

TefTEC™ Series Filter Cartridges

Absolute Rated PTFE Membrane Filter Cartridges

TefTEC cartridge filters are constructed with naturally hydrophobic PTFE membrane and polypropylene support layers and components. The HIMA retentive PTFE membrane offers superior hydrophobicity and water intrusion resistance compared to PVDF and polypropylene membranes, and the cartridge construction offers a cost-effective alternative to all-fluorocarbon filters. TefTEC filters are ideal for gas/vent applications and the filtration of aggressive chemicals and solvents.

Features–Benefits

- High surface area, single-layer construction provides superior flow rates and minimizes filtration system size
- 100% Flushed with 18 MΩ -cm DI water and integrity tested
- Filters are manufactured, flushed, tested and packaged in an ISO Class 7 Cleanroom Environment.
- Each filter element stamped with pore size, lot and serial number for identification and traceability.
- Complete qualification guide available

Product Specifications

<i>Media:</i>	<i>Expanded PTFE membrane</i>
<i>Inner core, end caps, cage:</i>	<i>Polypropylene</i>
<i>Support layers:</i>	<i>Polypropylene</i>
<i>Gaskets/O-Rings:</i>	<i>Buna-N, EPDM, Silicone, Viton, Teflon Encapsulated Viton (O-rings only), Teflon (gasket only)</i>
<i>Micron ratings:</i>	<i>0.05, 0.1, 0.2, 0.45, 1.0 μm</i>
Dimensions	
<i>Typical Nominal lengths:</i>	<i>5", 9.75", 10", 20", 30", 40" (12.7, 24.8, 25.4, 50.8, 76.2, 101.6 cm)</i>
<i>Outside diameter:</i>	<i>2.7" (6.9 cm)</i>
<i>Inside diameter:</i>	<i>1.0" (2.54 cm)</i>
<i>Surface area:</i>	<i>8.5 ft². (0.79m²) – 10" element</i>
Operating Parameters	
<i>Maximum operating temperature:</i>	<i>203°F (95°C)</i>
<i>Maximum differential pressure:</i>	<i>75 psid @ 70°F (5.2 bar @ 21°C) 40 psid @ 176°F (2.8 bar @ 80°C) 15 psid @ 203°F (1.03 bar @ 95°C)</i>
<i>Maximum reverse differential pressure:</i>	<i>40 psid @ 70°F (2.8 bar @ 21°C)</i>
<i>Recommended change-out pressure:</i>	<i>35 psid (2.4 bar)</i>



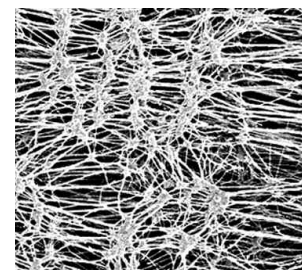
Certifications

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, 177.1520, and 177.1550, as applicable for food and beverage contact.

Typical Applications

- Aggressive chemicals
- Strong acids/bases
- Solvents
- Tank Vents
- Compressed gases
- Photoresists
- Hot DI water
- Pharmaceutical Intermediates
- Fermentation air

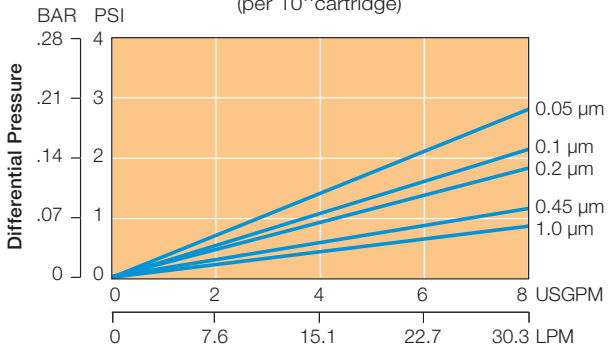


TefTEC Nomenclature Information

TefTEC	0.1	-20	P2	S
Filter Type TefTEC Series Filters		Nominal Length (inches)	End Configuration	Gasket or O-Ring
Retention Rating (microns)		-5	P Double Open End	S Silicone
0.05	0.45	-9.75	P2 226/Flat Single Open End	B Buna-N
0.1	1	-10	P3 222/Flat Single Open End	E EPDM
0.2		-20	P7 226/Fin Single Open End	V Viton
		-30	P8 222/Fin Single Open End	T Teflon endcap.
		-40	AM Single open end, internal O-Ring	Viton (O-Rings only)
			NPC Double Open End, internal O-Ring	T Teflon (gasket only)

TefTEC FLOW RATE

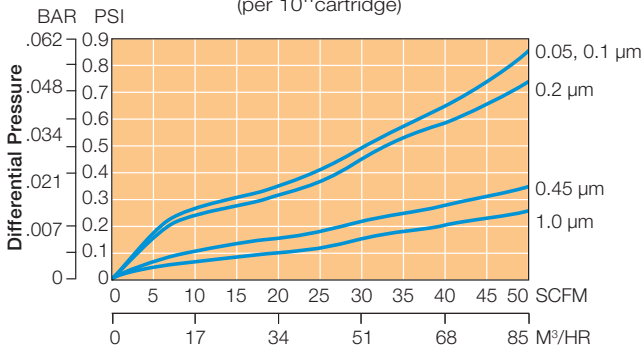
Typical Flow Rate Clean Water at Ambient Temperature
(per 10" cartridge)



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

TefTEC AIR FLOW RATE

Air Flow Rate
(per 10" cartridge)



Test conditions: System pressure at <10 psig (vent), 65°F (18°C), outlet open to atmosphere

Example: TefTEC 0.1-20P2S

Performance Specifications

Steam/Autoclave

Cartridges will withstand at least 100 steam/autoclave 30 minute cycles @ 275°F (135°C)

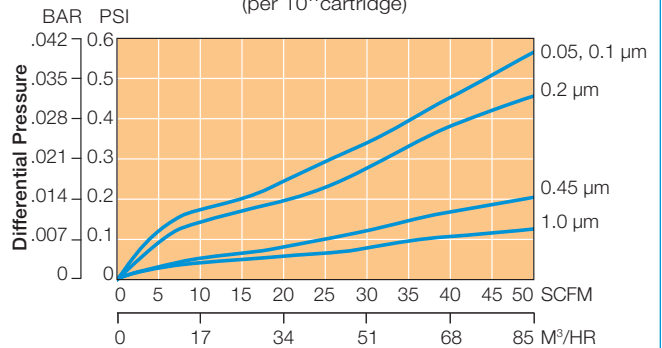
Integrity Test Values

Air Diffusion per 10 inch cartridge wet with 60/40 IPA/water. Contact Graver Technologies for specific method.

Pore Size	Specification
0.05 µm:	≤ 50 cc/min @ 22 psig (1.5 bar)
0.1 µm:	≤ 50 cc/min @ 18 psig (1.2 bar)
0.2 µm:	≤ 20 cc/min @ 12 psig (0.8 bar)
0.45 µm:	≤ 15 cc/min @ 5 psig (0.34 bar)
1.0 µm:	≤ 15 cc/min @ 3 psig (0.2 bar)

TefTEC AIR FLOW RATE

Air Flow Rate
(per 10" cartridge)



Test conditions: System pressure at 30 psig, 65°F (18°C)