

# International Filter Products

Revolutionary systems for your industry

# **CRT-PTFE Series PTFE Filter Cartridge**

The CRT-PTFE Food Grade filter cartridge is a vital component for food processing applications, featuring a hydrophobic PTFE membrane supported by high-purity polypropylene. This configuration ensures superior particle retention and optimal flow rates, essential for maintaining the integrity and safety of food products. The CRT-PTFE cartridge's robust design provides exceptional chemical resistance, making it well-suited for the diverse range of substances encountered in food processing, including oils, flavorings, and additives. Available in various configurations to accommodate different processing scales and requirements, these cartridges undergo extensive integrity testing in a cleanroom environment to ensure the highest levels of cleanliness and safety. The CRT-PTFE Food Grade filter cartridge stands out as a reliable, efficient, and cost-effective solution for meeting the stringent filtration standards of the food industry.

# Application

- Oil Filtration
- Moisture Barrier
- Proteins

- Fermentation
- Fats and Waxes
- Fermentation Tank Vent
- Bioreactor Vent
- Flavor and Fragrance Extraction
- Ketones and Organic Solvent

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









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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*<sup>2</sup> (0.35 *m*<sup>2</sup>)
- 10-lnch; 7.5  $ft^2$  (0.7  $m^2$ )
- 20-Inch; 15.0 *ft*<sup>2</sup> (1.4 *m*<sup>2</sup>)
- 30-Inch; 22.5 *ft*<sup>2</sup> (2.1 *m*<sup>2</sup>)

#### 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  $77^{\circ}F/25^{\circ}C$ 

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]

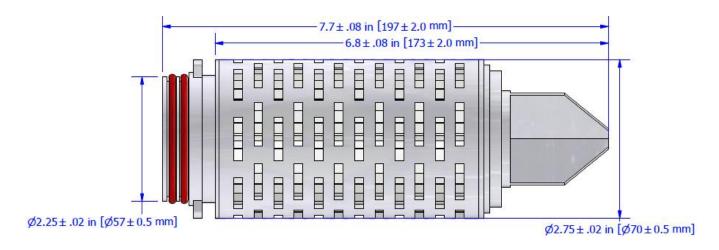




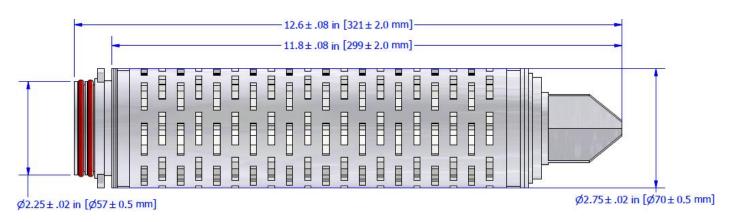


#### **Nominal Dimension:**

## 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

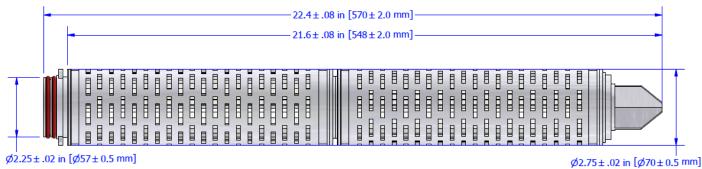




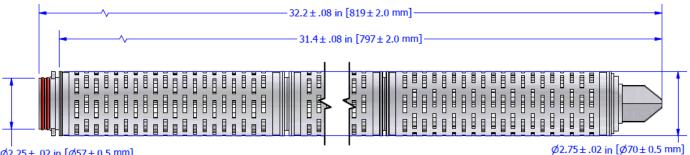




#### Part Number: CRT-PTFE-20-XXX-X6X / CRT-PTFE-20-XXX-X6X-5



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



 $\emptyset 2.25 \pm .02$  in  $[\emptyset 57 \pm 0.5$  mm]

#### **Typical Filtered Volume:**

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







# **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 4.5 psi	
1.0 µm		

#### **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







## **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-PES cartridges.

# Food Contact Compliance:

Materials conform to the FDA 21 CFR Part 177 requirements, current EC1935 / 2004, and current USP Plastics Class VI - 121 °C.

# 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-PES Food Grade cartridges have a shelf life of 5 years from the date of manufacture.









# **CRT-PTFE Series PTFE Cartridge**

# (Food Grade)

# Ordering Guide

CRT PTFE [1] [2] A [3] [4] [5] [6]							
[1]	[2]	[3]	[4]	[5]	[6]		
Length	Micron Rating	End Modification	O-Ring / Gasket Material	Optional	Grade		
<ul> <li>05 : 5-Inch</li> <li>10 : 10-Inch</li> <li>20 : 20-Inch</li> <li>30 : 30-Inch</li> <li>40 : 40-Inch</li> </ul>	<ul> <li>002 : 0.20 μm</li> <li>004 : 0.45 μm</li> <li>010 : 1.0 μm</li> <li>Note: All final membranes are sterilizing grade.</li> </ul>	<ul> <li>2: 222 O-Ring Flat</li> <li>6: 226 O-Ring Fin</li> <li>7: 226 O-Ring Flat</li> <li>0: DOE Flat Gasket</li> </ul>	<ul> <li>S: Silicone</li> <li>E: EPDM</li> <li>N: Buna-N</li> <li>PV: Teflon Encapsulated Viton</li> <li>PS: Teflon Encapsulated Silicone</li> <li>V: Viton</li> </ul>	<ul> <li>-5 : Stainless Steel Insert</li> </ul>	• -F : Food Grade		

#### CRTPTFE10002A6S-F

IFP CRT-PTFE Cartridge,  $0.2\mu m$  PTFE hydrophobic membrane (Food Grade), 10.0-inch Long, Filtration Area 0.7 m<sup>2</sup>, 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



