



International Filter Products

Revolutionary systems for your industry

CRT-PES Series PES Filter Cartridge

CRT-PES cartridges stand as the pinnacle of excellence for microelectronics applications, specifically tailored for the purification of deionized (DI) water and aqueous-based chemicals. Distinguished by their unique mirrored anisotropic PES (Polyethersulfone) membrane, these cartridges offer an extraordinary blend of exceptionally high flow rates and extended on-stream lifespan, all while consistently delivering the removal of both organic and inorganic particulates. What truly sets CRT-PES apart is its ingenious fusion of a hydrophilic PES membrane with a high-purity, all-polypropylene support structure, ensuring minimal ionic and organic extractables, broad chemical compatibility, and resistance to particle shedding. Each cartridge undergoes meticulous fabrication within a clean room environment, pre-flushed with ultrapure 18 megohm-cm DI water, and rigorous 100% integrity testing in an ISO-certified facility. The benefits include outstanding retention capabilities, rapid flow rates, versatile chemical compatibility, and extended operational life, making CRT-PES the optimal choice for uncompromising performance and reliability in microelectronics processes.

Application

- Buffered Oxide Etch
- Point-of-Use Deionized Rinse
- Electroplating of Copper
- Product Sterilization
- Bulk DI water systems
- Nickel Plating
- Dilute Hydrofluoric Acid
- Ultrapure Water
- HDD Cleaning Processes

Part Number: CRT-PES-10-XXX-X2N



**CRT-PES Series PES Cartridge - Chemical Grade
222 O-Rings Flat End Cap**



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7914 Ajay Drive, Sun Valley, CA 91352
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Technical Data Sheet

Micron Rating:

- 0.10 μm
- 0.20 μm
- 0.45 μm
- 0.65 μm
- 0.80 μm
- 1.20 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: PES (Polyethersulfone)

Membrane Feature: Hydrophilic, 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]



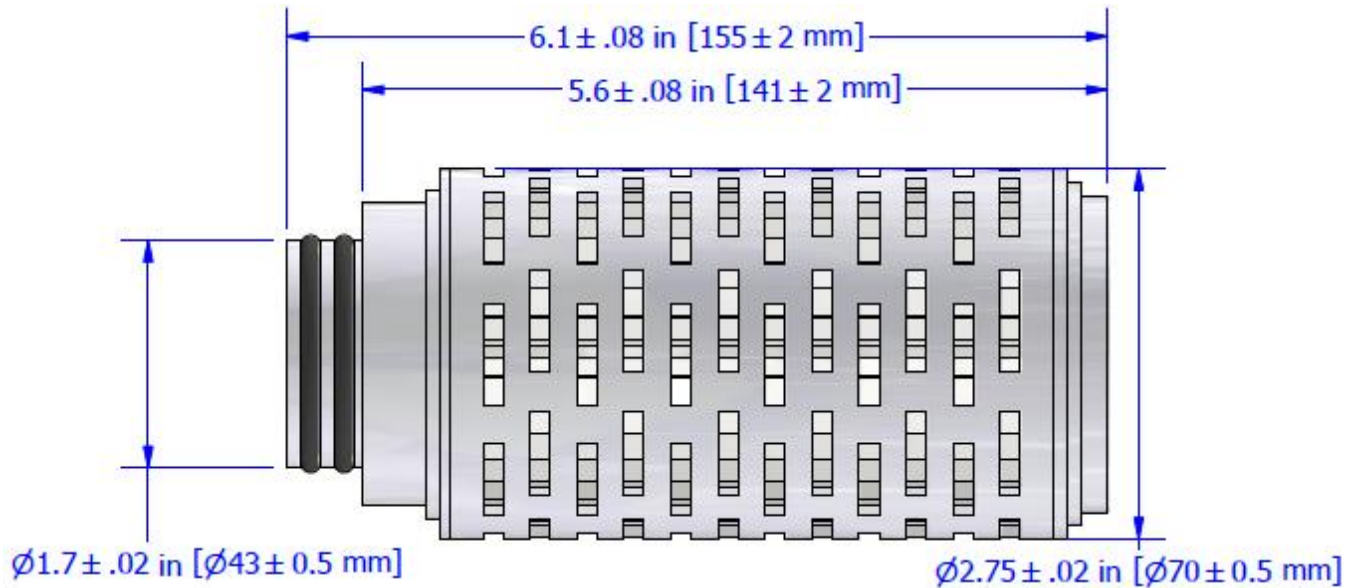


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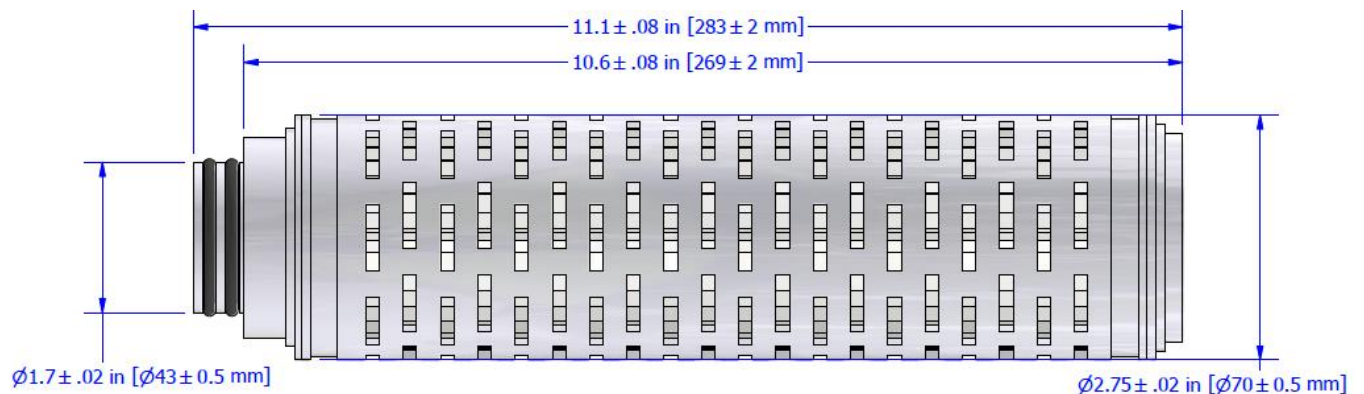
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Nominal Dimension:

Part Number: CRT-PES-05-XXX-X2X



Part Number: CRT-PES-10-XXX-X2X



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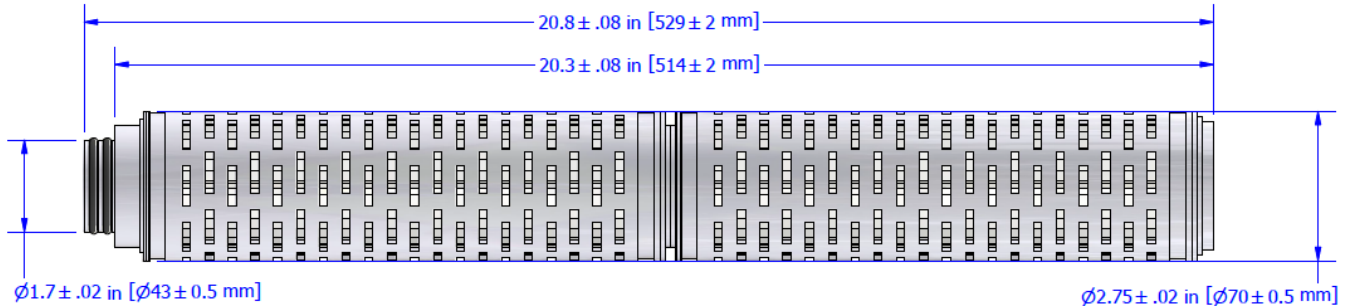
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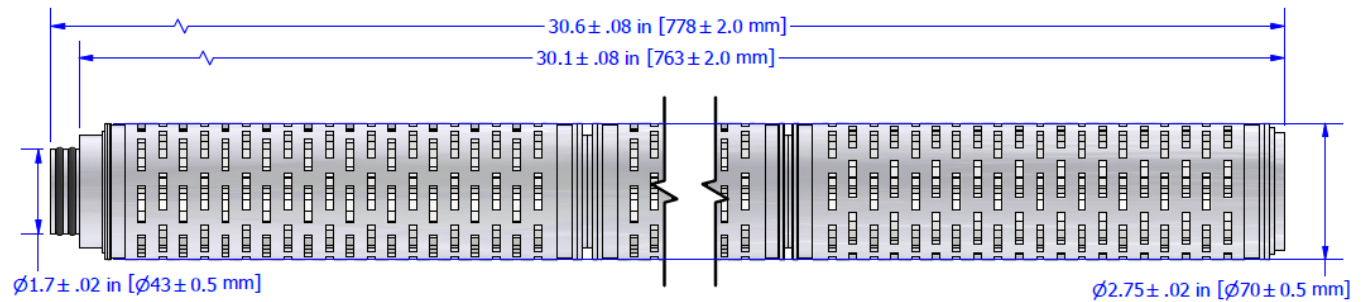
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Part Number: CRT-PES-20-XXX-X2X



Part Number: CRT-PES-30-XXX-X2X



Typical Filtered Volume:

- 5-Inch; 25L- 200L
- 10-Inch; 50L- 400L
- 20-Inch; 100L- 800L
- 30-Inch; 150L-1,200L



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Performance Attributes:

Water flow rates		
Micron rating	gpm/psid	Lpm/100mbar
0.10 µm	1.8	9.88
0.20 µm	3.7	20
0.45 µm	4.8	26
0.65 µm	8.9	49
0.80 µm	9.5	52
1.20 µm	16.8	92

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.

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-PES Cartridges have a shelf life of 5 years from the date of manufacture.





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CRT-PES Series PES Cartridge

(Chemical 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"> 10 : 10-Inch 20 : 20-Inch 30 : 30-Inch 40 : 40-Inch 05 : 5-Inch 	<ul style="list-style-type: none"> 001 : 0.10 µm 002 : 0.20 µm 004 : 0.45 µm 006 : 0.65 µm 008 : 0.80 µm 010 : 1.20 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"> -C: Chemical Grade

Example:

CRTPE10002A2S-C

IFP CRT PES Cartridge, 0.2µm PES hydrophilic membrane (Sterilizing Grade), 10.0-inch Long, Filtration Area 0.7 m², 222 O-Rings Flat end cap, Silicone Double O-Rings.

Part Number

Description



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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

