Graver Technologies

FILTRATION | SEPARATION | PURIFICATION

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.

Product Specifications

Media: Expanded PTFE Membrane

Inner core, end caps, cage: Polypropylene

Support layers: Polypropylene

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

Micron ratings: 0.05, 0.1, 0.2, 0.45, 1.0 µm

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" (6.9 cm)

Inside diameter: 1.0" (2.54 cm)

Surface area: 8.5 ft^2 (0.79 m^2) per 10" element

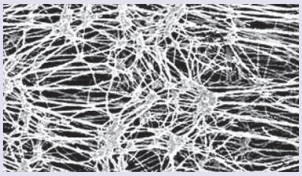
Operating Parameters

Maximum operating temperature:
203°F (95°C)

Maximum differential pressure:
80 psid @ 70°F (5.5 bar @ 21°C)
40 psid @ 160°F (2.8 bar @ 71°C)

Maximum reverse differential pressure:
40 psid @ 70°F (2.8 bar @ 21°C)

Recommended change-out pressure:
35 psid (2.4 bar)



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
- Available prewet for use with aqueous based chemicals

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

PERFORMANCE SPECIFICATIONS

- Steam/Autoclave: Cartridges will withstand at least 100 steam/autoclave thirty-minute cycles @ 275°F (135°C)

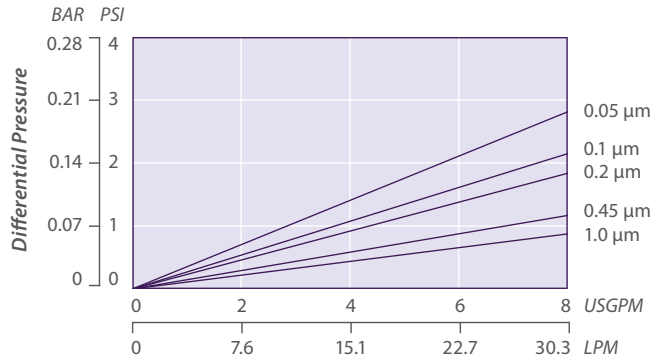
TefTEC NOMENCLATURE INFORMATION

Filter Type	Retention Rating (microns)	Nominal Length (in)	End Configuration	Gasket or O-Ring	Options
TefTEC Series	0.05 0.45 0.1 1 0.2	–5 –20 –9.75* –30 –10 –40	P Double Open End P2 226/Flat Single Open End P3 222/Flat Single Open End P7 226/Fin Single Open End P8 222/Fin Single Open End AM Single Open End, Internal O-Ring NPC Double Open End, Internal O-Ring	B Buna-N E EPDM S Silicone T Teflon encap. Viton (O-Rings only) T Teflon (gaskets) V Viton	–W Pre-Wet
Example: TefTEC 0.1–20P2S–W					
TefTEC	0.1	–20	P2	S	–W

*Available only for DOE (P) configuration

TefTEC FLOW RATE

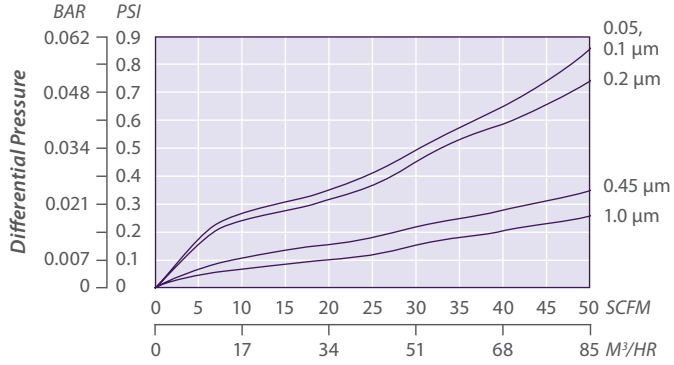
Typical Flow Rate Clean Water at Ambient Temperature (per 10" cartridge)



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

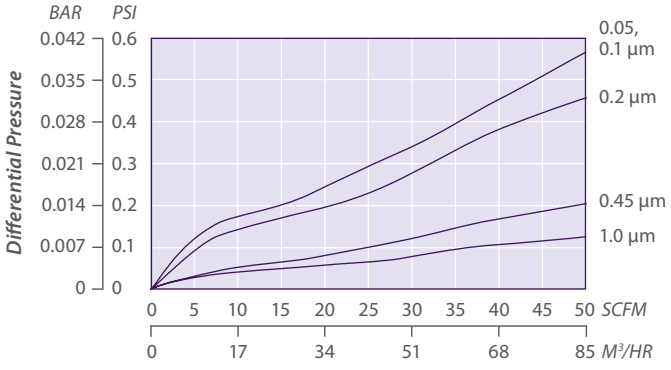
INTEGRITY TEST SPECIFICATIONS

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	≤ 35 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)

FOR MORE INFORMATION **GTX-297 6-21**

DISTRIBUTED BY

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