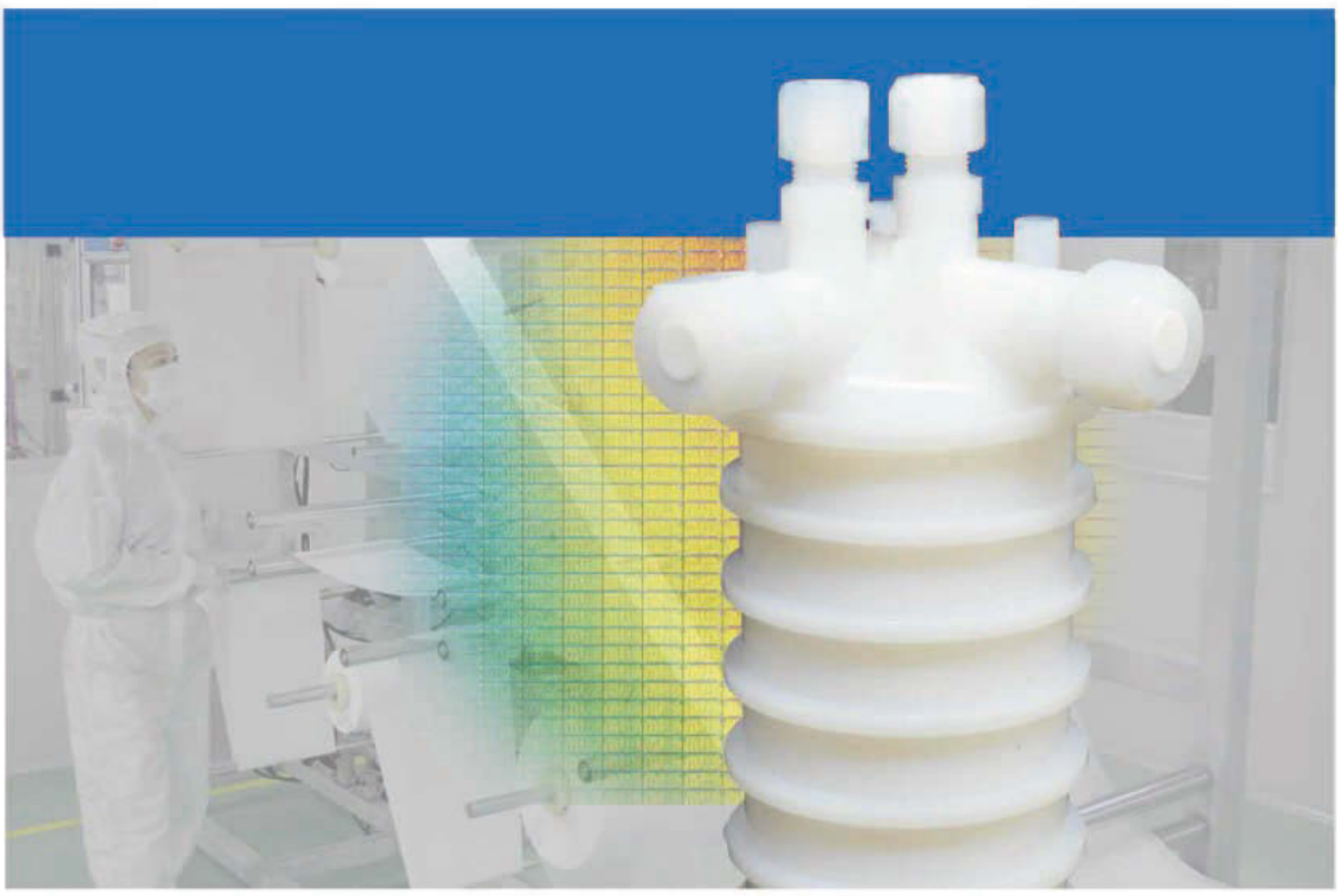
KLEANPLUS

Filtration for Semiconductor



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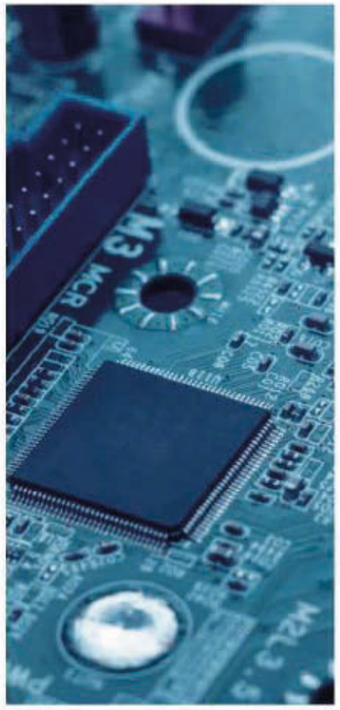


Driven by improvement of precision membranes, our products are sold around the world, covering more than 40 countries and regions in Europe, Americas and Asia.

Among the materials, our Nanofiber has been tested and proven to reach advanced world standard by high end clients in Europe and America, which could compete with top materials abroad.

KLEANPLUS

KLEANPLUS is National High-tech Enterprise Focusing on R&D, manufacturing and marking high polymer microporous membrane products and systems.

Our products cover high flow cartridge filter, pleated membrane filters, capsule filters, rolled depth filters, lenticular filter modules and filter membranes. KLEANPLUS is one of the manufacturers with the most abundant product lines in the world with more than 72 types of 1000 products.

“We provide innovative solutions to help customers to improve product quality.”

Contents

Laboratory

Bubble point tester
Turbidity tester
Air permeability tester
Scanning Electron Microscope(SEM)
Flow rate/DP tester
Inline particle tester
Membrane pore size analyzer

We provide innovative solutions to help improve product quality.

Particles, gels and metals could cause different surface defect of products.

The high cost of late defects in eletronic equipments makes it necessary to control the contamination of particles, gels or metals. Filters is an importants line of defence to prevent wafer and substrate from contamination.

KLEANPLUS provides a wide range of solutions to meet your requirements of productivity and reliability.

Quality Control

ISO 9001:2015 certificated manufacturer & all products are made in 2000m² clean room.

Customized Service

KLEANPLUS provides rapid and professional technical services and customized products to help users solve problem.

Cost Saving

With our best quality products and professional services, KLEANPLUS could provide the most cost-saving filtration solutions.

Wet Etch, Bulk Chemical Manufacturing and Cleaning

PF4/HPF4(Φ56，Φ69, Φ83) series filter

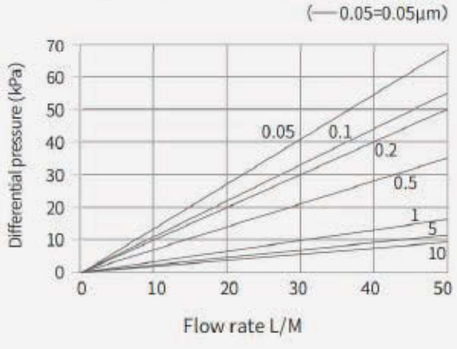
PF4/HPF4(Φ56, Φ69, Φ83) series filter cartridges feature the best chemical compatibility and could be used in the most aggressive chemicals including strong acids, bases, corrosive liquid and oxidant. All fluorine construction and superior cleaning standard effectively reduces metal, chlorides and other contaminants. High flow rate, long service life.

Hydrophobic(PF4) and hydrophilic(HPF4) PTFE membranes are both available for liquid or gas applications.

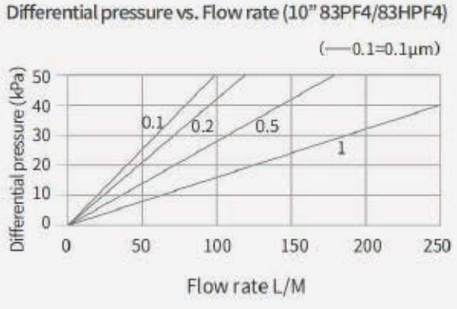
Specifications

Filter Media	Hydrophobic PTFE/ Hydrophilic PTFE
Support	PFA
Endcaps/Cage/Core	PFA
Max. Working Temp.	180°C
Membrane area	0.91m²/10", 1.21m²/10"
Max. Operating DP	Forward 0.42Mpa, Reverse 0.21Mpa

Differential pressure vs. Flow rate (10" PF4/HPF4)



Differential pressure vs. Flow rate (10" 83PF4/83HPF4)



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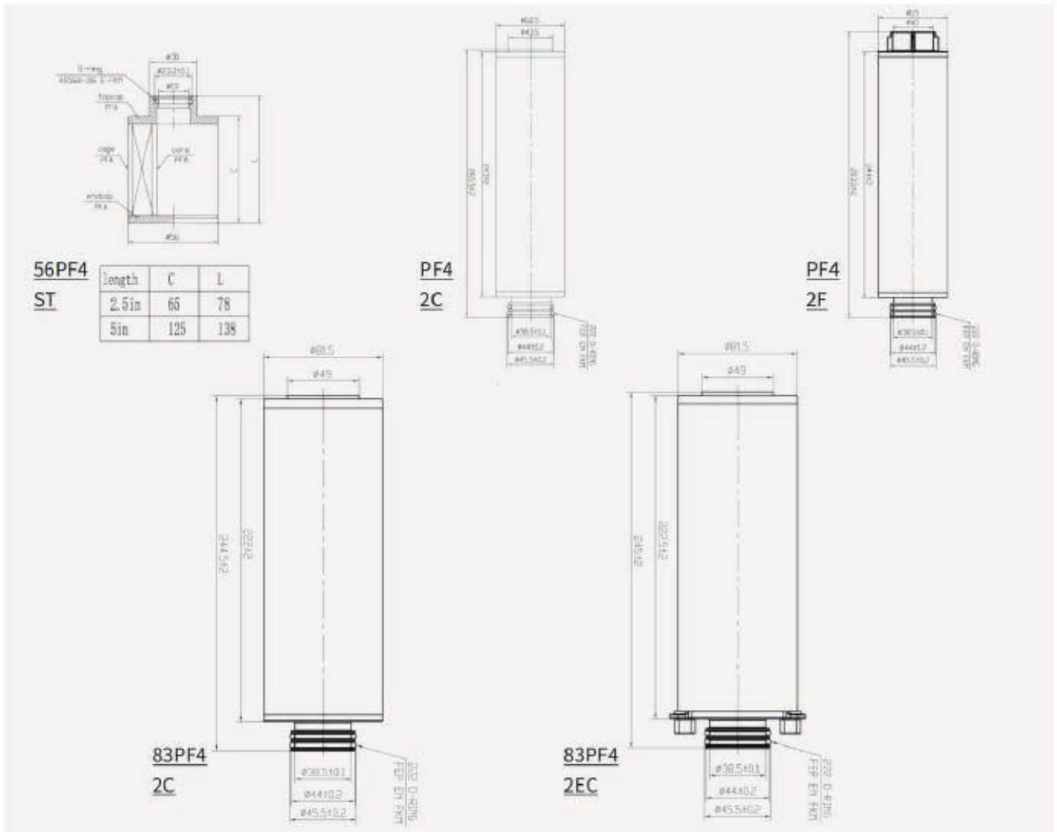

Ordering Information

	Removal rating	Adaptor	Length	Sealing	Packaging
56PF4 56HPF4* PF4 HPF4	002=0.02μm 003=0.03μm 005=0.05μm 010=0.10μm 022=0.22μm 045=0.45μm 10T=10μm	2F=222Fin 2C=222Flat 6F=226Spear 6C=226Flat ST=116O-rings	02=2.5" 05=5" 10=10" 20=20" 30=30"	E=EPDM V=Viton S=Silicone T=FEP/Viton	/=Without Prewet W=<25ppb CW=<10ppb
83PF4 83HPF4		2C=222 Flat 2EC=222 Fat with lock	08=8" 10=10"	E=EPDM T=FEP/Viton	/=Without Prewet W=<25ppb CW=<10ppb

* 56PF4 series is only available in 5 inch with 116 o-rings.

Wet Etch, Bulk Chemical Manufacturing & Cleaning

T-PFA & L-PFA disposable filters

T/L PFA filters are constructed of imported high purity PFA materials and PTFE membrane, designed for high-temperature and critical applications. Strict control of manufacturing process and cleanliness and all fluorine structure ensures T/F PFA filters feature the best chemical compatibility, ultra low metal extractables and longer life time.

100% integrity tested to meet requirements of semiconductor. Prewet packaging reduces equipment pre-operation time. Disposable filter design features better leakproofness, conventient installation and changeout, reduce downtime and simplify system design.

Applications

H2SO4,H3PO4,HNO3,HCL,NH4OH,H2O2,TMAH

SC1,SC2,SPM, etc.

Filter media	PTFE			
Capsule	PFA			
Endcaps/Cage/Core	PFA			
Max. working temp.	180°C			
Max. working DP	0.42MPa/25°C			
Membrane area	S1 0.7 ㎡ /10"	S2 1.1 ㎡ /10"	E1 (83 PFA filter) 1.3 ㎡ /10"	E2 (83 PFA filter) 2.2 ㎡ /10"

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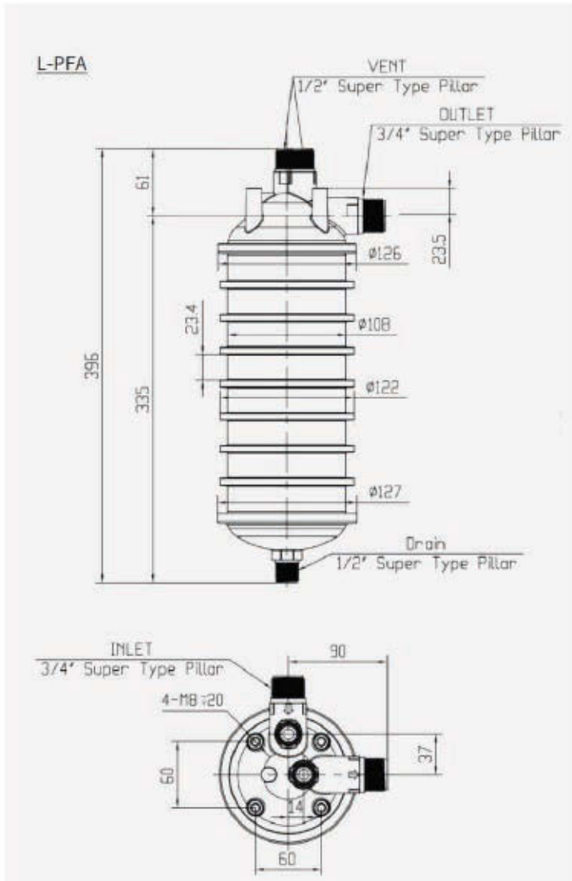
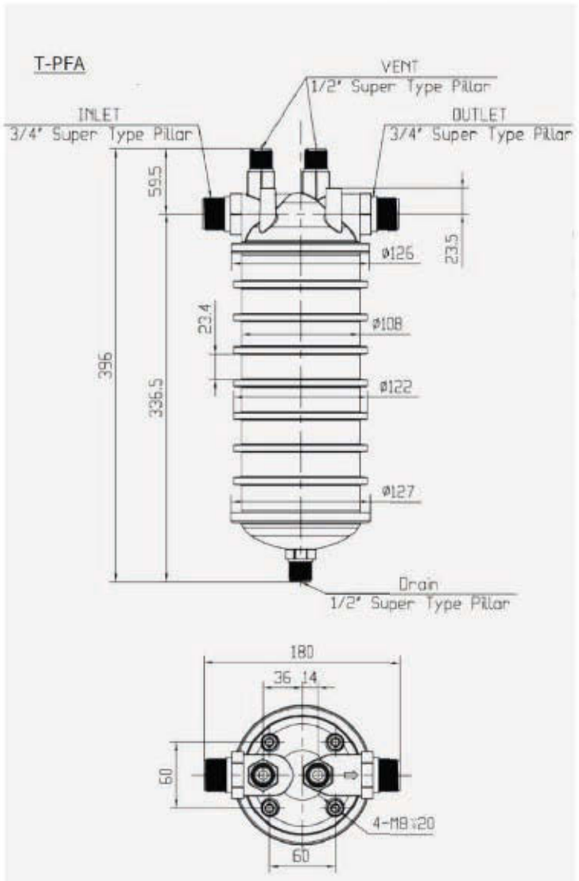




Ordering Information

TPFA	–	S1	002	05	S64	S	
Code		Filter Area	Removal Rating	Length	Inlet & Outlet	cleanliness	Packaging
TPFA		S1	002 0.02μm	05 5"	S64 Inlet&Outlet 3/4" Pillar Super Vent&Drain 1/2" Pillar Super	S Semiconductor grade	/ WithoutPrewet
LPFA		S2	005 0.05μm	10 10"		E Electronic grade	W <25ppb
		E1	010 0.1μm	20 20"			CW <10ppb
		E2	020 0.2μm				
			050 0.5μm				

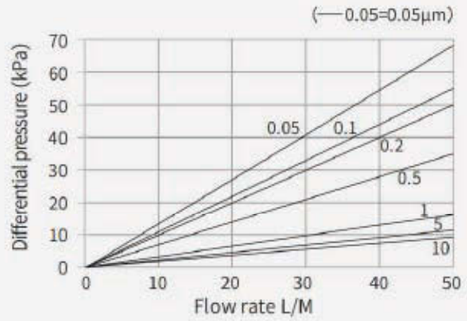
Wet Etch, Bulk Chemical Manufacturing & Cleaning

PTFE membrane filter, PVDF Cage

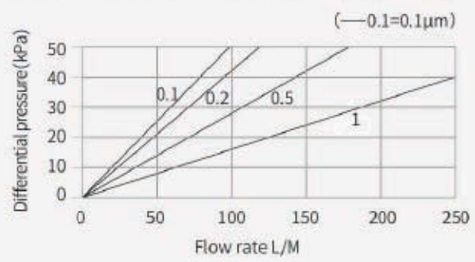
HPF2(Φ69, Φ83)series filters provides excellent chemical compatibility, which could resist strong acids, bases, solvents and corrosive liquids

Hydrophobic(PF2) and hydrophilic (HPF2) PTFE membranes are both available for liquid or gas applications.

Differential pressure vs. Flow rate (10" PF2/HPF2)



Differential pressure vs. Flow rate (10" 83PF2/83HPF2)



Specifications

Filter Media	Hydrophobic PTFE/ Hydrophilic PTFE
Support	ECTFE
Endcaps/Cage/Core	PVDF
Max. Working Temp.	120°C
Max. Operating DP	Forward 0.42Mpa, Reverse 0.21Mpa

Ordering Information

	Removal rating	Adaptor	Length	Sealing	Packaging
PF2 HPF2	005=0.05μm 010=0.10μm 022=0.22μm 045=0.45μm 10T=10μm	0D=DOE 2F=222Spear 2C=222Flat 6F=226Spear 6C=226Flat	05=5" 10=10" 20=20" 30=30" 40=40"	E=EPDM V=Viton S=Silicone T=FEP/Viton	/= Without prewet W=Prewet filter
83PF2 83HPF2		2C=222Flat 6C=226Flat	08=8" 10=10"	E=EPDM T=FEP/Viton	/= Without prewet W=Prewet filter

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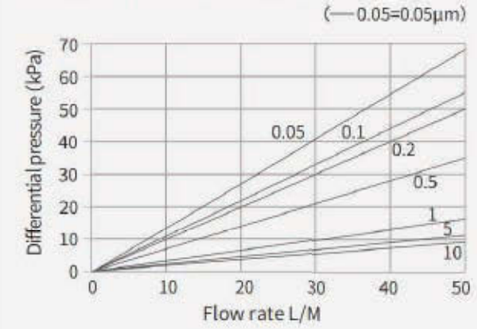
Wet Etch, Bulk Chemical Manufacturing & Cleaning

PTFE membrane filter, HDPE Cage

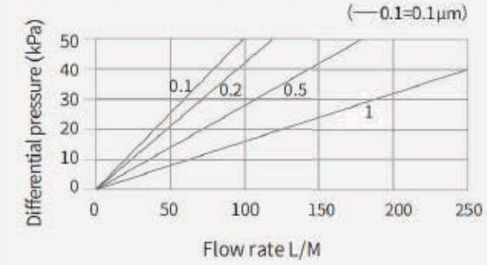
PF3/HPF3/UPE(Φ69, Φ83)series filters feature extremely low metal extractables. Suitable for benzene, toluene organic solvents, corrosive liquids and wet process chemicals.

Hydrophobic(PF3) and hydrophilic (HPF3) PTFE membranes are both available for liquid or gas applications.

Differential pressure vs. Flow rate (10" PF3/HPF3)



Differential pressure vs. Flow rate (10" 83PF3/83HPF3)



Specifications

Filter Media	Hydrophobic PTFE/UPE Hydrophilic PTFE/UPE
Support	HDPE
Endcaps/Cage/Core	HDPE
Max. Working Temp.	70°C
Max. Operating DP	Forward 0.42Mpa, Reverse 0.21Mpa

Ordering Information

	Removal rating	Adaptor	Length	Sealing	Packaging
PF3 HPF3 UPE	005=0.05μm 010=0.10μm 022=0.22μm 045=0.45μm 10T=10μm	0D=DOE 2F=222Spear 2C=222Flat 6F=226Spear 6C=226Flat	05=5" 10=10" 20=20" 30=30" 40=40"	E=EPDM V=Viton S=Silicone T=FEP/Viton	/= Without prewet W=Prewet filter
83PF3 83HPF3 83UPE		2C=222Flat 6C=226Flat	08=8" 10=10"	E=EPDM T=FEP/Viton	/= Without prewet W=Prewet filter

Wet Etch, Bulk Chemical Manufacturing & Cleaning

PTFE Membrane Filter

PF1/HPF1(Φ69,Φ83,Φ131)series filter cartridges have stable porosity. 100% integrity tested.
Hydrophobic(PF1) and hydrophilic (HPF1) PTFE membranes are both available for liquid or gas applications.
PF1 series feature high flow rate, low pressure drop, wide chemical compatibility, long service life and high temperature resistance.
HPF1 series hydrophilic PTFE filter cartridge feature great hydrophility, low extractables and
high filtration efficiency. No prewetting requirement.
Dry environment storage.

Specifications

Filter Code	PF1/HPF1
Filter Media	Hydrophobic PTFE/ Hydrophilic PTFE
Support	PP
Endcaps/Cage/Core	PP
Max. Working Temp.	90°C
Max. Operating DP	Forward 0.42Mpa, Reverse 0.21Mpa

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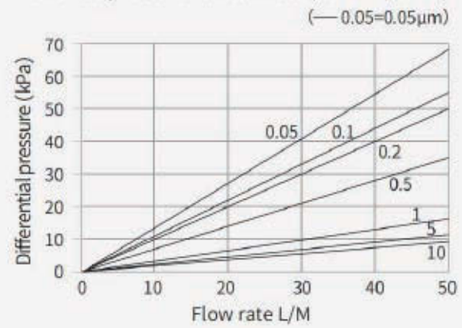
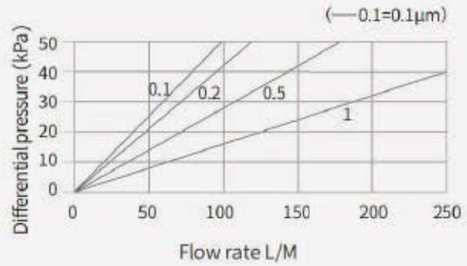
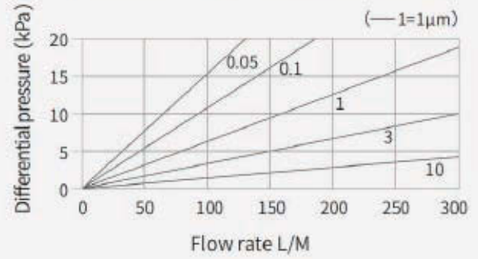
Differential pressure vs. Flow rate (10" PF1/HPF1)



Differential pressure vs. Flow rate (10" 83PF2/83HPF2)



Differential pressure vs. Flow rate (10" 131PF2/131HPF2)



Ordering Information

	Removal rating	Adaptor	Length	Sealing	Packaging
PF1 HPF1	005=0.05μm 010=0.10μm 022=0.22μm 045=0.45μm 10T=10μm	0D=DOE 2F=222Spear 2C=222Flat 6F=226Spear 6C=226Flat	05=5" 10=10" 20=20" 30=30" 40=40"	E=EPDM V=Viton S=Silicone T=FEP/Viton	/=Without prewet W=Prewet filter
83PF1 83HPF1		2C=222Flat 6C=226Flat		E=EPDM T=FEP/Viton	/=Without prewet W=Prewet filter
131PF1 131HPF1		4C=334Flat	10=10"	E=EPDM T=FEP/Viton	/=Without prewet W=Prewet filter

Wet Etch, Bulk Chemical Manufacturing & Cleaning

PES Membrane Filter

PS2(Φ69, Φ83, Φ131) series filters utilize asymmetric PES membrane, which feature graded interception, high dirt holding capacity and long service life. The unique structure of PS2 ensures lower replacement frequency and reduce total cost.

Each filter is 100% integrity tested.

Specifications

Filter Code	PS2
Filter Media	Asymmetric PES
Support	PP
Endcaps/Cage/Core	PP
Max. Working Temp.	90°C
Max. Operating DP	Forward 0.42Mpa, Reverse 0.21Mpa

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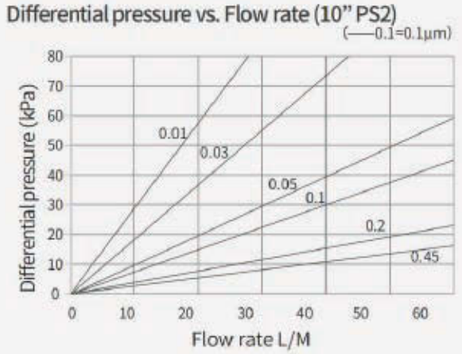
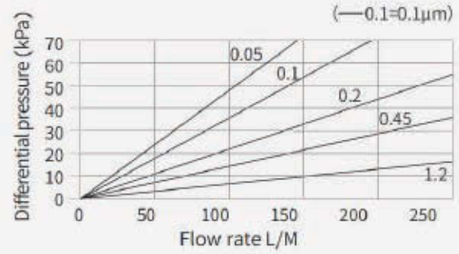
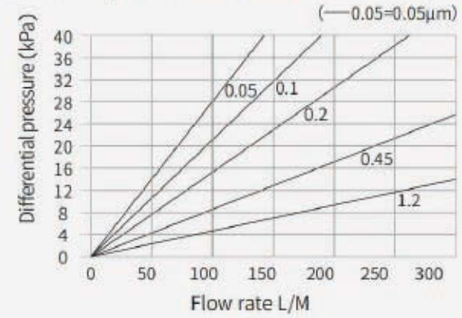
Differential pressure vs. Flow rate (10" PS2)



Differential pressure vs. Flow rate (10" 83PS2)



Differential pressure vs. Flow rate (10" 131PS2)



Ordering Information

	Removal rating	Adaptor	Length	Sealing
PS2	001=0.01μm 003=0.03μm 005=0.05μm 010=0.1μm 022=0.22μm 045=0.45μm 100=1.00μm	0D=DOE 2F=222Spear 2C=222Flat 6F=226Spear 6C=226Flat	05=5" 10=10" 20=20" 30=30" 40=40"	E=EPDM V=Viton S=Silicone T=FEP/Viton
83PS2		2C=222Flat 6C=226Flat	08=8" 10=10"	E=EPDM T=FEP/Viton
131PS2		4C=334Flat	10=10"	E=EPDM T=FEP/Viton

Wet Etch, Bulk Chemical Manufacturing & Cleaning

PP Pleated Filter Cartridges

PP3(Φ69, Φ83, Φ131) Series pleated PP filter cartridges utilize multi-layer of graded PP membrane. The unique matrial structure ensures high dirt holding capacity and high filtration efficiency. Suitable for gels, colloids and high viscosity fluids.

Filtration efficiency

Pore Size \ Particle Size	0.5	1.0	1.5	2.0	5.0
0.5μm	98.86				
1.0μm	99.65	98.91			
3.0μm	100	99.98	99.96	98.60	
5.0μm	100	100	99.99	100	98.88

Specifications

Filter Code	PP3
Filter Media	Multi-layer PP
Support	PP
Endcaps/Cage/Core	PP
Max. Working Temp.	80°C
Max. Operating DP	Forward 0.42Mpa, Reverse 0.21Mpa

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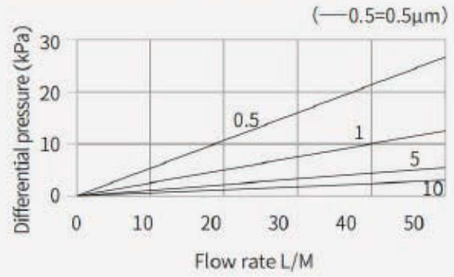
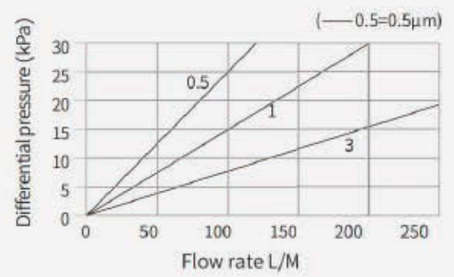
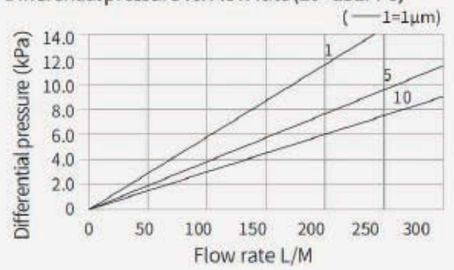
Differential pressure vs. Flow rate (10" PP3)



Differential pressure vs. Flow rate (10" 83PP3)



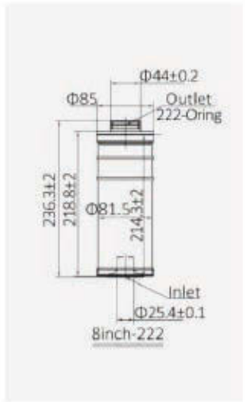
Differential pressure vs. Flow rate (10" 131PP3)

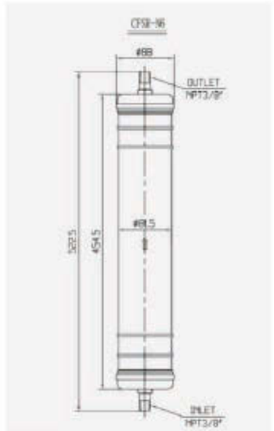


Ordering Information

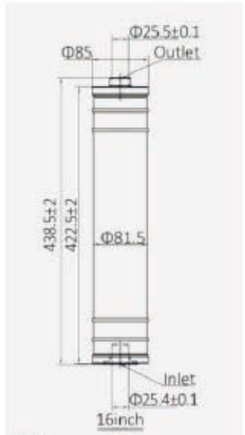
	Removal rating	Adaptor	Length	Sealing
PP3	050=0.5μm 100=1.0μm 150=1.5μm 200=2μm 300=3μm 500=5μm 10T=10μm	0D=DOE 2F=222Spear 2C=222Flat 6F=226Spear 6C=226Flat	05=5" 10=10" 20=20" 30=30" 40=40"	E=EPDM V=Viton S=Silicone T=FEP/Viton
83PP3		2C=222Flat 6C=226Flat	08=8" 10=10"	E=EPDM T=FEP/Viton
131PP3		4C=334Flat	10=10"	E=EPDM T=FEP/Viton

Wet Etch, Bulk Chemical Manufacturing & Cleaning





CFRS
Inlet & Outlet: 01



CFRS
Inlet & Outlet: 2C

CFRS filter for removing metal ions

CFRS capsule filter effectively removes metal ions and ensures a stable output of ultrapure water.

Specifications

Filter Code	CFRS
Filter Media	Ion Exchange Resin
Capsule	PP
Length	438.5mm/236.3mm
Outer Diameter	81.5cm
Inlet & Outlet	222/226/WN
Max. Working Temp.	40°C
Max. Operating DP	0.6Mpa

Ordering Information

CFRS	–	08	–	2C		E

Length	
08	8"
16	16"

Adaptor	
2C	222 Flat
6C	226 Flat
01	3/8" NPT
02	1" clamp
03	1/2" NPT

Sealing	
E	EPDM
V	Viton
S	Silicone
T	FEP/Viton

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CMP Slurry Filtration

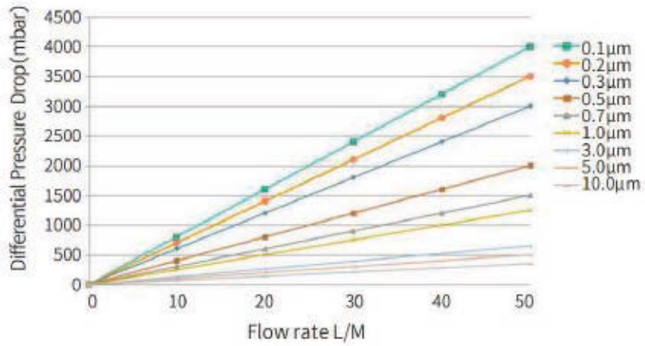
CMP-RF depth filter

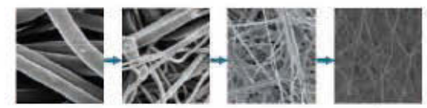
MP-RF depth filter is rolled with multilayer graded PP membrane. These PP media have a continously tapered pore structure. Economical for polishing solutions.

Specifications

Filter media	Deefine Nanofiber
Core	PP
Max. working temp.	80°C/176°F
Max. working DP	0.4Mpa/25°C

Differential pressure vs. Flow rate (CMP-RF)





▲
Deefine Nanofiber

Ordering Information

	Removal rating	Adaptor	Length	Sealing
CMP-RF	010=0.1μm 020=0.2μm 030=0.3μm 050=0.5μm 070=0.7μm 100=1.0μm 300=3.0μm 500=5.0μm 10T=10μm 20T=20μm 50T=50μm	0D=DOE 2F=222Spear 2C=222Flat 6F=226Spear 6C=226Flat	05=5" 10=10" 20=20" 30=30" 40=40"	/ E=EPDM V=Viton S=Silicone T=FEP/Viton

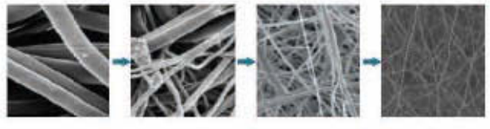
CMP Slurry Filtration

CMP-PP Pleated Filter Cartridge

The CMP-PP series ultilize multi-layer imported PP membranes as filter media. The advanced folding technology guarantees the dirt holding capacity, and all-polypropylene structure ensures the stable performance, which is an ideal choice for polishing solution filtration.

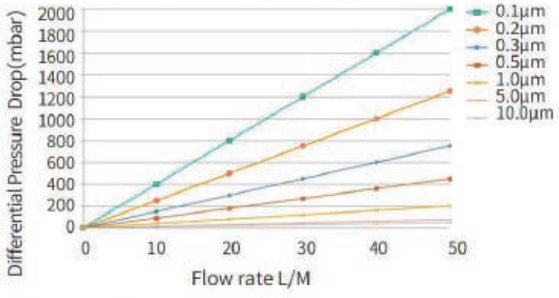
Specifications

Filter media	multi-layer imported PP
Support	PP
Endcaps/Cage/Core	PP
Max. working temp.	80°C/176°F
Max. working DP	0.4Mpa/25°C; 0.2Mpa/80°C



▲ Deefine Nanofiber material

Differential pressure vs. Flow rate (CMP-PP)



Ordering Information

	Removal rating	Adaptor	Length	Sealing
CMP-PP	010=0.1μm 020=0.2μm 030=0.3μm 050=0.5μm 100=1.0μm 500=5.0μm 10T=10μm	0D=DOE 2F=222Spear 2C=222Flat 6F=226Spear 6C=226Flat	05=5" 10=10" 20=20" 30=30" 40=40"	/ E=EPDM V=Viton S=Silicone T=FEP/Viton

KLEANPLUS

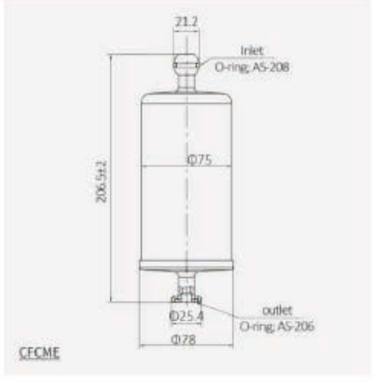
CMP Slurry Filtration

CFCME & CFCMP Capsule Filter

The CFCME/CFCMP series is designed for CMP applications with compact structure and easy operation. It has an excellent filtering effect on impurities and gels in the CMP slurry. All polypropylene structure, hot-melt welding, no adhesive.

Specifications

Filter Media	PP
Capsule	PP
Length	206mm
Max. Working Temp.	55°C
Max. Operating DP	0.6Mpa



▲ CFCMP

▲ CFCME

▲ CFCMC

Ordering Information

CFCM	E	–	PP	–	010	1	V

Capsule	Filter Media	Removal Rating		Inlet & Outlet		Vent /Drain	Sealing	
E	PP	010	0.1μm	1	O-ring	/	E	EPDM
P	NF	020	0.2μm	2	3/8" Flare	1/4" Flare	V	Viton
C		030	0.3μm					
		050	0.5μm					
		100	1μm					
		300	3μm					
		500	5μm					

Photoresist Filtration

N6/N66 series

N6/N66 series filter cartridges are made of nylon micro-porous membrane and processed by advanced fusion welding process. Each filter element has been integrity tested.

NN6/NN66 Series

NN6/NN66 series filter cartridge adopts nylon membrane as filter medium. The support, drainage, inner core, cage, endcaps are all made of nylon material. All nylon structure makes it more resistant to high temperature and solvents. Each filter element has been integrity tested.

Specifications

Filter Code	N6,N66	NN6,NN66
Filter Media	Nylon	Nylon
Support	PP	Nylon
Endcaps/Cage/Core	PP	Nylon
Max. Working Temp.	80°C	120°C
Max. Operating DP	Forward 0.42Mpa, Reverse 0.21Mpa	Forward 0.42Mpa, Reverse 0.21Mpa

Ordering Information

	Removal rating	Adaptor	Length	Sealing	Core
N6/N66	010=0.10μm	0D=DOE	05=5"	E=EPDM	1=PP
NN6/NN66	022=0.22μm	2F=222Spear	10=10"	V=Viton	2=Nylon
	045=0.45μm	2C=222Flat	20=20"	S=Silicone	
	065=0.65μm	6F=226Spear	30=30"	T=FEP/Viton	
	100=1.00μm	6C=226Flat	40=40"		

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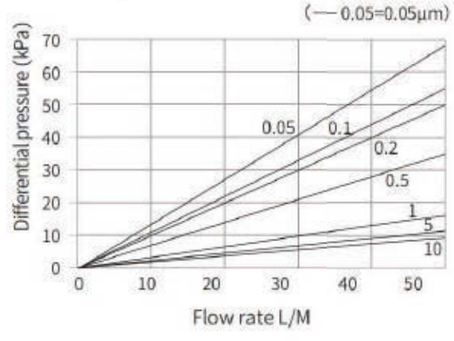
Photoresist Filtration

PF1/HPF1 Series

PF1/HPF1 series filter cartridge has uniform pore size and small diffusion flow. The hydrophobic and hydrophilic PTFE membrane can be used for both gas and liquid filtration.
Hydrophobic PF1 filter cartridges are characterized by inherent hydrophobicity, high flow rate, high filtration accuracy, no fiber shedding, chemical resistance, high temperature resistance and long service life.
Hydrophilic HPF1 filter cartridges are characterized by strong hydrophilicity, high flow rate, high filtration accuracy, no fiber shedding, chemical resistance, high temperature resistance, no need for pre-wetting, dry storage.

Differential pressure vs. Flow rate (10"PF1/HPF1)



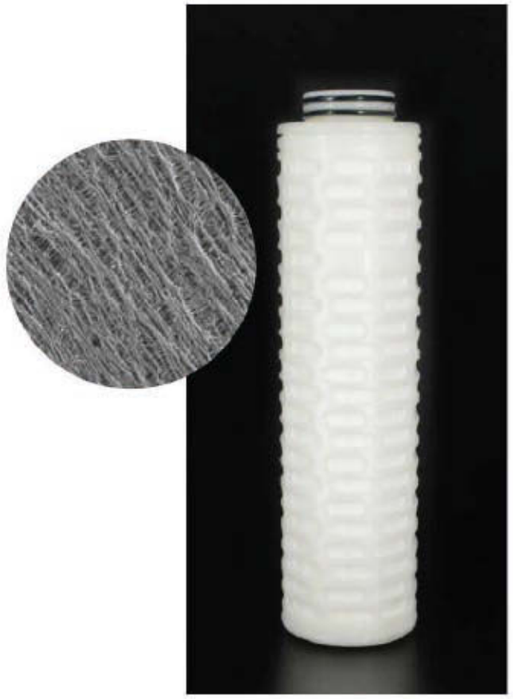
Specifications

Filter Media	Hydrophobic PTFE/ Hydrophilic PTFE
Support	PP
Endcaps/Cage/Core	PP
Max. Working Temp.	90°C
Max. Operating DP	Forward 0.42Mpa, Reverse 0.21Mpa

Ordering Information

	Removal rating	Adaptor	Length	Sealing	Packaging
PF1 HPF1	005=0.05μm	0D=DOE	05=5"	E=EPDM	/=Without prewet
	010=0.10μm	2F=222Spear	10=10"	V=Viton	W=Prewet filter
	022=0.22μm	2C=222Flat	20=20"	S=Silicone	
	045=0.45μm	6F=226Spear	30=30"	T=FEP/Viton	
	10T=10μm	6C=226Flat	40=40"		

Photoresist Filtration



PF3/HPF3 Series

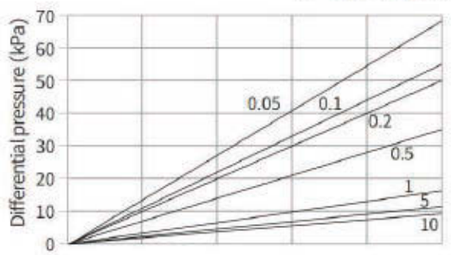
PF3/HPF3 series filter cartridges are ideal for organic solvents (benzene,dimethylbenzene), corrosive fluids and wet process chemicals, with extremely low extractable.
Flexibility to choose hydrophobic(PF3) or hydrophilic (HPF3) membrane to suit different applications.

Specifications

Filter Media	Hydrophobic PTFE/UPE Hydrophilic PTFE/UPE
Support	HDPE
Endcaps/Cage/Core	HDPE
Max. Working Temp.	70°C
Max. Operating DP	Forward 0.42Mpa, Reverse 0.21Mpa

Differential pressure vs. Flow rate (10" PF3/HPF3)

(— 0.05=0.05μm)



Flow rate L/M

Ordering Information

	Removal rating	Adaptor	Length	Sealing	Packaging
PF3 HPF3 UPE	005=0.05μm 010=0.10μm 022=0.22μm 045=0.45μm 10T=10μm	0D=DOE 2F=222Spear 2C=222Flat 6F=226Spear 6C=226Flat	05=5" 10=10" 20=20" 30=30" 40=40"	E=EPDM V=Viton S=Silicone T=FEP/Viton	/=Without prewet W=Prewet filter

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Photoresist Filtration

GF Series

GF series use glass microfiber as filter medium, which features high absorption and high efficiency.

GP Series

GP filter is designed with glass microfiber medium and PP melt-blown membrane. The multi-layer gradient membrane structure has high dirt loading capacity, especially suitable for gels, condensed blocks and other impurities.

GN Series

GN series combine glass microfiber medium and nano fiber medium, which feature high dirt holding capacity. With homogeneous pore size, GN filter could intercept impurities and protect the useful particles to flow through. No fiber shedding during using. Each piece has been 100% integrity tested.

Specifications

Filter Code	Filter Media	Endcaps/Cage/ Support/Core	Max. Working Temp.	Max. Operating DP
GF	Glass microfiber	PP	80°C	Forward 0.42Mpa, Reverse 0.21Mpa
GP	Glass microfiber + PP	PP	80°C	Forward 0.42Mpa, Reverse 0.21Mpa
GN	Glass microfiber + nano fiber	PP	80°C	Forward 0.42Mpa, Reverse 0.21Mpa

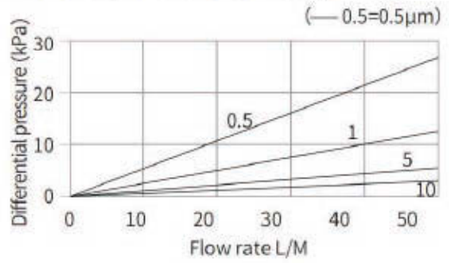
Ordering Information

	Removal rating	Adaptor	Length	Sealing
GF GP GN	030=0.3μm 050=0.5μm 100=1μm 200=2μm 300=3μm 500=5μm 10T=10μm	0D=DOE 2F=222Spear 2C=222Flat 6F=226Spear 6C=226Flat	05=5" 10=10" 20=20" 30=30" 40=40"	E=EPDM V=Viton S=Silicone T=FEP/Viton

PP3/PP3N/PP3H Series

Continuously graded pore structure and multi-layer filter media. High contaminant loading capacity and long service life. Specially designed for suspended particulate, colloids and high viscosity fluids.

Differential pressure vs. Flow rate (10" PP3)



Specifications

Filter Code	PP3/PP3N
Filter Media	multi-layer PP/ multi-layer PP+Nano fiber
Support	PP
Endcaps/Cage/Core	PP
Max. Working Temp.	80°C
Max. Operating DP	Forward 0.42Mpa, Reverse 0.21Mpa

Filtration efficiency

Pore Size \ Particle Size	0.5	1.0	1.5	2.0	5.0
0.5μm	98.86				
1.0μm	99.65	98.91			
3.0μm	100	99.98	99.96	98.60	
5.0μm	100	100	99.99	100	98.88

Ordering Information

	Removal rating	Adaptor	Length	Sealing
PP3	050=0.5μm	0D=DOE	05=5"	E=EPDM
	100=1.0μm	2F=222Spear	10=10"	V=Viton
	150=1.5μm	2C=222Flat	20=20"	S=Silicone
	200=2μm	6F=226Spear	30=30"	T=FEP/Viton
	300=3μm	6C=226Flat	40=40"	
	500=5μm			
	10T=10μm			

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Photoresist Filtration

Three-hole Lithography Capsule filter

The CFTH series is specially suitable for flat panel and lithography applications.

The CFTH series provide critical particle removal performance for pigment-dispersed color resists. The built-in filter structure can minimize pollution.

The compact and stable design makes it easy to install or modify existing tools. It can be replaced in less than one minute, without any tools or draining, minimizing dripping and leakage.

▲ CFTHP

▼ CFTHE

Specifications

Filter Media	PTFE/PP
Support	PP, HDPE
Sealing	FEP/Viton, EPDM
Capsule	HDPE
Max. Working Temp.	0.39Mpa(25°C)
Max. Operating DP	0.27Mpa(25°C)
	40°C

Ordering Information

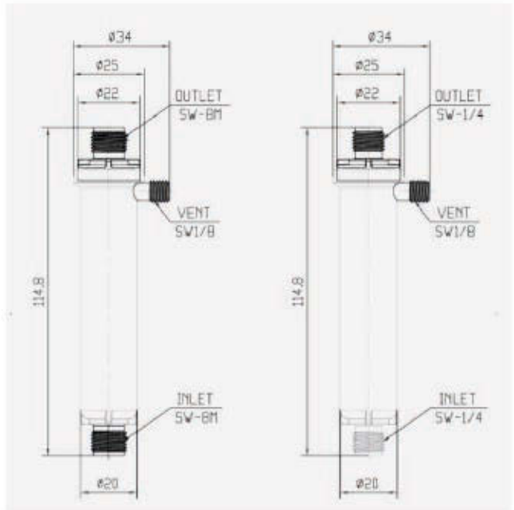
CFTH	02	–	PTFE	–	010	442

Code	Length		Filter Media	Removal Rating		Inlet & Outlet	Vent
CFTHE	02	2.5"	PTFE	005	0.05μm	442	12.7mm	6.35mm
CFTHP	05	5"	PP3	010	0.1μm	332	9.53mm	6.35mm
				022	0.22μm	222	6.35mm	6.35mm
				045	0.45μm	884	8mm	4mm
				060	0.6μm	664	6mm	4mm
				120	1.2μm			
				500	5μm			
				...	...			

Photoresist Filtration

CFPR Capsule filter

The CFPR series is a disposable capsule filter designed for photoresist processing. It is designed to remove particles generated during the use of photoresist and improve product yield.
It has a compact space structure, which reduces the residual material and liquid, and the integral design makes the replacement safer and faster.
Manufacturing, testing and packaging in a clean room to ensure product cleanliness. Suitable for filtering in small flow occasions. There are a variety of materials to choose to meet a variety of needs.



Specifications

Filter Media	PP/PTFE/NF
Capsule	PP/PVDF
Max. Working Temp.	40°C
Max. Operating DP	0.4Mpa(25°C)

Ordering Information

CFPR		–	PP	–	010		1

Capsule	
/	PP
V	PVDF

Filter Media	
P	PP
F	PTFE
N	NF (PVDF capsule only)

Removal Rating	
005	0.05μm
010	0.1μm
050	0.5μm
100	1μm

Inlet & Outlet		Vent
1	8mm Swagelok	1/8" Swagelok
2	1/4" Swagelok	1/8" Swagelok

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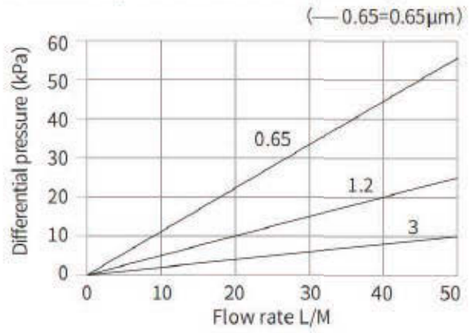
Electroplate liquid

PP2 Series

Absolute rated filtration efficiency, gradient membrane structure and large surface area provide excellent dirt holding capacity. The characteristics of high flow rate and high precision make PP2 especially suitable for occasions that require high filtration performance.

Differential pressure vs. Flow rate (10" PP2)



Specifications

Filter Media	Efficient PP
Support	PP
Endcaps/Cage/Core	PP
Max. Working Temp.	80°C
Max. Operating DP	Forward 0.42Mpa, Reverse 0.21Mpa

Filtration efficiency

Pore Size \ Particle Size	0.5	1.0	3.0	5.0
0.5μm	99.64	95.68	85.56	76.45
1.0μm	99.98	99.75	90.40	84.15
3.0μm	100	99.98	99.80	93.45
5.0μm	100	100	99.92	99.15
10μm	100	100	100	99.99

Ordering Information

	Removal rating		Adaptor	Length	Sealing
PP2	030=0.3μm	120=1.2μm	0D=DOE	05=5"	E=EPDM
	050=0.5μm	300=3μm	2F=222Spear	10=10"	V=Viton
	065=0.65μm	500=5μm	2C=222Flat	20=20"	S=Silicone
	100=1.0μm	10T=10μm	6F=226Spear	30=30"	T=FEP/Viton
			6C=226Flat	40=40"	

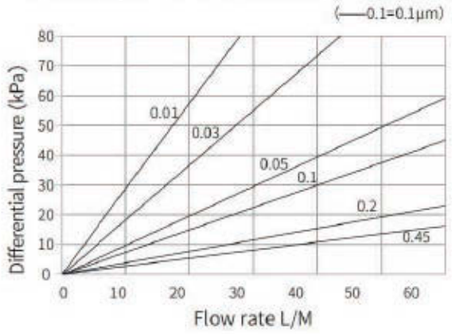
PS2 Series

PS2 series are asymmetric PES membrane filters with gradient interception structure.The structure ensures high dirt loading capacity, high flux and long service life. Each filter has been 100% integrity tested before leaving the factory.

Specifications

Filter Media	Asymmetric PES
Support	PP
Endcaps/Cage/Core	PP
Max. Working Temp.	90°C
Max. Operating DP	Forward 0.42Mpa, Reverse 0.21Mpa

Differential pressure vs. Flow rate (10" PS2)



Ordering Information

	Removal rating	Adaptor	Length	Sealing
PS2	001=0.01μm	0D=DOE	05=5"	E=EPDM
	003=0.03μm	2F=222Spear	10=10"	V=Viton
	005=0.05μm	2C=222Flat	20=20"	S=Silicone
	010=0.1μm	6F=226Spear	30=30"	T=FEP/Viton
	022=0.22μm	6C=226Flat	40=40"	
	045=0.45μm			
	065=0.65μm			
	100=1.00μm			

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Electroplate liquid

PF1/HPF1 Series

PF1/HPF1 series filter cartridge has uniform pore size and small diffusion flow. The hydrophobic and hydrophilic PTFE membrane can be used for both gas and liquid filtration.

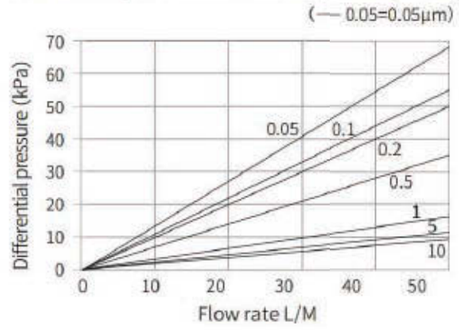
Hydrophobic PF1 filter cartridges are characterized by inherent hydrophobicity, high flow rate, high filtration accuracy, no fiber shedding, chemical resistance, high temperature resistance and long service life.

Hydrophilic HPF1 filter cartridges are characterized by strong hydrophilicity, high flow rate, high filtration accuracy, no fiber shedding, chemical resistance, high temperature resistance, no need for pre-wetting, dry storage.

Specifications

Filter Media	Hydrophobic PTFE/ Hydrophilic PTFE
Support	PP
Endcaps/Cage/Core	PP
Max. Working Temp.	90°C
Max. Operating DP	Forward 0.42Mpa, Reverse 0.21Mpa

Differential pressure vs. Flow rate (10"PF1/HPF1)



Ordering Information

	Removal rating	Adaptor	Length	Sealing	Packaging
PF1 HPF1	005=0.05μm	0D=DOE	05=5"	E=EPDM	/= Without prewet
	010=0.10μm	2F=222Spear	10=10"	V=Viton	W=Prewet filter
	022=0.22μm	2C=222Flat	20=20"	S=Silicone	
	045=0.45μm	6F=226Spear	30=30"	T=FEP/Viton	
	10T=10μm	6C=226Flat	40=40"		

Electroplate liquid

MBC Depth Filter

MBC depth filter is constructed of several bi-component fibers, high temperature and high pressure resistance.
MBCG adds a layer of glass fiber to achieve an absolute efficiency of 0.5μm.
MBCF adds a layer of hydrophilic PTFE to achieve an absolute efficiency of 0.1μm

Specifications

Filter Code	MBC	MBCG	MBCF
Filter Media	PP+PE	PP+PE+GF	PP+PE+PTFE
Max.Working Temp.	80°C		
Max. Operating DP	0.48Mpa/25°C		

Ordering Information

	Removal rating	Adaptor	Length	Sealing
MBC	100=1.0μm 300=3.0μm 500=5.0μm 10T=10μm 25T=25μm 50T=50μm 75T=75μm 10H=100μm 15H=150μm	0D=DOE 2F=222Spear 2C=222Flat 6F=226Spear 6C=226Flat	05=5" 10=10" 20=20" 30=30" 40=40"	/ E=EPDM V=Viton S=Silicone T=FEP/Viton
MBCG	050=0.5μm 100=1.0μm			
MBCF	010=0.1μm 020=0.2μm 045=0.45μm			

RFC Depth Filter

RFC series is made of carbon fiber filter material, suitable for solution decolorization, odor removal and chlorine removal occasions.
The 69RFC series comes with housing and has an external diameter of 69 mm.

Specifications

Filter Code	RFC/69RFC
Filter Media	carbon fiber
Support	PP
Outer diameter	64/69mm
Max. Working Temp.	90°C

Ordering Information

	Removal rating	Adaptor	Length	Sealing
RFC	500=5.0μm	0D=DOE 2F=222Spear 2C=222Flat 6F=226Spear 6C=226Flat	05=5" 10=10" 20=20" 30=30" 40=40"	/ E=EPDM V=Viton S=Silicone T=FEP/Viton

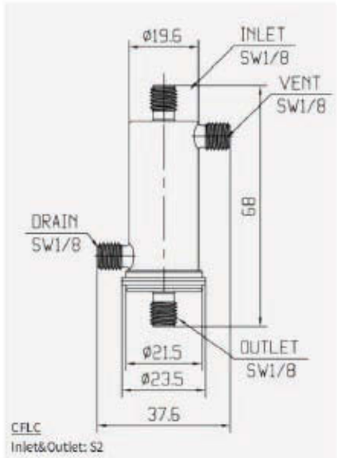
ODF Capsule Filter

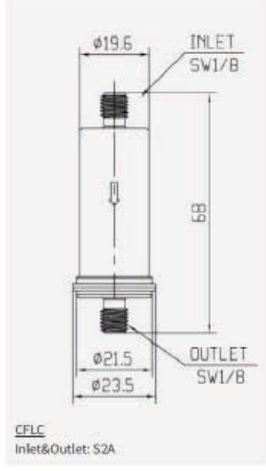
CFLC Series

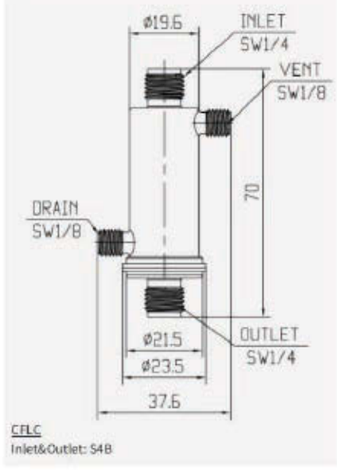
The CFLC series is a disposable capsule filter designed to remove gelatinous substances and particles in liquid crystal materials. Suitable for the manufacture of thin film transistor displays. .
Perfluoropolymer makes it excellent chemical compatibility and low precipitation.
Manufacturing, testing and packaging in a clean room to ensure product cleanliness.

Specifications

Filter Media	PTFE
Support, Cage, Core	PFA
Outer diameter	120°C
Max. Working Temp.	0.42Mpa







Ordering Information

CFLC	–	010	S2

Code
CFLC
CFLC2

Removal Rating	
005	0.05μm
010	0.1μm
020	0.2μm

Inlet & Outlet	Vent / Drain
S2	1/8" Swagelok	1/8" Swagelok
S2A	1/8" Swagelok	/-No vent
S4A	1/4" Swagelok	/-No vent
S4B	1/4" Swagelok	1/8" Swagelok

18M ultrapure water filter cartridge

HFP/ HFPH Series

FP/HFPH Series are high flow water filter cartridges with handle and inside to outside flow pattern. It has large 152 mm (6") diameter. The flow rate is up to 70m³/h per 40" cartridge.

HFM / HFMH Series

HFM/HFMH Series are high flow filter cartridges with single open-ended and outside to inside flow pattern. It has a large 165 mm (6.5") diameter. The flow rate is up to 80m³/h for one 40" cartridge.

HFH/ HFHH Series

HFH/HFHH Series are high flow filter cartridges with single open-ended and outside to inside flow pattern. It has a large diameter of 152 mm(6") . The flow rate is up to 70m³/h for one 40" cartridge.

Ordering Information

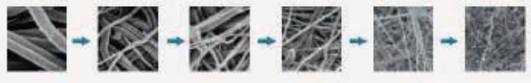
Filter medium	PP/glass fiber
Max. operating temp.	80°C
Max. differential pressure	0.3MPa(60°C)

HFP/HFM/HFH/HFD/HFT/HFMO Series

Layer 1 Layer 2

Thick → thin
Membrane aperture

HFPH/HFMH/HFHH/HFDH/HFTH/HFMOH Series



Layer 1 Layer 2 Layer 3 Layer 4 Layer 5 Layer 6

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18M ultrapure water filter cartridge

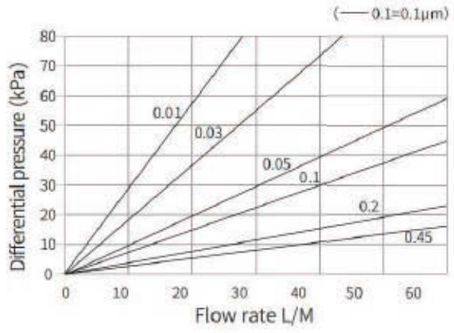
PS2 Series

PS2 series are asymmetric PES membrane filters with gradient interception structure. The structure ensures high dirt loading capacity, high flux and long service life. Each filter has been 100% integrity tested.

Specifications

Filter Media	Asymmetric PES
Support	PP
Endcaps/Cage/Core	PP
Max. Working Temp.	90°C
Max. Operating DP	Forward 0.42Mpa, Reverse 0.21Mpa

Differential pressure vs. Flow rate (10" PS2)



Ordering Information

	Removal rating	Adaptor	Length	Sealing
PS2	001=0.01μm	0D=DOE	05=5"	E=EPDM
	002=0.02μm	2F=222Spear	10=10"	V=Viton
	005=0.05μm	2C=222Flat	20=20"	S=Silicone
	010=0.1μm	6F=226Spear	30=30"	T=FEP/Viton
	022=0.22μm	6C=226Flat	40=40"	
	045=0.45μm			
	065=0.65μm			
	100=1.00μm			

Stainless steel gas filter

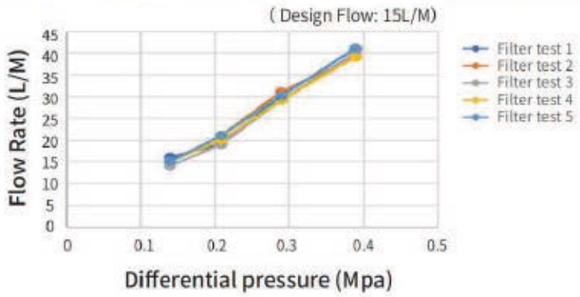
GSSM and GSS series

The GSSM and GSS gas filter housing are made of electronic grade stainless steel and designed for gas filtration at high temperature and pressure in semiconductor processes. The filters feature high flow rates, low pressure drop and excellent chemical compatibility.

Specifications

Filter Media	Hydrophobic PTFE
Housing	316L stainless steel
Support	PFA
Max. Working Temp.	170°C
Max. Operating DP	Forward 0.55Mpa, Reverse 0.34Mpa

Gas flow rate/Differential pressure



Applications

Compressed air, process gas, toxic gas, dry gas, dewatering

Ordering Information

GSSM – 300 – VMM4

Removal Rating	
300	0.003μm
150	0.0015μm

	Inlet & Outlet	Length
VMM4	1/4" Gasket Steal(VCR).Male/Male	84mm
SMM4	1/4" Compression Steal(Swagelok).Male inlet/outlet	73mm
VFM4	1/4" Gasket Steal(VCR).Female inlet/Male outlet	88mm
VMF4	1/4" Gasket Steal(VCR).Male inlet/Female outlet	100mm

GSS – 300 – VMM4

Removal Rating	
300	0.003μm
150	0.0015μm

Inlet & Outlet	Length
1/4" Gasket Seal (VCR or Compatible) Male/Male	141mm
3/8" Gasket Seal (VCR or Compatible) Male/Male	148mm
1/4" Gasket Seal (VCR or Compatible) Female/Male	148mm
1/4" Compression Seal (Swagelok or Compatible) Male/Male	141mm
3/8" Compression Seal (Swagelok or Compatible) Male/Male	147mm
1/2" Compression Seal (Swagelok or Compatible) Male/Male	111mm
1/4" Female NPT	132mm

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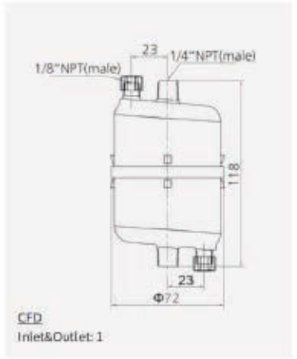
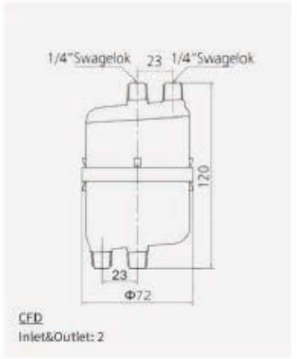
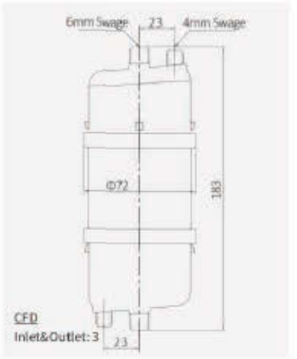
Capsule filter series

CFD Series

The CFD capsule filter is a perfect combination of filter element and housing for quick installation and direct use. It has a compact space structure, with little residue in the filter element when replaced, and is ideal for laboratory or small batch production lines. Depending on the filtration situation, the filter material has a variety of different materials to choose from. 2 length sizes are available, both with large calibre import and export connections, to minimize pressure loss.







Ordering Information

CFD – NF – 010 – 1

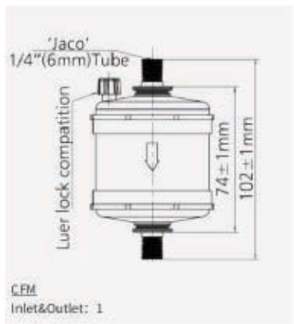
Code	Filter Media	Removal Rating		Inlet & Outlet		Vent / Drain
CFD	PP2	005	0.05μm	1	1/4" NPT	1/8" NPT
CFD2	PP3	010	0.1μm	2	6mm Swagelok	4mm Swagelok
	NF	022	0.22μm	3	1/4" Swagelok	1/4" Swagelok
	PF1	045	0.45μm	F64	3/8" Flare	1/4" Flare
	PS1	100	1μm	S64	3/8" Swagelok	1/4" Swagelok
	...	...	...	S84	1/2" Swagelok	1/4" Swagelok

e.g.: CFD Capsule Filter
CFD-PP2-0101——2.5", PP2 filter media, 0.1μm, 1/4NPT , 1/8NPT

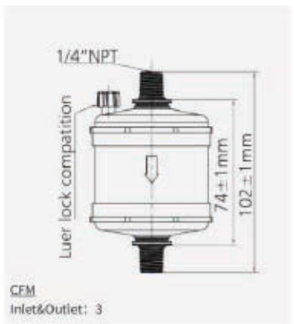
Capsule filter series

CFM Series

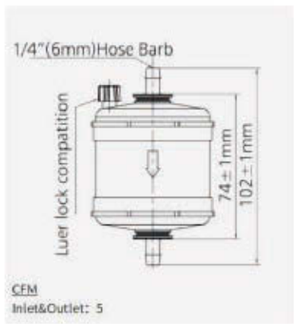
The CFM series filters contain an anti-fiber shedding filter element to prevent secondary contamination. Proper membrane selection affects the performance characteristics of the filter, such as gel removal and service life.



CFM
Inlet&Outlet: 1



CFM
Inlet&Outlet: 3



CFM
Inlet&Outlet: 5

Ordering Information

CFM	–	NF	–	010		1

Filter Media
PP2
PP3
NF
PF1
PS1
…

Removal Rating	
005	0.05μm
010	0.1μm
022	0.22μm
045	0.45μm
060	0.6μm
100	1μm
…	…

Inlet & Outlet	
1	'Jaco' 1/4" -6mm tube
3	1/4" NPT
5	1/4" Hose Barb

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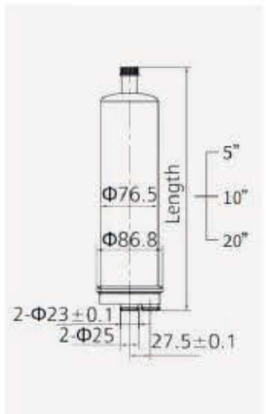
Capsule filter series

CFRK Series

The unique design of the CFRK series filters avoids direct human contact with the slurry and is particularly suitable for filtering harmful solvents such as corrosive and volatile. The CFRK filter reduces the gap between the filter housing and the filter element, reduces the residue of the fluid, saves material and minimizes customer costs.



Specifications

Filter Code	CFRK
Filter Media	HCB/PP3/ Glass Fiber etc
Capsule	PP
Length	5"/10"/20"
Max. Working Temp.	80°C
Max. Operating DP	0.8Mpa

Ordering Information

CFRK	–	HCB	–	050		10		

Filter Media
HCB
PP3
GF
…

Removal Rating	
050	0.5μm
300	3μm
500	5μm
25T	25μm
50T	50μm
75T	75μm
10H	100μm
…	…

Length	
05	5"
10	10"
20	20"

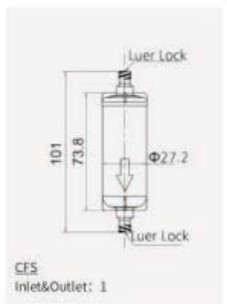
Inlet & Outlet	
/	G 1/4"
1	No air vent

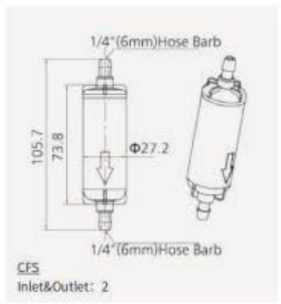
默认密封圈：EPDM

Capsule filter series

CFS Series

The CFS series is a compact capsule filter designed for fine filtration and low residual equipment, with a unique fast-loading structure for easy removal. The series features a high-area folding filter structure with a long service life and reduced initial pressure, making it ideal for small-dose filtration.





Specifications

Filter Code	CFS
Filter Media	PP/PES/PTFE,etc.
Capsule	PP
Length	105.7mm/101mm
Max. Working Temp.	80°C
Max. Operating DP	0.6Mpa

Ordering Information

CFS	–	NF	–	010		1	
		Filter Media		Removal Rating		Inlet & Outlet	
		PP2		005	0.05μm	1	Luerlok
		PP3		010	0.1μm	2	1/4" Hosebarb
		NF		022	0.22μm		
		PF1		045	0.45μm		
		PS1		060	0.6μm		
		...		100	1μm		
				300	3μm		
				...	...		

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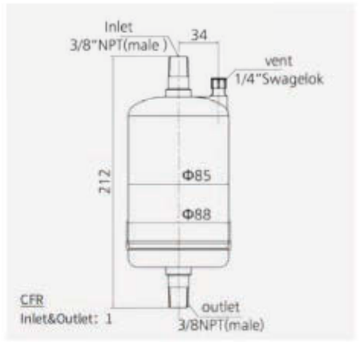
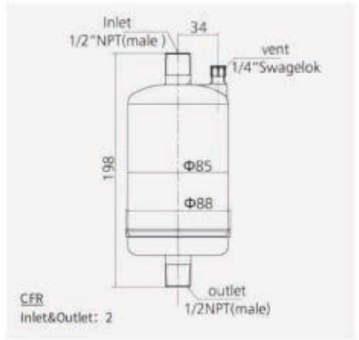
Capsule filter series





CFR Series

CFR series are designed with 3/8 inch NPT and 1/2 inch NPT connections, ideal for big flow lab testing.

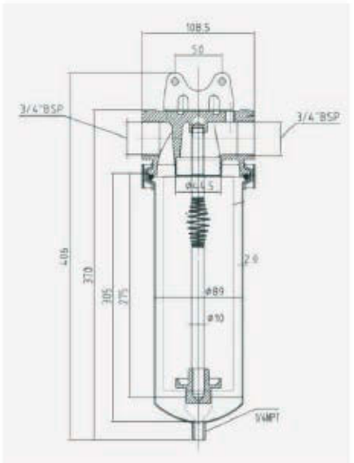
Specifications

Filter Code	CFR
Filter Media	PP/PES/PTFE,etc.
Capsule	PP
Length	212mm/198mm
Max. Working Temp.	80°C
Max. Operating DP	0.6Mpa

Ordering Information

CFR	–	NF	–	010		1	
		Filter Media		Removal Rating		Inlet & Outlet	
		PP2		005	0.05μm	1	3/8" NPT
		PP3		010	0.1μm	2	1/2" NPT
		NF		022	0.22μm		
		PF1		045	0.45μm		
		PS1		060	0.6μm		
		...		100	1μm		
				300	3μm		
				...	...		

Filter housing



HSSA liquid filter housing

HSSA industrial filter housing is designed for critical process filtration with single filter capacity.
Easy and fast installation.
Tri-clamp sealed housing ensures easy cartridge replacement.
Fine surface polishing to meet wide range of filtration requirements. Applications include electronics, water treatment, chemical, food and beverage, pharmaceutical and so on.
Drain valve on the bottom of filter bowl for easy drainage.

Specifications

Materials	Housing shell: 304 stainless steel or 316L
	Drain: 304 stainless steel or 316L
	O-ring/Gaskets: EPDM/Viton/Silicone/PTFE
Inlet & Outlet	1/2", 3/4", 1" Female NPT
Drain	1/4" NPT
Length	5", 10", 20", 30"
	Diameter: 89mm
	Clamp: D10×300
Surface Finish	Filter head: Casting
	Housing body: Mechanical polished
	Surface option: Inner Ra: 0.4um/External Ra: 0.6um
Operating conditions	Max. Operating pressure: 1Mpa 10bar
	Max. operating temp: 130°C

Ordering Information

HSSA	–	16		G4		2C		10		V	
		Material		Inlet&Outlet		Cartridge filter end caps		Length		O-ring	
		04	304 Steel	G4	1/2" FNPT	0D	Double open	05	5"	E	EPDM
		16	316L Steel	G6	3/4" FNPT	2C	222Flat	10	10"	S	Silicone
				G8	1" FNPT	6C	226Flat (with adaptor)	20	20"	V	Viton
								30	30"	F	PTFE

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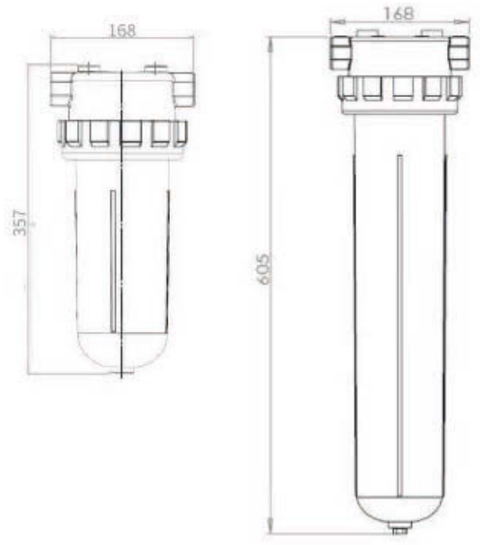
Chemical filters

PP filters

PP filtration is composed of pure polypropylene material, with low precipitation and good chemical compatibility features of . Suitable for general water cleaning or chemical filtration.

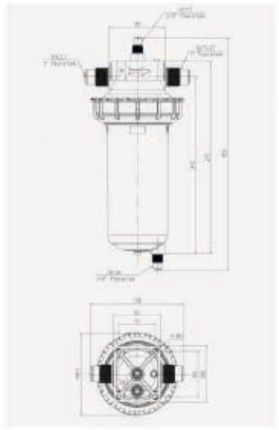
Compact design, simple and lightweight housing, easy to install, suitable for all generations of line equipment.



Ordering Information

HPP	–	10		2C		N6		1/2" NPT	6bar/25°C
Code		Length		Adapt		Inlet & Outlet		Vent / Drain	Max. Operating DP
HPP		10	10"	2C	222Flat	N6	3/4" NPT	1/4" NPT	6bar/25°C
		20	20"			N8	1" NPT	1/4" NPT	
83HPP		10	10"	6C	226Flat	U 40		1/4" NPT	6bar/25°C
		20	20"			DN40		1/4" NPT	
131HPP		10	10"	4C	334Flat	U40		3/8" PTF	6bar/25°C
						U50		3/8" PTF	

Chemical filters



PFA filters

Excellent space-saving solution. This housing locks the cartridge into the bowl, allowing the bowl and cartridge to be installed or removed as a single unit. Contamination and chemical contact are minimized.Ultra Clean Product and Manufacturing PFA Housing only utilizes the highest purity grade Dupont PFA-440 HPJ or equivalent PFA Resin.
Lock-in cartridge reduces required overall footprint and cartridge changeout space. Turning the bowl locking ring perfectly seats the cartridge in the head with double O-ring engagement and straight alignment every time. Provides virtually hands-free cartridge changeout for maximum safety and cleanliness, promoting a safer workplace.

Specifications

Materials	Head, molded-on fitting, bowl	PFA 440 HPJ or equivalent
	O-ring	E-FKM or F-FKM
	Locking ring(nonwetted part)	PVDF or PP
	Mounting hardware-nuts and bolts(nonwetted parts)	PF4(Φ70mm) 83PF4(Φ83 mm) Ezelock，Exx Chemlock or Pxx
Operating conditions	Max. differential pressure	0.3Mpa（100℃）；0.75Mpa（25℃）
	Max. operating temp.	100℃

Ordering Information

HPFA – 10 | 2C | F844 | T | V | S

Length		Filter Connection		Inlet & Outlet		Vent	Drain
04	4"	2C	222 Flat	F844	1" Flare	1/2" Flare	1/2" Flare
10	10"			F644	3/4" Flare	1/2" Flare	1/2" Flare
20	20"			F824	1" Flare	1/4" Flare	1/2" Flare
				F624	3/4" Flare	1/4" Flare	1/2" Flare
				F842	1" Flare	1/2" Flare	1/4" Flare
				F642	3/4" Flare	1/2" Flare	1/4" Flare
				F822	1" Flare	1/4" Flare	1/4" Flare
				F622	3/4" Flare	1/4" Flare	1/4" Flare
				S844	1" Super Pillar	1/2" Pillar Super300	1/2" Pillar Super300
				S644	3/4" Super Pillar	1/2" Pillar Super300	1/2" Pillar Super300

Sealing		Lock Ring		Cleanliness	
T	E-FKM	V	PVDF	S	Semiconductor grade
F	F-FKM	P	PP	E	Electronic grade

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PFA OEM

DEEFINE offers professional PFA processing services such as weaving PFA mesh, silicon cleaning baskets, PFA TANK tanks, etc. Pure PFA materials have the best chemical compatibility, which could resist strong acids, alkali, organic solvents and other highly corrosive fluids, widely used in the semiconductor.

PFA filter mesh

Deefine PFA woven net utilize 100% PFA raw materials. Widely used as membrane support/drainage layers, PFA net could increase effective membrane area, ensure low flow resistance and optimize performance of all fluoropolymer cartridge filter.

Specifications

Code	402	604
Pore size	40 mesh	60 mesh
PFA line diameter	0.2mm	0.1mm
Thickness	0.4mm	0.2mm

PFA wafer cassette

Suitable for 4 inch and 6 inch wafers.

T-TYPE TANK

All-PFA storage tank can be used as a buffer device for chemicals.

We separate what you want

KLEANPLUS

CSC-ISP Co.
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