

# PTFE Cartridge Filters



Hydrophobic PTFE (CFTF) cartridge filters are available in 0.22µm & 0.45µm rating. All manufactured cartridges are robust and resilient and are designed to withstand multiple SIP (steam-in-place) cycles. The Inherent highly hydrophobic membrane contributes to clean processes due to non-fiber releasing nature. These filters are available in 10-40 inches sizes and offers high through puts. PTFE cartridge filters used as final filters or point-of-use filters for diversified application for gas/air filtration and venting applications.

## Special Features & Benefits

- ✓ Absolute Retention
- ✓ 100% integrity tested before release
- ✓ Easy Identification & Traceability
- ✓ High heat stability and wide chemical compatibility

## Key Applications

- Freezer dryer
- Autoclave venting
- Nitrogen blanketening in sterile API
- Sterile filtration of API and injectables
- Sterile compress air for pharma machinery & tools
- Venting of WFI in pharma
- Bioreactors (inlet/outlet)
- Venting of fermentar and storage tanks
- CO<sub>2</sub> gas filtration for carbonation process
- Sterile airing for dry powder injectable filling

***Our Nucart Cartridge filters are quality assured for retention efficiency, integrity test and flow rate and validated for Heat Stability, Beta ratio test, fiber particle release, extractables and biosafety***

## In Compliance with Global Standards

Bacterial Endotoxin	<i>The filtrate/Aqueous extraction from downstream of the filter exhibited endotoxin result &lt; 0.25 EU/mL when tested as per USP &lt;85&gt; methodology</i>
Oxidizable Substances	<i>Oxidizable matter in filtered water meets the USP &lt;1231&gt; Oxidizable Substance Test requirements</i>
Non-fiber Releasing	<i>Meets the criteria for a "non-fiber releasing" filter as defined in 21 CFR 210.3(b)(6).</i>
Particle Shedding	<i>Meets Cleanliness per USP &lt;788&gt; for Particulates in Injectables</i>
Extractable with water	<i>Extractable passes within limit as specified by USP &lt;661&gt;</i>
TOC/ Conductivity	<i>Meets the USP &lt;643&gt; for Total Organic Carbon Meets the USP &lt;645&gt; for Water Conductivity</i>

- Manufactured in an ISO Class 8 Cleanroom Environment
- Complete Qualification Guide Available
- Critical raw material used for manufacturing are Compliant with FDA Indirect Food Additive requirements cited in 21 CFR 177.1520 & 21 CFR 177.2440
- Comply with USP <88> Reactivity Test for Class VI plastics
- Wide Chemical Compatibility
- 100% Integrity Tested

# TECHNICAL SPECIFICATIONS

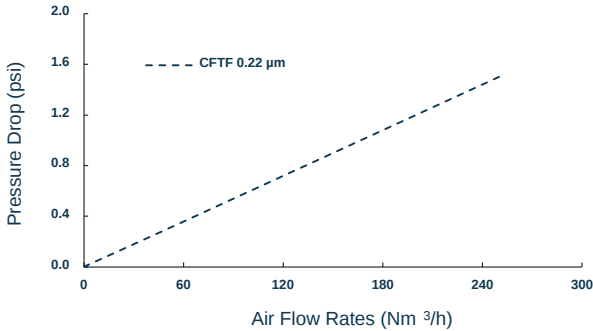


## CONSTRUCTION MATERIALS

**Filter Media:** Hydrophobic PTFE

**Supporting Media:** Polyester

**Core & Cage:** Polypropylene



## MAXIMUM OPERATING DIFFERENTIAL PRESSURE AND TEMPERATURE

**Max Temp** 80 °C @ ≤ 2 Kg/cm<sup>2</sup>

**Max Pressure** 3.5 Kg/cm<sup>2</sup> @ 25 °C  
0.7 Kg/cm<sup>2</sup> @ 25 °C for reverse

**Autoclavable** 110+ autoclave/steam sterilization cycles of 30 minutes at 121 °C/ 135 °C

## INTEGRITY TEST DATA

### Bubble Point:

0.22µm: ≥ 1380 mbar (20 psi) (with 70% IPA/ water wetted)

0.45µm: ≥ 690 mbar (10 psi) (with 70% IPA/ water wetted)

### Max Air Diffusion Flow:

0.22µm: ≤ 40 mL/min @ 16 psi (1104 mbar)  
(with 70% IPA/ water wetted)

0.45µm: ≤ 40 mL/min @ 8 psi (552 mbar)  
(with 70% IPA/ water wetted)

### Bacterial Retention:

0.22µm: LRV > 7 for *Brevundimonas Diminuta*

0.45µm: LRV > 7 for *Serratia marcescens*

## ORDERING INFORMATION CODES:

Type		Size			Pore Size		Adaptor		Rings / Gaskets	
Type	Code	Length	EFA	Code	Micron	Code	Type	Code	Ring	Code
PTFE	CFTF	3"	0.2m <sup>2</sup>	03	0.22 µm	020	7P	U	Silicone	SS
High temp. PTFE	CFTH	5"	0.3m <sup>2</sup>	05	0.45 µm	045	BEO	V	Viton	SV
		9.75"	0.7m <sup>2</sup>	9.75			K SEAL	K	EPDM	SE
		10"	0.7m <sup>2</sup>	10			Optiseal	X	Encapsulated PTFE	FV
		20"	1.4m <sup>2</sup>	20			4463	Y	Synthetic Rubber	SR
		30"	2.1m <sup>2</sup>	30			4463B	Z		
		40"	2.8m <sup>2</sup>	40			M Disc	Q	No Ring	XX
							222	R		
							4440	W		

EXAMPLE: CFTF05020USS



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