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CRT-PTFE Series PTFE Filter Cartridge

The CRT-PTFE Biological Grade filter cartridge is an essential tool for biological processes, featuring a hydrophobic PTFE membrane coupled with high-purity polypropylene supports. This design ensures excellent particle retention and flow rates, making it ideal for critical biological applications. The robust construction of the CRT-PTFE cartridge offers outstanding chemical resistance, suitable for handling aggressive and viscous chemicals commonly encountered in biological settings. Tailored to meet diverse requirements, these cartridges are available in various configurations and are subjected to rigorous integrity testing in a cleanroom environment. This combination of features makes the CRT-PTFE Biological Grade filter cartridge a reliable, high-performance, and cost-effective choice for specialized biological filtration needs.

Application

- Aggressive Chemicals
- Moisture Barrier
- Proteins
- Strong / Weak Acids
- Viscous Biological Solution
- Fermentation Tank Vent
- Bioreactor Vent
- Oil Base Solution
- Ketones and Organic Solvent

Part Number: CRT-PTFE-10-XXX-X6S / CRT-PTFE-10-XXX-X6S-5



**CRT-PTFE Series PTFE Cartridge - Biological Grade
226 O-Rings with Fin**



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Technical Data Sheet

Micron Rating:

- 0.20 μm
- 0.45 μm
- 1.0 μm

Effective Filtration Area:

- 5-Inch; 3.75 ft^2 (0.35 m^2)
- 10-Inch; 7.5 ft^2 (0.7 m^2)
- 20-Inch; 15.0 ft^2 (1.4 m^2)
- 30-Inch; 22.5 ft^2 (2.1 m^2)

Materials of Construction:

Membrane: PTFE (Polytetrafluoroethylene - Fluoropolymer)

Membrane Feature: Hydrophobic, Broad Chemical Compatibility, High Flow Rate

Media Supports: Polypropylene

Shell, Cage, Core, End Caps: Polypropylene

O-Rings: Silicone (Standard)

Sealing: Thermally Bonded

Operating Conditions:

Maximum Forward Differential Pressure: **Liquid:** 5.5 bar (80psi) at 77°F/25°C

Gas: 4.1 bar (60psi) at 77°F/25°C

Minimum Burst Pressure: 8.3 bar (120psi) at 77°F/25°C

Maximum Reverse Differential Pressure: 3.0 bar (44psi) at 68°F/20°C

Maximum Operating Temperature: 176°F/80°C at 0.7 bar (10psi)

[Contact International Filter Products for high-temperature application above 122°F/50°C operating temperature]



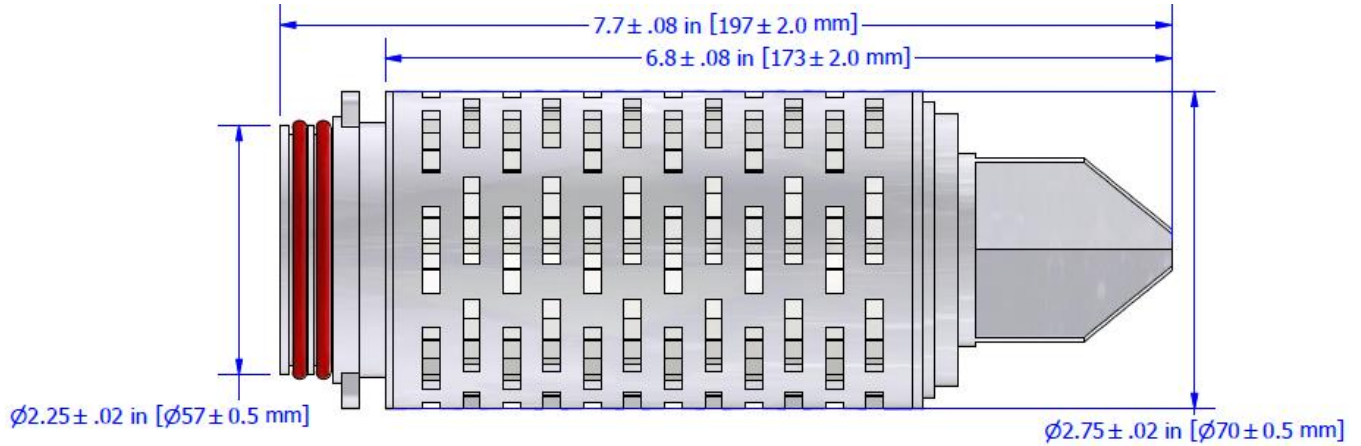


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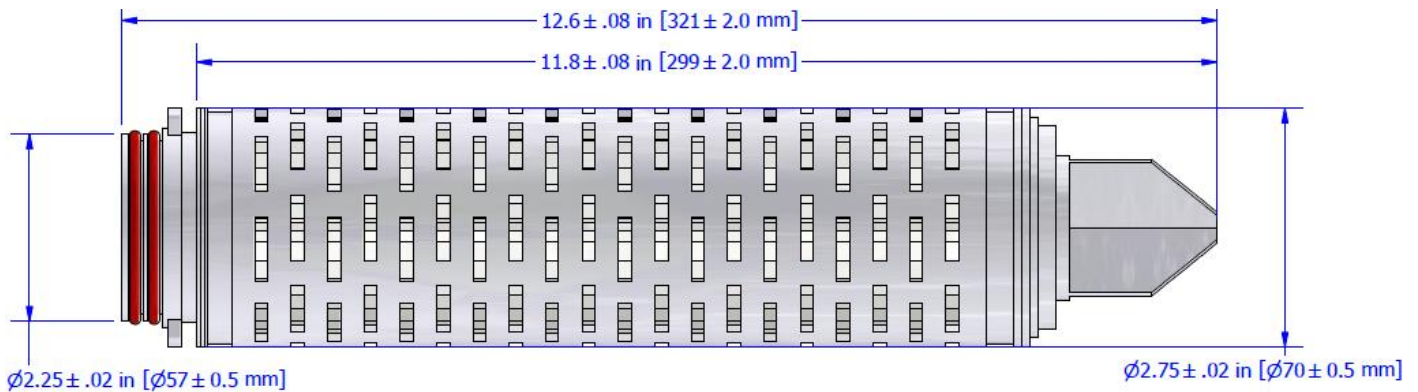
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Nominal Dimension:

Part Number: CRT-PTFE-05-XXX-X6X / CRT-PTFE-05-XXX-X6X-5



Part Number: CRT-PTFE-10-XXX-X6X / CRT-PTFE-10-XXX-X6X-5



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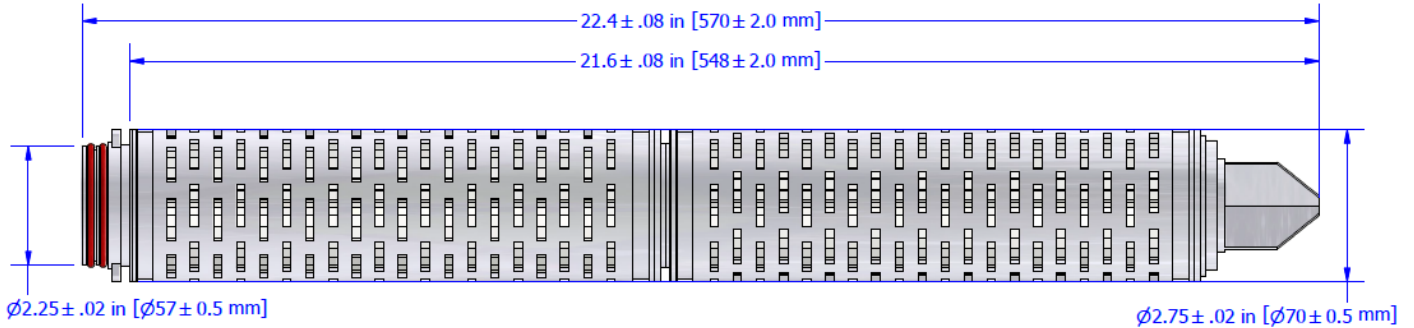
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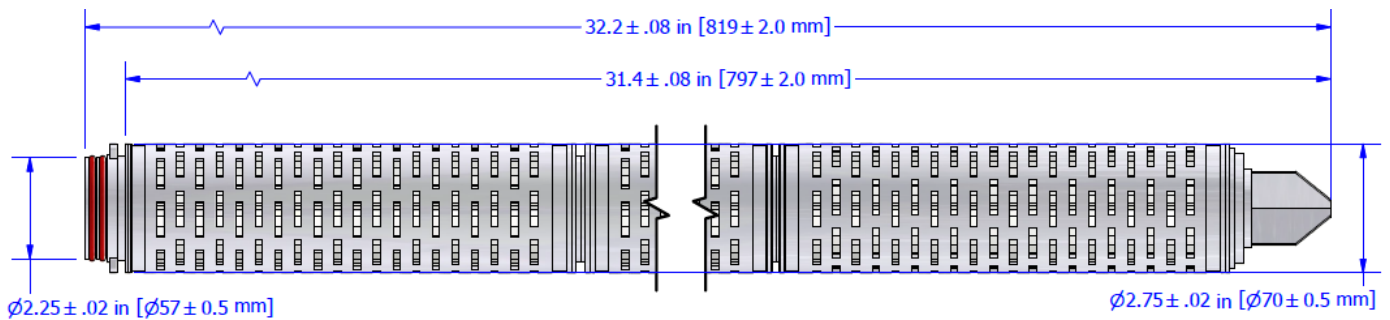
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Part Number: CRT-PTFE-20-XXX-X6X / CRT-PTFE-20-XXX-X6X-5



Part Number: CRT-PTFE-30-XXX-X6X / CRT-PTFE-30-XXX-X6X-5



Typical Filtered Volume:

- 5-Inch; 50L-250L
- 10-Inch; 100L- 500L
- 20-Inch; 200L- 1,000L
- 30-Inch; 300L-1,500L



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Regulatory Compliance

Bacterial Retention:

Micron Rating	Challenge Organism	LRV
0.2 µm	B. diminuta	LRV 7
0.45 µm	S. marcescens	LRV 7
1.0 µm	NA	NA

Filter Integrity:

Micron Rating	Minimum Bubble Point [when flushed with 70% IPA and 30% DI Water]
0.2 µm	17.5 psi
0.45 µm	9 psi
1.0 µm	4.5 psi

Physiochemical:

- USP Oxidizable Substances
- USP <645> Conductivity
- USP <643> Non-Volatile Residue
- Total Organic Carbon (TOC) Analysis

Cleanliness:

- USP <85> Bacterial Endotoxin Test
- USP <788> Particulate Matter
- 21 CFR 210.72 and 2010.3 (b) (6) Fiber Shedding

Biocompatibility:

- ASTM F756-17 Hemolysis
- USP <88> (USP Class VI Plastics) Biological Reactivity Tests, In Vivo
- USP <87> / ISO 10993-5, In Vitro Cytotoxicity
- 21 CFR 177 FDA Indirect Food Additive



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USP Bacterial Endotoxins:

A representative sample from the lot is tested to confirm that an aqueous extraction of the product contains <0.25 EU/mL as determined by the Limulus Amebocyte Lysate (LAL) Test.

Sterilization:

- **Autoclave:** The filters can be autoclaved for up to 50 cycles at 125°C (257°F) for 30 minutes.
- **Steam-in-place:** The filters can be sterilized by steam-in-place procedure up to 30 cycles at 135°C (275°F) for 30 minutes at less than 0.3 bar differential pressure.
- **Sanitization:** The filters can be sanitized by hot water or common chemicals that are compatible with filter components.

Animal-derived Components:

No animal-derived material is intentionally added or used during the manufacture of IFP CRT-PTFE cartridges.

Human and Veterinarian Use:

The product is safe for Human and Veterinarian use. CGMP CFR part 210 & 211, additional requirement of 21 CFR part 600 and 21 CFR part 680 are applicable to the aseptic manufacturing process.

RoHS:

Restriction of Hazardous Substances (RoHS 3) Directive 2015/863

REACH:

REACH (Registration, Evaluation, Authorization and Restriction of Chemicals) Article 57, Regulation No. 1907/2006)

Traceability:

For traceability and easy identification:

- A Certificate of Conformance is provided with each capsule.
- Each filter bag and box are labeled with the product part number, lot number, and identifying characteristics.

Each capsule is engraved and labeled with the product part number, lot number, and identifying characteristics.

Shelf Life:

The CRT-PTFE Biological Grade cartridges have a shelf life of 5 years from the date of manufacture.



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CRT-PTFE Series PTFE Cartridge

(Biological Grade)

Ordering Guide



[1]	[2]	[3]	[4]	[5]	[6]
Length	Micron Rating	End Modification	O-Ring / Gasket Material	Optional	Grade
<ul style="list-style-type: none"> 05 : 5-Inch 10 : 10-Inch 20 : 20-Inch 30 : 30-Inch 40 : 40-Inch 	<ul style="list-style-type: none"> 002 : 0.20 µm 004 : 0.45 µm 010 : 1.0 µm <p>Note: All final membranes are sterilizing grade.</p>	<ul style="list-style-type: none"> 2 : 222 O-Ring Flat 6 : 226 O-Ring Fin 7 : 226 O-Ring Flat 0 : DOE Flat Gasket 	<ul style="list-style-type: none"> S : Silicone E : EPDM N : Buna-N PV : Teflon Encapsulated Viton PS : Teflon Encapsulated Silicone V : Viton 	<ul style="list-style-type: none"> -5 : Stainless Steel Insert 	<ul style="list-style-type: none"> -B : Biological Grade

CRTPTFE10002A6S-B

IFP CRT-PTFE Cartridge, 0.2µm PTFE hydrophobic membrane (Biological Grade), 10.0-inch Long, Filtration Area 0.7 m², 226 O-Rings with Fin, Silicone Double O-Rings.

Part Number

Description



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Special Configuration:

Layer Option:

- Single Layer
- Dual Layer

Micron Rating Option:

- 0.2 Micron
- 0.45 Micron
- 1.0 Micron

End Modification Option:

- 2 : 222 O-Ring Flat
- 6 : 226 O-Ring Fin
- 7 : 226 O-Ring Flat
- 0: DOE Flat Gasket

O-Ring/Gasket Material Option:

- S : Silicone
- E : EPDM
- N : Buna-N
- PV : Teflon Encapsulated Viton
- PS : Teflon Encapsulated Silicone
- V : Viton



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