Graver Technologies

FILTRATION | SEPARATION | PURIFICATION

TefTEC™ V Series Filter Cartridges

Economical Absolute Rated PTFE Membrane Filter Cartridges

TefTEC V cartridge filters are constructed with naturally hydrophobic PTFE membrane and polypropylene support layers and components. The economical PTFE membrane cartridge filter provides superior hydrophobicity as compared to polypropylene filters commonly used in compressed air applications, making it ideally suited for utility as well as tank vent applications, without the higher costs of the typical PTFE filter. Additionally, the filter has been demonstrated to produce sterile air utilizing a bacterial aerosol challenge methodology, emulating the actual removal character of the filter in vent applications.

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

O-Ring Insert: PBT

Micron rating: 0.2 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: 7.3 ft^2 (0.68 m^2) per 10" element

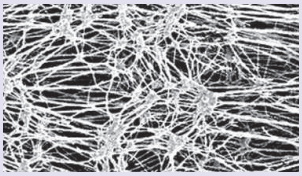
Operating Parameters

Maximum operating temperature:
195°F (90°C)

Maximum differential pressure:
75 psid @ 70°F (5.2 bar @ 21°C)
30 psid @ 176°F (2.1 bar @ 80°C)
15 psid @ 195°F (1.03 bar @ 95°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

- Single-layer construction provides superior flow rates and minimizes filtration system size
- 100% Flushed with 18 megohm 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
- Demonstrated bacterial removal in air with an aerosol challenge level of 10^7 Brevundimonas diminuta/10" cartridge
- Complete qualification guide available

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, 177.1550, and 177.2600 as applicable for food and beverage contact.

TYPICAL APPLICATIONS

- Tank Vents
- Compressed gases
- Aggressive chemicals
- Strong acids/bases
- Solvents
- Food and beverages

PERFORMANCE SPECIFICATIONS

- Steam/Autoclave: Cartridges will withstand at least 50 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.

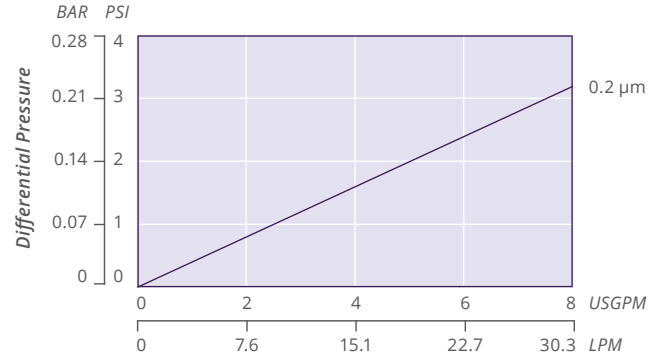
TefTEC V NOMENCLATURE INFORMATION

Filter Type	Retention Rating (microns)	Nominal Length (inches)	End Configuration	Gasket or O-Ring
TefTEC V Series	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 P28 222 w/3 tabs/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
Example: TefTEC V 0.2–20P2S				
TefTEC V	0.2	–20	P2	S

*Available only for DOE (P) configuration

TefTEC V FLOW RATE

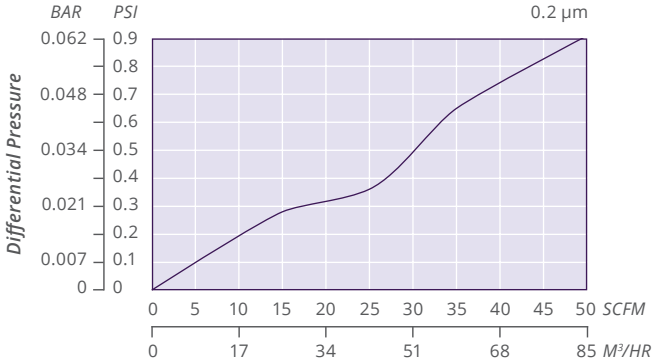
Typical Flow Rate Clean Water at Ambient Temperature (per 10" cartridge)



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

TefTEC V 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

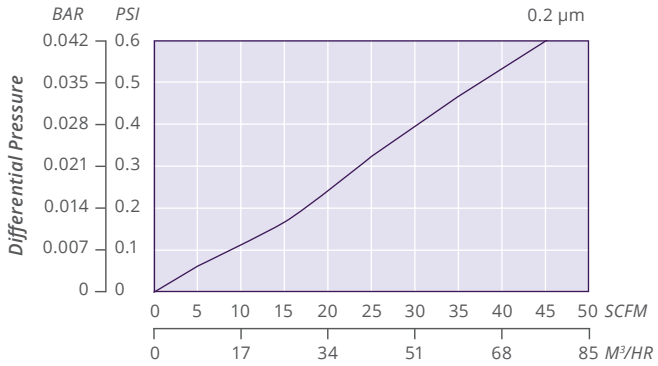
INTEGRITY TEST SPECIFICATIONS

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

Pore Size	Specification
0.2 µm	≤ 30 cc/min @ 9 psig (0.6 bar)

TefTEC V AIR FLOW RATE

Air Flow Rate (per 10" cartridge)



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

FOR MORE INFORMATION

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