CRT-PP Series Polypropylene Filter Cartridge

CRT-PP Membrane cartridges are designed to excel in microelectronics applications, particularly for the handling of bulk chemicals and photoresists, offering an economical alternative to fluoropolymer-based cartridges. Crafted from all-polypropylene construction, CRT-PP cartridges are a cost-effective choice. Each cartridge is meticulously fabricated in a clean room environment, pre-flushed with ultrapure 18 megohm-cm DI water and subjected to rigorous 100% integrity testing in an ISO-certified facility. Key features include exceptional membrane retention capabilities, a wide range of configurations and ratings to suit diverse needs, and the assurance of quality through comprehensive integrity testing. CRT-PP cartridges provide a reliable and cost-efficient solution for microelectronics processes, ensuring high-performance filtration with uncompromised quality and integrity.

Application

- Buffered Oxide Etch
- Point-of-Use Deionized Rinse
- Electroplating of Copper
- Electronics grade chemicals
- Bulk DI water systems
- Nickel Plating

- Dilute Hydrofluoric Acid
- Ultrapure Water
- Photoresist

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







Technical Data Sheet

Micron Rating:

■ 0.10 µm

■ 0.20 µm

■ 0.45 µm

■ 0.65 µm

■ 0.80 µm

■ 1.0 µm

■ 3.0 µm

■ 5.0 µm

■ 10.0 µm

■ 15.0 um

■ 25.0 µm

■ 50.0 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:

Media: Polypropylene (PP) Media Chemical Grade

Membrane Feature: Flushed with ultrapure DI water, 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

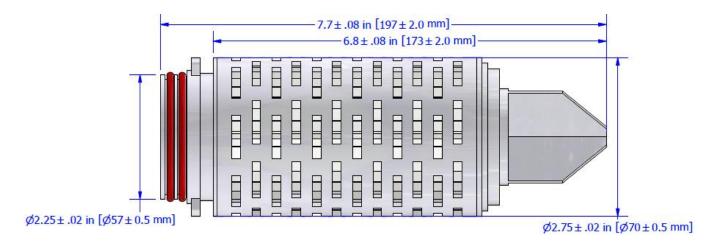
Maximum Operating Temperature: 176°F/80°C at 0.7 bar (10psi)

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

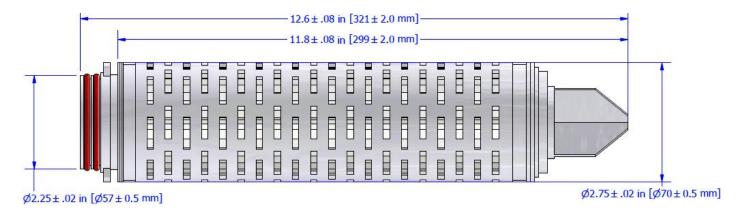


Nominal Dimension:

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

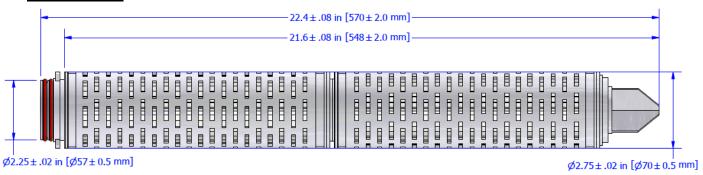


Part Number: CRT-PP-10-XXX-X6X / CRT-PP-10-XXX-X6X-5

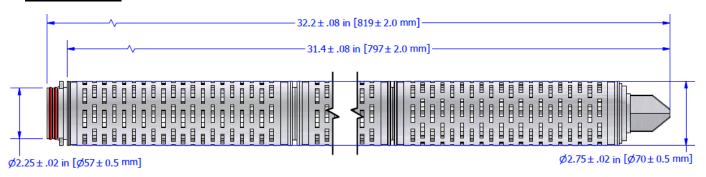




Part Number: CRT-PP-20-XXX-X6X / CRT-PP-20-XXX-X6X-5



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



Typical Filtered Volume:

5-Inch; 50L-200L

• 10-Inch; 100L-400L

• 20-Inch; 200L-800L

30-Inch; 300L-1,200L





Performance Attributes:

Micron rating	gpm/psid	Lpm/100mba			
0.10 μm	0.9	4.94			
0.20 μm	1.85	10			
0.45 µm	2.4	13			
0.65 µm	4.4	28			
0.80 μm	4.7	26			
1.0 µm	8	45			
3.0 µm	24	135			
5.0 µm	40	225			
10.0 μm	80	450			
15.0 µm	120	675			
25.0 μm	200	1,125			
50.0 μm	400	2,250			



Sterilization:

Autoclave: The filters can be sterilized by autoclaving for up to 50 cycles at 125 °C (257 °F) for 30 minutes.

Steam-In-Place: The filters can also 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 also be sanitized by hot water or common chemicals that are compatible with filter components.

Cleanliness (particle shedding):

Dry-packed: <1 particles/ml >0.2µm after 6gal @ 1gpm

Data as from open bag and installed, no additional installation flushing.

Metals Extractables:

<50ppb (total)
*In a 10% HNO₃ extraction.

Resistivity Rinse-up:

Resistivity rinse-up to background minus 0.2megohm-cm of feed after 20gal @ 1gpm.

Animal-Derived Components & TSE/BSE Risk:

No animal-derived material is intentionally added or used during the manufacture of this product.

Shelf Life:

The CRT-PP Cartridges have a shelf life of 5 years from the date of manufacture.





CRT-PP Series PP Cartridge

(Chemical Grade)

Ordering Guide

	CRT PP	[1] [2] A	[3] [4] [5	5] [6]	
[1]	[2]	[3]	[4]	[5]	[6]
Length	Micron Rating	End Modification	O-Ring / Gasket Material	Optional	Grade
 10:10-Inch 20:20-Inch 30:30-Inch 40:40-Inch 05:5-Inch 	 001: 0.10 μm 002: 0.20 μm 004: 0.45 μm 006: 0.65 μm 008: 0.80 μm 010: 1.0 μm 030: 3.0 μm 050: 5.0 μm 100: 10.0 μm 250: 25.0 μm 500: 50.0 μm Note: All final membranes are sterilizing grade.	 2: 222 O-Ring Flat 6: 226 O-Ring Fin 7: 226 O-Ring Flat 0: DOE Flat Gasket 	 S: Silicone E: EPDM N: Buna-N PV: Teflon	• -5 : Stainless Steel Insert	• -C: Chemical Grade

Example:

CRTPP10002A6S-C

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

Part Number Description





Special Configuration:

Layer Option:

- Single Layer
- Dual Layer

Micron Rating Option:

- 0.04 Micron
- 0.1 Micron
- 0.2 Micron
- 0.45 Micron
- 0.65 Micron
- 0.8 Micron
- 1.2 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

