



FILTER TECHNOLOGY

# CARTFLOW CATALOG





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# CFP series PES membrane

# CFP series PES membrane

## Eco Grade PES Pleated Filter Cartridges

CFP series - PES Eco Grade Pleated Filter Cartridges use the hydrophilic polyethersulfone (PES) membrane, which is with extreme low extractables and non-fiber releasing. The CFP series - PES Eco Grade Pleated Pleated Filter Cartridges have a broad chemical compactivity and better stability. This series is suitable for the filtration of bioburden reduction



### Features

- High flow rate
- High-durability PES membrane and other PP assemblies
- Broad chemical compactivity (pH 1-14)
- Special hydrophilic materials

### Applications

- large volume parenterals (LVP)
- Biological reagent filtration
- Ophthalmics filtration
- Aseptic filtration for detergent and disinfectant

### Guarantees

- All filter cartridges are manufactured in 10,000-degree clean room
- Manufactured according to ISO9001:2015 certified quality management system
- Gross integrity

### Dimension

OD	69 mm (2.72")
Length	5", 10", 20", 30", 40"



# Material of Constructions

Media  
 Support/Diversion  
 Core/Cage/End Cap

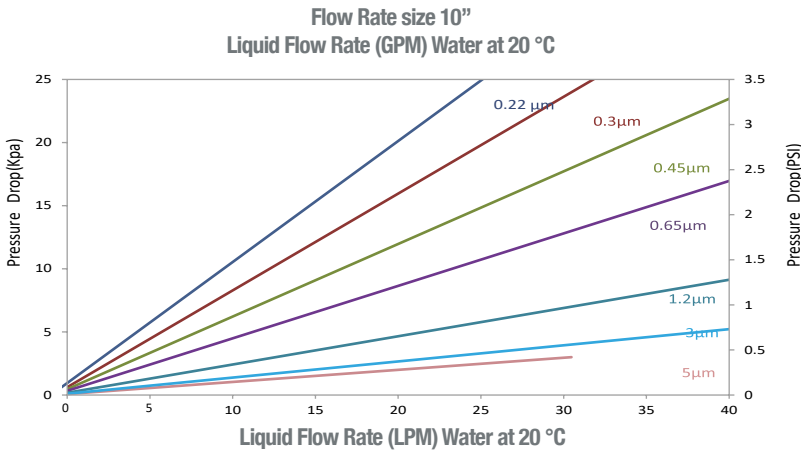
Polyethersulfone (PES)  
 Polypropylene  
 Polypropylene

# Performance

Max Operating Temperature  
 Max. Operating DP

80 °C  
 4.0 bar @20 °C  
 2.4 bar @80 °C (Forward)  
 125 °C / 30 min

SIP



# Quality

- Filter Cartridges are manufactured in a clean room environment
- Manufactured according to ISO9001:2015 certified Quality Management System

# Food Contact Compliance

- Materials of construction comply with FDA regulations for food and beverage contact use as detailed in the US Code of Federal Regulations 21 CFR.
- Materials used to produce filter media and hardware meet the specifications for biological safety per USP Class VI-121C for plastics.
- Filter cartridges passed European Commission Directives (EU10/2011)
- Halal Certified

Eg.=> CFPPS0022B050AD0PSS0

ORDERING INFORMATION										
Product Type	Membrane Type	Membrane pore size	Application	Size	Diameter	Endcap	Inner Core	Sealing Material	Connection Support	Revision
CFP = Pleated Cartridge	PS = PES	0022 = 0.22µm	B =Low Bio	05 = 5"	0A = OD:69 mm	D0 = DOE	P = Polypro	S = Silicone	S= Standard	0 = Rev.0
		0045 = 0.45µm		10 = 10"		E2 = 213/Flat	S = SS Steel	E = EPDM		
		0065 = 0.65µm		20 = 20"		H1 = 222/Fin		V = Viton	Y = SS reinforcement (Endcap D0, E2, K1, K2, excluded)	
		0120 = 1.2µm		30 = 30"		H2 = 222/Flat		F = E-FKM		
		0300 = 3µm		40 = 40"		H5 = 222/Spear Fin				
		0500 = 5µm				K1 = 222 Ext/Fin			P = PSU reinforcement (Endcap G1, G2, only)	
						K2 = 222 Ext/Flat				
					G1 = 226/Fin					
					G2 = 226/Flat					
					G5 = 226/Spear Fin					

# CFP series PES membrane

## High Asymmetric PES Pleated Filter Cartridges

CFP series High Asymmetric Polyethersulfone (PES) pleated filter cartridges are made of hydrophilic high asymmetric polyethersulfone membrane, can provide exceptionally high flow rate and long service life for processing large fluid volumes. It has excellent retention of microorganisms for superior protection of final filters. This characteristic especially suits for Food and Beverage filtration.



### Features

- Broad pH compatibility allows the use of filters in a wide range of fluids
- Bioburden reduction efficiency for process with variable bioburden applications with high flow requirements.
- 100% integrity tested during manufacture.
- Low extractables.

### Applications

- Food and beverage filtration
- Reduce biological load
- High flow process requirements
- Protection final filters or downstream equipment and systems such as tangential chromatographic

### Dimension

Diameter 69 mm  
 Length 5", 10", 20", 30", 40"

### Quality

- Validated with *B. diminuta* (ATCC 191463) at 107/CM2 (0.22 µm).
- Each membrane filter element has been individually tested for integrity.
- Individual element is tracked by serial number.
- Manufactured according to ISO 9001:2015 certified quality management system.
- Meets USP Biological Reactivity Test requirements of the current USP <88> for plastic class VI-121 °C.

Integrity Test		
Micron	Bubble Point $\geq$ (Water)	Diffusion Flow $\leq$ (10" Ø69mm)
0.22 µm	3.2 bar	35ml / min @ 2.76 bar
0.45 µm	2.1 bar	35ml / min @ 1.70 bar
0.65 µm	1.32 bar	24ml / min @1.1 bar



## Effluent quality

- Non-fiber releasing
- Extractable 10 inch ≤ 25 mg
- Meets TOC and water conductivity per USP Purified Water, pH per USP Sterile Purified Water.

## Material of Constructions

Media PES  
 Support PP  
 Cage/Core/End PP  
 Connection Adaptor  
 SS Insert, PSU Insert O-Ring Silicone, EPDM , Viton®

## Performance

### Operating Conditions

Max Operating Temperature 80 °C  
 Max. Operating DP 4 bar @ 21°C, 2.4 bar @ 80 °C

### Sterilization

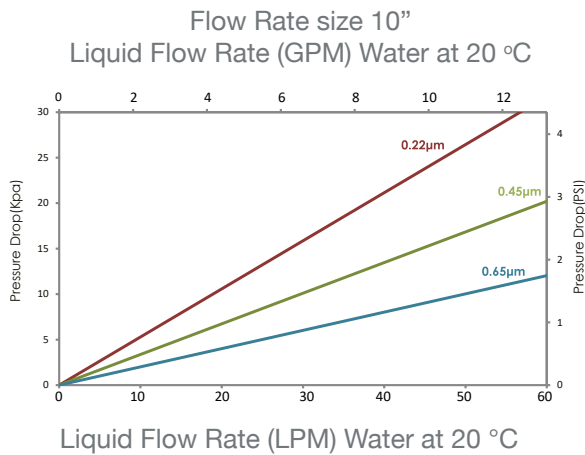
Autoclave Sterilization 121 °C, 60 Min

### Filtration Area

Ø 69mm 0.65 m<sup>2</sup> / 10" Filter cartridges

### Extractables

10" Filter Cartridges < 20mg



Eg.=> GFPPS0010S050AD0PSS0

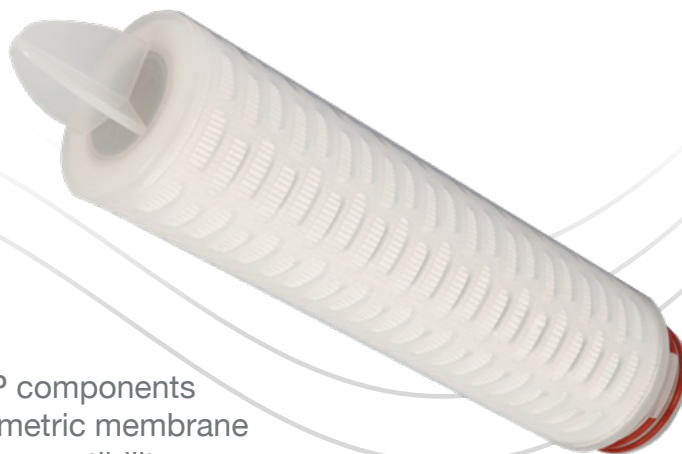
### ORDERING INFORMATION

Product Type	Membrane Type	Membrane pore size	Application	Size	Diameter	Endcap	Inner Core	Sealing Material	Connection Support	Revision				
CFP = Pleated Cartridge Filter	PS = PES	0010 = 0.1µm	G = Gen Purpose	05 = 5"	0A = OD:69 mm	D0 = DOE	P = Polypropylene	S = Silicone	S= Standard	0 = Rev.0				
		0022 = 0.22µm		10 = 10"							E2 = 213/Flat	S = SS Steel	E = EPDM	
		0045 = 0.45µm		20 = 20"							H1 = 222/Fin		B = NBR	Y = SS reinforcement (Endcap D0, E2, K1, K2, excluded)
		0065 = 0.65µm		30 = 30"							H2 = 222/Flat		V = Viton	
				40 = 40"		H5 = 222/Spear Fin		F = E-FKM		P = PSU reinforcement (Endcap G1, G2, only)				
						K1 = 222 Ext/Fin								
						K2 = 222 Ext/Flat								
						G1 = 226/Fin								
						G2 = 226/Flat								
						G5 = 226/Spear Fin								

# CFP series PES membrane

## Asymmetric PES Pleated Filter Cartridges

The CFP series Asymmetric Polyethersulfone (PES) Pleated Filter Cartridges are designed to provide greater bacteria and particle removal at high flow rates and low pressure drops in a wide range of biological fluids. It offers the greatest assurance of filtration performance, stability, and service life. All components of the filter cartridge comply with FDA regulations for food contact use.



### Features

- Durable PES and PP components
- Highly porous asymmetric membrane
- Excellent chemical compatibility
- Low extractables
- 100% integrity tested during manufacture

### Applications

- Large infusion (LVP), small injection (SVP), eye drops sterilization filtration
- Sterilization filtration of biological product
- Sterilization filtration of antibiotic aqueous solution
- Cleaning fluid and disinfectant sterilizing filtration

### Dimension

Diameter	69 mm
Length	5", 10", 20", 30", 40"

### Material of Constructions

Media	PES
Support	PP
Cage/Core/End	PP
Connection Adaptor	SS Insert, PSU Insert
O-Ring	Silicone, EPDM , Viton®

### Quality

- Validated with *B. diminuta* (ATCC 191463) at 107/CM2 (0.22 µm).
- Each membrane filter element has been individually tested for integrity.
- Individual element is tracked by serial number.
- Manufactured according to ISO 9001:2015 certified quality management system.
- Meets USP Biological Reactivity Test requirements of the current USP <88> for plastic class VI-121°C.

## Performance

### Operating Conditions

Max Operating Temperature 80 °C  
 Max. Operating DP 4 bar @ 21 °C , 2.4 bar @ 80 °C

### Sterilization

Autoclave Sterilization 121°C , 60 Min  
 SIP 135°C , 30 Min , 20 cycles

### Filtration Area

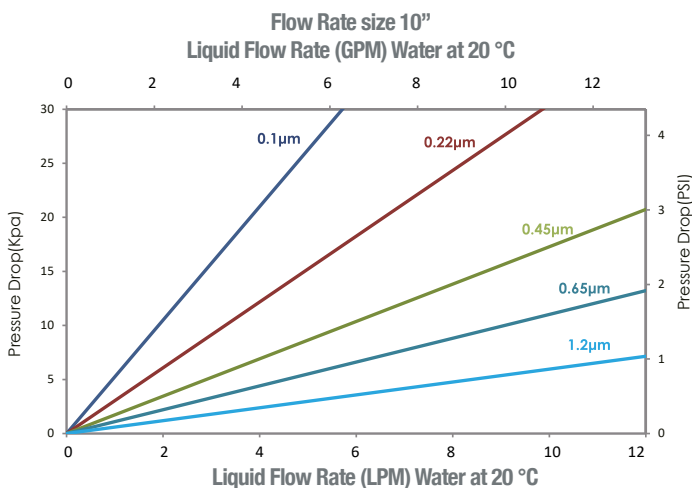
Ø 69mm 0.65 m<sup>2</sup> / 10" Filter cartridges

### Extractables

10" Filter Cartridges < 20 mg

## Effluent quality

- Non-fiber releasing
- Non-pyrogenic per USP Bacterial Endotoxins (<0.25 EU/mL)
- Meets TOC and water conductivity per USP Purified Water, pH per USP Sterile Purified Water.



Integrity Test		
Micron	Bubble Point ≥ (Water)	Diffusion Flow ≤ (10" Ø69 mm)
0.1 µm	4.8 bar	25 ml / min @ 4.475 bar
0.22 µm	3.2 bar	25 ml / min @ 2.76 bar
0.45 µm	2.1 bar	25 ml / min @ 1.70 bar
0.65 µm	1.32 bar	12 ml / min @ 1.1 bar

Eg.=> CFPPS0010S050AD0PSS0

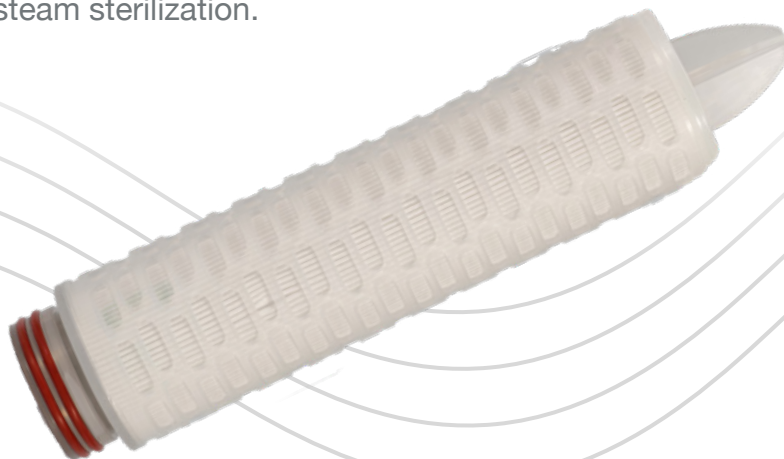
### ORDERING INFORMATION

Product Type	Membrane Type	Membrane pore size	Application	Size	Diameter	Endcap	Inner Core	Sealing Material	Connection Support	Revision
CFP = Pleated Cartridge Filter	PS = PES	0010 = 0.1µm	S = Ster Grade	05 = 5"	0A = OD:69 mm	D0 = DOE	P = Polypropylene	S = Silicone	S = Standard	0 = Rev.0
		0022 = 0.22µm		10 = 10"		E2 = 213/Flat	S = SS Steel	E = EPDM		
		0045 = 0.45µm		20 = 20"		H1 = 222/Fin		B = NBR	Y = SS reinforcement (Endcap D0, E2, K1, K2, excluded)	
		0065 = 0.65µm		30 = 30"		H2 = 222/Flat		V = Viton		
		0120 = 1.2µm		40 = 40"		H5 = 222/Spear Fin		F = E-FKM		
						K1 = 222 Ext/Fin			P = PSU reinforcement (Endcap G1, G2, only)	
						K2 = 222 Ext/Flat				
						G1 = 226/Fin				
						G2 = 226/Flat				
						G5 = 226/Spear Fin				

# CFP series PES membrane

## Double Layer Asymmetric PES Pleated Filter Cartridges

CFP series Double Layer Asymmetric PES Pleated Filter Cartridges is constructed of highly asymmetric polyethersulfone membrane from Germany and imported support layer. Unique double layer hydrophilic polyethersulfone makes it have excellent filtration performance and reliable bacteria intercepting ability. It is especially used in pharmaceutical industry with stringent requirement. All components of filter cartridge comply with FDA regulations. This filter can withstand repeated steam sterilization.



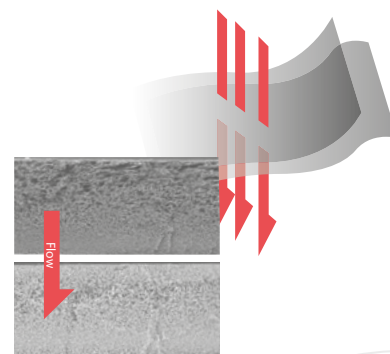
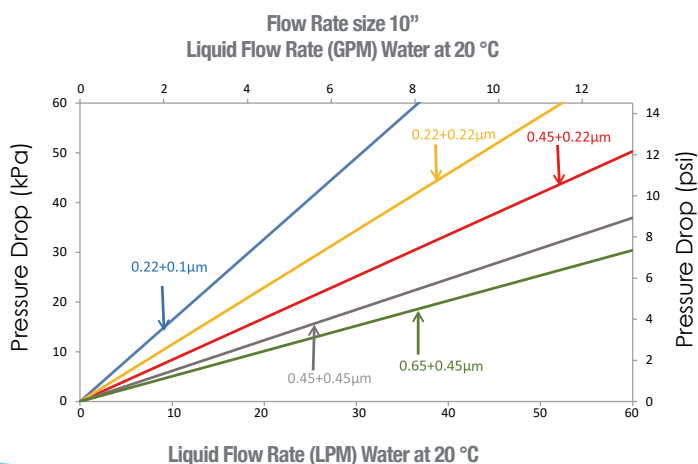
### Features

- Unique double layer hydrophilic polyethersulfone with double security makes it have reliable bacteria-intercepting ability, increasing filtration safety factor by more than 10 times.
- Large effective filtration area makes the filter longer service life and lower cost.
- Broad chemical compatibility ( PH1-14 ) , it is suitable for various pharmaceutical filtration.
- Structure Stabilization, it can withstand sterilization cycle with 50 times
- 100% integrity test ensures absolute sterilization
- Low protein adsorption
- ISO9001:2015 certified Quality Management System

### Quality

Validated with *B. diminuta* (ATCC 191463) at 107/CM2 (0.22 μm).

- Each membrane filter element has been individually tested for integrity.
- Individual element is tracked by serial number.
- Manufactured according to ISO 9001:2015 certified quality management system.
- Meets USP Biological Reactivity Test requirements of the current USP <88> for plastic class VI-121 °C



## Applications

Pharma - Particles filtration, bacterium filtration, API (Active Pharmaceutical Ingredient) filtration, Food and Beverage - Water filtration, Wine and Sparkling Wine filtration, Spirits filtration.

## Material of Constructions

Media	PES
Support	PP
Cage/core/end cap	PP
Sealing	Silicone, EPDM, NBR, Viton, Teflon, E-FKM

## Dimension

Outer Diameter	69 mm
Length	5", 10", 20", 30", 40"

## Performance

Operating Conditions	
Max Operating Temperature	80 °C
Max. Operating DP	4.0 bar @ 20 °C 2.4 bar @ 80 °C

## Sterilization

Autoclave Sterilization	121 °C , 60 min
SIP	125 °C , 30 min

## Filtration Area

Ø 69mm	0.65 m <sup>2</sup> / 10"
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## Extractables

10" Filter Cartridges	< 20 mg
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## Effluent quality

- Non-fiber releasing
- Non-pyrogenic per USP Bacterial Endotoxins (<0.25EV/mL)
- Meets TOC and water conductivity per USP Purified Water, pH per USP Sterile Purified Water.

Integrity Test		
Membrane por size	Bubble Point ≥ (Water)	Diffusion Flow ≤ (10" Ø69mm)
2201 = .22/0.1µm	4.8 bar	25ml/min @ 4.475 bar
2222 = .22/.22µm	3.2 bar	25ml/min @ 2.76 bar
0422 = .45/.22µm	3.2 bar	25ml/min @ 1.70 bar
0404 = .45/.45µm	2.1 bar	12ml/min @ 1.1 bar
0604 = .65/.45µm	2.1 bar	25ml/min @ 1.70 bar

Eg.=> CFPSS2201P050AD0PSS0

## ORDERING INFORMATION

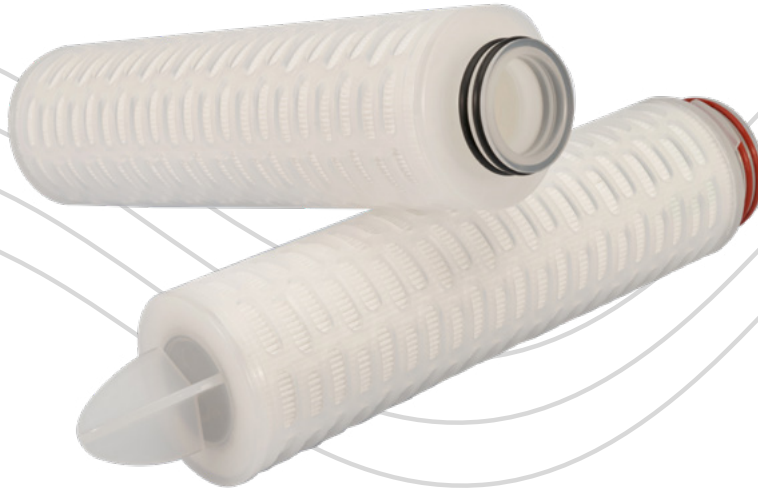
Product Type	Membrane Type	Membrane pore size	Application	Size	Diameter	Endcap	Inner Core	Sealing Material	Connection Support	Revision
CFP = Pleated Cartridge Filter	PS = PES	2201 = .22/0.1µm	P = Premier	05 = 5"	0A = OD:69 mm	D0 = DOE	P = Polypropylene	S = Silicone	S = Standard	0 = Rev.0
		2222 = .22/.22µm		10 = 10"		E2 = 213/Flat	S = SS Steel	E = EPDM		
		0422 = .45/.22µm		20 = 20"		H1 = 222/Fin		B = NBR	Y = SS reinforcement (Endcap D0, E2, K1, K2, excluded)	
		0404 = .45/.45µm		30 = 30"		H2 = 222/Flat		V = Viton		
		0604 = .65/.45µm		40 = 40"		H5 = 222/Spear Fin		F = E-FKM		
						K1 = 222 Ext/Fin			P = PSU reinforcement (Endcap G1, G2, only)	
						K2 = 222 Ext/Flat				
						G1 = 226/Fin				
						G2 = 226/Flat				
						G5 = 226/Spear Fin				

# CFP series PSU membrane

# CFP series PSU membrane

## General Applications PSU Pleated Filter Cartridges

CFP series General Applications Pleated PSU Filter Cartridges is constructed of highly asymmetric hydrophilic polysulfone membrane and polypropylene components. The unique PSU membrane delivers a high flow rate, long life time, and excellent particle removal efficiency. All the cartridges are made in a controlled clean room environment. The cartridges are ideally suitable for filtration of water-based fluids.



### Features

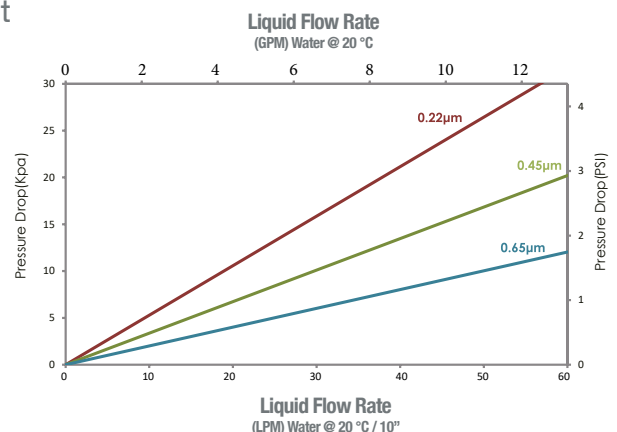
- Highly asymmetric polysulfone membrane provides excellent dirt holding capacity and flow characteristics
- Hydrophilic polysulfone membrane eliminates the need for prewetting and flushing
- Asymmetric membrane structure provides high flow rates with lower differential pressure and a longer life time
- Widely compatible with cleaning applications in many processes such as developing, etching, and stripping
- Manufactured in controlled clean room environment

### Applications

- General-Use water Filtration
- Deionized water systems
- Liquid clarification
- Chemical filtration
- Ultra-Pure water systems

### Dimension

Diameter	69 mm
Length	5", 10", 20", 30", 40"



### Food Contact Compliance

- Materials of construction comply with FDA regulations for food and beverage contact use as detailed in the US Code of Federal Regulations 21CFR.
- Materials used to produce filter media and hardware meet the specifications for biological safety per USP Class VI-121C for plastics.
- Filter cartridges passed European Commission Directives (EU10/2011)
- Halal Certified

## Material of Constructions

- Media
- Support
- Cage/Core/End
- Sealing

Highly Asymmetric Hydrophilic PSU Membrane  
 Polypropylene (PP)  
 Polypropylene (PP)  
 EPDM, Viton®, E-FKM

## Performance

### Operating Conditions

Max. Operating Temperature  
 Max. Operating DP

80 °C  
 4 bar @ 21 °C, 2.4 bar @ 80 °C

## Quality

- Filter Cartridges are manufactured in a clean room environment
- Manufactured according to ISO9001:2015 certified Quality Management System
- 100% integrity test

Eg.=> CFPSU0003G050AD0PSS0

ORDERING INFORMATION											
Product Type	Membrane Type	Membrane pore size	Application	Size	Diameter	Endcap	Inner Core	Sealing Material	Connection Support	Revision	
CFP = Pleated Cartridge Filter	SU = Polysulfone	0003 = 0.03µm	G = Gen Purpose	05 = 5"	0A = OD:69 mm	D0 = DOE	P = Polypro	S = Silicone	S = Standard	0 = Rev.0	
		0005 = 0.05µm		10 = 10"		E2 = 213/Flat					U = SUS Steel
		0010 = 0.1µm		20 = 20"		H1 = 222/Fin					
		0020 = 0.20µm		30 = 30"		H2 = 222/Flat					
		0045 = 0.45µm		40 = 40"		H5 = 222/Spear Fin					
		0120 = 1.2µm				K1 = 222 Ext/Fin					
						K2 = 222 Ext/Flat					
						G1 = 226/Fin					
						G2 = 226/Flat					
						G5 = 226/Spear Fin					

Y = SS reinforcement  
 (Endcap D0, E2, K1, K2, excluded)  
 P = PSU reinforcement  
 (Endcap G1, G2, only)



# CFP series

## PP media

# CFP series PP media

## General Applications PP Pleated Filter Cartridge

CFP series General Applications PP Pleated Filter Cartridge are all-polypropylene filter cartridges in economically efficient design, suitable for a wide range of process applications. The pleated polypropylene filter material provides a large filtration surface area which allows for maximized flow rate in the system. PP Pleated Filter Cartridges are available in nominal retention ratings from 0.1 to 50 micron.



### Features

- Nominal rated structure, particle removal rating from 0.1 to 50 Micron
- 100% polypropylene components provide broad chemical compatibility, suitable for use in a variety of fluids
- Various end cap configurations to fit into the most standard housings
- Meets FDA requirements for food contact and passes European Commission Directives (EU10/2011)

### Applications

- Food & Beverage
- Plating Chemicals
- RO Pre-Filtration
- Fine Chemicals
- Process Water
- Waste water

### Dimension

Diameter	69 mm
Length	5", 10", 20", 30", 40"

### Food Contact Compliance

- Materials of construction comply with FDA regulations for food and beverage contact use as detailed in the US Code of Federal Regulations 21 CFR.
- Materials used to produce filter media and hardware meet the specifications for biological safety per USP Class VI-121C for plastics.
- Filter cartridges passed European Commission Directives (EU10/2011)
- Halal Certified



## Material of Constructions

- Media: PP
- Support: PP
- Cage / Core / End cap: PP
- Sealing: Silicone, EPDM, NBR, Viton®, Teflon®, E-FKM

## Performance

### Operating Conditions

Max. Operating Temperature

80 °C

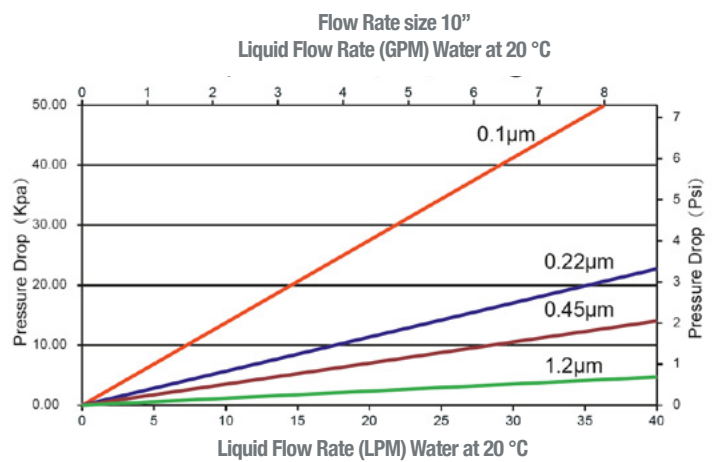
Max. Operating DP

4 bar @ 21° , 2.4 bar @ 80 °C

## Quality

- Filter Cartridges are manufactured in a clean room environment
- Manufactured according to ISO9001:2015 certified Quality Management System
- 100% integrity test

Particle Removal Efficiency (µm)		
Membrane pore size identification	85% efficiency	95% efficiency
0010	0.1	----
0022	0.22	----
0045	0.45	----
0065	0.65	----
0100	1	----
0300	3	----
0500	5	----
1000	10	----
2000	20	----
5000	50	----



Eg.=> CFPP0010G050AD0PSS0

ORDERING INFORMATION												
Product Type	Membrane Type	Removal Rating	Application	Size	Diameter	Endcap	Inner Core	Sealing Material	Connection Support	Revision		
CFP = Pleated Cartridge	PP = Polypro	0010 = 0.1µm	G = Gen Purpose	05 = 5"	0A = OD:69 mm	D0 = DOE	P = Polypro	S = Silicone	S= Standard	0 = Rev.0		
		0022 = 0.22µm		10 = 10"		E2 = 213/Flat					U = SUS Steel	E = EPDM
		0045 = 0.45µm		20 = 20"		H1 = 222/Fin						B = NBR
		0100 = 1µm		30 = 30"		H2 = 222/Flat						V = Viton
		0300 = 3µm		40 = 40"		H5 = 222/Spear Fin						F = E-FKM
		0500 = 5µm				K1 = 222 Ext/Fin						
		1000 = 10µm				K2 = 222 Ext/Flat						
		2000 = 20µm				G1 = 226/Fin						
5000 = 50µm		G2 = 226/Flat										
7500 = 75µm		G5 = 226/Spear Fin										

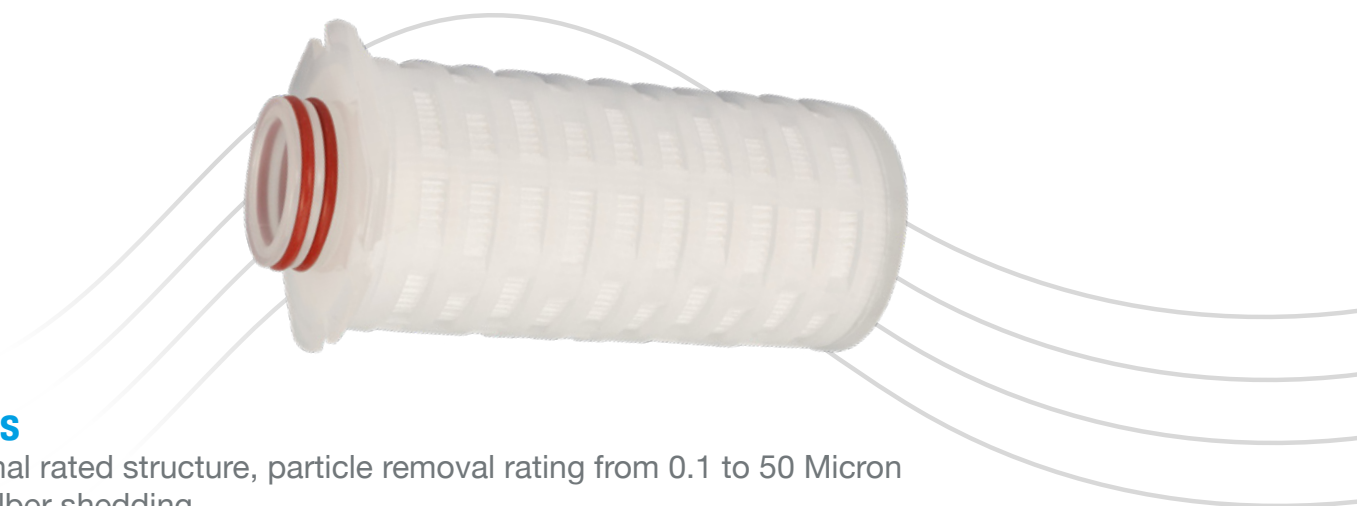
*Y = SS reinforcement (Endcap D0, E2, K1, K2, excluded)*

*P = PSU reinforcement (Endcap G1, G2, only)*

# CFP series PP media

## Nominal Rated PP Pleated Filter Cartridges

CFP series Nominal Rated PP Pleated Filter Cartridges are all-polypropylene filter cartridges made with submicron fine fiber filter media which provide smaller pores. It is fabricated without using any binders, adhesives, plasticizers, and surfactants. These filter cartridges can be repeatedly hot water sanitized. The filter media and its support structure are thermally welded to the end caps, making integral filter cartridges of minimum extractables in a wide range of fluids and applications. All the filter cartridges are manufactured in a clean room environment.



### Features

- Nominal rated structure, particle removal rating from 0.1 to 50 Micron
- Non filter shedding
- 100% polypropylene components provide broad chemical compatibility, suitable for use in a variety of fluids
- Various end cap configurations to fit into the most standard housings
- Meet FDA requirements for food contact and passes European Commission Directives (EU10/2011)

### Applications

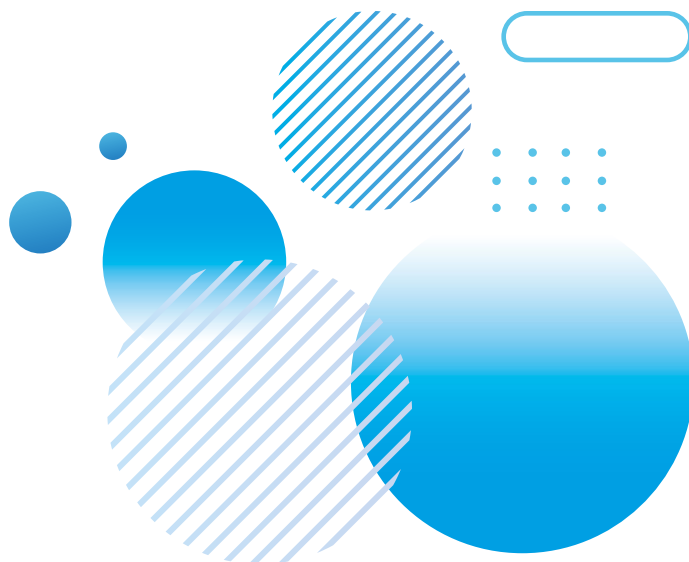
- Pharmaceutical Water
- RO Pre-Filtration
- Fine Chemicals
- Process Water

### Filtration Area

Ø 69mm: 0.6 m<sup>2</sup> / 10" Filter Cartridges

### Material of Constructions

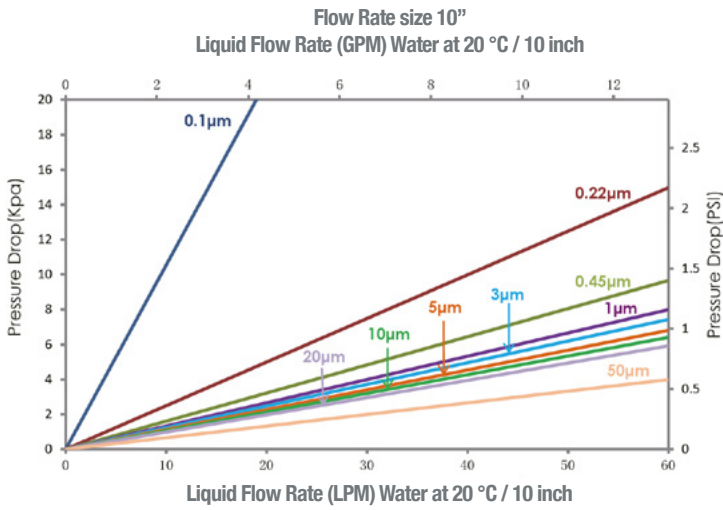
- |                     |                                        |
|---------------------|----------------------------------------|
| • Media:            | PP                                     |
| • Support:          | PP                                     |
| • Cage/Core/Endcap: | PP                                     |
| • Connection:       | PP                                     |
| • Sealing:          | Silicone EPDM, NBR, Viton <sup>®</sup> |



# Performance

Max. Operating temperature:  
Max. Operating DP:

80 °C  
4 bar @ 21 °C , 2.4 bar @ 80 °C



Particle Removal Ratings (µm)		
Membrane pore size identification	90% efficiency	95% efficiency
0010	0.1 µm	----
0022	0.22 µm	----
0045	0.45 µm	----
0065	0.65 µm	----
0100	1 µm	----
0300	3 µm	5 µm
0500	5 µm	10 µm
1000	10 µm	15 µm

# Quality

- Filter Cartridges are manufactured in a clean room environment
- Manufactured according to ISO9001:2015 certified Quality Management System

# Food Contact Compliance

- Materials of construction comply with FDA regulations for food and beverage contact use as detailed in the US Code of Federal Regulations 21 CFR.
- Materials used to produce filter media and hardware meet the specifications for biological safety per USP Class VI-121C for plastics.
- Filter cartridges passed European Commission Directives (EU10/2011)
- Halal Certified

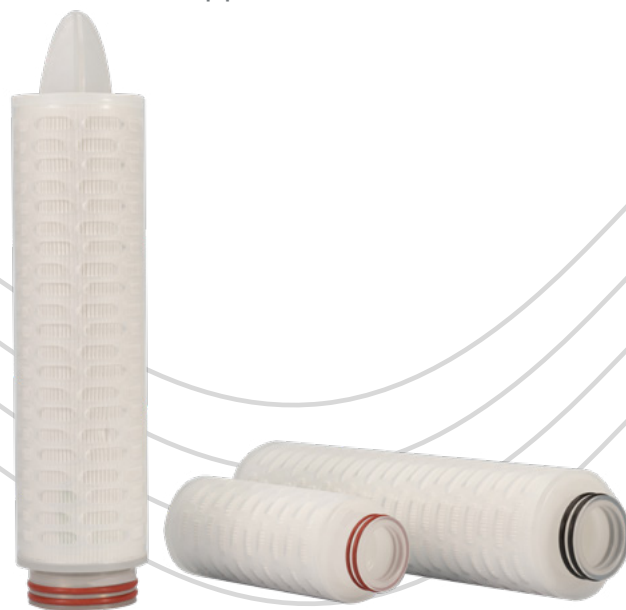
Eg.=> CFPPP0010C050AD0PSS0

ORDERING INFORMATION										
Product Type	Membrane Type	Removal Rating	Application	Size	Diameter	Endcap	Inner Core	Sealing Material	Connection Support	Revision
CFP = Pleated Cartridge	PP = Polypro	0010 = 0.1µm	C = Chem	05 = 5"	0A = OD:69 mm	D0 = DOE	P = Polypro	S = Silicone	S = Standard	0 = Rev.0
		0022 = 0.22µm		10 = 10"		E2 = 213/Flat	U = SUS Steel	E = EPDM		
		0045 = 0.45µm		20 = 20"		H1 = 222/Fin		B = NBR	Y = SS reinforcement (Endcap D0, E2, K1, K2, excluded)	
		0100 = 1µm		30 = 30"		H2 = 222/Flat		V = Viton		
		0300 = 3µm		40 = 40"		H5 = 222/Spear Fin		F = E-FKM		
		0500 = 5µm				K1 = 222 Ext/Fin			P = PSU reinforcement (Endcap G1, G2, only)	
		1000 = 10µm				K2 = 222 Ext/Flat				
		2000 = 20µm				G1 = 226/Fin				
		5000 = 50µm				G2 = 226/Flat				
						G5 = 226/Spear Fin				

# CFP series PP media

## High Rated PP Pleated Filter Cartridges

These CFP series filter cartridges are high rated pleated depth-type filters constructed of 100% polypropylene material. These filters are available in absolute particle retention ratings from 0.1 to 50 micron and various end cap configurations to fit into the most standard housings. All components of the series filter cartridges are FDA approved. The filter media and its support structure are thermally welded to the end caps, making integral filter cartridges of minimum extractables in a wide range of fluids and applications. All the filter cartridges are manufactured in a clean room environment.



### Features

- Absolute rated structure, particle removal rating from 0.1 to 50 Micron
- 100% polypropylene components provide broad chemical compatibility, suitable for use in a variety of fluids
- Consistent particle removal, no migration of filter media and non fiber shedding
- Meets FDA requirements for food contact and passes European Commission Directives (EU10/2011)

### Applications

- Food & Beverage
- Plating Chemicals
- RO Pre-Filtration
- Fine Chemicals
- Process Water

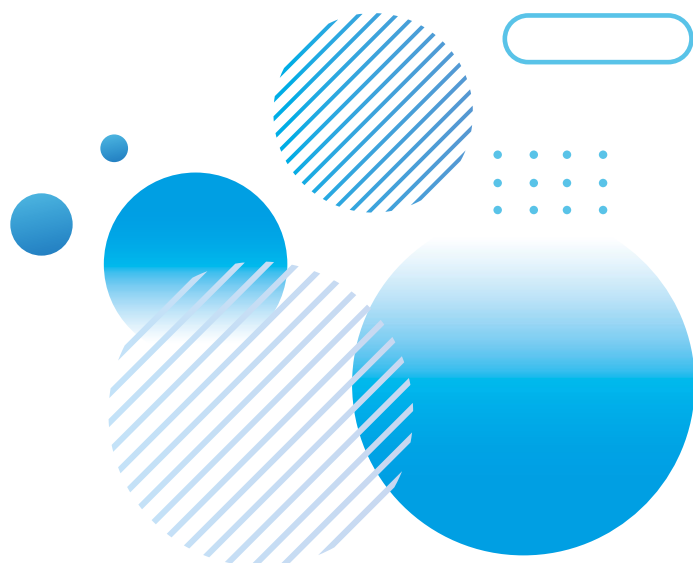
### Dimension

OD: 69mm

Length: 5" , 10" , 20" , 30" , 40"

### Material of Constructions

- Media: PP
- Support: PP
- Hardware: PP, SS core & adapter insert available
- Sealing: Silicone, EPDM, NBR Viton®, Teflon®, E-FKM



## Performance

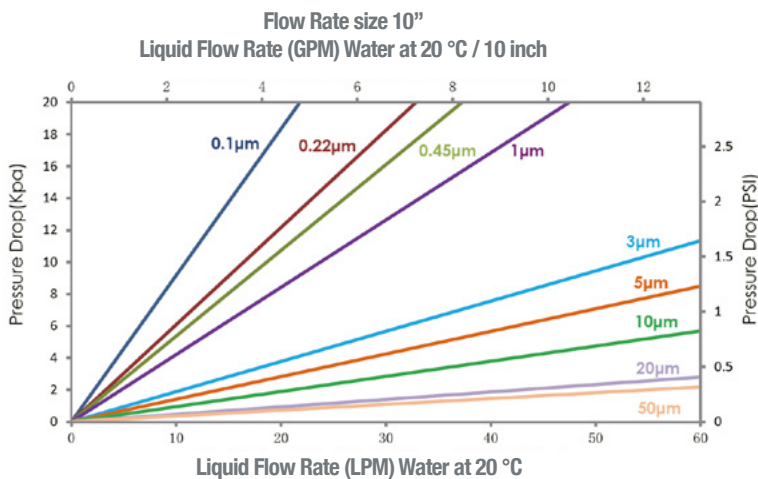
Max. Operating temperature: 80 °C  
 Max. Operating DP: 4 bar @ 21°C,  
 2.4 bar @ 80 °C

## Quality

- Filter Cartridges are manufactured in a clean room environment
- Manufactured according to ISO9001:2015 certified Quality Management System

## Food Contact Compliance

- Materials of construction comply with FDA regulations for food and beverage contact use as detailed in the US Code of Federal Regulations 21 CFR.
- Materials used to produce filter media and hardware meet the specifications for biological safety per USP Class VI-121C for plastics.
- Filter cartridges passed European Commission Directives (EU10/2011)
- Halal Certified



Particle Removal Efficiency (µm)		
Membrane pore size identification	95% efficiency	99% efficiency
0010	0.1 µm	----
0022	0.22 µm	----
0045	0.45 µm	----
0065	0.65 µm	----
0100	----	1 µm
0300	----	3 µm
0500	----	5 µm
1000	----	10 µm

Eg.=> CFPPP001P050AD0PSS0

ORDERING INFORMATION										
Product Type	Removal Rating	Removal Rating	Application	Size	Diameter	Endcap	Inner Core	Sealing Material	Connection Support	Revision
CFP = Pleated Cartridge	PP = Polypro	0010 = 0.1µm	P = Premier	05 = 5"	0A = OD:69 mm	D0 = DOE	P = Polypro	S = Silicone	S = Standard	0 = Rev.0
		0022 = 0.22µm		10 = 10"		E2 = 213/Flat	U = SUS Steel	E = EPDM		
		0045 = 0.45µm		20 = 20"		H1 = 222/Fin		B = NBR	Y = SS reinforcement (Endcap D0, E2, K1, K2, excluded)	
		0100 = 1µm		30 = 30"		H2 = 222/Flat		V = Viton		
		0300 = 3µm		40 = 40"		H5 = 222/Spear Fin		F = E-FKM		
		0500 = 5µm				K1 = 222 Ext/Fin			P = PSU reinforcement (Endcap G1, G2, only)	
		1000 = 10µm				K2 = 222 Ext/Flat				
		2000 = 20µm				G1 = 226/Fin				
		5000 = 50µm				G2 = 226/Flat				
						G5 = 226/Spear Fin				

# CFP series PP media

## Multi-Layers PP Pleated Filter Cartridges

CFP series Multi-Layers PP Pleated filter cartridges are comprised of multi-layers media. The unique construction results in a highly porous, continuous-ly graded pore structure with a tighter inner layer and several outer prefilter layers to substantially increase the dirt holding capacity. This filter structure provides excellent flow rates at low pressure drops and high throughputs while achieving submicron retentions, high efficiencies, and extraordinary dirt holding capacities. The filter media and its support structure are thermally welded to the end caps, making integral filter cartridges of minimum extractables in a wide range of fluids and applications. All the filter cartridges are manufactured in a clean room environment.



### Features

- Gradient pore size structure
- 100% polypropylene components provide broad chemical compatibility, suitable for use in a variety of fluids
- Fixed filter matrix with no adhesives and surfactants providing consistent filtrate quality
- Meet FDA requirements for food contact and passes European Commission Directives (EU10/2011)

### Applications

- Food & Beverage
- Plating Chemicals
- RO Pre-Filtration
- Fine Chemicals
- Process Water
- Colloid material filtration
- High viscosity liquids
- Fermentation liquids

### Dimension

OD: 69 mm

Length: 5", 10", 20", 30", 40"

### Material of Constructions

- |                       |                     |
|-----------------------|---------------------|
| • Media:              | PP                  |
| • Support:            | PP                  |
| • Cage/ Core/ Endcap: | PP                  |
| • Sealing:            | EPDM, Viton®, E-FKM |





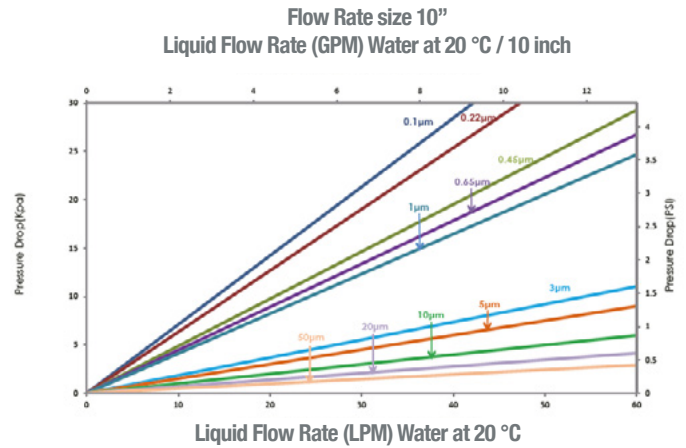
## Performance

Max. Operating temperature:  
Max. Operating DP:

80 °C  
4 bar @ 21 °C,  
2.4 bar @ 80 °C

## Quality

- Filter Cartridges are manufactured in a clean room environment
- Manufactured according to ISO9001:2015 certified Quality Management System



## Food Contact Compliance

- Materials of construction comply with FDA regulations for food and beverage contact use as detailed in the US Code of Federal Regulations 21CFR.
- Materials used to produce filter media and hardware meet the specifications for biological safety per USP Class VI-121C for plastics.
- Filter cartridges passed European Commission Directives (EU10/2011)
- Halal Certified

Eg.=> CFP001P050AD0PSS0

ORDERING INFORMATION													
Product Type	Membrane type	Removal Rating	Application	Size	Diameter	Endcap	Inner Core	Sealing Material	Connection Support	Revision			
CFP = Pleated Cartridge	PP = Polypro	0010 = 0.1µm	M = M.layer Fil	05 = 5"	0A = OD:69 mm	D0 = DOE	P = Polypro	S = Silicone	S= Standard	0 = Rev.0			
		0022 = 0.22µm		10 = 10"		E2 = 213/Flat					U = SUS Steel	E = EPDM	
		0045 = 0.45µm		20 = 20"		H1 = 222/Fin						B = NBR	Y = SS reinforcement (Endcap D0, E2, K1, K2, excluded)
		0100 = 1µm		30 = 30"		H2 = 222/Flat						V = Viton	
		0300 = 3µm		40 = 40"		H5 = 222/Spear Fin						F = E-FKM	
		0500 = 5µm				K1 = 222 Ext/Fin							P = PSU reinforcement (Endcap G1, G2, only)
		1000 = 10µm				K2 = 222 Ext/Flat							
		2000 = 20µm				G1 = 226/Fin							
		4000 = 40µm				G2 = 226/Flat							
		5000 = 50µm				G5 = 226/Spear Fin							

# **CFP series**

# **Hydrophobic PTFE**

# **membrane**

# CFP series Hydrophobic PTFE membrane

## General Applications Hydrophobic PTFE Pleated Filter Cartridges

CFP series General Applications Hydrophobic PTFE Pleated Filter Cartridges are made of polytetrafluoroethylene, and thus have excellent resistance to organic and inorganic chemical corrosive substances and have natural hydrophobicity of filtering materials. They are widely used in sterile filtration of strong solvents, strong corrosive liquids and strong oxidative liquids.



### Features

- Inherently hydrophobic PTFE membranes
- All PP components and low extractables
- High-flow and low pressure drop
- Enhanced resistance to in-line and autoclave steam sterilization
- 100% Integrity Test

### Applications

- Strong oxidative liquids filtration
- Prefiltration and terminal filtration of corrosive liquids
- Solvent materials filtration

### Dimension

Out Diameter	69 mm ( 2.72" )
Length	5", 10", 20", 30", 40"

### Material of Constructions

- |                       |                                      |
|-----------------------|--------------------------------------|
| • Media:              | Hydrophobic PTFE                     |
| • Support:            | PP                                   |
| • Cage/ Cage/ Endcap: | PP                                   |
| • Seal Material:      | Please refer to ordering information |

## Performance

- Max Operating Temperature 80 °C
- Max Operating DP 4.5 bar @ 20 °C  
2.4 bar @ 80 °C

## Quality

- Filter Cartridges are manufactured in a clean room environment
- Manufactured according to ISO9001:2015 certified
- Quality Management System
- Materials of construction comply with FDA regulations for food and beverage contact use as detailed in the US
- Code of Federal Regulations 21 CFR 100% Integrity Tested
- Each individual element is tracked by serial number

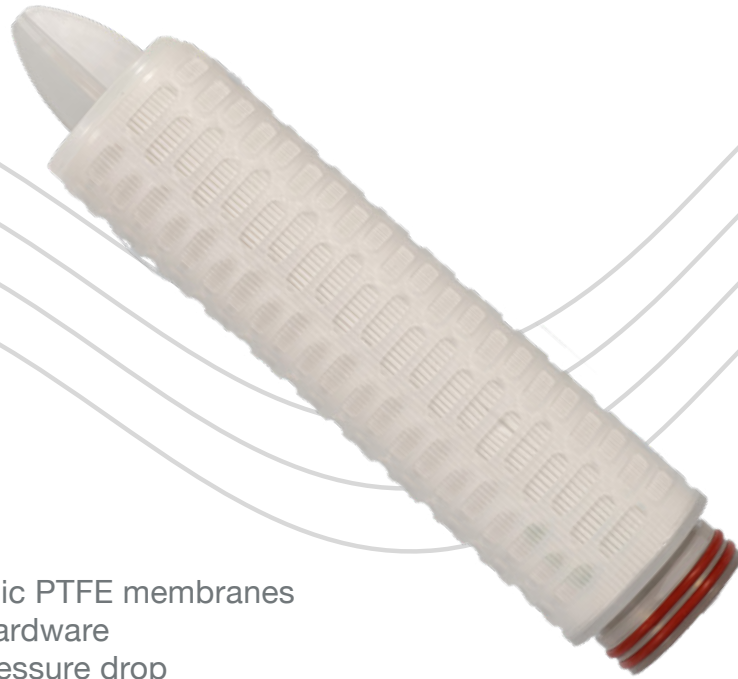
Eg.=> CFPPT0010G050AD0PSS0

ORDERING INFORMATION										
Product Type	Membrane Type	Membrane pore size	Application	Size	Diameter	Endcap	Inner Core	Sealing Material	Connection Support	Revision
CFP = Pleated Cartridge	PT = PTFE phobic	0010 = 0.1µm	G = Gen Purpose	05 = 5"	0A = OD:69 mm	D0 = DOE	P = Polypro	S = Silicone	S = Standard	0 = Rev.0
		0022 = 0.22µm		10 = 10"		E2 = 213/Flat				
		0045 = 0.45µm		20 = 20"		H1 = 222/Fin	B = NBR	Y = SS reinforcement (Endcap D0, E2, K1, K2, excluded)		
		0100 = 1µm		30 = 30"		H2 = 222/Flat	V = Viton			
		0300 = 3µm		40 = 40"		H5 = 222/Spear Fin	F = E-FKM			
		0500 = 5µm		K1 = 222 Ext/Fin		P = PSU reinforcement (Endcap G1, G2, only)				
		1000 = 10µm		K2 = 222 Ext/Flat						
	G1 = 226/Fin									
	G2 = 226/Flat									
	G5 = 226/Spear Fin									

# CFP series Hydrophobic PTFE membrane

## Sterilizing grade Hydrophobic PTFE Pleated Filter Cartridges

CFP series Sterilizing grade Hydrophobic PTFE Pleated Filter Cartridges are made of hydrophobic PTFE membrane and inherently hydrophobic PTFE membrane ensuring the sterilizing performance in different humidity environments. The PP components offer superior oxidation resistance. The reinforced core makes the filter cartridges have higher pressure resistance to withstand, The in-line steam sterilization and autoclave., it is suitable for fermentation, pharmaceutical, and other biotechnology applications.



### Features

- Inherently hydrophobic PTFE membranes
- Oxidation resistant hardware
- High-flow and low pressure drop
- Enhanced steaming resistance
- 100% Integrity tested

### Applications

- Corrosive gas sterile filtration
- Compressed air and nitrogen gas solution
- Aseptic packaging
- Fermenter inlet air and exhaust venting, sterile process air and sterile venting of tanks

### Dimension

Length	5" (125 mm) / 10" (254 mm) / 20" (500 mm)
	30" (750 mm) / 40" (1000 mm)
Out Diameter	69 mm (2.72")
EFA	0.8 m <sup>2</sup> / 10"

### Integrity Test Parameters

- Bubble Point (BP)  $\geq 1.1$  bar @ IPA : Water 60 : 40
- Diffusion Flow (DF) CFPPT0020Y  $\leq 16$  ml / min @ 1035 mbar  
CFPPT0020S  $\leq 24$  ml / min @ 1035 mbar
- Water Intrusion (WIT) CFPPT0020Y  $\leq 0.38$  ml / min @ 2500 mbar  
CFPPT0020S  $\leq 0.75$  ml / min @ 2500 mbar

## Material of Constructions

- Membranes:
- Support/Drainage:
- Cage/ Core/ Endcap:
- O-ring:

Inherently hydrophobic PTFE  
 Oxidation resistant PP  
 Oxidation resistant PP  
 Please refer to ordering information

## Performance

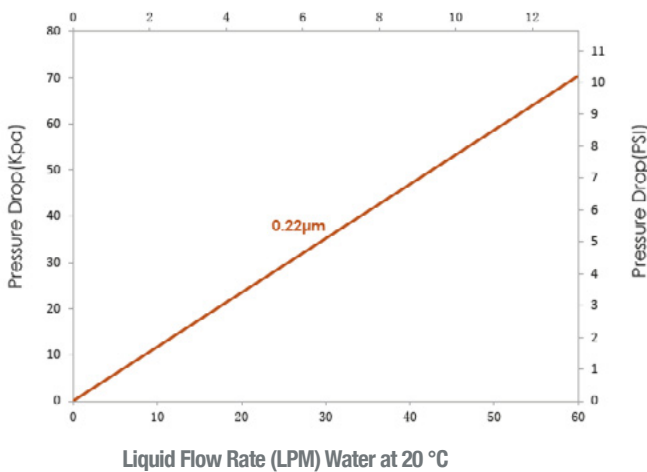
Maximum operating temperature  
 Maximum differential pressure

80 °C  
 2.4 bar @ 80 °C  
 5.2 bar @ 20 °C

## Sterilization

- Inline Steam Sterilization: 135 °C / 30 min, 150 cycles
- Maximum Forward Steam Sterilization: 1 bar @ 125 °C, 0.3 bar @ 142 °C
- Maximum Reverse Steam Sterilization: 0.5 bar @ 125 °C, 0.2 bar @ 142 °C

Flow Rate CFPPT0020S10 (ster grade / size 10")  
 Liquid Flow Rate (GPM) Water at 20 °C  
 wetted membrane IPA 60/40



## Quality

- Filter cartridges are manufactured in a clean room environment
- Manufactured according to ISO9001:2015 certified Quality Management System
- Material of construction comply with FDA regulations for food and beverage contact use as detailed in the US Code of Federal Regulations 21 CFR
- 100% integrity tested
- Each individual element is tracked by serial number

Eg.=>CFPPT0020S050AH1PSY0

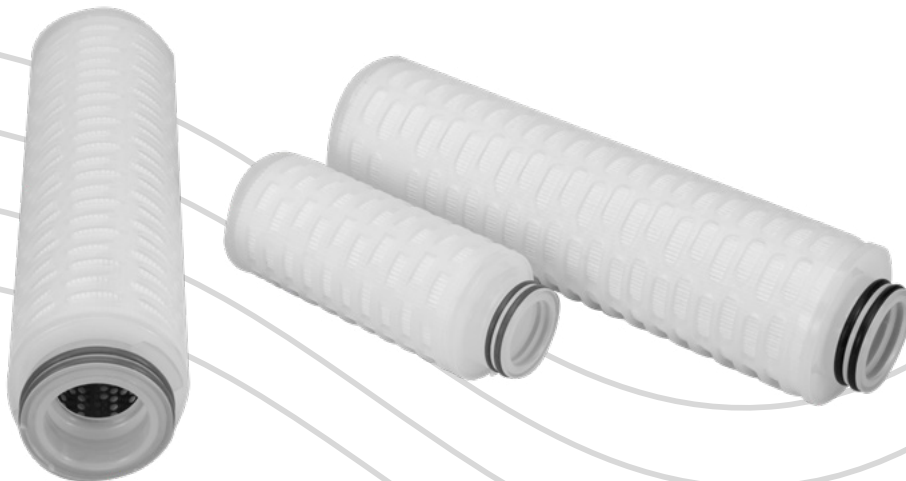
### ORDERING INFORMATION

Product Type	Membrane Type	Membrane pore size	Application	Size	Diameter	Endcap	Inner Core	Sealing Material	Connection Support	Revision
CFP = Pleated Cartridge	PT = PTFE phobic	0020 = 0.2µm	S = Ster Grade Y = P Ster Gr	05 = 5" 10 = 10" 20 = 20" 30 = 30" 40 = 40"	0A = OD:69 mm	H1 = 222/Fin H2 = 222/Flat G1 = 226/Fin G2 = 226/Flat	P = Polypro U = SUS Steel	S = Silicone E = EPDM V = Viton	Y = SS reinforced P = PSU reinforced (Endcap: G1,G2, only)	0 = Rev.0

# CFP series Hydrophobic PTFE membrane

## High-Temperature Sterilizing grade Hydrophobic PTFE Pleated Filter Cartridges

CFP series Hydrophobic PTFE membrane High-Temperature Sterilizing grade Pleated Filter Cartridges can ensure the sterilizing performance in different humidity environment. The oxidation resistant PP components offer superior oxidation and high temperature resistance, reinforced core makes the filter cartridge higher pressure resistance, withstand in-line steam sterilization and autoclave, it is suitable for fermentation, pharmaceutical and other biotechnology applications.



### Features

- Inherently hydrophobic PTFE membranes
- High temperature resistance
- Oxidation resistant hardware
- High-flow and low pressure drop
- Enhanced steaming resistance
- 100% Integrity tested

### Applications

- Process venting
- Compressed air
- Gas purification
- Fermentation feed air

### Dimension

Out Diameter

2.72" (69mm)

Length

5" (125mm) / 10" (254mm)

20" (500mm) 30" (750mm)

40" (1000mm)

### Integrity Test Parameters

- Diffusion Flow (DF)
- Water Intrusion (WIT)

$\leq 20$  ml/min @ 1035 mbar (60/40 IPA/Water)

CFPPT0022U  $\leq 0.38$  ml/min @ 2500 mbar

CFPPT0022T  $\leq 0.75$ ml/min @ 2500 mbar

## Material of Constructions

- Media
- Support
- Cage/End Cap
- Core
- Adapter

PTFE  
 PP/PET  
 High temperature resistance PP  
 High temperature resistance PP/SS  
 PP with insert

## Pore Size

Gas  
 Liquid

0.01 µm  
 0.2 µm

## Performance

- Max Operating Temperature
- Max Operating DP

100 °C  
 5.2 bar @ 20 °C  
 2.4 bar @ 80 °C

## Sterilization

- Inline Steam Sterilization
- Maximum Forward Steam Sterilization
- Maximum Reverse Steam Sterilization

135 °C / 30 min, 150 cycles dimension  
 1 bar @ 135 °C  
 0.3 bar @ 142 °C  
 0.5 bar @ 125 °C  
 0.2 bar @ 142 °C

## Quality

- Filter cartridges are manufactured in a clean room environment
- Manufactured according to ISO9001:2015 certified Quality Management System
- Materials of construction comply with FDA regulations for food and beverage contact use as detailed in the US Code of Federal Regulations 21 CFR
- 100% Integrity Tested
- Each individual element is tracked by serial number

Eg.=> CFPPT0022T050AH1PSY0

ORDERING INFORMATION										
Product Type	Membrane Type	Membrane pore size	Application	Size	Diameter	Endcap	Inner Core	Sealing Material	Connection Support	Revision
CFP = Pleated Cartridge	PT = PTFE phobic	0022 = 0.22µm	T = HT Ster Gr U = HT P Ste Gr	05 = 5" 10 = 10" 20 = 20" 30 = 30" 40 = 40"	0A = OD:69 mm	H1 = 222/Fin H2 = 222/Flat G1 = 226/Fin G2 = 226/Flat	P = Polypro U = SUS Steel	S = Silicone E = EPDM V = Viton	Y = SS reinforced P = PSU reinforced (Endcap: G1, G2, only)	0 = Rev.0



# CFP series Hydrophobic PTFE membrane

## Absolute Rated Hydrophobic PTFE

### All Fluoropolymer Pleated Filter Cartridges

CFP series Absolute Rated Hydrophobic PTFE membrane, All Fluoropolymer Pleated Filter Cartridges are constructed PTFE support netting, and ultra-pure PFA hardware. This presents a filter cartridge with excellent chemical compatibility corrosion resistance, and low extractions to ensure high efficiency filtration and long service life with chemicals.



### Features

- Excellent chemical compatibility
- High flow rate, low pressure loss, long service life
- 100% integrity tested

### Applications

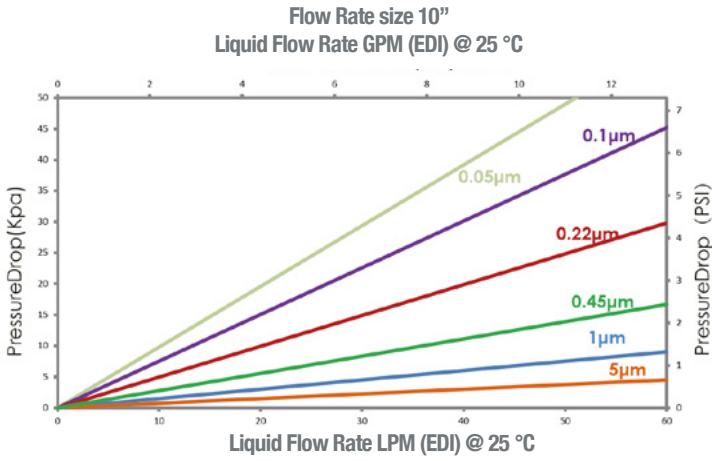
- Pharmaceutical products
- Fine chemicals
- Microelectronics fluids

### Dimension

- Outer Diameter  
2.72" (69 mm)  
3.3" (83 mm) Only 10 inch is available
- Length  
10"/20"/30"/40"
- Filtration Area:  
H100A = H / 10" / OD:69mm = 0.9 m<sup>2</sup>      H100H = H / 10" / OD:83mm = 1.51 m<sup>2</sup>
- Premier Filtration Area  
K100A = K / 10" / OD:69mm = 1.12 m<sup>2</sup>      K100H = K / 10" / OD:83mm = 1.63 m<sup>2</sup>

### Material of Constructions

- Media  
Hydrophobic PTFE membrane
- Support Netting  
PFA/PTFE
- Cage/Core/End Cap  
PFA
- Seal Material  
E-FKM

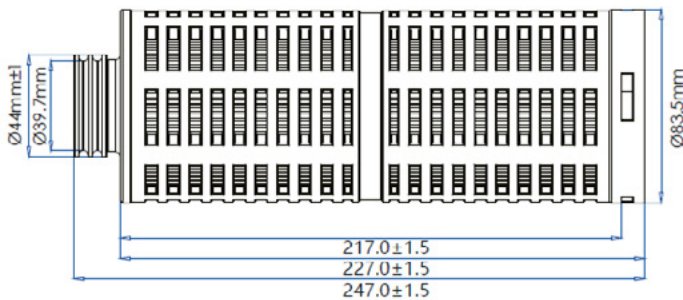
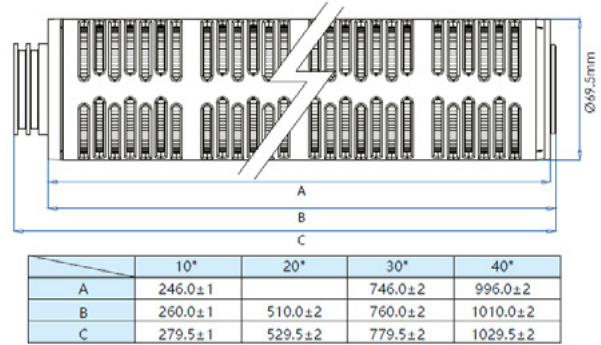
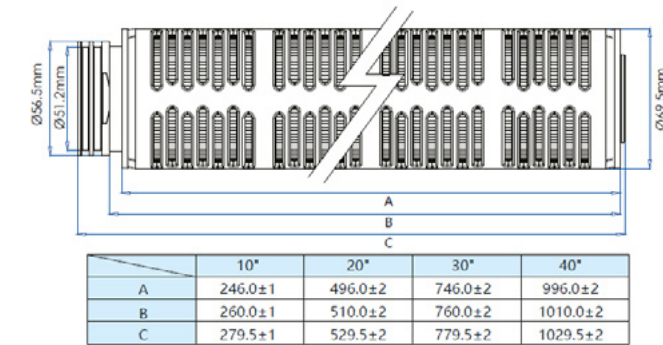


## Performance

- Max Operating Temperature 160 °C
- Max Operating DP 5.0 bar @ 20 °C  
2.0 bar @ 120 °C
- SIP 135 °C / 30 min

## Quality

- Filter cartridges are manufactured in a clean room environment
- Manufactured according to ISO9001:2015 certified
- Quality Management System



Eg.=> CFPPT0005H100AH2FFS2

### ORDERING INFORMATION

Product Type	Membrane Type	Membrane pore size	Application	Size	Diameter	Endcap	Inner Core	Sealing Material	Connection Support	Revision
CFP = Pleated Cartridge	PT = PTFE phobic	0005 = 0.05µm	H = High Chem	10 = 10"	0A = OD:69 mm	H2 = 222/Flat	F = PFA	F = E-FKM	S= Standard	2 = Prewet
		0010 = 0.1µm	K = P High Chem	20 = 20"	0H = OD:83mm (Size: 10, only)	G2 = 226/Flat				3 = No-Prewet
		0020 = 0.20µm		30 = 30"						5 = H.CL Prew
		0045 = 0.45µm		40 = 40"						6 = H.CL No-Prew
		0100 = 1µm								
		0500 = 5µm								

# CFP series Nylon membrane

# CFP series Nylon membrane

## General Applications NY Pleated Filter Cartridges

CFP series Nylon membrane General Applications Pleated Filter Cartridges are naturally hydrophilic due to polyamides filter media. This filter media has a high porosity and uniform pore size distribution, giving to series products high flow rate, high retention ability and long service life.



### Features

- Naturally hydrophilic, no need for pre-wetting
- High flow rate, low DP and long service life
- Excellent integrity provides good particle removal and sterilization efficiency
- Non-contact welding adopted, no adhesives, low extractables
- Excellent chemical compactivity
- Tolerance for in-line steam sterilization
- Gross integrity

### Applications

- Large volume parenterals (LVP) injections and antibiotic filtration
- Physiological saline solution and other solvents filtration of microorganism removal
- Pure Water and water-based filtration of microorganism removal

### Dimension

Out Diameter	2,72" (69 mm)
Length	5" (125 mm), 10" (254 mm) 20" (500 mm), 30" (750 mm) 40" (1000 mm)

### Quality

- Filter Cartridges are manufactured in a clean room environment
- Manufactured according to ISO9001:2015 certified Quality Management System

## Food Contact Compliance

- Materials of construction comply with FDA regulations for food and beverage contact use as detailed in the US Code of Federal Regulations 21 CFR.
- Materials used to produce filter media and hardware meet the specifications for biological safety per USP Class VI-121C for plastics.
- Filter cartridges passed European Commission Directives (EU10/2011)
- Halal Certified

## Material of Constructions

Filter medium	Nylon N66
Support/Drainage	PET
Cage/Core	Polypropylene
Endcap	Polypropylene and Insert

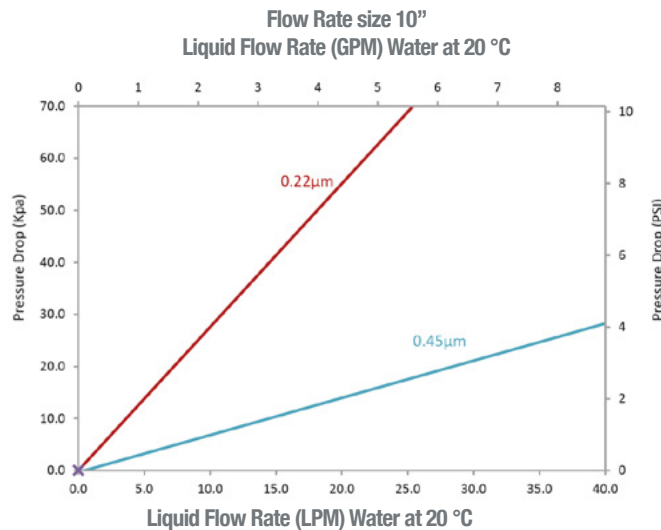
## Performance

- Max Operating Temperature 80 °C
- Max Operating DP Forward 4.0 bar @ 25 °C  
Forward 2.4 bar @ 80 °C

- SIP 125 °C , 30min

## Guarantees

- Manufactured in 100,000-class clean room environment
- Manufactured according to ISO9001:2015 certified quality management system
- Meets USP Biological Reactivity Test Requirements of the current USP <88> for plastic class VI
- Extractables per 10 inch < 25 mg



Eg.=> CFPNY0010G050AD0PSS0

### ORDERING INFORMATION

Product Type	Membrane type	Membrane pore size	Application	Size	Diameter	Endcap	Inner Core	Sealing Material	Connection Support	Revision			
CFP = Pleated Cartridge	NY = Nylon	0010 = 0.1µm	G = Gen Purpose	05 = 5"	0A = OD:69 mm	D0 = DOE	P = Polypro	S = Silicone	S= Standard (Endcap: D0, only)	0 = Rev.0			
		0022 = 0.22µm		10 = 10"		H1 = 222/Fin					S = SS Steel	E = EPDM	Y = SS reinforced (Endcap: D0, excluded)
		0045 = 0.45µm		20 = 20"		H2 = 222/Flat						B = NBR	P = PSU reinforced (Endcap: G1, G2, only)
		0120 = 1.2µm		30 = 30"		G1 = 226/Fin						V = Viton	
				40 = 40"		G2 = 226/Flat						K = FKM	
										F = E-FKM			

# CFP Series - Glass Fiber media

# CFP Series - Glass Fiber Media

## General Applications Glass Fiber Pleated Filter Cartridges

The CFP series General Applications Glass Fiber (GF) Pleated Filter cartridges are highly efficient, good for the pre-filtration of gas and vent, and can be effectively used in a variety of industrial applications. The cartridge offers a large surface area for high flow rates and high dirt holding capacity, also reduces labor costs with less changing of the filters.



### Features

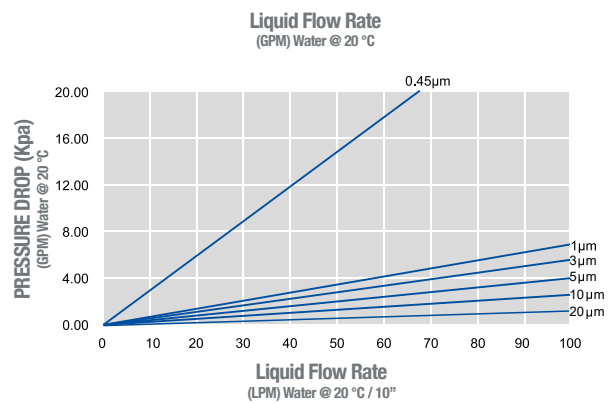
- Low pressure drops and high flow rates
- High filtration efficiency, up to 96%
- Excellent chemical compatibility
- High dirt holding capacity and long service life

### Applications

- Food & Beverage
- Chemicals & Oil
- Pharmaceutical
- Process Water Treatment
- Pre-filtration of vent & gas

### Dimension

Diameter	69 mm
Length	5", 10", 20", 30", 40"



### Food Contact Compliance

- Materials of construction comply with FDA regulations for food and beverage contact use as detailed in the US Code of Federal Regulations 21CFR
- Materials used to produce filter media and hardware meet the specifications for biological safety per USP Class VI-121 °C for plastics
- Filter cartridges passed European Commission Directives (EU10/2011)
- Halal Certified

## Material of Constructions

- Media GF
- Support PP
- Core/Cage/End Cap PP
- Seal Material Silicone, EPDM, NBR, FKM, E-FKM

## Performance

### Operating Conditions

- Max. Operating Temperature 80 °C
- Max. Operating DP 4.0 Bar @ 20 °C
- 2.4 Bar @ 80 °C

## Quality

- Filter Cartridges are manufactured in a clean room environment
- Manufactured according to ISO9001:2015 certified Quality Management System

Eg.=> CFPGF0045G050AD0PSS0

ORDERING INFORMATION										
Product Type	Membrane Type	Membrane pore size	Application	Size	Diameter	Endcap	Inner Core	Sealing Material	Connection Support	Revision
CFP = Pleated Cartridge Filter	GF = Glass Fiber	0045 = 0.45µm	G = Gen Purpose	05 = 5"	0A = OD:69 mm	D0 = DOE	P = Polypro	S = Silicone	S= Standard	0 = Rev.0
		0100 = 1µm		10 = 10"		E2 = 213/Flat	S = SS Steel	E = EPDM		
		0300 = 3µm		20 = 20"		H1 = 222/Fin		B = NBR	Y = SS reinforcement (Endcap D0, E2, H1, H2, excluded)	
		0500 = 5µm		30 = 30"		H2 = 222/Flat		V = Viton		
		1000 = 10µm		40 = 40"		H5 = 222/Spear Fin		F = E-FKM	P = PSU reinforcement (Endcap G1, G2, only)	
		2000 = 20µm				K1 = 222 Ext/Fin				
						K2 = 222 Ext/Flat				
						G1 = 226/Fin				
						G2 = 226/Flat				
						G5 = 226/Spear Fin				



# CARTFLOW



# CFP Series - Glass Fiber media

## High Performance Glass Fiber Pleated Filter Cartridges

The CFP series High Performance Glass Fiber (GF) Pleated Filter cartridges are made of ultra-fine glass fiber. It has a high retention efficiency up to 96% which can effectively protect and prolong service life of terminal sterilization filters. It is widely used in the pre-filtration of gases etc.



### Features

- No fiber releasing, very low leachables
- High flow rates and low pressure drops
- Excellent adsorption performance and high filtration efficiency
- All components comply with FDA regulations
- 100% integrity tested

### Applications

- Remove particles in compressed gas, oil etc.
- Pre-filtration of gases in fermentation

### Dimension

Diameter	69 mm
Length	5", 10", 20", 30", 40"

### Food Contact Compliance

- Materials of construction comply with FDA regulations for food and beverage contact use as detailed in the US Code of Federal Regulations 21CFR
- Materials used to produce filter media and hardware meet the specifications for biological safety per USP Class VI-121 °C for plastics
- Filter cartridges passed European Commission Directives (EU10/2011)
- Halal Certified

## Material of Constructions

- Media GF
- Support PP
- Cage/Core/End PP
- O-Ring Silicone, EPDM, NBR, FKM, E-FKM

## Quality

- Filter Cartridges are manufactured in a clean room environment
- Manufactured according to ISO9001:2015 certified Quality Management System
- 100% integrity test

## Performance

### Operating Conditions

Max Operating Temperature	80 °C
Max. Operating DP	4.0 bar @ 20 °C
	2.4 bar @ 80 °C

### Sterilization

Autoclave Sterilization	121 °C , 60 min
-------------------------	-----------------

### Filtration Area

Ø 69mm	0.45 m <sup>2</sup> /10" Filter cartridges
--------	--------------------------------------------

### Extractables

10" Filter Cartridges	< 20 mg
-----------------------	---------

Eg.=> CFPGF0010P50AD0PSS0

ORDERING INFORMATION										
Product Type	Membrane Type	Removal Rating	Application	Size	Diameter	Endcap	Inner Core	Sealing Material	Connection Support	Revision
CFP = Pleated Cartridge	GF = Glass Fiber	0010=0.1µm	P = Premier	5 = 5"	0A = OD:69 mm	D0 = DOE	P = PP Core	S = Silicone	S = Standard	0 = Rev.0
		0030=0.3µm		10 = 10"		E2 = 213/Flat	S = SS Core	E = EPDM		
		0050=0.5µm		20 = 20"		H1 = 222/Fin		B = NBR	Y = SS reinforcement (Endcap D0, E2, H1, H2, excluded)	
				30 = 30"		H2 = 222/Flat		V = FKM		
				40 = 40"		H5 = 222/Spear Fin		F = E-FKM		
						K1 = 222 Ext/Fin			P = PSU reinforcement (Endcap G1, G2, only)	
						K2 = 222 Ext/Flat				
						G1 = 226/Fin				
						G2 = 226/Flat				
						G2 = 226/Flat				

# CFW series PP/Cotton/GF String Wound

# CFW series PP/Cotton/GF String Wound High Dirt Filter Cartridges

CFW Series String Wound Filter Cartridges are manufactured of structured loose outer layers and tight inner layers to offer true depth filtration for high dirt holding capacity and extremely low media migration. The main advantage of the string wound filter cartridge is its exceptionally high structural strength. Therefore, they can withstand higher PSID and severe operating conditions. The economical design makes the cartridges of greater superiority in cost-saving.



## Features

- Broad chemical compatibility
- Many different combinations of filter materials and pore sizes
- String Wound depth filter cartridge
- High dirt holding capacity
- Economical design

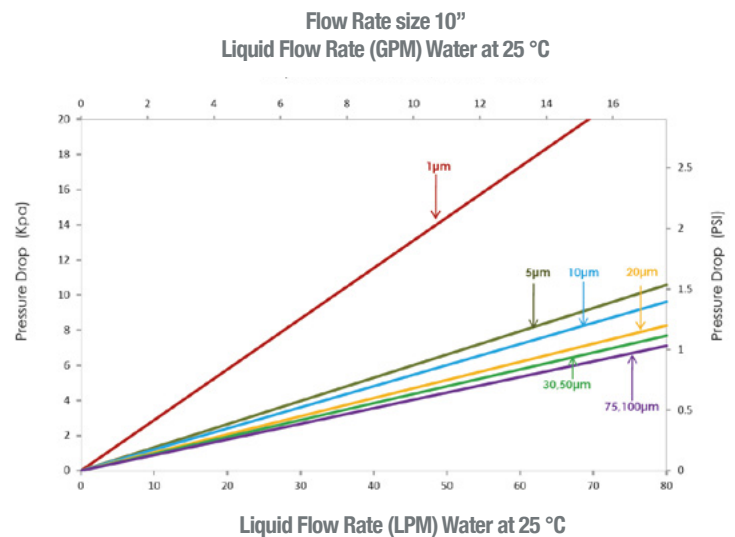
## Applications

- Consumer Products
- Food and Beverage
- Drinking Water
- Pharmaceutical
- Edible Oil
- Inks & Paints
- Photographic
- Plating Solutions
- Petrochemicals
- Waste Water
- Chemicals
- Oil

## Dimension

Out Diameter  
Inner Diameter  
Length

63 mm ( 2.5" ) , 115 mm ( 4.5" )  
28 mm  
9.87", 10", 20", 30", 40"



Particle Removal Efficiency		
Membrane pore size identification	85% efficiency	95% efficiency
CFW 0100	1	----
CFW 0500	5	----
CFW 1000	10	----
CFW 2000	----	20
CFW 3000	----	30
CFW 5000	----	50
CFW 7500	----	75
CFW 10000	----	100



## Material of Constructions

- Media
- Inner Core

PP, Bleached Cotton, Glass Fiber  
 Fiber  
 PP, SS

## Performance

- Max. operating temperature
- Max. pressure drop

PP: 80 °C  
 Cotton: 120 °C  
 Glass Fiber: 200 °C

2.0 bar @ 25 °C

Eg.=> CFWCW0100D98MD0P0S0

ORDERING INFORMATION										
Product Type	Membrane Type	Membrane pore size	Application	Size	Diameter	Endcap	Inner Core	Sealing Material	Connection Support	Revision
CFW = String Wound Cartridge	CW = Cotton S.W.	0010=0.1µm	D = High Dirt	98 = 9.87"	0M = OD:63 mm	F = DOE	P = Polypro	O = No seal Mat	S= Standard	0 = Rev.0
	PW = Polypro S.W.	0030=0.3µm		10 = 10"	0L = OD:115 mm	M = 222 / Flat	S = SS Steel	S = Silicone		
	GW = Glass Fiber S.W.	0050=0.5µm		20 = 20"		T = 226 / Flat		E = EPDM		
				30 = 30"		P = 222 / Fin		B = NBR		
				40 = 40"		Q = 226 / Fin		V = Viton		
						H = 213 / Flat				
						E = 222 Extended / Fin				
						N = 222 Extended / Flat				
						W = 222 Spear Fin				

# CFM series PP Melt Blown

# CFM series PP Melt Blown PP

## Melt Blown Standard Filter Cartridges

CFM series PP Melt Blown Standard Filter Cartridges are fused and intertwined with polypropylene resin without any chemical glues. The cartridge is glued at random to form 3D micro pores which will make the cartridge's 3 layers with fibers on the surface and inside. With the fiber, density from high filtration rating, strong pollutants hold capacity, low pressure drop, gradual changing structure loose outside and close inside, it can remove contaminant effectively, -such as suspended substance, particulate and rust, providing efficient filtration and long service life.



### Applications

- R.O. Pre-filtration
- Food and Beverage
- Industry Water, Plating Solution
- Chemical, Organic Solvent Filtration
- Microelectronics
- Pharmaceuticals

Membrane pore size identification	Particle Removal Efficiency	
	85% efficiency	90% efficiency
1	1	----
3	3	----
5	5	----
10	----	10
25	----	25
50	----	50
75	----	75
100	----	100



## Material of Constructions

- Media
- End Cap
- Sealing
- Core

PP  
 PP  
 Silicone, EPDM, NBR, Viton®  
 PP

## Dimension

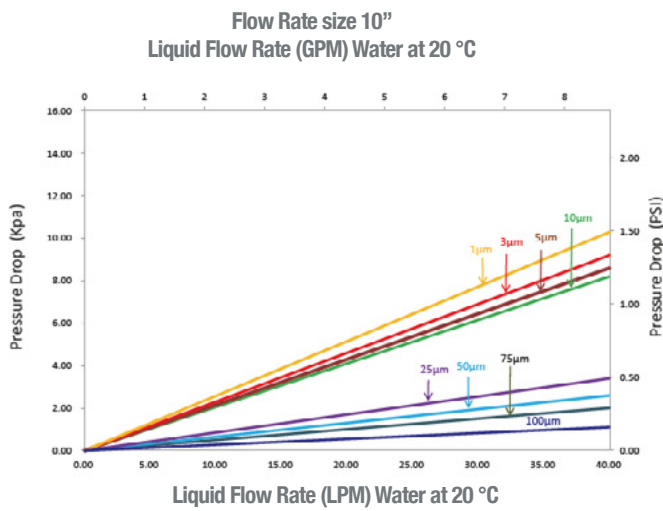
Out Diameter  
 Inner Diameter  
 Length

63 mm ( 2.5" ) , 115 mm ( 4.5" )  
 28 mm  
 9,87", 10", 20", 30", 40"

## Performance

- Max Operating Temperature
- Max Operating DP

65 °C  
 2.0 bar @ 21 °C



Tested and certified by NSF international to NSF/ANSI 42 for material requirement only.

Eg. => CFMPP0100G97ZBD4X7X0

### ORDERING INFORMATION

Product Type	Membrane type	Membrane pore size	Application	Size	Diameter	Endcap	Inner Core	Sealing Material	Connection Support	Revision
CFM = Meltblown Cartridge	PP = Polypro,	0100 = 1µm	G = Gen Purpose	97 = 9.75"	ZB = 28/63mm	D4 = DOE no Endcap	X = No core	O = No seal mat	X = No supp	0 = Rev.0
		0300 = 3µm		98 = 9.87"	ZD = 28/115mm	D5 = DOE PE gasket	P = Polypro	B = NBR		
		0500 = 5µm		10 = 10"		H1 = 222/Fin		E = EPDM		
		1000 = 10µm		20 = 20"		H2 = 222/Flat		V = Viton		
		2500 = 25µm		30 = 30"		G1 = 226/Fin				
		5000 = 50µm		40 = 40"		G2 = 226/Flat				
		7500 = 75µm								
		X100 = 100µm								

# CFM series PP Melt Blown

## PP Melt Blown Deep Groove Filter Cartridges

CFM series PP Melt Deep Groove Filter Cartridges are fused and intertwined with polypropylene resin without any chemical glues. The cartridge is glued at random to form 3D micro pores which will make the cartridge's 3 layers with fibers on the surface and inside. With the fiber, density from high filtration rating, strong pollutants hold capacity, low pressure drop, gradual changing structure loose outside and close inside, it can remove contaminant effectively, -such as suspended substance, particulate and rust, providing efficient filtration and long service life.



### Applications

- R.O. Pre-filtration
- Food and Beverage
- Industry Water, Plating Solution
- Chemical, Organic Solvent Filtration
- Microelectronics
- Pharmaceuticals

### Dimensions

- Outer Diameter 63 mm , 115 mm
- Inner Diameter 28 mm
- Length 9.75", 9.87", 10", 20", 30", 40"

### Material of Constructions

Media	PP
End Cap	PP
Sealing	Silicone, EPDM, NBR, Viton®
Core	PP

# Performance

- Max Operating Temperature
- Max Operating DP

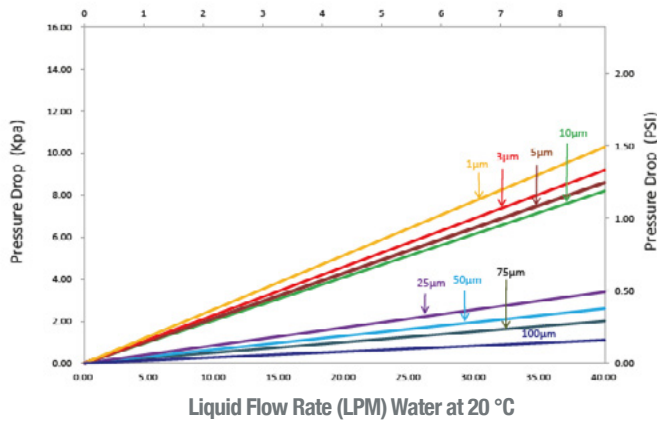
65 °C  
2.0 bar @ 21 °C

Particle Removal Efficiency		
Membrane pore size identification	85% efficiency	90% efficiency
1	1	----
3	3	----
5	5	----
10	----	10
25	----	25
50	----	50
75	----	75
100	----	100



Tested and certified by NSF international to NSF/ANSI 42 for material requirement only.

Flow Rate Per 10"  
Liquid Flow Rate (GPM) Water at 20 °C



Eg.=> CFMPP0100E97ZBD4X7X0

## ORDERING INFORMATION

Product Type	Membrane Type	Membrane pore size	Application	Size	Diameter	Endcap	Inner Core	Sealing Material	Connection Support	Revision
CFM = Meltblown Cartridge	PP = Polypro	0100 = 1µm	E = Deep Gr	97 = 9.75"	ZB = 28/63mm	D4 = DOE No Endcap	X = No core	O = No seal mat	X = No supp	0 = Rev.0
		0300 = 3µm		98 = 9.87"	ZD = 28/115mm	D5 = DOE PE gasket	P = Polypro	B = NBR		
		0500 = 5µm		10 = 10"		H1 = 222/Fin		E = EPDM		
		1000 = 10µm		20 = 20"		H2 = 222/Flat		V = Viton		
		2500 = 25µm		30 = 30"		G1 = 226/Fin				
		5000 = 50µm		40 = 40"		G2 = 226/Flat				
		7500 = 75µm								
		X100 = 100µm								

# HOUSFLOW



# HOUSFLOW

## CHR Series - Stainless steel filter Housing

GVS stainless steel filter housings are designed for filtration of gas, liquid and steam filtration. The top of the housing is equipped with a Clamp connection for ancillary equipment such as pressure relief valves or pressure gauges. The lowest point of the housings are equipped with pharma valves or vent/drain connections. Filter housings are designed to yield low differential pressure at high flow rates.

Gas and steam series filter housings have been developed for the purification of compressed air, steam and other technical gases in industrial ranges of application. Due to the optimized construction they offer low differential pressure at high flow rates. Numerous different sizes of housings with various connections make it possible to adopt the filter system to exactly the needed requirements.

Liquid series filters are used in the filtration of liquid materials in the pharmaceutical, food and beverage, chemical, microelectronics and other industries. Filter housings are available in many different sizes, offering a wide range of capacity depending on element selection.



### Typical Application



Pharmaceutical Industry



Food & Beverage



Chemical Industry

## Features and Benefits

- High quality stainless steel design
- Extremely low differential pressure
- Various connection types
- Different structures are suitable for filtration systems with different media such as gas, liquid and steam
- Full traceability to each filter with unique serial number

## Material of Constructions

Filter Housing:

Attachment Parts:

Housing Gasket:

316L SS or 304 SS

316L SS or 304 SS

Silicone, PTFE, Viton  
(other gaskets on request)

## Surface Finish

Inner Surface Finish:

Outer Surface Finish:

Ra < 0.4  $\mu\text{m}$

Ra < 0.8  $\mu\text{m}$

## Operating Conditions

Maximum operating temperature

Up to 200 °C depending  
on filter element selection  
and gasket material

Maximum operating pressure

10 bar (some products  
are 16 bar)

## Connection Types

Union Connection

Ferrule Connection

BSP thread connection

DIN flange

Welded ends

For more informations consult the **HOUSFLOW** catalog

# APPENDIX

# CARTFLOW DIMENSIONS

## Pleated cartridge membrane: PES, PSU, PTFE, Nylon

Endcap

Connection support

Endcap

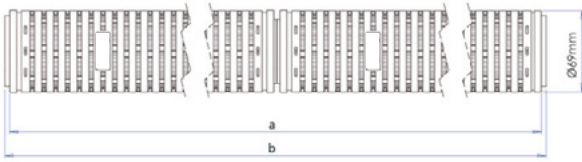
Connection support

DOE

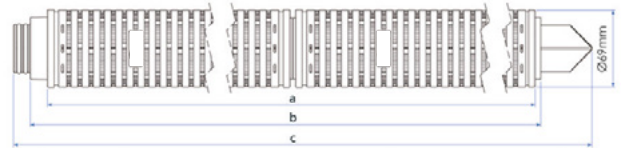
Standard

222/ Spear Fin

SS Reinforced



	5°	10°	20°	30°	40°
a	117.0±1	246.0±1	492.0±2	742.0±2	992.0±2
b	125.0±1	254.0±1	500.0±2	750.0±2	1000.0±2



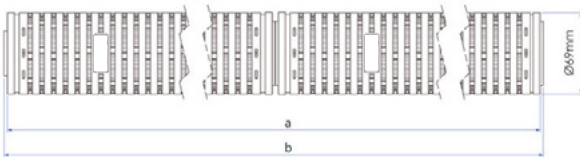
	5°	10°	20°	30°	40°
a	114.0±1	243.0±1	489.0±2	739.0±2	989.0±2
b	135.0±1	264.0±1	510.0±2	760.0±2	1010.0±2
c	196.0±1	325.0±1	571.0±2	821.0±2	1071.0±2

213/ Flat

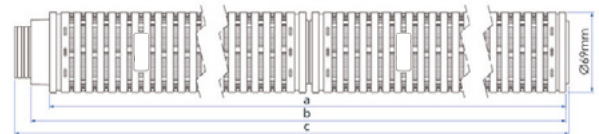
Standard

222 Extended/ Flat

Standard



	5°	10°	20°	30°	40°
a	115.0±1	245.0±1	495.0±2	745.0±2	995.0±2
b	120.0±1	250.0±1	500.0±2	750.0±2	1000.0±2



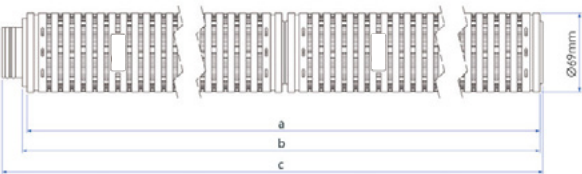
	5°	10°	20°	30°	40°
a	114.0±1	244.0±1	494.0±2	744.0±2	994.0±2
b	130.0±1	260.0±1	510.0±2	760.0±2	1010.0±2
c	146.5±1	276.5±1	526.5±2	776.5±2	1026.5±2

222/ Flat

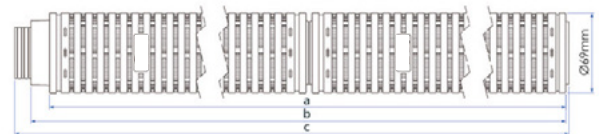
Standard

222 Extended/ Flat

SS Reinforced



	5°	10°	20°	30°	40°
a	116.0±1	246.0±1	496.0±2	746.0±2	996.0±2
b	120.0±1	250.0±1	500.0±2	750.0±2	1000.0±2
c	140.0±1	270.0±1	520.0±2	770.0±2	1020.0±2



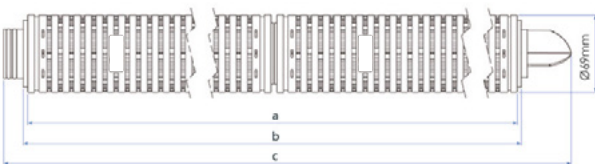
	5°	10°	20°	30°	40°
a	114.0±1	244.0±1	494.0±2	744.0±2	994.0±2
b	130.0±1	260.0±1	510.0±2	760.0±2	1010.0±2
c	146.5±1	276.5±1	526.5±2	776.5±2	1026.5±2

222/ Fin

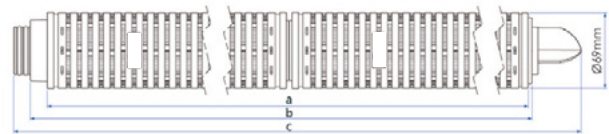
Standard

222 Extended/ Fin

Standard



	5°	10°	20°	30°	40°
a	118.0±1	247.0±1	493.0±2	743.0±2	993.0±2
b	125.0±1	250.0±1	500.0±2	750.0±2	1000.0±2
c	177.5±1	316.5±1	562.5±2	812.5±2	1062.5±2



	5°	10°	20°	30°	40°
a	116.0±1	245.0±1	491.0±2	741.0±2	991.0±2
b	135.0±1	264.0±1	510.0±2	760.0±2	1010.0±2
c	194.5±1	323.5±1	569.5±2	819.5±2	1069.5±2

222/ Spear Fin

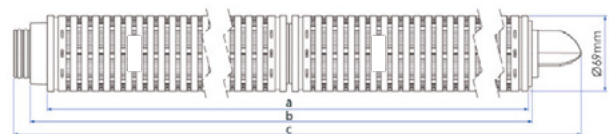
Standard

222 Extended/ Fin

SS Reinforced



	5°	10°	20°	30°	40°
a	116.0±1	245.0±1	491.0±2	741.0±2	991.0±2
b	125.0±1	250.0±1	500.0±2	750.0±2	1000.0±2
c	188.5±1	317.5±1	563.5±2	813.5±2	1063.5±2



	5°	10°	20°	30°	40°
a	116.0±1	245.0±1	491.0±2	741.0±2	991.0±2
b	135.0±1	264.0±1	510.0±2	760.0±2	1010.0±2
c	194.5±1	323.5±1	569.5±2	819.5±2	1069.5±2



# CARTFLOW DIMENSIONS

## Endcap

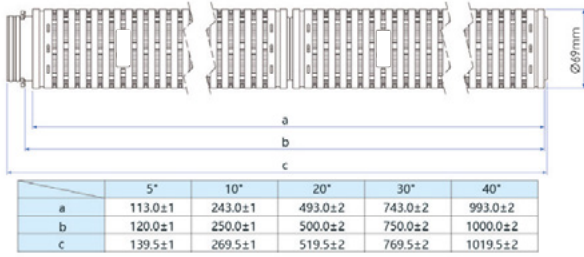
## Connection support

## Endcap

## Connection support

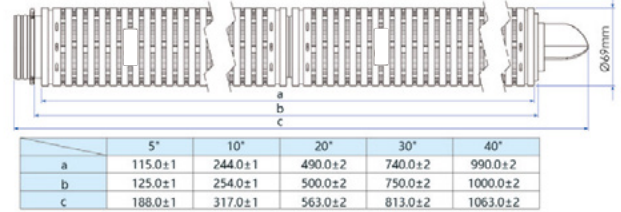
### 226/ Flat

### Standard



### 226/ Fin

### PSU Reinforced

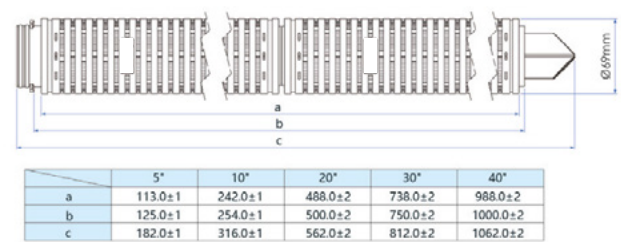
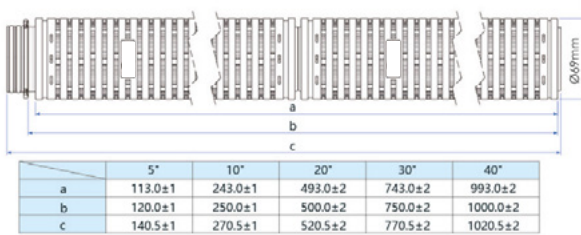


### 226/ Flat

### SS Reinforced

### 226/ Spear Fin

### Standard

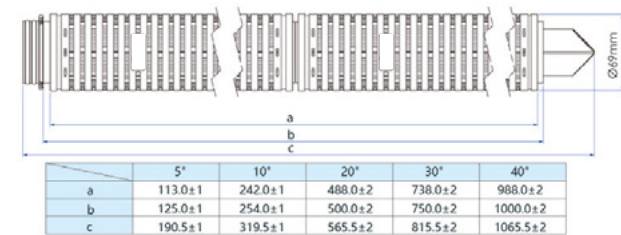
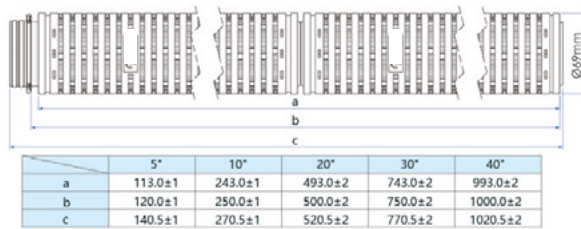


### 226/ Flat

### PSU Reinforced

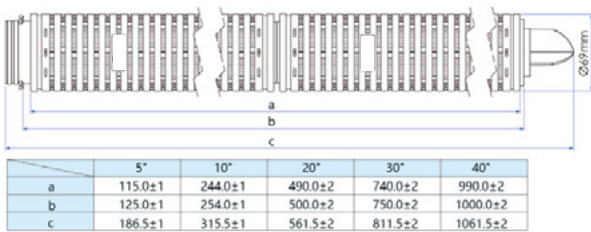
### 226/ Spear Fin

### SS Reinforced



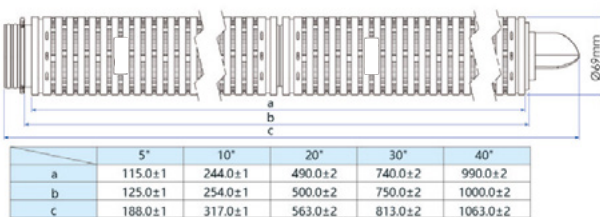
### 226/ Fin

### Standard



### 226/ Fin

### SS Reinforced



# CARTFLOW DIMENSIONS

## Pleated cartridge media: PP

Endcap

Connection support

Endcap

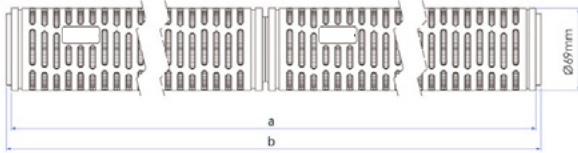
Connection support

DOE

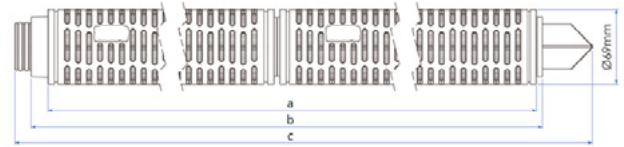
Standard

222/Spear Fin

SS Reinforced



	5°	10°	20°	30°	40°
a	117.0±1	242.0±1	492.0±2	742.0±2	992.0±2
b	125.0±1	250.0±1	500.0±2	750.0±2	1000.0±2



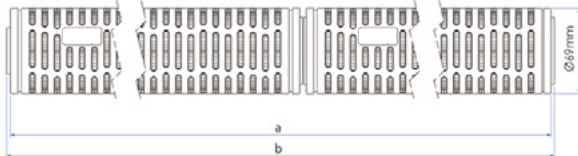
	5°	10°	20°	30°	40°
a	114.0±1	239.0±1	489.0±2	739.0±2	989.0±2
b	135.0±1	260.0±1	510.0±2	760.0±2	1010.0±2
c	196.0±1	321.0±1	571.0±2	821.0±2	1071.0±2

213/ Flat

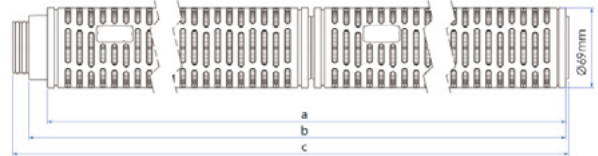
Standard

222 Extended/ Flat

Standard



	5°	10°	20°	30°	40°
a	115.0±1	245.0±1	495.0±2	745.0±2	995.0±2
b	120.0±1	250.0±1	500.0±2	750.0±2	1000.0±2



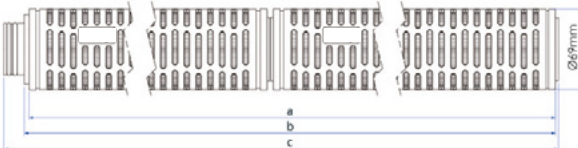
	5°	10°	20°	30°	40°
a	114.0±1	244.0±1	494.0±2	744.0±2	994.0±2
b	130.0±1	260.0±1	510.0±2	760.0±2	1010.0±2
c	146.5±1	276.5±1	526.5±2	776.5±2	1026.5±2

222/ Flat

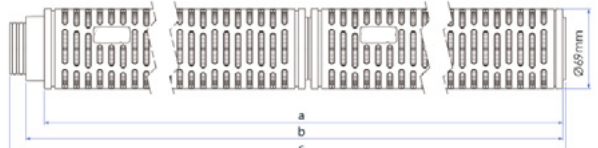
Standard

222 Extended/ Flat

SS Reinforced



	5°	10°	20°	30°	40°
a	116.0±1	246.0±1	496.0±2	746.0±2	996.0±2
b	120.0±1	250.0±1	500.0±2	750.0±2	1000.0±2
c	110.0±1	270.0±1	520.0±2	770.0±2	1020.0±2



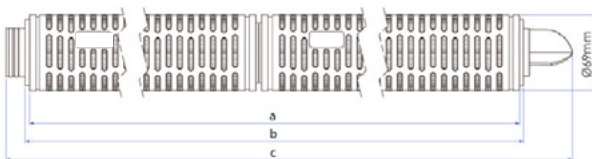
	5°	10°	20°	30°	40°
a	114.0±1	244.0±1	494.0±2	744.0±2	994.0±2
b	130.0±1	260.0±1	510.0±2	760.0±2	1010.0±2
c	146.5±1	276.5±1	526.5±2	776.5±2	1026.5±2

222/ Fin

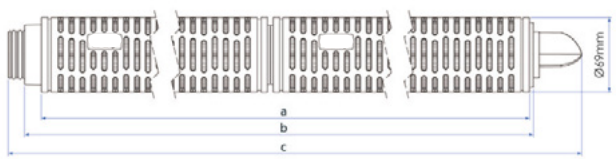
Standard

222 Extended/ Fin

Standard



	5°	10°	20°	30°	40°
a	118.0±1	243.0±1	493.0±2	743.0±2	993.0±2
b	125.0±1	250.0±1	500.0±2	750.0±2	1000.0±2
c	187.5±1	312.5±1	562.5±2	812.5±2	1062.5±2



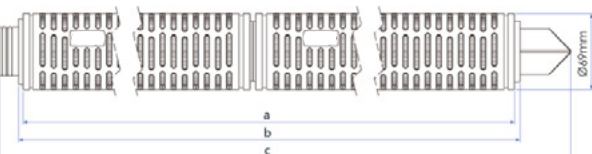
	5°	10°	20°	30°	40°
a	117.0±1	242.0±1	492.0±2	742.0±2	992.0±2
b	135.0±1	260.0±1	510.0±2	760.0±2	1010.0±2
c	194.5±1	319.5±1	569.5±2	819.5±2	1069.5±2

222/ Spear Fin

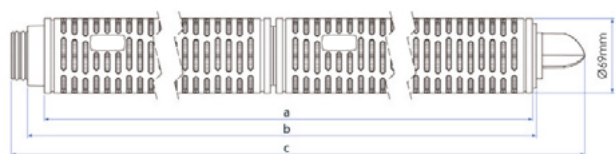
Standard

222 Extended/ Fin

SS Reinforced



	5°	10°	20°	30°	40°
a	116.0±1	241.0±1	491.0±2	741.0±2	991.0±2
b	125.0±1	250.0±1	500.0±2	750.0±2	1000.0±2
c	188.5±1	313.5±1	563.5±2	813.5±2	1063.5±2



	5°	10°	20°	30°	40°
a	117.0±1	242.0±1	492.0±2	742.0±2	992.0±2
b	135.0±1	260.0±1	510.0±2	760.0±2	1010.0±2
c	194.5±1	319.5±1	569.5±2	819.5±2	1069.5±2

# CARTFLOW DIMENSIONS

## Endcap

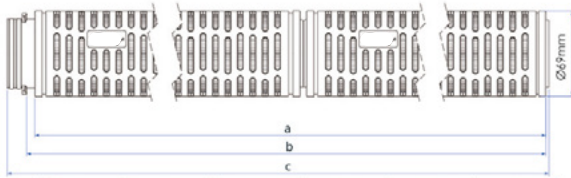
## Connection support

## Endcap

## Connection support

### 226/ Flat

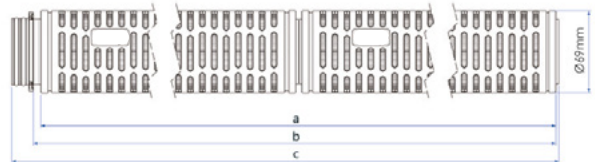
### Standard



	5°	10°	20°	30°	40°
a	113.0±1	243.0±1	493.0±2	743.0±2	993.0±2
b	120.0±1	250.0±1	500.0±2	750.0±2	1000.0±2
c	138.5±1	268.5±1	518.5±2	768.5±2	1018.5±2

### 226/ Fin

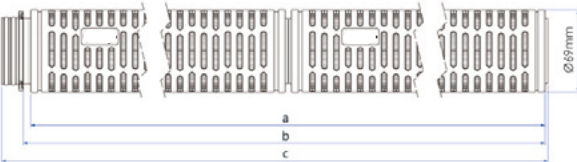
### PSU Reinforced



	5°	10°	20°	30°	40°
a	113.0±1	243.0±1	493.0±2	743.0±2	993.0±2
b	120.0±1	250.0±1	500.0±2	750.0±2	1000.0±2
c	140.5±1	270.5±1	520.5±2	770.5±2	1020.5±2

### 226/ Flat

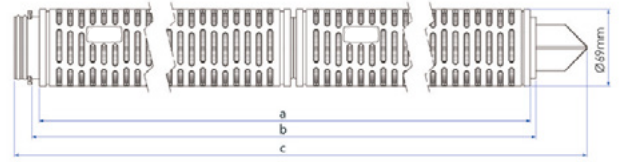
### SS Reinforced



	5°	10°	20°	30°	40°
a	113.0±1	243.0±1	493.0±2	743.0±2	993.0±2
b	120.0±1	250.0±1	500.0±2	750.0±2	1000.0±2
c	140.5±1	270.5±1	520.5±2	770.5±2	1020.5±2

### 226/ Spear Fin

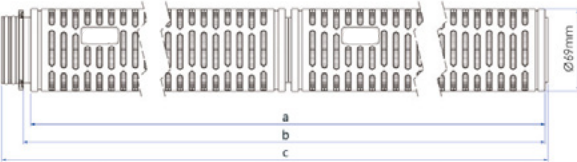
### Standard



	5°	10°	20°	30°	40°
a	113.0±1	238.0±1	488.0±2	738.0±2	988.0±2
b	125.0±1	250.0±1	500.0±2	750.0±2	1000.0±2
c	187.0±1	312.0±1	562.0±2	812.0±2	1062.0±2

### 226/ Flat

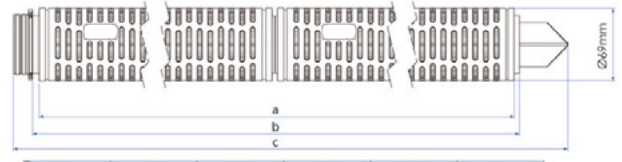
### PSU Reinforced



	5°	10°	20°	30°	40°
a	113.0±1	243.0±1	493.0±2	743.0±2	993.0±2
b	120.0±1	250.0±1	500.0±2	750.0±2	1000.0±2
c	140.5±1	270.5±1	520.5±2	770.5±2	1020.5±2

### 226/ Spear Fin

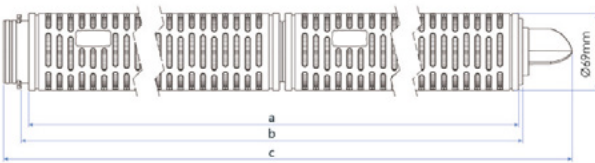
### SS Reinforced



	5°	10°	20°	30°	40°
a	113.0±1	238.0±1	488.0±2	738.0±2	988.0±2
b	125.0±1	250.0±1	500.0±2	750.0±2	1000.0±2
c	189.0±1	318.0±1	564.0±2	814.0±2	1064.0±2

### 226/ Fin

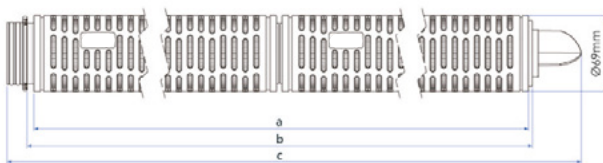
### Standard



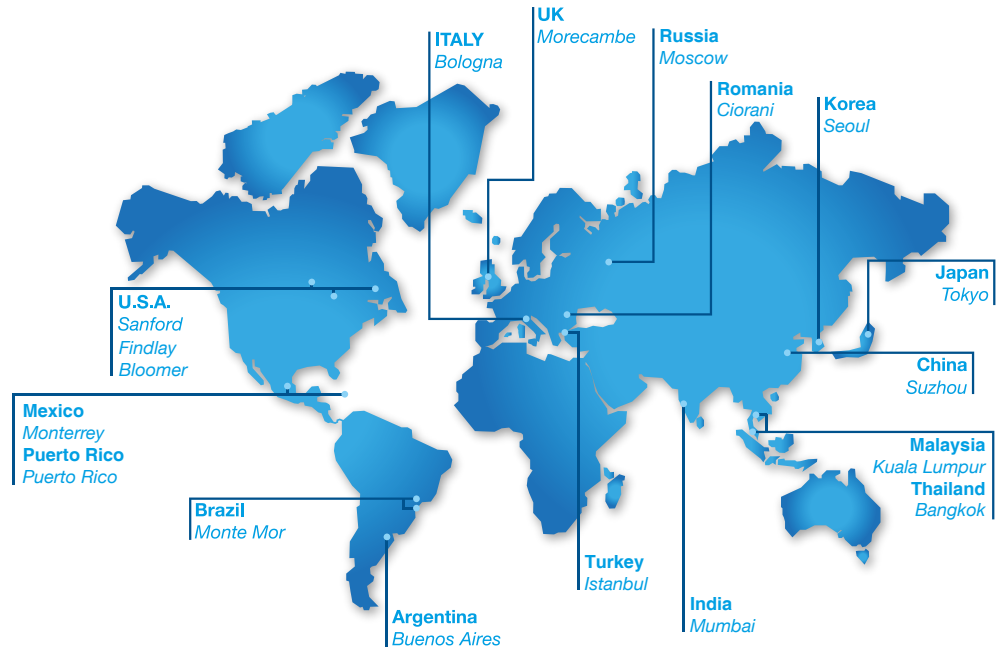
	5°	10°	20°	30°	40°
a	115.0±1	240.0±1	490.0±2	740.0±2	990.0±2
b	125.0±1	250.0±1	500.0±2	750.0±2	1000.0±2
c	185.5±1	310.5±1	560.5±2	810.5±2	1060.5±2

### 226/ Fin

### SS Reinforced



	5°	10°	20°	30°	40°
a	115.0±1	240.0±1	490.0±2	740.0±2	990.0±2
b	125.0±1	250.0±1	500.0±2	750.0±2	1000.0±2
c	188.0±1	313.0±1	563.0±2	813.0±2	1063.0±2



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