



FGE Series are all-polypropylene filter cartridges made of submicron fine fiber filter media which provide smaller pore size. It is fabricated without using any binders, adhesives, plasticizers, and surfactants. FGE filters can be repeatedly hot water sanitized. All the materials used for this filter meet FDA requirements for food contact and pass European Commission Directives (EU10/2011).

Features

- Nominal rated structure, particle removal rating from 0.1 to 50 micron
- Non fiber shedding
- 100% polypropylene components provide broad chemical compatibility, suitable for use in various liquid filtration
- Various end cap configurations to fit into the most standard housings

Applications

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

Dimension

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

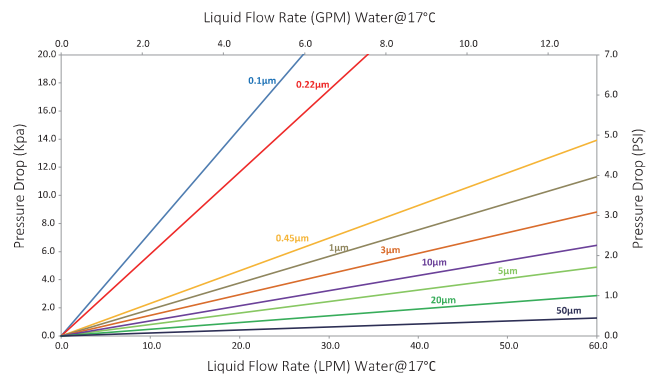
Material of Constructions

Media	PP
Support	PP
Hardware	PP, SS core & adapter insert available
Seal Material Options	Silicone, EPDM, NBR, FKM, E-FKM

Performance

Max. Operating Temperature	80°C (176°F)
Max. Operating DP	4 bar(58psi)@20°C (68°F) 2 bar(29psi)@80°C (176°F)

FGE Flow Rate per 10"



Quality

- 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
- Passed European Commission Directives (EU10/2011)
- Halal Certified

Ordering Information

FGE		0010	K	5	S	P
Removal Rating		End Cap Type		Length	Seal Material	Core
0010=0.1µm	0022=0.22µm	K = 222 (SS Insert) / Fin		5 = 5"	S = Silicone	P = PP
0045=0.45µm	0100=1µm	R = 226 (SS Insert) / Fin		10 = 10"	E = EPDM	S = SUS
0300=3µm	0500=5µm	V = 226 (SS Insert) / Flat		20 = 20"	B = NBR	
1000=10µm	2000=20µm	J = 222 (SS Insert) / Flat		30 = 30"	V = FKM	
5000=50µm		G = 226 (PSU Insert) / Fin		40 = 40"	F = E-FKM	
		I = 226 (PSU Insert) / Flat				



FGF Series Filter Cartridges are absolute 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 FGF 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.

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

Applications

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

Dimension

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

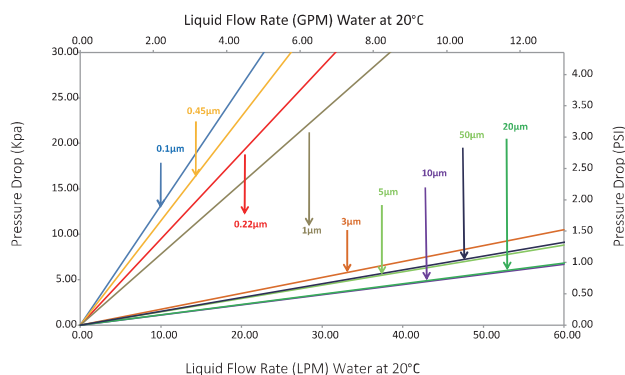
Material of Constructions

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

Performance

Max. Operating Temperature	80°C (176°F)
Max. Operating DP	4 bar(58psi)@20°C (68°F) 2 bar(29psi)@80°C (176°F)

FGF Flow Rate per 10"



Quality

- 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
- Passed European Commission Directives (EU10/2011)
- Halal Certified

Ordering Information

FGF		0010	F	5	S	P
Removal Rating		End Cap Type		Length	Seal Material	Core
0010=0.1µm	0022=0.22µm	K = 222 (SS Insert) / Fin		5 = 5"	S = Silicone	P = PP
0045=0.45µm	0100=1µm	R = 226 (SS Insert) / Fin		10 = 10"	E = EPDM	S = SUS
0300=3µm	0500=5µm	V = 226 (SS Insert) / Flat		20 = 20"	B = NBR	
1000=10µm	2000=20µm	J = 222 (SS Insert) / Flat		30 = 30"	V = FKM	
5000=50µm		G = 226 (PSU Insert) / Fin		40 = 40"	F = E-FKM	
		I = 226 (PSU Insert) / Flat				



PGA Series 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. PGA filters 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 release
- 100% polypropylene components provide broad chemical compatibility, suitable for use in a variety of fluids
- Various end cap configurations to fit into most standard housings

Applications

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

Dimension

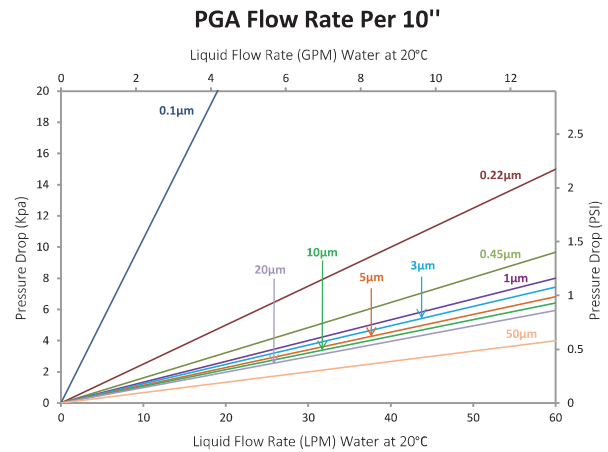
Outer Diameter 69mm (2.72")
Length 5", 10", 20", 30", 40"

Material of Constructions

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

Performance

Max. Operating Temperature	80°C (176°F)
Max. Operating DP	4 bar(58psi)@20°C (68°F) 2 bar(29psi)@80°C (176°F)
Filtration Area	0.4 - 0.7m ² per 10" Filter



Particle Removal Efficiency		
Cartridge Designation	90% Efficiency	95% Efficiency
PGA0010	0.1µm	---
PGA0022	0.22µm	---
PGA0045	0.45µm	---
PGA0100	1µm	---
PGA0300	3µm	5µm
PGA0500	5µm	10µm
PGA1000	10µm	

Quality

- Manufactured in a 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-121°C.

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
- Passed European Commission Directives (EU10/2011)
- Halal Certified

Ordering Information

Removal Rating		End Cap Type	Length	Seal Material	Core
0010=0.1µm	0022=0.22µm	K = 222 (SS Insert) / Fin	5 = 5"	S = Silicone	P = PP
0045=0.45µm	0100=1µm	R = 226 (SS Insert) / Fin	10 = 10"	E = EPDM	S = SUS
0300=3µm	0500=5µm	V = 226 (SS Insert) / Flat	20 = 20"	B = NBR	
1000=10µm	2000=20µm	J = 222 (SS Insert) / Flat	30 = 30"	V = FKM	
5000=50µm		G = 226 (PSU Insert) / Fin	40 = 40"	F = E-FKM	
		I = 226 (PSU Insert) / Flat			



SGH Series filter cartridges are comprised of multi-layers media. The unique construction results in a highly porous, continuously 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 drop and high throughput while achieving submicron retentions, high efficiency, and extraordinary dirt holding capacity. 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

Applications

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

Dimension

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

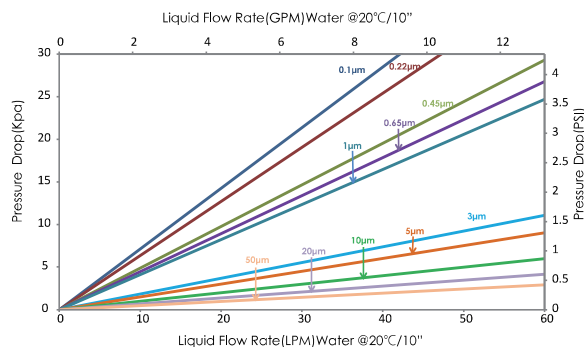
Material of Constructions

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

Performance

Max. Operating Temperature	80°C (176°F)
Max. Operating DP	4 bar(58psi)@20°C (68°F) 2 bar(29psi)@80°C (176°F)

SGH series Flowrate



Quality

- 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
- Passed European Commission Directives (EU10/2011)
- Halal Certified

Ordering Information

SGH		0010	K	5	S	S
Removal Rating		End Cap Type		Length	Seal Material	Core
0010=0.1µm	0022=0.22µm	K = 222 (SS Insert) / Fin		5 = 5"	S = Silicone	P = PP
0045=0.45µm	0065=0.65µm	R = 226 (SS Insert) / Fin		10 = 10"	E = EPDM	S = SUS
0100=1µm	0300=3µm	V = 226 (SS Insert) / Flat		20 = 20"	B = NBR	
0500=5µm	1000=10µm	J = 222 (SS Insert) / Flat		30 = 30"	V = FKM	
2000=20µm	5000=50µm	G = 226 (PSU Insert) / Fin		40 = 40"	F = E-FKM	
		I = 226 (PSU Insert) / Flat				



PAA series 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 PAA filter cartridges 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

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

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

Material of Constructions

Media	PES
Support	PP
Cage/Core/End cap	PP
Connection Adaptor	SS Insert, PSU Insert
Seal Material Options	Silicone, EPDM, FKM

Performance

Operating Conditions

Max. Operating Temperature	80°C (176°F)
Max. Operating DP	4 bar(58psi)@20°C (68°F)
	2 bar(29psi)@80°C (176°F)

Sterilization

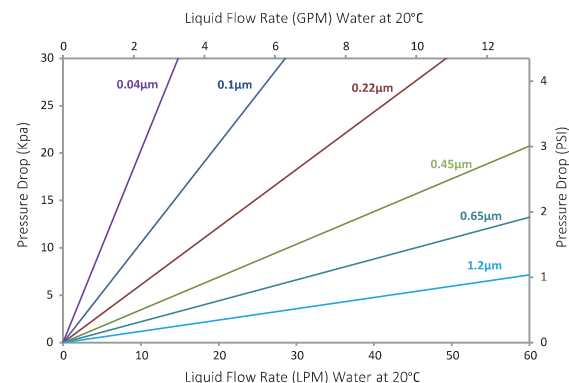
Autoclave Sterilization	125°C (257°F), 30min, 30cycles
SIP	125°C (257°F), 30min, 30cycles

Filtration Area	0.65 m ² per 10" Filter
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Extractables

10" Filter Cartridges	< 20mg
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PAA Flow Rate Per 10"



Quality

- Validated with *Brevundimonas diminuta* (ATCC 19146) at 10⁷CFU/cm² (0.22µm)
- 100% Integrity Tested.
- 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

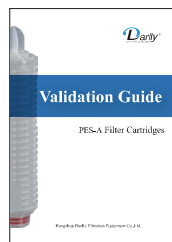
Effluent quality

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

Integrity Test

Removal Rating	Bubble Point Δ (Water)	Diffusion Flow Δ (10"Ø69mm)
0.1 μ m	4800mbar	25ml/min@4475mbar
0.22 μ m	3200mbar	25ml/min@2760mbar
0.45 μ m	2100mbar	25ml/min@1700mbar
0.65 μ m	1320mbar	12ml/min@1100mbar

Validation Guide



Ordering Information

PAA	0022	R	10	S	S
Removal Rating	End Cap Type	Length	Seal Material	Core	
0010=0.1 μ m	K = 222 (SS Insert) / Fin	5 = 5"	S = Silicone	P = PP	
0022=0.22 μ m	R = 226 (SS Insert) / Fin	10 = 10"	E = EPDM	S = SS	
0045=0.45 μ m	V = 226 (SS Insert) / Flat	20 = 20"	B = NBR		
0065=0.65 μ m	J = 222 (SS Insert) / Flat	30 = 30"	V = FKM		
0120=1.2 μ m	G = 226 (PSU Insert) / Fin	40 = 40"	F = E-FKM		
	I = 226 (PSU Insert) / Flat				



PAB series polyethersulfone (PES) pleated filter cartridges are made of hydrophilic high asymmetric polyethersulfone membrane, which 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 makes it especially suit for 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
- Low extractables

Applications

- Food and beverage
- Reduce bioburden
- High flow process requirements
- Protection of final filters or downstream equipments and systems such as tangential chromatographic

Dimension

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

Material of Constructions

Media	PES
Support	PP
Cage/Core/End cap	PP
Connection Adaptor	SS Insert, PSU Insert
Seal Material Options	Silicone, EPDM , FKM

Performance

Operating Conditions

Max. Operating Temperature	80°C (176°F)
Max. Operating DP	4 bar(58psi)@20°C (68°F) 2 bar(29psi)@80°C (176°F)

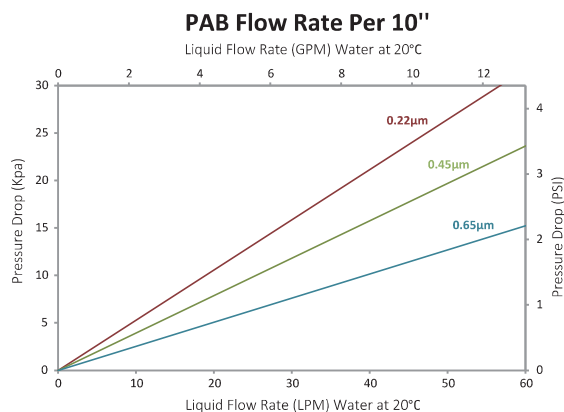
Sterilization

Autoclave Sterilization	125°C (257°F), 30min, 30cycles
SIP	125°C (257°F), 30min, 30cycles

Filtration Area	0.65 m ² per 10" Filter
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Extractables

10" Filter Cartridges	< 20mg
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Quality

- Validated with *Brevundimonas diminuta* (ATCC 19146) at $10^7/\text{cm}^2$ (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.

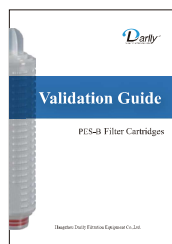
Effluent quality

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

Integrity Test

Removal Rating	Bubble Point ₂ (Water)	Diffusion Flow _s (10"Ø69mm)
0.22 μm	3200mbar	35ml/min@2760mbar
0.45 μm	2100mbar	35ml/min@1700mbar
0.65 μm	1320mbar	24ml/min@1100mbar

Validation Guide



Ordering Information

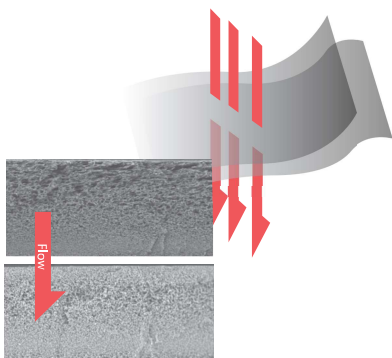
PAB	0022	R	10	S	S
Removal Rating	End Cap Type	Length	Seal Material	Core	
0022=0.22µm	K = 222 (SS Insert) / Fin	5 = 5"	S = Silicone	P = PP	
0045=0.45µm	R = 226 (SS Insert) / Fin	10 = 10"	E = EPDM	S = SS	
0065=0.65µm	V = 226 (SS Insert) / Flat	20 = 20"	B = NBR		
	J = 222 (SS Insert) / Flat	30 = 30"	V = FKM		
	G = 226 (PSU Insert) / Fin	40 = 40"	F = E-FKM		
	I = 226 (PSU Insert) / Flat				



PAD Series Filter Cartridge is constructed of highly asymmetric polyethersulfone membrane from Germany and imported support layer. Unique double layer hydrophilic polyethersulfone contributes to its excellent filtration performance and reliable bacteria-intercepting ability. It is especially used in pharmaceutical industry with stringent requirement. All components of PAD filter cartridges 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
- Full traceability to each filter with unique serial number



Material of Constructions

Media	PES
Support	Polypropylene
Cage/core/End cap	Polypropylene
Seal Material Options	Silicone, EPDM, NBR, FKM, E-FKM

Dimension

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

Performance

Max Operating Temperature	80°C (176°F)
Max Operating DP	4 bar(58psi)@20°C (68°F) 2 bar(29psi)@80°C (176°F)

Sterilization

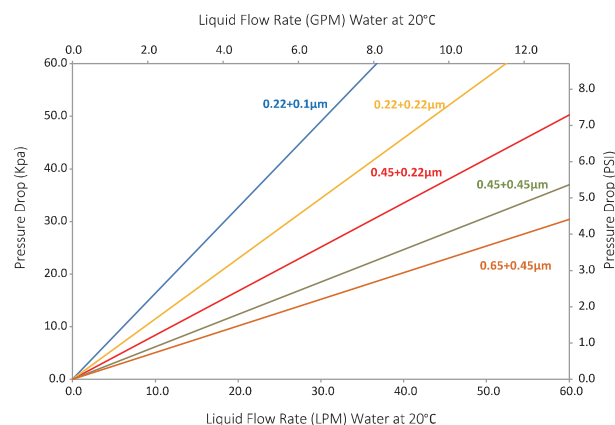
Autoclave Sterilization	125°C (257°F), 30min, 30cycles
SIP	125°C (257°F), 30min, 30cycles

Filtration Area	0.65m ² per 10" filter
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Extractables

10" Filter Cartridges	< 20mg
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PAD Flow Rate per 10"



Applications

- Biological vaccine/blood products sterilization filtration
- API sterilization filtration
- Large infusion (LVP), small injection (SVP) sterilization filtration
- Ophthalmic preparation sterilization filtration
- Buffers and reagents sterilization filtration

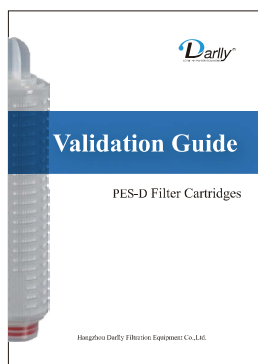
Quality

- Validated with *Brevundimonas diminuta* (ATCC 19146) at $10^7/\text{cm}^2$ ($0.22\mu\text{m}$).
- 100% Integrity Tested.
- 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.

Effluent quality

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

Validation Guide



Integrity Test

Removal Rating (μm)	Bubble Point $\geq$ (Water)	Diffusion Flow $\leq$ (10"Ø69mm)
2210 = $0.22+0.1$	4.8Bar	25ml/min@4.475Bar
2222 = $0.22+0.22$	3.2Bar	20ml/min@2.76Bar
4522 = $0.45+0.22$	3.2Bar	25ml/min@2.76Bar
4545 = $0.45+0.45$	2.1Bar	20ml/min@1.70Bar
6545 = $0.65+0.45$	2.1Bar	25ml/min@1.70Bar

Ordering Information

PAD	2210	R	10	S	S
Removal Rating	End Cap Type	Length	Seal Material	Core	
2210 = 0.22µm+0.1µm	K = 222 (SS Insert) / Fin	5 = 5"	S = Silicone	P = PP	
2222 = 0.22µm+0.22µm	R = 226 (SS Insert) / Fin	10 = 10"	E = EPDM	S = SS	
4522 = 0.45µm+0.22µm	V = 226 (SS Insert) / Flat	20 = 20"	B = NBR		
4545 = 0.45µm+0.45µm	J = 222 (SS Insert) / Flat	30 = 30"	V = FKM		
6545 = 0.65µm+0.45µm	G = 226 (PSU Insert) / Fin	40 = 40"	F = E-FKM		
	I = 226 (PSU Insert) / Flat				



BTF Series Filter Cartridges are constructed of hydrophobic polytetrafluoroethylene (PTFE) membrane, PTFE support netting, and ultra-pure perfluoroalkyl (PFA) hardware. This provides the ultimate in chemical compatibility, durability, and extraordinarily low extractables. And furthermore provides high retention efficiency and long service life with aggressive chemicals.

Features

- Ultimate chemical compatibility.
- 100% integrity tested.
- High flow rate with low pressure drop.

Applications

- Pharmaceutical products
- Chemically aggressive fluids
- Solvents, strong acids & bases
- Fine chemicals
- Microelectronic process fluids

Dimension

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

Filtration Area

HP	1.12m ² /69-10"
EP	0.9m ² /69-10"

Quality Assurance

- 100% Integrity Tested.
- Filter cartridges are manufactured in a clean room environment using Good Manufacturing Practices under an ISO9001:2015 registered Quality Management System.
- Cartridges are individually serialized and have full materials traceability.
- Materials of construction comply with FDA regulations for food and beverage contact use as detailed in the US Code of Federal Regulations 21CFR
- Passed European Commission Directives (EU10/2011)

Material of Constructions

Media	Hydrophobic PTFE
Support Layer	PFA/PTFE
Cage/Core/End cap	PFA
Seal Material Options	E-FKM

Operating Limits

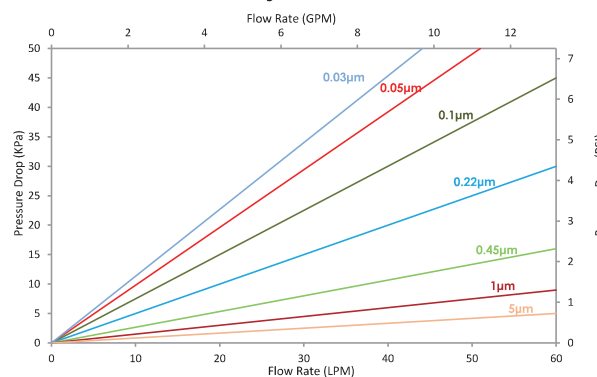
Max. Temperature	160° C (320° F)
Max. dP (forward)	5 bar (73 psi) @ 20°C (68°F) 2 bar (29 psi) @ 120°C (248°F)
SIP	135°C (275°F) @ 30 minutes recommended

Wetting Precautions

- PTFE membrane is naturally hydrophobic. If used with high surface tension fluids, such as aqueous solutions, it's necessary to pre-wet the filter cartridge. Alternatively, specify a pre-wetted cartridge.
- Pre-wetted cartridges are shipped in a solution of preserved ultrapure water. At the time of installation, drain the liquid and rinse the filter with 20L (per 10" unit) ultrapure water or service fluid before use.
- If pre-wetting is required, soak the cartridge in an aqueous solution of 60% isopropanol (IPA) for 10 minutes. Remove cartridge from the IPA and soak in ultrapure water for 10 minutes. Or, rinse for 10 minutes at 7.5 LPM per 10" length. The cartridge is now ready for service.

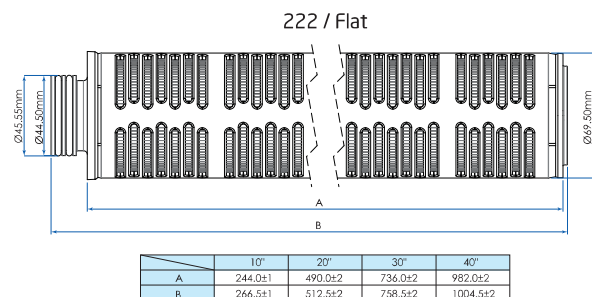
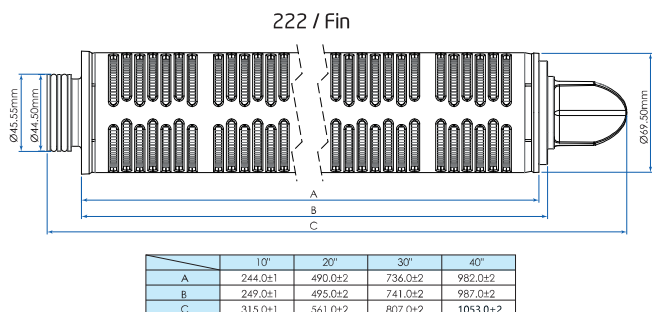
BTF-Series Flow Rate vs Pressure Drop

Per Ø69 cartridge. With water at 20° C.

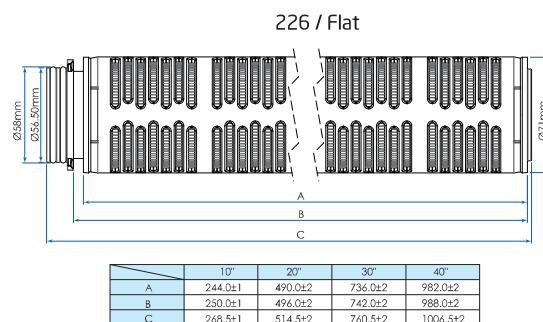
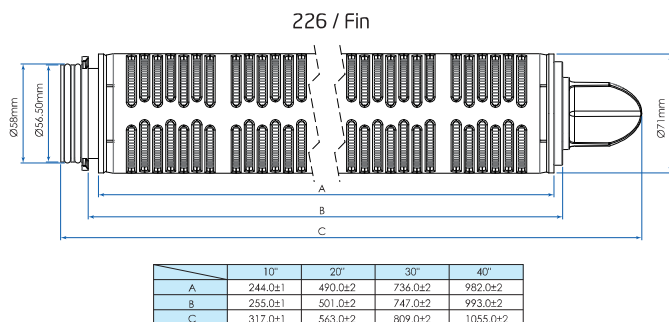


Dimensions

69-222 Series



69-226 Series



Ordering Information

69BTF	M	0005	HP	F	10	N	R0	N
Series	End Cap Type	Revol Rating	Filtration Area	Seal Material	Length	Wetting	Clean Class	EZlock
69BTF	M=222 / Flat	0003=30nm	HP	F = E-FKM	10 = 10" (φ69/83mm)	N = No Prewet	R0 = Normal	N = No
	P=222 / Fin	0005=50nm	EP		20 = 20" (φ69mm)	W = Prewet	R1 = High	Y = Selective Assembly (replace E chemlock)
	T=226 / Flat	0010=0.1μm			30 = 30" (φ69mm)			
	Q=226 / Fin	0022=0.22μm			40 = 40" (φ69mm)			
		0045=0.45μm						
		0100=1μm						
		0500=5μm						



BTG Series Filter Cartridges feature hydrophobic polytetrafluoroethylene (PTFE) membrane to provide excellent chemical compatibility with aggressive solvents, oxidizers, and corrosive fluids. 100% integrity tested for quality assurance.

Features

- Inherently hydrophobic PTFE membrane
- 100% integrity tested for correlation to absolute retention.
- Excellent chemical compatibility.
- Enhanced resistance to in-line steam sterilization and autoclaving.

Applications

- Chemically aggressive fluids.
- Solvents, strong acids & bases.
- Fermentation process air/gas filtration.
- Process air vents.
- Bulk gas.

Dimensions

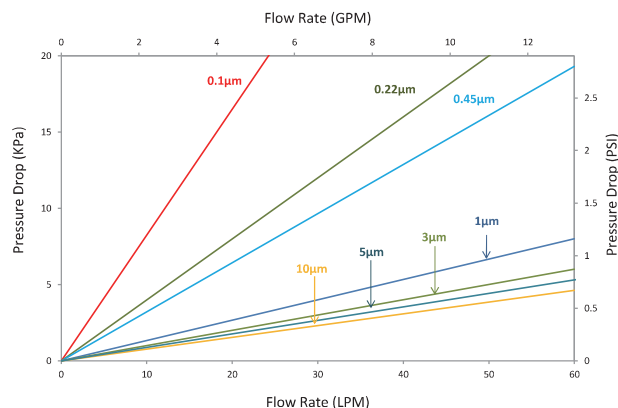
Outer Diameter	69mm (2.72")
Lengths	5", 10", 20", 30", 40"

Material of Constructions

Media	Hydrophobic PTFE
Support Layer	Polypropylene
Cage/Core/End cap	Polypropylene
Seal Material Options	Silicone, EPDM, NBR, FKM, E-FKM

BTG-Series Flow Rate vs Pressure Drop

Per 10" cartridge length. With water at 20° C.



Operating Limits

Max. Temperature	80° C (176° F)
Max. dP (forward)	4 bar (58 psi) @ 20°C (68°F) 2 bar (29 psi) @ 80°C (176°F)
Autoclave Sterilization SIP	125°C (257°F), 30 min, 100cycles 125°C (257°F), 30 min, 30cycles

Quality Assurance

- 100% Integrity Tested.
- Filter cartridges are manufactured in a clean room environment using Good Manufacturing Practices under an ISO9001:2015 registered Quality Management System.
- Cartridges are individually serialized and have full materials traceability.

Ordering Information

BTG	0010	K	5	S	P
Removal Rating	End Cap Type	Length	Seal Material	Core	
0010 = 0.1µm	K = 222 (SS Insert) / Fin	5 = 5"	S = Silicone	P = PP	
0022 = 0.22µm	R = 226 (SS Insert) / Fin	10 = 10"	E = EPDM	S = SUS	
0045 = 0.45µm	V = 226 (SS Insert) / Flat	20 = 20"	B = NBR		
0100 = 1µm	J = 222 (SS Insert) / Flat	30 = 30"	V = FKM		
0300 = 3µm	G = 226 (PSU Insert) / Fin	40 = 40"	F = E-FKM		
0500 = 5µm	I = 226 (PSU Insert) / Flat				
1000 = 10µm					



BTH Series Filter Cartridges feature hydrophobic polytetrafluoroethylene (PTFE) membrane which offers excellent chemical compatibility and is an ideal choice as an air/gas vent filter. Polypropylene hardware and support layers offer economy. Is well-suited as an air vent filter for fermentation processes.

Features

- Absolute filtration efficiency.
- 100% integrity tested.
- Receives a final rinse with 18MΩ ultrapure water.
- Excellent chemical compatibility. Tolerates pH 1 to 14.
- Hydrophilic membrane resists wetting.

Applications

- Tank air vents
- Fermentation process feed air
- Compressed gases
- Hot DI water
- Tolerates aggressive fluids: solvents, strong acids, & bases

Dimensions

Outer Diameter	69mm (2.72")
Lengths	5", 10", 20", 30", 40"

Ordering Information

BTH	0010	K	5	S	P
Removal Rating	End Cap Type	Length	Seal Material	Core	
0010 = 0.1µm	K = 222 (SS Insert) / Fin	5 = 5"	S = Silicone	P = PP	
0022 = 0.22µm	R = 226 (SS Insert) / Fin	10 = 10"	E = EPDM	S = SS	
0045 = 0.45µm	V = 226 (SS Insert) / Flat	20 = 20"	B = NBR		
0100 = 1µm	J = 222 (SS Insert) / Flat	30 = 30"	V = FKM		
0300 = 3µm	G = 226 (PSU Insert) / Fin	40 = 40"	F = E-FKM		
0500 = 5µm	I = 226 (PSU Insert) / Flat				
1000 = 10µm					

Material of Constructions

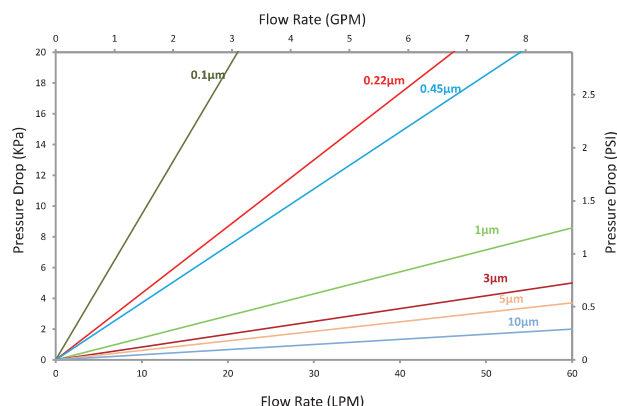
Media	Hydrophobic PTFE
Support Layer	Polypropylene
Cage/Core/End cap	Polypropylene
Seal Material Options	Silicone, EPDM, NBR, FKM, E-FKM

Operating Limits

Max. Temperature	80° C (176° F)
Max. dP (forward)	4 bar (58 psi) @ 20°C (68°F)
	2 bar (29 psi) @ 80°C (176°F)

BTH-Series Flow Rate vs Pressure Drop

Per 10" cartridge length. With water at 20° C.



Quality

- 100% Integrity Tested.
- Filter cartridges are manufactured in a clean room environment using Good Manufacturing Practices under an ISO9001:2015 registered Quality Management System.
- Cartridges are individually serialized and have full materials traceability.
- Meets USP Biological Reactivity Test requirements of the current USP <88> for plastic class VI-121°C



PTB Series Filter Cartridges feature hydrophobic polytetrafluoroethylene (PTFE) membrane to provide excellent chemical compatibility with aggressive solvents, oxidizers, and corrosive fluids. 100% integrity tested for quality assurance.

Features

- Inherently hydrophobic PTFE membrane.
- Superior PTFE membrane grade offers highest degree of consistent performance.
- 100% integrity tested for correlation to absolute retention.
- Excellent chemical compatibility.
- Enhanced resistance to in-line steam sterilization and autoclaving.

Applications

- Chemically aggressive fluids.
- Solvents, strong acids & bases.
- Fermentation process air/gas filtration.
- Process air vents.
- Bulk gas.

Dimensions

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

Ordering Information

PTB	0010	K	5	S	P
Removal Rating	End Cap Type	Length	Seal Material	Core	
0010 = 0.1µm	K = 222 (SS Insert) / Fin	5 = 5"	S = Silicone	P = PP	
0022 = 0.22µm	R = 226 (SS Insert) / Fin	10 = 10"	E = EPDM	S = SUS	
0045 = 0.45µm	V = 226 (SS Insert) / Flat	20 = 20"	V = FKM		
0100 = 1µm	J = 222 (SS Insert) / Flat	30 = 30"			
	G = 226 (PSU Insert) / Fin	40 = 40"			
	I = 226 (PSU Insert) / Flat				

Material of Constructions

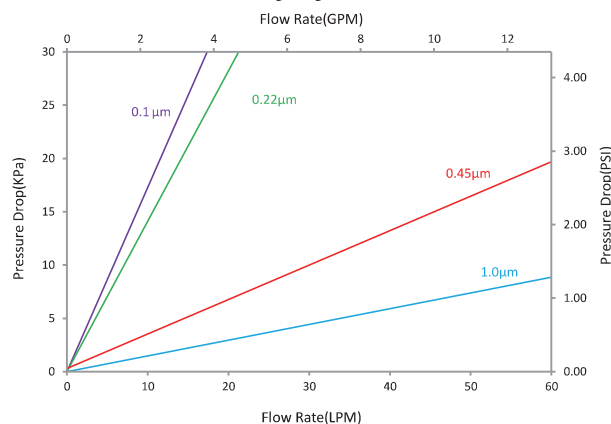
Media	Hydrophobic PTFE
Support Layer	Polypropylene
Cage/Core/End cap	Polypropylene
Seal Material Options	Silicone, EPDM, FKM

Operating Limits

Max. Temperature	80° C (176° F)
Max. dP (forward)	4 bar (58 psi) @ 20°C (68°F) 2 bar (29 psi) @ 80°C (176°F)
Sterilization	125°C (257°F) for 30 minutes by autoclave 125°C (257°F) for 30 minutes by SIP

PTB-Series Flow Rate vs Pressure Drop

Per 10" cartridge length. With water at 20° C.



Quality Assurance

- 100% Integrity Tested.
- Filter cartridges are manufactured in a clean room environment using Good Manufacturing Practices under an ISO9001:2015 registered Quality Management System.
- Cartridges are individually serialized and have full materials traceability.
- Meets USP Biological Reactivity Test requirements of the current USP <88> for plastic class VI-121°C.



HPTG Series Filter Cartridge is made of hydrophobic PTFE membrane, inherently hydrophobic PTFE membrane 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 membrane
- 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

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

Material of Constructions

Media	Hydrophobic PTFE
Support	PP/PET
Cage/End cap	High temperature resistance PP
Core	High temperature resistance PP/SS
Adapter	PP with insert

Pore Size

Gas	0.01µm
Liquid	0.22µm

Performance

Max Operating Temperature	100°C (212°F)
Max Operating DP	4 bar(58psi)@ 20°C (68°F) 2 bar(29psi)@ 80°C (176°F)

Sterilization

SIP	135°C (275°F), 30min, 150 cycles
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Quality

- 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 21CFR.
- 100% Integrity Tested.
- Individual element is tracked by serial number.

Integrity Test Parameters

Diffusion Flow(DF)	≤20ml/min@1035mbar(60/40 IPA/Water)
Water Intrusion(WIT)	HPTGP≤0.38ml/min@2500mbar HPTGW≤0.75ml/min@2500mbar

Ordering Information

HPTG	W	0022	K	5	S	P
Grade	Removal Rating	End Cap Type	Length	Seal Material	Core	
W = Standard	0022 = 0.22μm	K = 222 (SS Insert) / Fin	5 = 5"	S = Silicone	P = PP	
P = High performance SCC69G(PP)		R = 226 (SS Insert) / Fin	10 = 10"	E = EPDM	S = SUS	
		V = 226 (SS Insert) / Flat	20 = 20"	V = FKM		
		J = 222 (SS Insert) / Flat	30 = 30"			
		G = 226 (PSU Insert) / Fin	40 = 40"			
		I = 226 (PSU Insert) / Flat				



PTG Series Filter Cartridges feature hydrophobic polytetrafluoroethylene (PTFE) membrane which offers excellent chemical compatibility and is an ideal choice as an air/gas vent filter. Specialty-grade polypropylene hardware and support layers offer enhanced resistance to oxidation. Is well-suited as an air vent filter for fermentation processes. Integrity testable by water intrusion (WIT).

Features

- Absolute 0.2µm filtration efficiency.
- 100% integrity tested.
- Receives a final rinse with 18MΩ ultrapure water to assure cleanliness.
- Excellent chemical compatibility. Tolerates pH 1 to 14.
- Hydrophilic membrane resists wetting.

Applications

- Sterile process air
- Aseptic packaging
- Tank air vents
- Fermentation process feed air
- Compressed gases
- Tolerates aggressive fluids: solvents, strong acids, & bases

Dimensions

Outer Diameter 69mm (2.72")
Lengths 5", 10", 20", 30", 40"

Material of Constructions

Membranes	Inherently hydrophobic PTFE
Support Layers	Polypropylene
Cage/Core/End cap	Polypropylene
Seal Material Options	Silicone, EPDM, FKM

Removal Efficiency

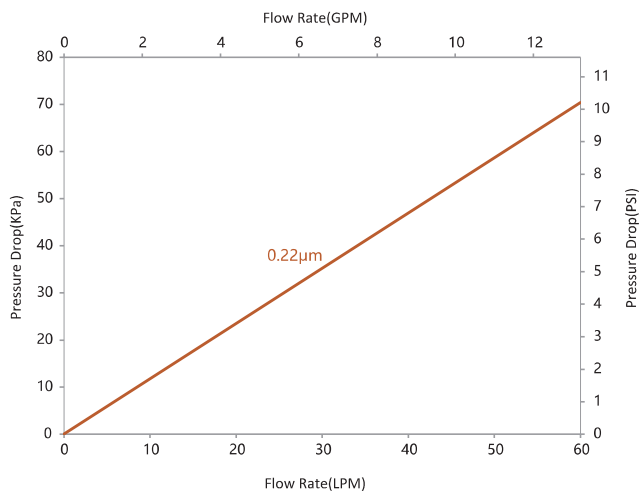
0020	Gas: 0.01µm
	Liquid: 0.2µm

Operating Limits

Max. Temperature	80° C (176° F)
Max. dP (forward)	4 bar (58 psi) @ 20°C (68°F)
	2 bar (29 psi) @ 80°C (176°F)
Sterilization	135°C (275°F) 30min@150cycles

PTG-Series Flow Rate vs Pressure Drop

Per 10" cartridge length. With water at 20° C.



Integrity Test Parameters

Bubble Point (BP)	≥ 1100mbar@IPA: Water 60:40
Diffusion Flow (DF)	PTGP ≤ 16ml / min@1035mbar PTGW ≤ 24ml / min@1035mbar
Water Intrusion (WIT)	PTGP ≤ 0.38ml / min@2500mbar PTGW ≤ 0.75ml / min@2500mbar

Quality

- 100% Integrity Tested.
- Filter cartridges are manufactured in a clean room environment using Good Manufacturing Practices under an ISO9001:2015 registered Quality Management System.
- Cartridges are individually serialized and have full materials traceability.

Food Contact Safety

- Materials of construction comply with USFDA regulations for safe use with food and beverages.
- Complies with European Directive EC1935/2004.
- Halal certified.

Ordering Information

PTG	W	0020	K	5	S	P
Grade	Removal Rating	End Cap Type		Length	Seal Material	Core
W = Standard	0020 = 0.2µm	K = 222 (SS Insert) / Fin		5 = 5"	S = Silicone	P = PP
P = High Guarantee		R = 226 (SS Insert) / Fin		10 = 10"	E = EPDM	S = SUS
		V = 226 (SS Insert) / Flat		20 = 20"	V = FKM	
		J = 222 (SS Insert) / Flat		30 = 30"		
		G = 226 (PSU Insert) / Fin		40 = 40"		
		I = 226 (PSU Insert) / Flat				



STH Series filter cartridges are constructed of hydrophobic PTFE membrane and polypropylene supports to provide the greatest assurance of filtration performance and chemical compatibility in severe process conditions. The highly porous PTFE membrane offers high flow rates and long service life.

Features

- PTFE and polypropylene components provide extremely wide chemical compatibility
- Contains no binders or adhesives for wide solvent compatibility with extremely low extractables
- Fully integrity testable for assured product integrity and effectiveness in operation
- 100% integrity testing during manufacture guarantees product reliability and consistency

Quality

- Manufactured in a clean room environment
- Manufactured according to ISO9001:2015 certified Quality Management System
- 100% Integrity Tested

Ordering Information

STH	0010	K	5	S	P
Removal Rating	End Cap Type		Length	Seal Material	Core
0002 = 0.02 μm	K = 222 (SS Insert) / Fin		5 = 5"	S = Silicone	P = PP
0003=0.03μm	R = 226 (SS Insert) / Fin		10 = 10"	E = EPDM	S = SUS
0005=0.05μm	V = 226 (SS Insert) / Flat		20 = 20"	B = NBR	
0010=0.1μm	J = 222 (SS Insert) / Flat		30 = 30"	V = FKM	
0022=0.22μm	G = 226 (PSU Insert) / Fin		40 = 40"	F = E-FKM	
0045=0.45μm	I = 226 (PSU Insert) / Flat				
0100 = 1μm					
0500 = 5μm					
1000 = 10μm					

Dimension

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

Material of Constructions

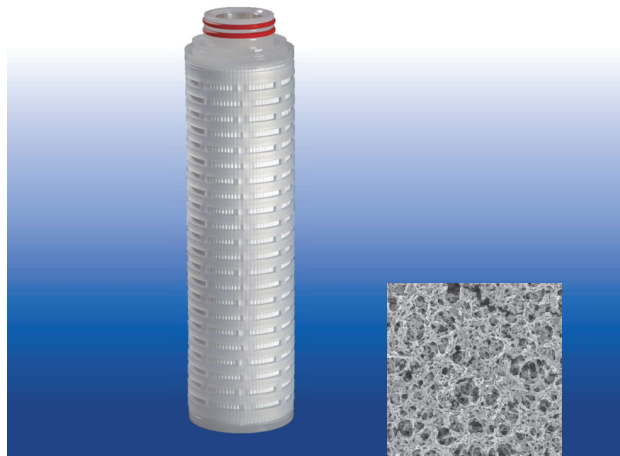
Media	PTFE
Support	PP
Hardware	PP
Seal Material Options	Silicone, EPDM, NBR, FKM, E-FKM

Performance

Max Operating Temperature	80° C (176° F)
Max Operating DP	4 bar (58 psi) @ 20°C (68°F) 2 bar (29 psi) @ 120°C (248°F)
SIP	125°C (275° F), 30min, 30 Cycles

Applications

- **Pharmaceutical**
 - @Vents
 - @Filtration of Compressed Gases
 - @Filtration of Solvents
- **Food and Beverage**
 - @Sterile Venting of Holding Tanks
 - @Sterile CO₂ Filtration
 - @Microbial Control of Inlet
 - @Air for Bioprocessing of Foods
- **Process Gases**
 - @Bulk and Point-of-Use Gases
 - @Compressed Air
- **Chemicals**
 - @ Solvents
 - @Bulk Filling
 - @Acids



PVA Series filter cartridges are constructed of hydrophilic PVDF membrane and Polypropylene hardware. The single open ended configuration is designed to fit into sanitary housings to ensure effective microbial removal and assembly integrity. Due to the low absorption of the protein, it is especially suitable for the filtration of culture medium, biological agents, vaccines.

Features

- Very low protein adsorption and precipitation
- Easy to wet and integrity test
- High flow rate and longer service life
- 100% integrity tested during manufacture

Applications

- Filtration in the food and beverage industry
- Retention of particles and micro-organisms
- Protein purification
- Cell culture clarification
- Blood filtration

Quality

- Manufactured in a clean room environment
- Manufactured according to ISO9001:2015 certified Quality Management System
- 100% Integrity Tested

Dimension

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

Pore Size

0.22µm	0.45µm	0.65µm
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Material of Constructions

Media	PVDF
Support	PP
Core/Cage	PP
End cap	PSU insert/SS insert
Seal Material Options	Silicone, EPDM, FKM

Performance

Max Operating Temperature	80° C (176° F)
Max Operating DP	4 bar (58 psi) @ 20°C (68°F) 2 bar (29 psi) @ 80°C (176°F)

SIP	125°C /30min, 30 cycles
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Bacterial Retention

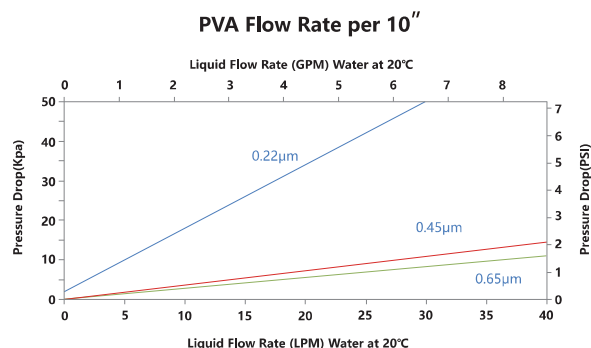
0.22µm	Validated with <i>Brevundimonas diminuta</i> (ATCC 19146) at $10^7/\text{cm}^2$.
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Filtration Area

Ø 69mm	0.65m ² per 10" filter
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Extractables

10"	< 20mg
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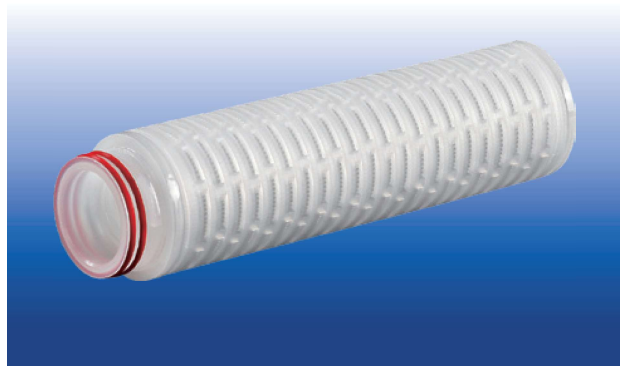


Integrity Test Parameters

Removal Rating	Bubble Point (BP)	Diffusion Flow (DF)
0.22µm	3450mbar	25ml/min@2760mbar
0.45µm	2100mbar	25ml/min@1700mbar
0.65µm	970mbar	15ml/min@620mbar

Ordering Information

PVA	0022	R	10	S
Removal Rating	End Cap Type	Length	Seal Material	
0022=0.22µm	I = 226 (PSU Insert) / Flat	5=5"	S = Silicone	
0045=0.45µm	J = 222 (SS Insert) / Flat	10=10"	E = EPDM	
0065=0.65µm	K = 222 (SS Insert) / Fin	20=20"	V = FKM	
	R = 226 (SS Insert) / Fin	30=30"		
	V = 226 (SS Insert) / Flat	40=40"		



BS Series Filter Cartridges are made of glass fiber. The pleated glass fiber 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

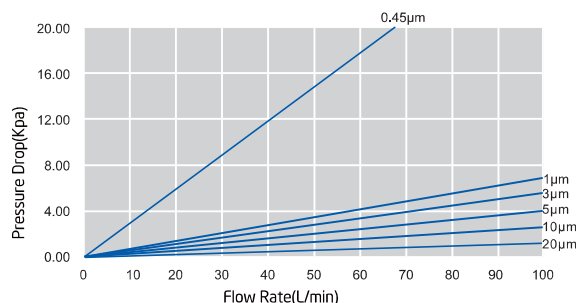
Outer Diameter	69mm (2.72")
Length	5", 10", 20", 30", 40"

Material of Constructions

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

Performance

Max. Operating Temperature	80° C (176° F)
Max. Operating DP	4 bar (58 psi) @ 20°C (68°F)
	2 bar (29 psi) @ 80°C (176°F)



Quality

- 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
- Filter cartridges passed European Commission Directives (EU10/2011)
- Halal Certified

Ordering Information

BS	0045	K	5	S	P
Removal Rating	End Cap Type	Length	Seal Material	Core	
0045 = 0.45µm	K = 222 (SS Insert) / Fin	5 = 5"	S = Silicone	P = PP	
0100 = 1µm	R = 226 (SS Insert) / Fin	10 = 10"	E = EPDM	S = SS	
0300 = 3µm	V = 226 (SS Insert) / Flat	20 = 20"	B = NBR		
0500 = 5µm	J = 222 (SS Insert) / Flat	30 = 30"	V = FKM		
1000 = 10µm	G = 226 (PSU Insert) / Fin	40 = 40"	F = E-FKM		
2000 = 20µm	I = 226 (PSU Insert) / Flat				



BSG series glass fiber (GF) pleated filter cartridges are made of ultra-fine glass fiber. They each have a high retention efficiency up to 96% which can effectively protect and prolong service life of terminal sterilization filters. They are 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

Material of Constructions

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

Dimension

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

Performance

Operating Conditions

Max. Operating Temperature	80° C (176° F)
Max. Operating DP	4 bar (58 psi) @ 20°C (68°F) 2 bar (29 psi) @ 80°C (176°F)

Sterilization

Autoclave Sterilization	125°C , 60 min
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Filtration Area

Ø 69mm	0.45 m² per 10" Filter
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Extractables

10" Filter Cartridges	<20mg
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Ordering Information

BSG	0010	K	5	S	P
Removal Rating	End Cap Type	Length	Seal Material	Core	
0010=0.1µm	K = 222 (SS Insert) / Fin	5 = 5"	S = Silicone	P = PP	
0030=0.3µm	R = 226 (SS Insert) / Fin	10 = 10"	E = EPDM	S = SS	
0050=0.5µm	V = 226 (SS Insert) / Flat	20 = 20"	B = NBR		
	J = 222 (SS Insert) / Flat	30 = 30"	V = FKM		
	G = 226 (PSU Insert) / Fin	40 = 40"	F = E-FKM		
	I = 226 (PSU Insert) / Flat				



SCB Series Filter Cartridges use absolute rated N66 membrane that is inherently hydrophilic and has excellent chemical resistance. It is manufactured without the use of glues, adhesives or wetting agents, ensuring high purity in various application.

Features

- Hydrophilic Nylon 66 membrane
- No wetting agents, High flow and long service life
- Absolute rated filtration
- All thermal bonded construction, no adhesives
- Excellent chemical resistance
- 100% integrity tested

Applications

- Pharmaceutical
- Organic solvents and aqueous co-solvent systems
- High purity water filtration
- Food and Beverage

Dimension

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

Ordering Information

SCB	0010	K	10	E	P
Removal Rating	End Cap	Length	Seal Material	Core	
0010=0.1µm	K = 222 (SS Insert) / Fin	5 = 5"	S = Silicone	P = PP	
0022=0.22µm	R = 226 (SS Insert) / Fin	10 = 10"	E = EPDM	S = SUS	
0045=0.45µm	V = 226 (SS Insert) / Flat	20 = 20"	B = NBR		
0120 = 1.2µm	J = 222 (SS Insert) / Flat	30 = 30"	V = FKM		
	G = 226 (PSU Insert) / Fin	40 = 40"	F = E-FKM		
	I = 226 (PSU Insert) / Flat				

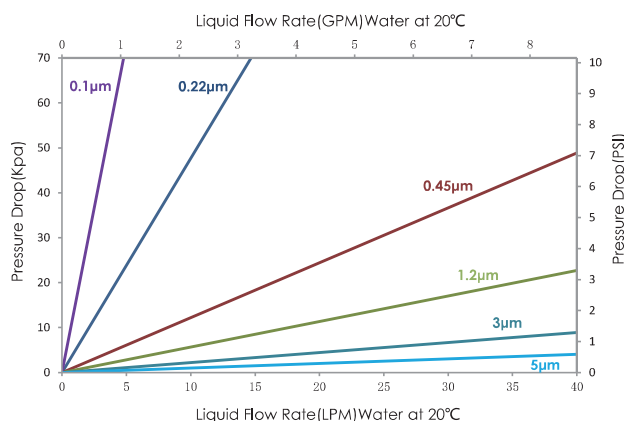
Material of Constructions

Media	N66
Support	PET
Core/Cage	PP
End cap	PP
Seal Material Options	Silicone, EPDM, NBR, FKM, E-FKM

Performance

Max Operating Temperature	80° C (176° F)
Max Operating DP	4 bar (58 psi) @ 25°C (77°F) 2 bar (29 psi) @ 80°C (176°F)
Steam Sterilization	125°C, 30 min, 30 Cycles

SCB series Flowrate



Quality

- Manufactured in a clean room environment
- Manufactured according to ISO9001:2015 certified Quality Management System
- All PP components meet the specifications for biological safety per USP Class VI-121°C for plastics



SCD Series Filter Cartridges use absolute rated N66 membrane that is inherently hydrophilic and has excellent chemical resistance, it is manufactured without the use of glues, adhesives or wetting agents, ensuring high purity in various applications.

Features

- Hydrophilic Nylon 66 membrane, no wetting agents
- Double layer media, absolute rated filtration
- High flow and long service life
- Superior chemical resistance
- Enhanced resistance to in-line and autoclave steam sterilization
- 100% integrity tested

Applications

- Pharmaceutical
- Organic solvents and aqueous co-solvent systems
- High purity water filtration

Dimension

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

Material of Constructions

Media	N66
Support	PET
Core/Cage	PP
End cap	PP
Seal Material Options	Silicone, EPDM, NBR, FKM, E-FKM

Performance

Max. Operating Temperature	80°C (176°F)
Max. Operating DP	4 bar (58 psi) @ 25°C (77°F) 2 bar (29 psi) @ 80°C (176°F)
Steam Sterilization	125°C, 30 min, 30 cycles

Quality

- Manufactured in a clean room environment
- Manufactured according to ISO9001:2015 certified quality management system
- All PP components meet the specifications for biological safety per USP Class VI-121°C for plastics
- The extractable level was not more than 25mg per 10 inch cartridge
- A cartridge aqueous extraction contains less than 0.25 EU/ml
- Full traceability to each filter with unique serial number
- 100% integrity tested

Ordering Information

SCD

0010

F

10

E

P

Removal Rating

End Cap

Length

Seal Material

Core

1010=0.1µm+0.1µm

K = 222 (SS Insert) / Fin

5 = 5"

S = Silicone

P = PP

2222=0.22µm+0.22µm

R = 226 (SS Insert) / Fin

10 = 10"

E = EPDM

S = SUS

4522=0.45µm+0.22µm

V = 226 (SS Insert) / Flat

20 = 20"

B = NBR

4545=0.45µm+0.45µm

J = 222 (SS Insert) / Flat

30 = 30"

V = FKM

G = 226 (PSU Insert) / Fin

40 = 40"

F = E-FKM

I = 226 (PSU Insert) / Flat



PCB Series Filter Cartridges use absolute rated N66 membrane that is inherently hydrophilic and has excellent chemical resistance. It is manufactured without the use of glues, adhesives or wetting agents, ensuring high purity in various application.

Features

- Hydrophilic Nylon 66 membrane
- No wetting agents, High flow and long service life
- Absolute rated filtration
- All thermal bonded construction, no adhesives
- Excellent chemical resistance
- 100% integrity tested

Applications

- Pharmaceutical
- Organic solvents and aqueous co-solvent systems
- High purity water filtration
- Food and Beverage

Dimension

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

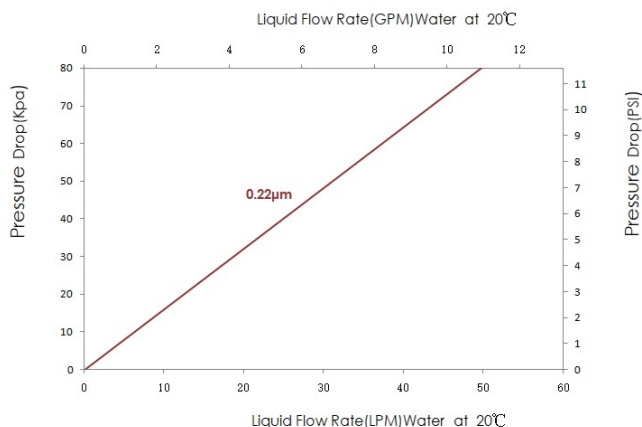
Material of Constructions

Media	N66
Support	PP
Core/Cage	PP
End cap	PP
Seal Material Options	Silicone, EPDM, NBR, FKM, E-FKM

Performance

Max Operating Temperature	80° C (176° F)
Max Operating DP	4 bar (58 psi) @ 25°C (77°F)
	2 bar (29 psi) @ 80°C (176°F)
Steam Sterilization	125°C, 30 min, 30 Cycles

PCB Series FlowRate 10"



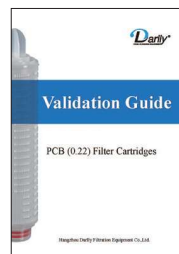
Quality

- Manufactured in a 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-121°C

Integrity Test Parameters

Removal Rating	Bubble Point (BP)
0.22µm	3200mbar

Validation Guide



Ordering Information

PCB	0022	K	5	E	P
Removal Rating	End Cap	Length	Seal Material	Core	
0022=0.22µm	K = 222 (SS Insert) / Fin	5 = 5"	S = Silicone	P = PP	
	R = 226 (SS Insert) / Fin	10 = 10"	E = EPDM	S = SUS	
	V = 226 (SS Insert) / Flat	20 = 20"	B = NBR		
	J = 222 (SS Insert) / Flat	30 = 30"	V = FKM		
	G = 226 (PSU Insert) / Fin	40 = 40"	F = E-FKM		
	I = 226 (PSU Insert) / Flat				



FSP Series Filter Cartridges contain a pleated filter media that exhibits a very high level of positive charge. This provides a cartridge that offers both high flow and efficient removal of ultrafine contaminants. The heart of the filter is a nanoalumina and glass microfibre media that delivers > 50 millivolts Zeta potential at PH 7.2. This construction also produces a filter media with a very high internal surface area. Therefore FSP Series Filter Cartridges are very cost effective method or removing negatively-charged contaminants from aqueous solutions and polar solvents.

Features

- Relatively open porous structure offering high flow rates and long in process life times
- High zeta potential for effective removal of ultratine contaminants
- Enormous internal surface area providing high capacity for contaminant removal
- Media tested to ensure suitability for critical processes including pharmaceutical applications and potable water

Applications

- Water Treatment
- Pharmaceutical process
- Potable water
- Waste water treatment
- Removal of endotoxins from purified water, RO protection
- Bioburden and endotoxin reduction
- Removal of contaminants
- Removal of heavy metals, emulsions

Dimensions

Outer Diameter	69mm
Length	5", 10", 20", 30", 40"
Filtration area	0.37m ² /10"

Material of Constructions

Media	Borosilicate Glass Microfibre and Nanoalumina
Support	PP
End cap	PP
Cage/Core	PP
Seal Material Options	Silicone, EPDM, FKM

Performance

Max. Operating Temperature	80° C (176° F)
Max. Operating DP	4 bar (58 psi) @ 20°C (68°F) 2 bar (29 psi) @ 80°C (176°F)

Quality

- Manufactured in a clean room environment
- Manufactured according to ISO9001:2015 certified Quality Managemet System

Food Contact Compliance

- Materials of construction comply with FDA requirements for food and beverage contact use as detailed in the US Code of Federal Regulations 21 CFR.

Ordering Information

FSP	K	5	S	P
End Cap Type		Length	Seal Material	Core
K = 222 (SS Insert) / Fin		5 = 5"	S = Silicone	P = PP
R = 226 (SS Insert) / Fin		10 = 10"	E = EPDM	S = SUS
V = 226 (SS Insert) / Flat		20 = 20"	V = FKM	
J = 222 (SS Insert) / Flat		30 = 30"		
G = 226 (PSU Insert) / Fin		40 = 40"		
I = 226 (PSU Insert) / Flat				