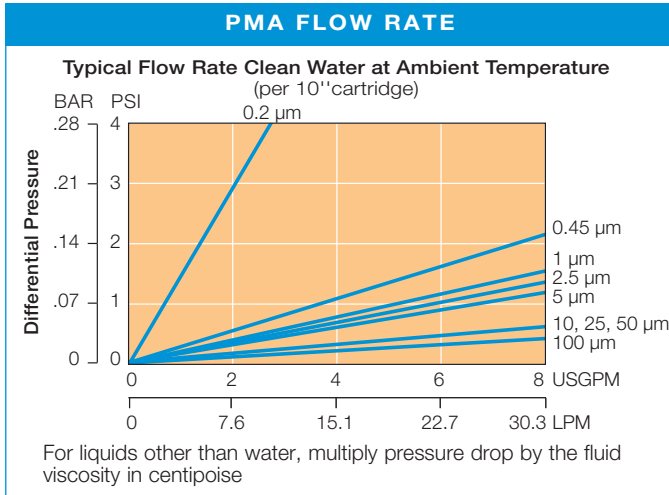
<b>PMA</b>	<b>2.5</b>	<b>-10</b>	<b>P</b>	<b>V</b>										
<b>Filter Type</b> PMA Series Filters		<b>Nominal Length (inches)</b>		<b>Gasket or O-Ring</b>										
<b>Retention Rating (microns)</b>		<table style="margin: auto;"> <tr><td style="padding: 0 10px;">-5</td><td style="padding: 0 10px;">-20</td></tr> <tr><td style="padding: 0 10px;">-9.75</td><td style="padding: 0 10px;">-30</td></tr> <tr><td style="padding: 0 10px;">-10</td><td style="padding: 0 10px;">-40</td></tr> </table>	-5	-20	-9.75	-30	-10	-40		<b>S</b> Silicone <b>B</b> Buna-N <b>E</b> EPDM <b>V</b> Viton <b>T</b> Teflon endcap. Viton (O-Rings only) <b>T</b> Teflon gasket				
-5	-20													
-9.75	-30													
-10	-40													
<table style="margin: auto;"> <tr><td style="padding: 0 10px;"><b>0.2</b></td><td style="padding: 0 10px;"><b>10</b></td></tr> <tr><td style="padding: 0 10px;"><b>0.45</b></td><td style="padding: 0 10px;"><b>25</b></td></tr> <tr><td style="padding: 0 10px;"><b>1</b></td><td style="padding: 0 10px;"><b>50</b></td></tr> <tr><td style="padding: 0 10px;"><b>2.5</b></td><td style="padding: 0 10px;"><b>100</b></td></tr> <tr><td style="padding: 0 10px;"><b>5</b></td><td></td></tr> </table>	<b>0.2</b>	<b>10</b>	<b>0.45</b>	<b>25</b>	<b>1</b>	<b>50</b>	<b>2.5</b>	<b>100</b>	<b>5</b>				<b>End Configuration</b>	
<b>0.2</b>	<b>10</b>													
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<b>2.5</b>	<b>100</b>													
<b>5</b>														
			<b>P</b> Double Open End <b>P2</b> 226/Flat Single Open End <b>P3</b> 222/Flat Single Open End <b>P7</b> 226/Fin Single Open End <b>P8</b> 222/Fin Single Open End <b>AM</b> Single open end, internal O-Ring											

Example: PMA 2.5-10PV

### Removal Efficiency

Beta Ratio Efficiency	Beta 5000	Beta 100	Beta 50
0.2 micron	99.98%	99%	98%
0.45 micron	0.20	0.10	0.05
1 micron	0.45	0.30	0.20
2.5 microns	1.0	0.60	0.30
5 microns	2.5	2.0	1.5
10 microns	5.0	4.0	3.0
25 microns	10.0	8.0	7.0
50 microns	25.0	19.0	15.0
100 microns	45.0	35.0	28.0
100 microns	-	100.0	85.0

### PMA FLOW RATE



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

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 3 gpm/10" cartridge. Contaminant's included latex beads, coarse and fine test dust. Removal efficiencies were determined using dual laser source particle counters.

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