Grace
FILTER & HOUSING FILTRATION

Taiwan Grace Corp.

www.taiwangrace.com.tw

- Taiwan Grace International Corp. established in 2000, specialized in Liquid Filtration
- ISO 14001:2015 and ISO 9001:2015 certified
- CE certification for Stainless Steel Housings
- FDA certificated Filter Media
- NSF/ANSI 42 certified melt blown filter
- Partnering with customers over 70 countries

Factory

15000 square meter building is LEED Gold level certified.

No. 31, Dapumeiyuanqu 2nd Rd., Dalin Township, Chiayi County 62255, Taiwan

TEL : +886-5-262-3000

FAX : +886-5-262-1111

Headquarter

5F, No. 16-2, Sec. 2, Jhongyang S. Rd., Beitou District 11270, Taipei, Taiwan

TEL : +886-2-2898-1518

FAX : +886-2-2898-1517

E-Mail : info@taiwangrace.com.tw

China

East China: No. 360, Song Jia Gang Rd., Zhou Sh Town, Kun Shan City, Jiang Su Province, China

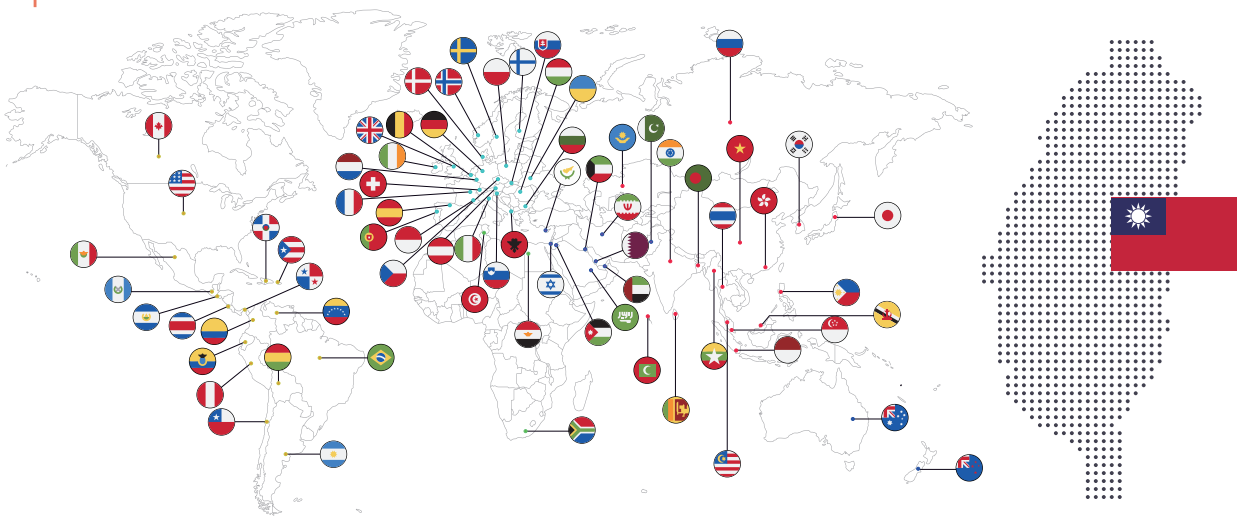
South China: Room 104, No.17, 3rd St., Fengyan Garden, Phoenix-city Community, Yongning Sub-disctrict, Zengcheng District, Guangzhou, China

TEL : +86-512-5512-2200

FAX : +86-512-5512-2201

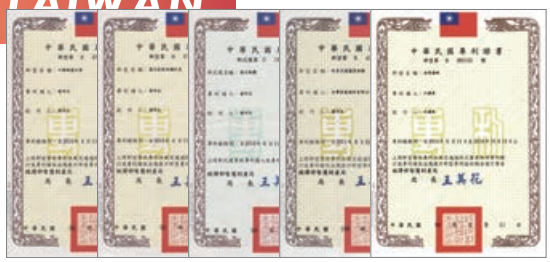
E-Mail : grace@gracefilter.com

Doing business in more than 70 countries worldwide



30 patents in 5 countries

TAIWAN

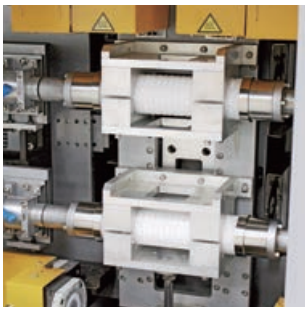
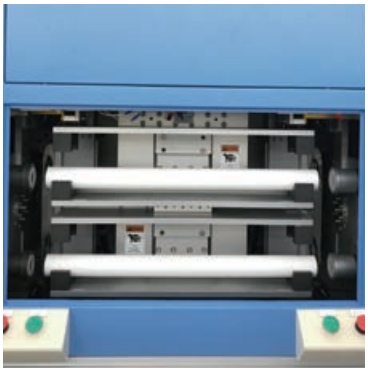


CHINA

JAPAN

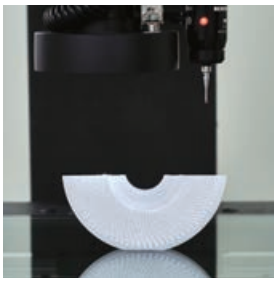
GERMANY

KOREA







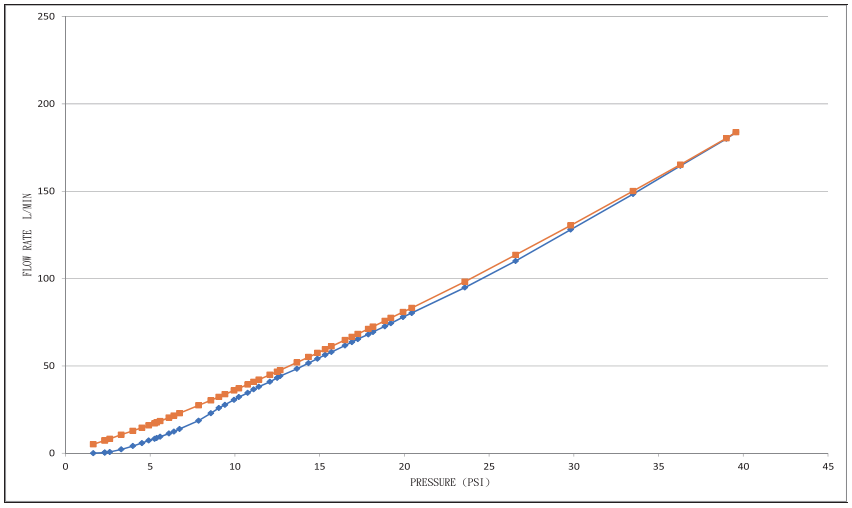



Capillary Flow Porometer

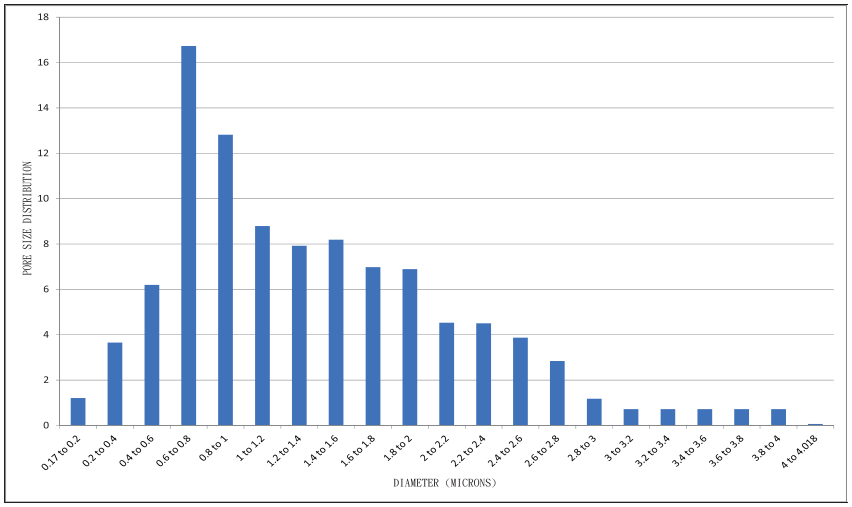
- Flow Rate vs. Pressure Drop
- Pore Distribution vs. Diameter
- Pore Size Range: 1nm ~ 1000μm

TEST REPORT

◎ Flow Rate VS Pressure Drop



◎ Pore Distribution VS Diameter (FITTED)



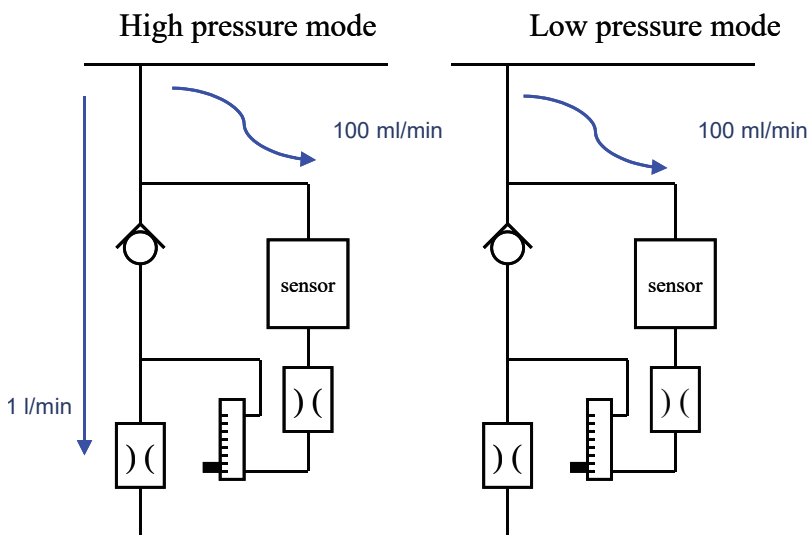
Particle Counter

- Compatible with a wide range of measurement of various particle sizes and types
- Allowable Sample type: Ultra-pure water、Chemicals
- Particle Diameter Range：40nm ~ 100μm

TEST REPORT

1. The counter detection method is 30 secs per time, on/off line test.
2. The pump cyclically extracts the original liquid and collects the stable value of the detection data.

	1μm	3μm	5μm	10μm	20μm
#1 Before filtering	6228.0	301.1	238.1	36.5	4.7
#1 After filtering	527.6	1.7	0.7	0.3	0.1
Efficiency	92%	99%	100%	99%	99%
#2 Before filtering	7187.4	439.1	391.8	46.9	3.6
#2 After filtering	574.2	2.1	1.5	0.1	0.0
Efficiency	92%	100%	100%	100%	100%
#3 Before filtering	5891.4	321.8	286.7	32.7	3.1
#3 After filtering	1176.3	5.9	2.9	0.6	0.3
Efficiency	80%	98%	99%	98%	89%
#4 Before filtering	5440.3	267.4	213.6	26.6	2.3
#4 After filtering	1021.0	4.0	1.2	0.1	0.1
Efficiency	81%	99%	99%	100%	97%

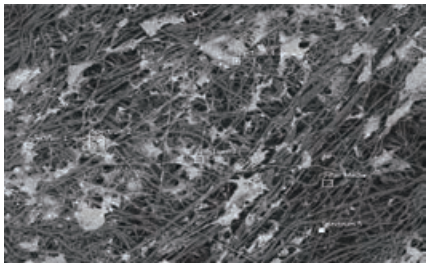


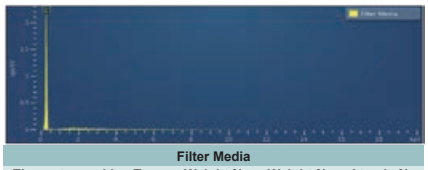
Scanning Electron Microscope & Energy Dispersive Spectroscopy

TEST REPORT

EDS Analysis

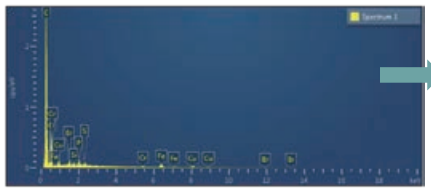
■ Surface of Inflow - 1





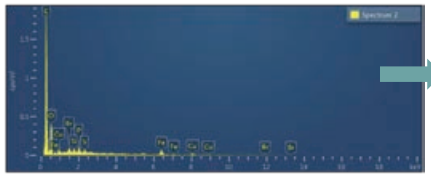
Filter Media

Element	Line Type	Weight %	Weight % Sigma	Atomic %
C	K series	100.00	0.00	100.00
Total		100.00		100.00



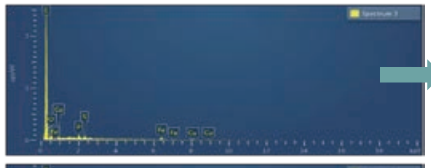
Spectrum 1

Element	Line Type	Weight %	Weight % Sigma	Atomic %
C	K series	65.67	1.07	75.91
O	K series	24.91	1.04	21.62
Fe	K series	3.58	0.34	0.89
Cu	L series	2.96	0.37	0.65
P	K series	0.63	0.10	0.28
Si	K series	0.37	0.08	0.18
Br	L series	0.90	0.17	0.16
Cr	K series	0.64	0.17	0.17
S	K series	0.35	0.09	0.15
Total		100.00		100.00



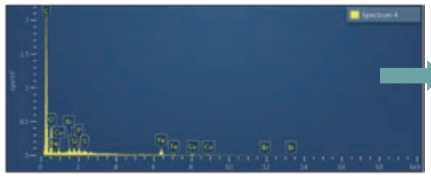
Spectrum 2

Element	Line Type	Weight %	Weight % Sigma	Atomic %
C	K series	66.31	1.02	76.51
O	K series	24.10	0.91	20.87
Fe	K series	4.55	0.44	1.13
Si	K series	0.48	0.10	0.24
P	K series	0.89	0.12	0.40
Cu	L series	2.16	0.40	0.47
S	K series	0.47	0.11	0.20
Br	L series	1.03	0.21	0.18
Total		100.00		100.00



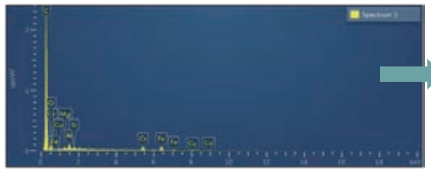
Spectrum 3

Element	Line Type	Weight %	Weight % Sigma	Atomic %
C	K series	75.77	0.94	83.37
O	K series	18.08	0.86	14.93
P	K series	0.94	0.12	0.40
Fe	K series	3.20	0.39	0.76
S	K series	0.57	0.11	0.24
Cu	L series	1.44	0.38	0.30
Total		100.00		100.00



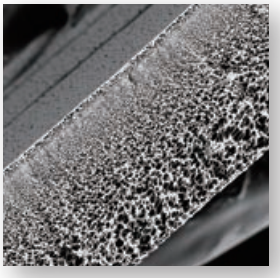
Spectrum 4

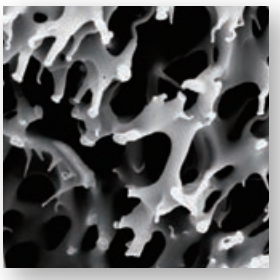
Element	Line Type	Weight %	Weight % Sigma	Atomic %
C	K series	65.93	0.96	77.23
O	K series	22.28	0.84	19.60
Fe	K series	6.24	0.44	1.57
Cu	L series	2.71	0.39	0.60
P	K series	0.77	0.11	0.35
Si	K series	0.60	0.10	0.30
Br	L series	1.11	0.19	0.19
S	K series	0.36	0.10	0.16
Total		100.00		100.00

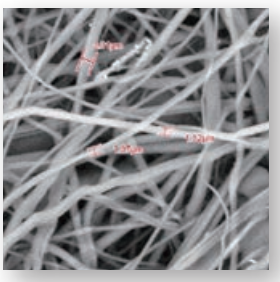


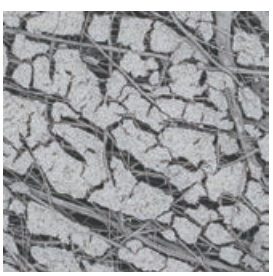
Spectrum 5

Element	Line Type	Weight %	Weight % Sigma	Atomic %
C	K series	75.52	1.14	85.81
Fe	K series	5.85	0.47	1.43
Al	K series	1.02	0.12	0.52
Cr	K series	3.20	0.32	0.84
O	K series	12.58	1.10	10.73
Mg	K series	0.41	0.10	0.23
Si	K series	0.50	0.10	0.24
Cu	L series	0.92	0.34	0.20
Total		100.00		100.00









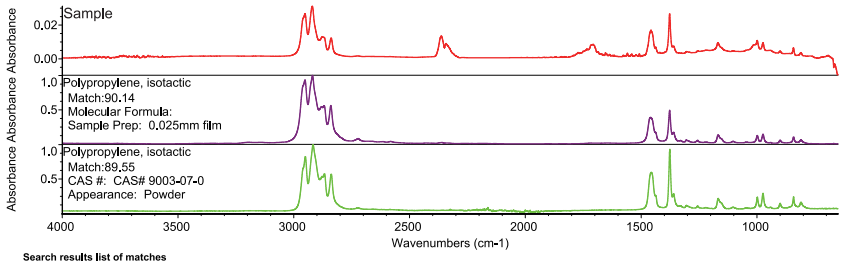
FT-IR Spectrometer

- Material identification and quantification of constituents in a sample
- The library contains one hundred thousand spectra for use

TEST REPORT

Item :	**Detected Date :**	**Purchase Date :** NA
Brand :	**Testing Method :** FT-IR	**Instrument :**
Customer : NA	**Detected Number :** 1	**Inspector :**
Remark : NA		

Results



Search results list of matches

	Index	Match	Compound Name	Library Name
1	942	90.14	Polypropylene, isotactic	HR Hummel Polymer and Additives
2	67	89.55	Polypropylene, isotactic	HR Specta Polymers and Plasticizers by ATR
3	942	89.28	Polypropylene, isotactic	Hummel Polymer and Additives
4	41	88.64	POLY(PROPYLENE), ATACTIC	Hummel Polymer Sample Library
5	1061	88.59	Poly(propylene:butenone),2:1	Hummel Polymer and Additives
6	566	88.53	Polypropylene, atactic	Hummel Polymer and Additives
7	985	88.52	Poly(propylene), isotactic	HR Condensed Phase Academic Sampler
8	566	88.39	Polypropylene, atactic	HR Hummel Polymer and Additives
9	5	88.10	Poly(propylene), isotactic	Aldrich Polymers
10	437	87.97	POLYPROPYLENE #2	Polymer Additives and Plasticizers

Sample

Integrity/Diffusion Test

TEST REPORT

Filter Integrity Test

Item	PES 0.2μm	**Testing Method**	Bubble Point Test Diffusion Test	**Instrument**
Brand	N/A	**Detected Date**		**Inspector**

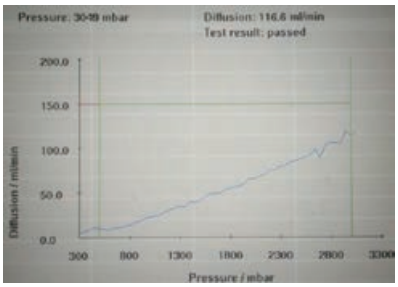
```
**********************************
* Sartocheck 4plus                *
* Unit no.:          0032106286   *
* Prog. no. :                4    *
* Diffusion test                  *
**********************************

Date: 2021.06.29        Time:  9:37
User            : ............00000
210629_0937_04BPT321062861.s4r
```

Data log:

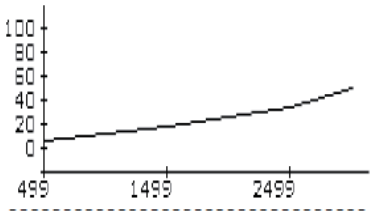
```
Company         : .....Taiwan grace
Building        : ...........Chiayi
Department      : .............QA
Manufact. site  : ...........Taiwan
Product         : ........PES 0.2um
Product lot     : ......ZP210612003
Filter          : .............10"
Filter lot      : .........20210612
Filter line     : ......10" Housing
Housing         : ...........SUS304
Wetting medium  : .............DIW
Test gas        : .............CDA
Water quality   : .............DIW
Comment 1       : .......Andy Jiang
Comment 2       : ................
Comment 3       : ................
```

Bubble Point Test

```
Test pressure   : ...3049 mbar
Stabil. time    : ......3 min
Test time       : ......5 min
Max. diffusion  : ..116.6 ml/min
Net volume      : ...AUTO
Test results    : ...Passed
```



Diffusion Test

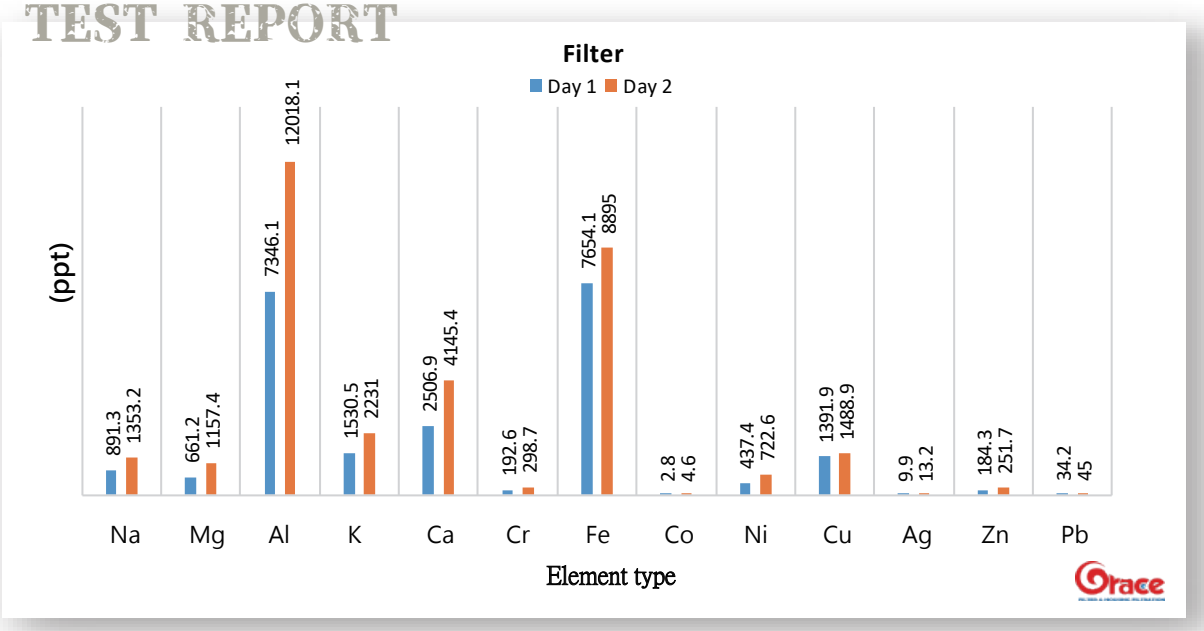



```
 500 mbar          5.2 ml/min
1000 mbar         11.4 ml/min
1500 mbar         18.8 ml/min
2000 mbar         26.5 ml/min
2500 mbar         34.5 ml/min
3000 mbar         49.6 ml/min
```

ICP-MS

- Range: ppt = parts per trillion

TEST REPORT



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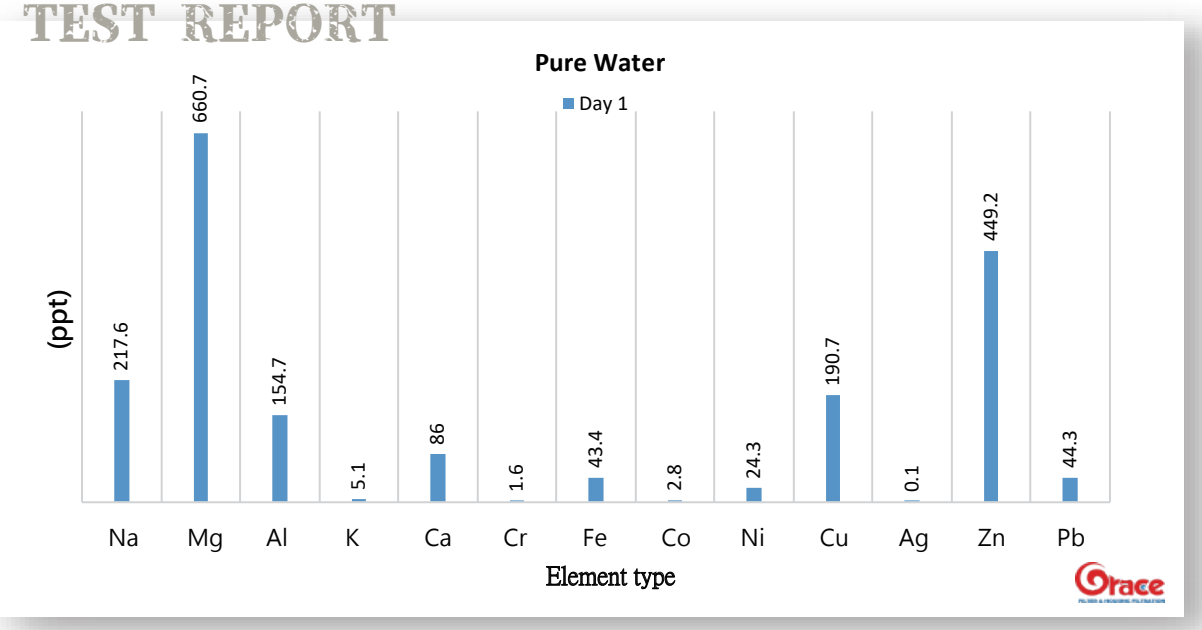
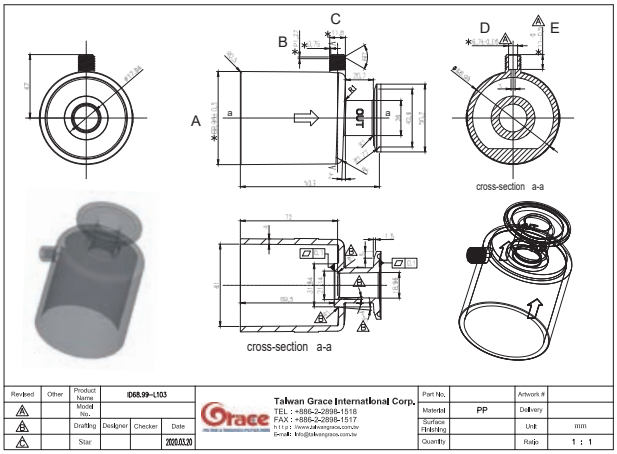


2.5D Image Measuring Instrument

TEST REPORT



	Item	A	B	C	D	E
Dimensional Inspection	Spec	68.99±0.5	1.27±0.05	11.6±0.15	$6.7^{+0.1}_{-0.12}$	$11.0^{+0.0}_{-0.5}$
	Method	2.5D Image Measuring Instrument				
	Measured Value	68.76	1.24	11.63	6.58	11.00
		69.02	1.23	11.64	6.60	10.59
		68.98	1.26	11.60	6.61	11.00
		68.70	1.25	11.63	6.58	10.58
		68.59	1.24	11.63	6.61	10.62
		69.01	1.23	11.62	6.60	10.83
		68.79	1.25	11.64	6.61	10.64
		68.77	1.24	11.62	6.60	10.88
		68.63	1.23	11.63	6.61	10.87
		68.99	1.24	11.61	6.60	10.72

XRF Analyzer

- Determine the elemental composition of metallic materials
- Fast and precise analysis

TEST REPORT

Composition	Standard (%) Composition	Result (%)	Error (±)	Remark
C	≦0.08	0	0	
Si	≦1.00	0	0	
Mn	≦2.00	1.57	0.24	
P	≦0.045	0	0	
S	≦0.03	0	0	
N	≦0.11	0	0	
Cr	16.00-18.50	16.93	0.30	
Ni	10.00-14.00	9.85	0.38	
Mo	2.00-3.00	2.13	0.09	
Fe	-	68.66	0.54	
Cu	-	0.252	0.112	
The Inspecting Result Determination		SUS316	-	

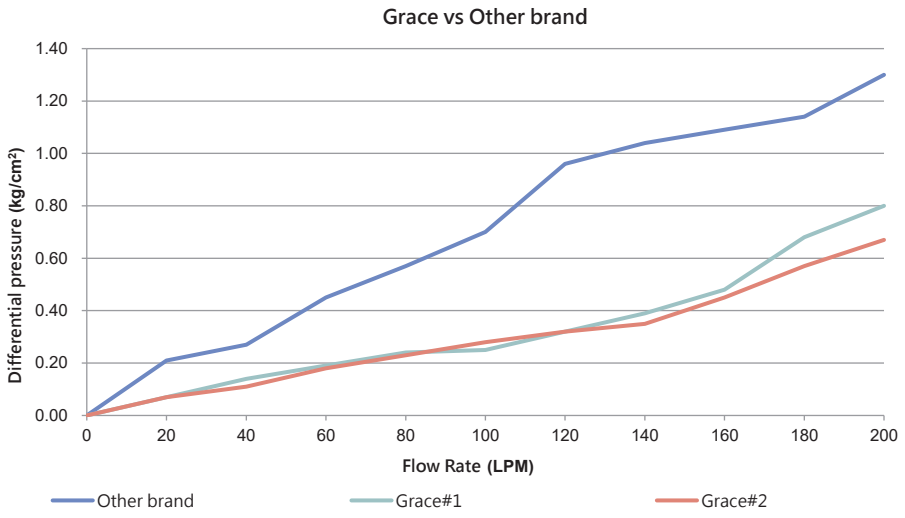
Flow Rate and Differential Pressure Measurement

- Flow Rate Range: 20 ~ 1700LPM
- Pressure Range: 1 ~ 4kg/cm^2

TEST REPORT

■ Comparison Sheet of Flow Rate and Differential Pressure Measurement

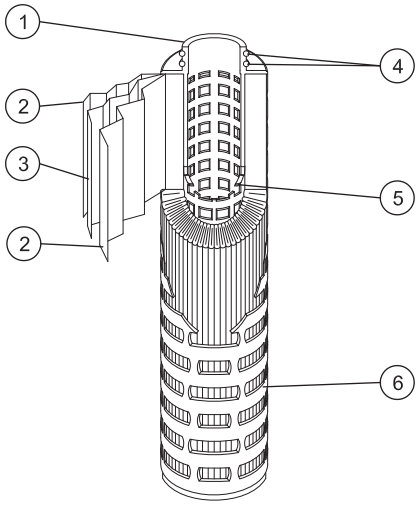
Sample	Other brand			Grace #1			Grace #2		
Flow Rate	Before	After	Diferrential Pressure	Before	After	Differential Pressure	Before	After	Diferrential Pressure
LPM	kg/cm^2	kg/cm^2	kg/cm^2	kg/cm^2	kg/cm^2	kg/cm^2	kg/cm^2	kg/cm^2	kg/cm^2
0	0.26	0.26	**0.00**	0.26	0.26	**0.00**	0.25	0.25	**0.00**
20	0.47	0.26	**0.21**	0.33	0.26	**0.07**	0.33	0.26	**0.07**
40	0.54	0.27	**0.27**	0.41	0.27	**0.14**	0.38	0.27	**0.11**
60	0.73	0.28	**0.45**	0.47	0.28	**0.19**	0.46	0.28	**0.18**
80	0.85	0.28	**0.57**	0.53	0.29	**0.24**	0.51	0.28	**0.23**
100	1.00	0.30	**0.70**	0.55	0.30	**0.25**	0.58	0.30	**0.28**
120	1.29	0.33	**0.96**	0.64	0.32	**0.32**	0.63	0.31	**0.32**
140	1.39	0.35	**1.04**	0.72	0.33	**0.39**	0.68	0.33	**0.35**
160	1.44	0.35	**1.09**	0.85	0.37	**0.48**	0.8	0.35	**0.45**
180	1.51	0.37	**1.14**	1.1	0.42	**0.68**	0.97	0.4	**0.57**
200	1.71	0.41	**1.30**	1.25	0.45	**0.80**	1.09	0.42	**0.67**



Membrane Pleated Filter Cartridges

- Support layer imported from the US sustains the major filter media efficiently
- Will not be influenced by external factors such as pressure & pressure difference, which will cause uneven use of the filtration area, unstable flow, short life and trapping impurities
- No fiber release. In compliance with FDA 21 CFR regulation
- All plastic components are in accordance with FDA 21 CFR regulation
- Compliant with EU RoHS regulation
- Class 1,000 & Class 10,000 Clean Room Production

Length	5, 10, 20, 30, 40, 50, 60, 70 inch
Outside Diameter	Ø65mm, Ø69mm, Ø83mm
End Cap	DOE, 2-222 Flat, 2-222 Fin, 2-226 Flat, 2-226 Fin
Gasket/O-ring	Silicone, EPDM, Viton, PTFE Encapsulated Viton, PTFE
Applications	RO/DI Process, Ink, Etchants, Developers, Chemicals, Cosmetics, Medicine Filtration, Process Gases, Food & Beverage



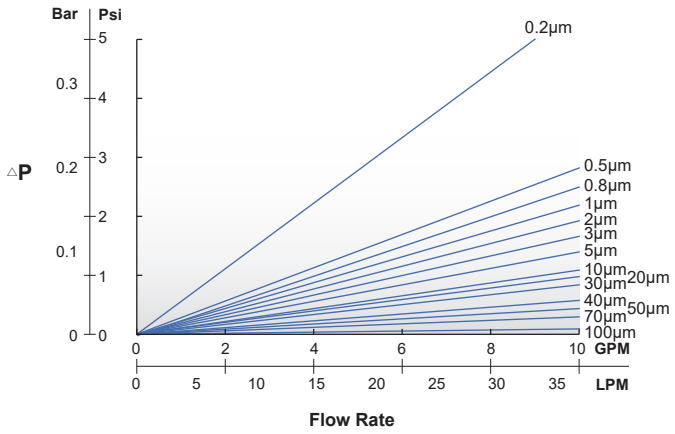
No.	Description
1	End Caps
2	Support Layer
3	Filter Media
4	O - ring
5	Core
6	Cage

DOE | 2-222 Flat | 2-222 Fin | 2-226 Flat | 2-226 Fin

POLYPROPYLENE

- Nano microfiber filter media
- With uniform pore size distribution, which can maintain low pressure difference and stable flow for a long time, and extend the service life.
- Specially processed support layer and filter media will not release fiber
- Non-Toxic Test passed
- Endotoxin Test passed
- USP Oxidizable Substances Test passed

10″ Polypropylene Fiber Pleated Filter Cartridge

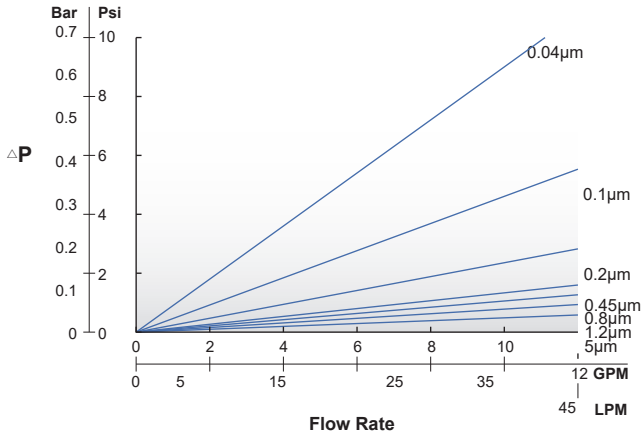


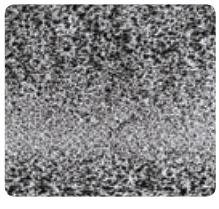
Filter Media	Polypropylene
Micron Rating	0.2, 0.5, 0.8, 1, 2, 3, 5, 10, 20, 30, 40, 50, 70, 100 μm
Operating Data	△P : 4.8 bar at 25°C, 1.4 bar at 80°C

POLYETHERSULFONE

- Asymmetric pore size filter. Imported from Germany. Outer loose& Inner dense. Funnel structure, uniform pore size distribution, specialized in high efficiency filtration field
- USP XX II 87、88 Biological test passed
- 1 x 10^7 CFU/cm^2 Bacterial Retention Test passed
- Non-Toxic Test passed
- Endotoxin Test passed
- USP Oxidizable Substances Test passed
- Bubble Point Test passed
- Integrity Test passed
- Temperature Tolerance Test (135°C steam sterilization, 30minutes cycles) can still keep the complete filtration efficiency

10″ Polyethersulfone Membrane Pleated Filter Cartridge



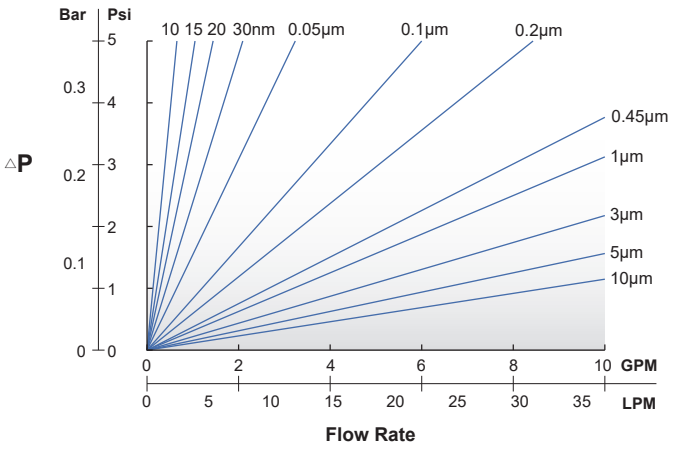


Filter Media	Polyethersulfone
Micron Rating	0.04, 0.1, 0.2, 0.45, 0.8, 1.2, 5 μm
Operating Data	△P : 4.8 bar at 25°C, 1.4 bar at 80°C

HYDROPHOBIC PTFE

- Biaxially stretched microporous membrane enable the uniform pore size distribution, micron rating consistency, and keep the filtration efficiency & life time
- Solvents and highly corrosive liquids resistant.
- Hydrophobic characteristic. Prevent the material from getting wet or bacterial infections effectively
- Stable filtration performance, (135°C steam sterilization, 30minutes cycles) still keep the integrity filter efficiency
- Pre-wetting is available based on the requirement
- Asymmetric pore size filter. Imported from Germany. Outer loose& Inner dense. Funnel structure, uniform pore size distribution, specialized in high efficiency filtration field
- USP XX II 87、88 Biological Test passed
- 1 x 10^7 CFU/cm^2 Bacterial Retention Test passed
- Non-toxic Test passed
- Endotoxin Test passed
- USP Oxidizable Substances Test passed
- Bubble Point Test passed
- Integrity Test passed

10″ Hydrophobic PTFE Membrane Pleated Filter Cartridge

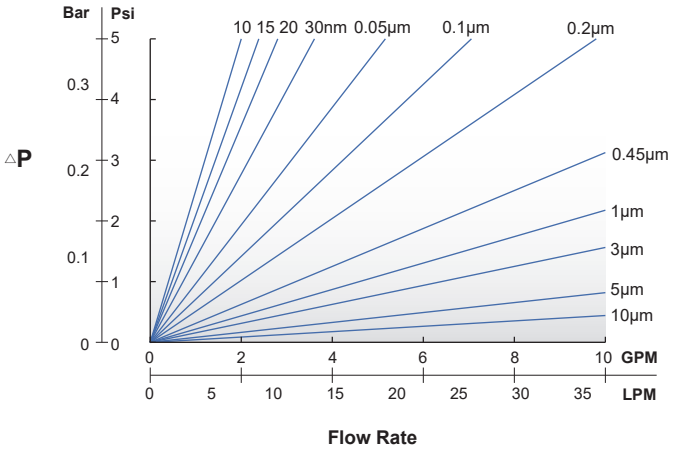


Filter Media	Hydrophobic PTFE
Micron Rating	10, 15, 20, 30nm 0.05, 0.1, 0.2, 0.45, 1, 3, 5, 10 μm
Operating Data	△P : 4.8 bar at 25°C, 2.1 bar at 90°C

HYDROPHILIC PTFE

- Biaxially stretched microporous membrane enable the pore size well distributed, micron rating consistency, and ensure the filtration efficiency & life time
- Solvents and highly corrosive liquids resistant.
- Special processing on the membrane before out of the factory. Convert the material to hydrophilic. No immersion treatment is required before use.
- Stable filtration performance, (135°C steam sterilization, 30minutes cycles) still keep the integrity filter efficiency.
- Bubble Point Test passed
- Integrity Test passed

10″ Hydrophilic PTFE Membrane Pleated Filter Cartridge

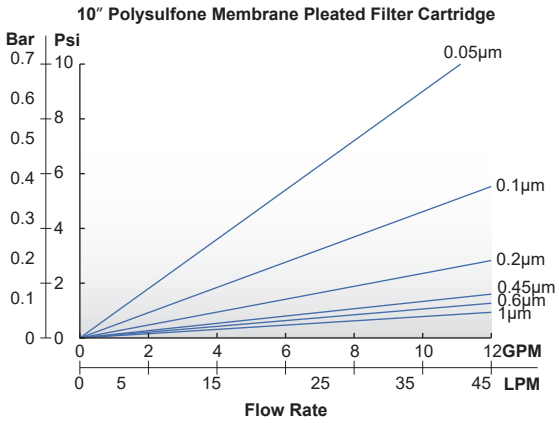


Filter Media	Hydrophilic PTFE
Micron Rating	10, 15, 20, 30nm 0.05, 0.1, 0.2, 0.45, 1, 3, 5, 10 μm
Operating Data	△P : 4.8 bar at 25°C, 2.1 bar at 90°C

POLYSULFONE (PSU)

- High flow rates and throughputs due to a highly asymmetric pore structure
- Inherently hydrophilic and low protein binding characteristics
- Excellent chemical compatibility

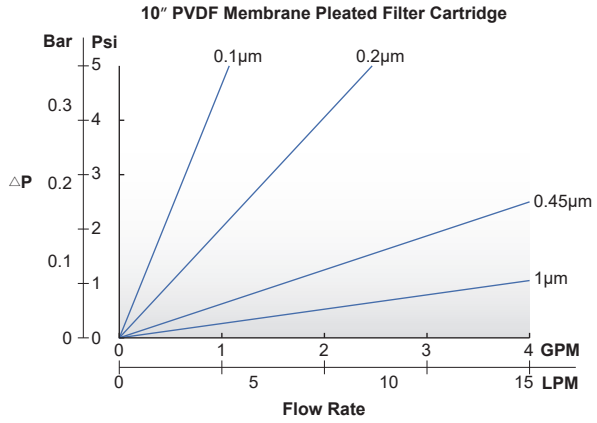
Filter Media	Polysulfone
Micron Rating	0.05, 0.1, 0.2, 0.45, 0.6, 1 µm
Operating Data	ΔP : 4.8 bar at 25°C, 2.1 bar at 90°C



PVDF

- Excellent chemical compatibility, acid/alkali/solvent resistant
- Without pre-wetting procedures before use

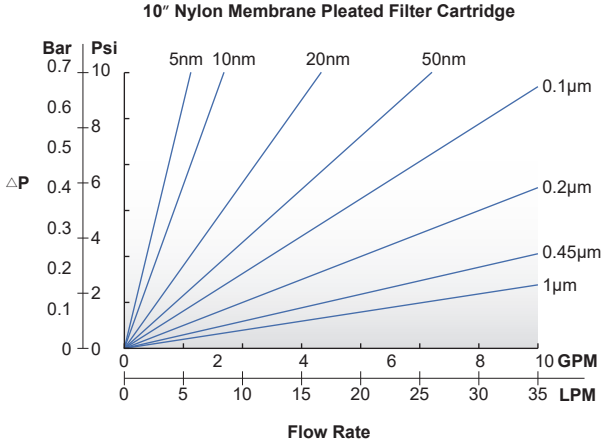
Filter Media	PVDF
Micron Rating	0.1, 0.2, 0.45, 1 µm
Operating Data	ΔP : 4.8 bar at 25°C, 2.1 bar at 90°C



NYLON

- Hydrophilic, high filtration efficiency and strong mechanical stability
- Stable Filtration Performance, (135°C steam sterilization, 30minutes cycles) still keep the integrity filter efficiency

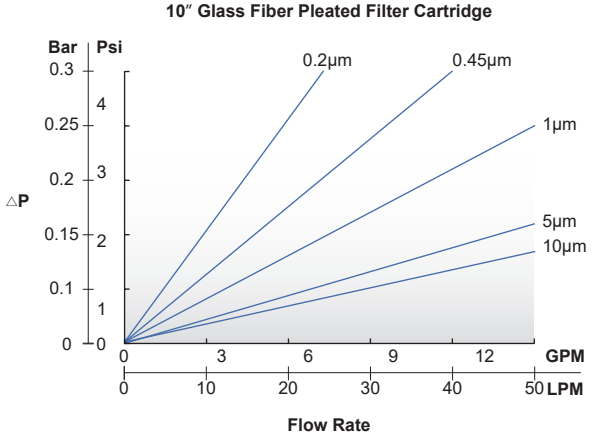
Filter Media	Nylon
Micron Rating	5, 10, 20, 50 nm 0.1, 0.2, 0.45, 1 µm
Operating Data	ΔP : 4.8 bar at 25°C, 2.1 bar at 90°C



GLASS FIBER

- Excellent chemical compatibility and high dirt holding capacity
- Remove disturbed soft impurities effectively

Filter Media	Glass Fiber
Micron Rating	0.2, 0.45, 1, 5, 10 µm
Operating Data	ΔP : 4.8 bar at 25°C, 2.1 bar at 90°C



Nano Pleated Filter Cartridges

- Nano grade filtration media
- Filter media with well distributed pore sizes keeps flow rate steadily
- Integrity Test passed
- Class 1,000 Clean Room Production
- Can be flushed, dried and packaged in Class 100 Clean Room

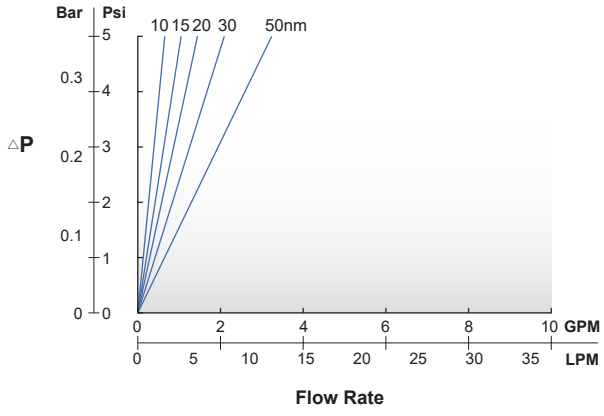
Length	5, 10, 20, 30, 40, 50, 60, 70 inch
Outside Diameter	Ø65mm, Ø69mm, Ø83mm
End Cap	DOE, 2-222 Flat, 2-222 Fin, 2-226 Flat, 2-226 Fin
Gasket/O-ring	Silicone, EPDM, Viton, PTFE Encapsulated Viton, PTFE
Applications	Electronics, Food & Beverage, Medicine Filtration, Chemicals, Water Treatment

PTFE

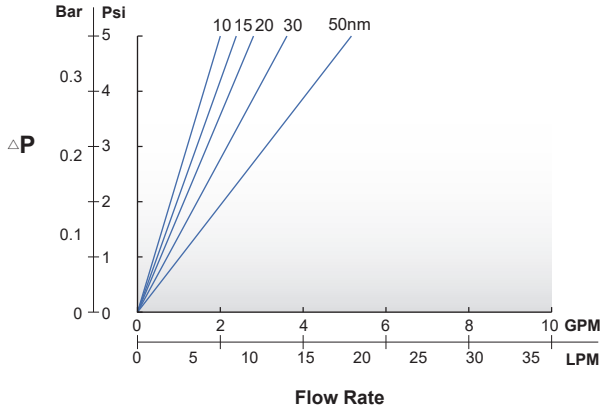
Filter Media	Hydrophobic PTFE
Micron Rating	10, 15, 20, 30, 50 nm
Operating Data	△P : 4.8 bar at 25°C, 2.1 bar at 90°C

Filter Media	Hydrophilic PTFE
Micron Rating	10, 15, 20, 30, 50 nm
Operating Data	△P : 4.8 bar at 25°C, 2.1 bar at 90°C

10″ Hydrophobic PTFE Membrane Pleated Filter Cartridge



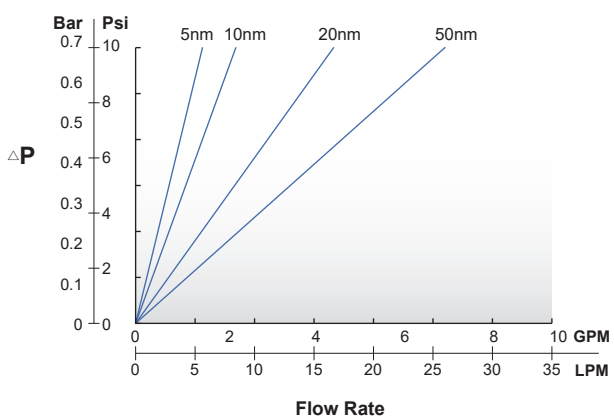
10″ Hydrophilic PTFE Membrane Pleated Filter Cartridge



NYLON

Filter Media	Nylon
Micron Rating	5, 10, 20, 50 nm
Operating Data	△P : 4.8 bar at 25°C, 2.1 bar at 90°C

10″ Nylon Membrane Pleated Filter Cartridge

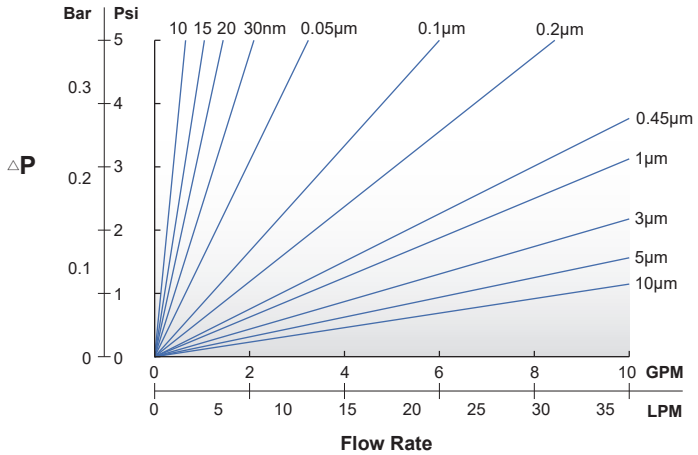


ALL PFA Filter Cartridges

- Filter is composed of PTFE membrane and PFA parts
- Designed for high temperature, high corrosion & non-dissolution process
- Bubble Point Test passed
- Integrity Test passed

Filter Media	Hydrophobic PTFE / Hydrophilic PTFE
Material	Support Layer: PTFE Cage, Core, End Caps: PFA O-ring：PTFE encapsulated Viton
Micron Rating	10, 15, 20, 30 nm 0.05, 0.1, 0.2, 0.45, 1, 3, 5, 10 µm
Length	4, 10, 20, 30 inch, Other Customized Sizes
Outside Diameter	Ø69mm, Ø83mm
End Cap	2-222 Flat
Operating Data	△P : 5.0 bar at 25°C, 0.5 bar at 180°C
Applications	Etchants, Fine Chemicals

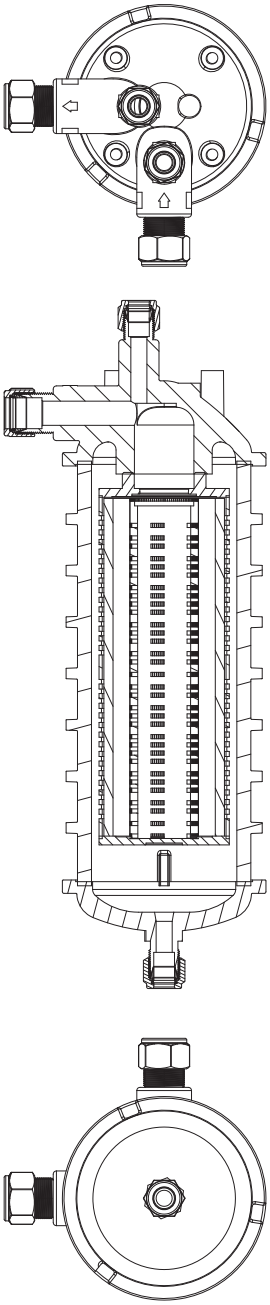
10″ ALL PFA Membrane Pleated Filter Cartridge

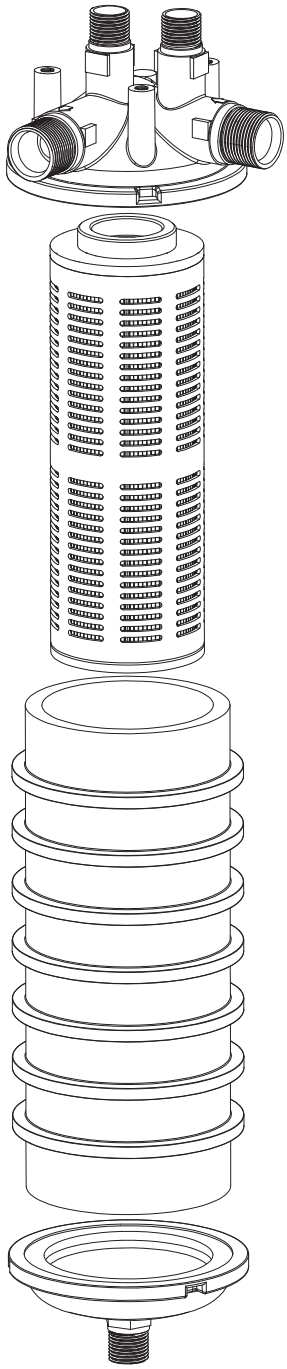


ALL PFA Filter Cartridges for Chemicals

Material	PFA
Filter Media	Hydrophilic PTFE
Inlet/Outlet	3/4, 1 inch Super
Vent/Drain	1/2 inch Super
Micron Rating	0.03, 0.05, 0.1, 0.2μm
Max. Operating Temperature	180°C
Operating Data	ΔP : 5.8 bar at 25°C, 0.97 bar at 180°C
Applications	Etchants, Fine Chemicals, High temperature corrosion process

✳ L-LINE

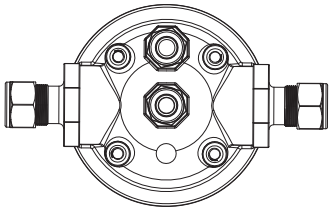


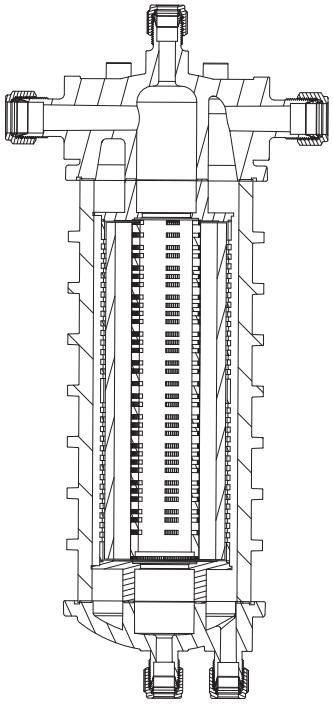


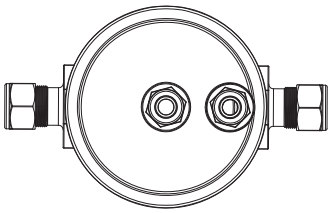
ALL PFA Filter Cartridges for Chemicals

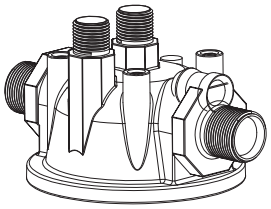
Material	PFA
Filter Media	Hydrophilic PTFE
Inlet/Outlet	3/4, 1 inch Super
Vent/Drain	1/2 inch Super
Micron Rating	0.03, 0.05, 0.1, 0.2μm
Max. Operating Temperature	180℃
Operating Data	ΔP : 5.8 bar at 25℃, 0.97 bar at 180℃
Applications	Etchants, Fine Chemicals, High temperature corrosion process

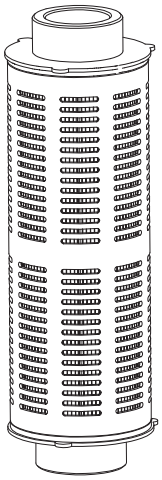
✳ T-LINE

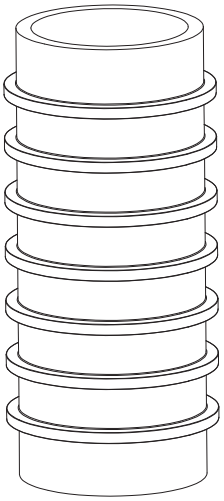


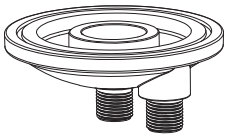


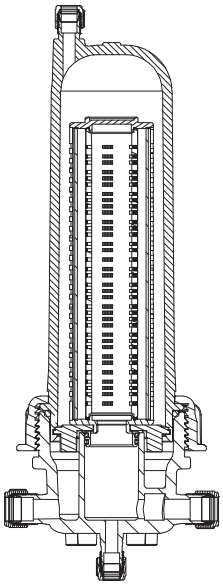






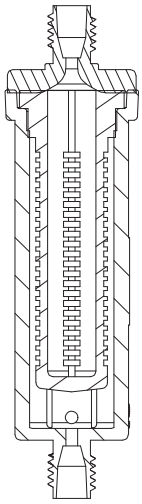






ALL PFA Filter Housings

Material	PFA
Specification	10 inch
Inlet/Outlet	1 inch Super
Vent/Drain	1/2 inch Super
Operating Data	8.0 bar at 25°C

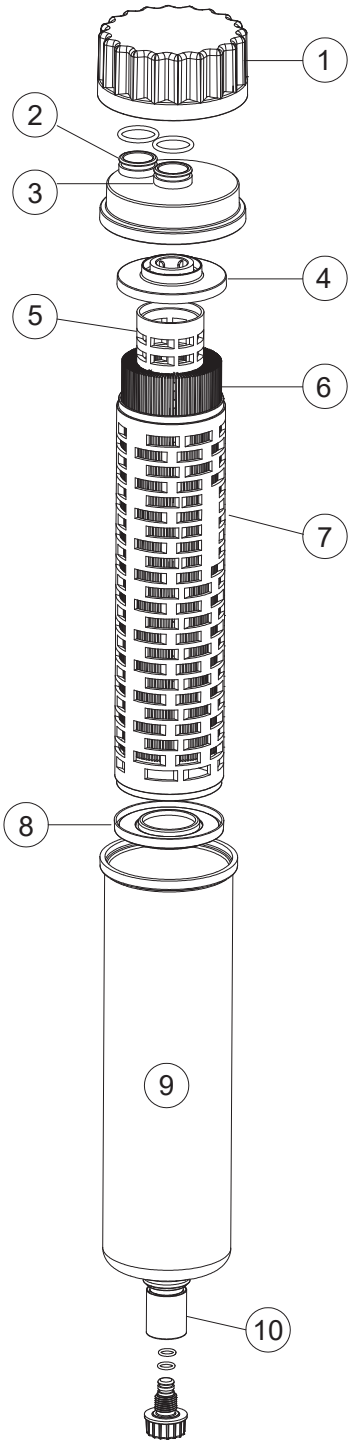


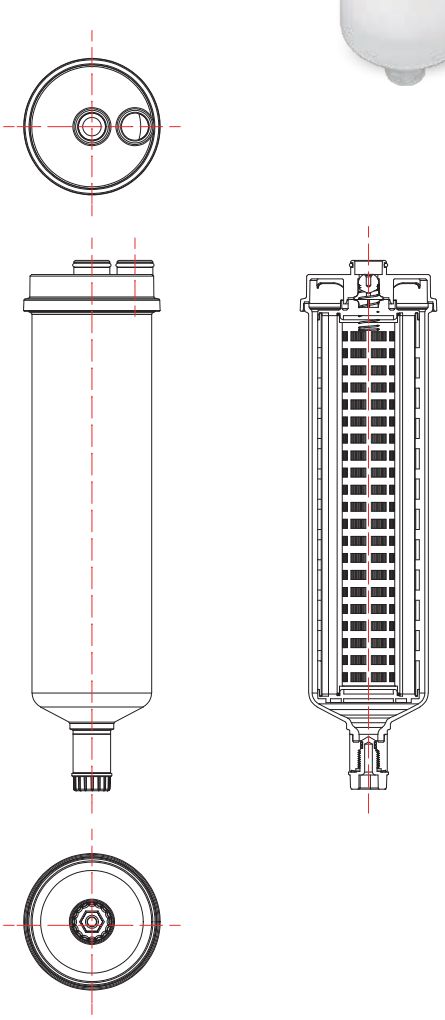
ALL PFA In-Line Gas Filter Cartridges

Filter Media	PTFE
Inlet/Outlet	1/8 inch In/Out Swagelok
Micron Rating	0.003µm for gas
Operating Data	7.0 bar at 20°C

Quick-Change Capsule Filter Cartridge

Specification	5 inch: Without Vent 10 inch: With Vent /Without Vent
Filter Media	Polypropylene, Polyethersulfone, Nylon, PTFE, Glass Fiber
Micron Rating	0.1, 0.2, 0.45, 0.8, 1, 3, 5, 10, 15, 20, 30 μm
Operating Data	ΔP : 4.8 bar at 25℃
Applications	Medicine , Gel, Slurry Filtration, Laboratory Facility

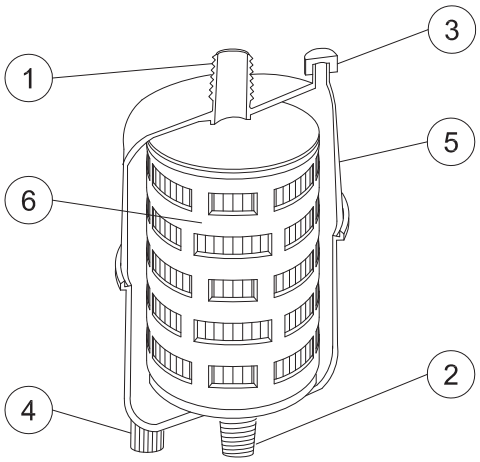




No.	Description
1	Top Cover
2	Inlet
3	Outlet
4	End Cap
5	Core
6	Filter Media
7	Filter Cartridge
8	End Cap
9	Cage
10	Vent

Capsule Filters

Filter Media	Polypropylene, Polyethersulfone, Nylon, PTFE, PVDF, Glass Fiber
Size	Ø72 x 96 mm, Ø72 x 155 mm
Port Size	1/4, 3/8, 1/2 inch NPTM 1/4, 3/8, 1/2 inch Swagelok Other Customized Sizes
Micron Rating	10, 15, 20, 30, 40, 50 nm 0.1, 0.2, 0.45, 0.6, 0.8, 1, 2, 3, 5, 10, 20, 30, 40, 70 µm
Operating Data	4.8 bar at 25°C
Applications	Photoresists, Pharmaceutical, Small Volume Filtration, Laboratory Facilitie, Air Filtration



No.	Description
1	Inlet
2	Outlet
3	Vent
4	Drain
5	Cage
6	Filter Cartridge

1/4″ Swagelok

3/8″ Swagelok

1/2″ Swagelok

1/4″ NPT

3/8″ NPT

1/2″ NPT

Photoresist Filters

Filter Media	Polypropylene, Polyethersulfone, Nylon, PTFE, PVDF, PFA
Port Size	1/8" , 1/4" , Ø8mm Swagelok Other Customized Sizes
Micron Rating	10, 15, 20, 30 nm 0.05, 0.1, 0.2, 0.45, 1, 3, 5, 10 µm
Operating Data	4.0 bar at 25°C
Applications	Photoresist, TFT-LCD

Quick Release(Long)

Quick Release(Short)

8 mm

1/4" Swagelok

Semiconductor Grade Connector

All PFA

Quick Release

Syringe Filter

Chemical Filters

Filter Media	Polypropylene, Polyethersulfone, Nylon, PTFE, PVDF, All PFA
Port Size	1/8" , 1/4" , Ø8mm Swagelok Other Customized Sizes
Micron Rating	10, 15, 20, 30 nm 0.05, 0.1, 0.2, 0.45, 1, 3, 5, 10 µm
Operating Data	4.0 bar at 25°C
Applications	Photoresist, CD-ROM Process

Photochemical Dummy Filter

- Quick changing design without any tooling to decrease down time

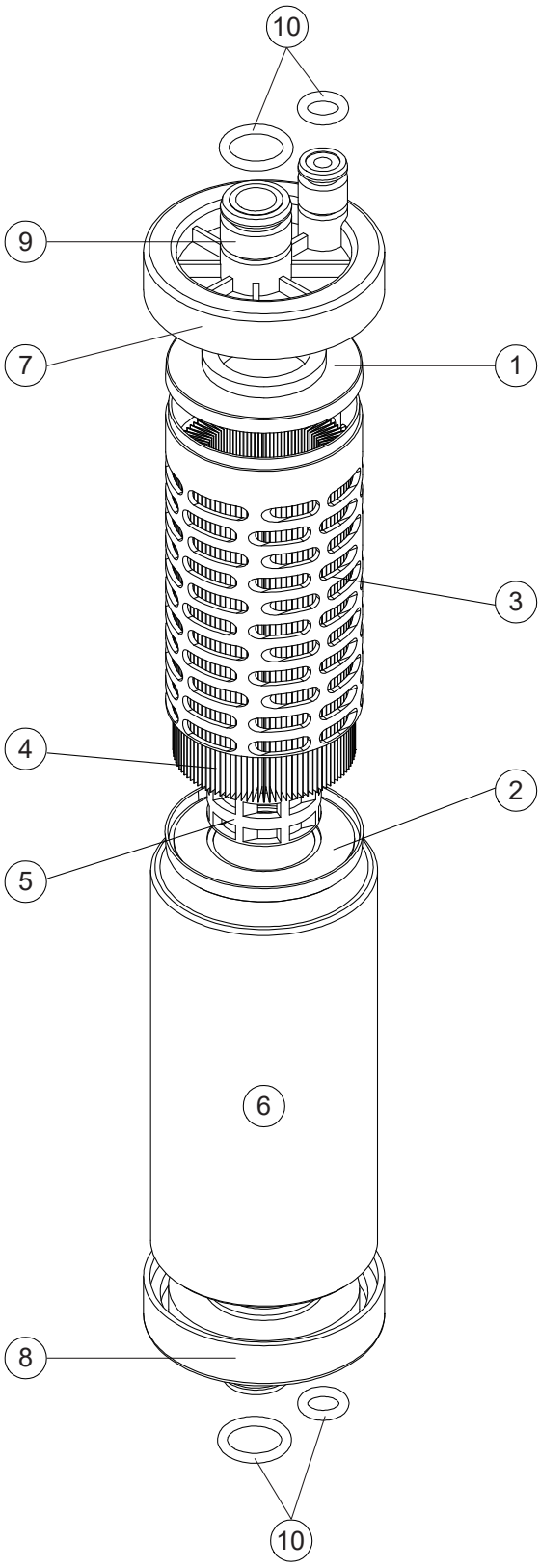
Photoresist Dummy Filter

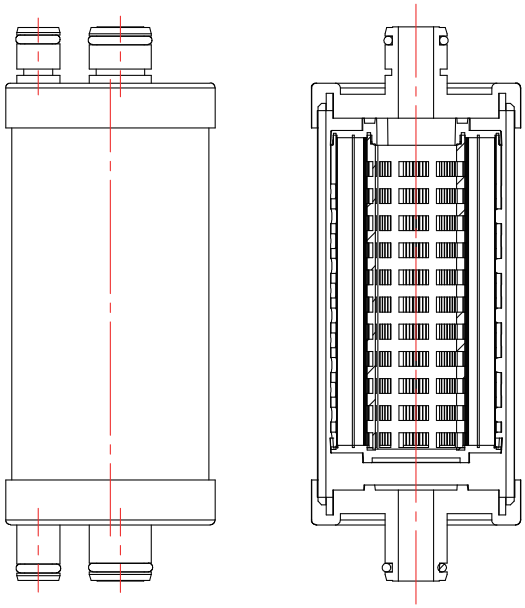
- Suitable for miniature photoresist-viscosity pump equipment, small size and quick replacement for easy operation
- HDPE material composition

Photochemical Dispense Filter

- Applying to photoresist coating developing equipment
- Filter direction for top in & top out

Photoresist Filter



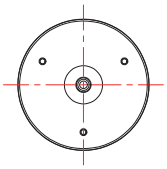


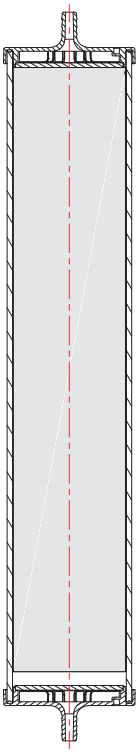
No.	Description
1	End Cap
2	End Cap
3	Filter Cartridge
4	Filter Media
5	Core
6	Cage
7	Inner Cap
8	Outer Cap
9	Cap
10	O - ring

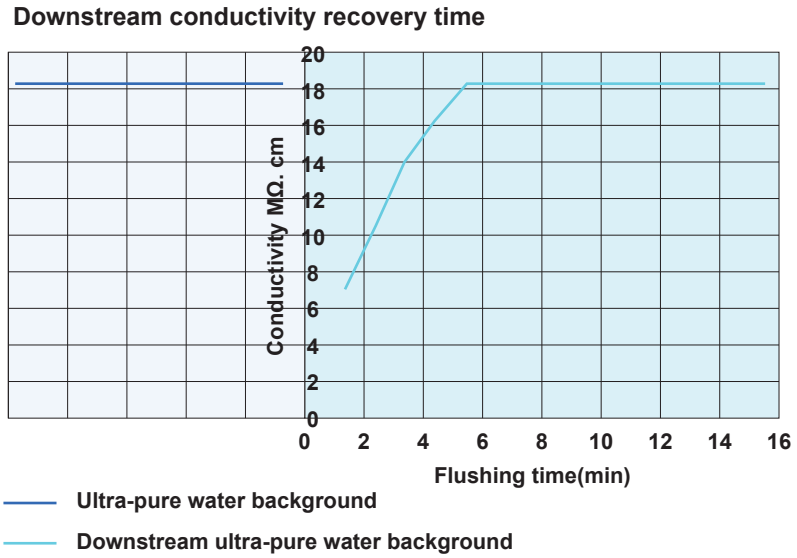
Ultra pure DI Water Purifier

- Effective removal of metal ions in ultrapure water
- Ensuring the output stability of ultrapure water

Filter Media	Semiconductor Grade Ion Exchange Resin
Material	Polypropylene
Max. Operating Temperature	40°C
Operating Data	0.3 MPa / 20°C

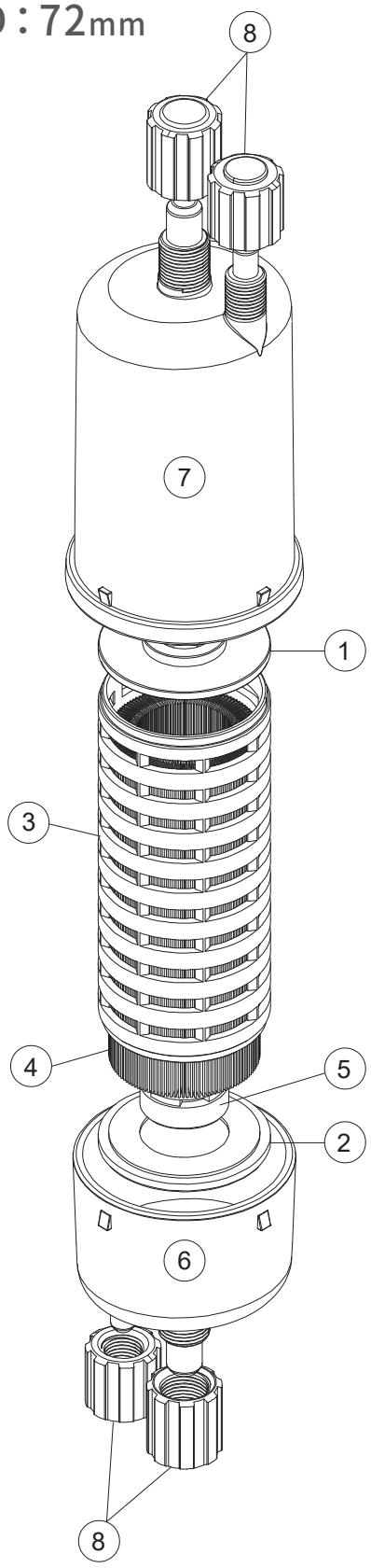


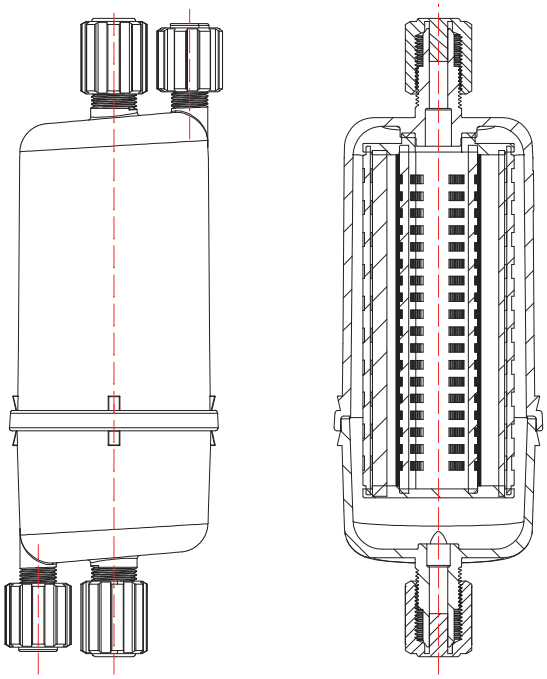




CMP Series Capsule Filter

✱ OD：72mm

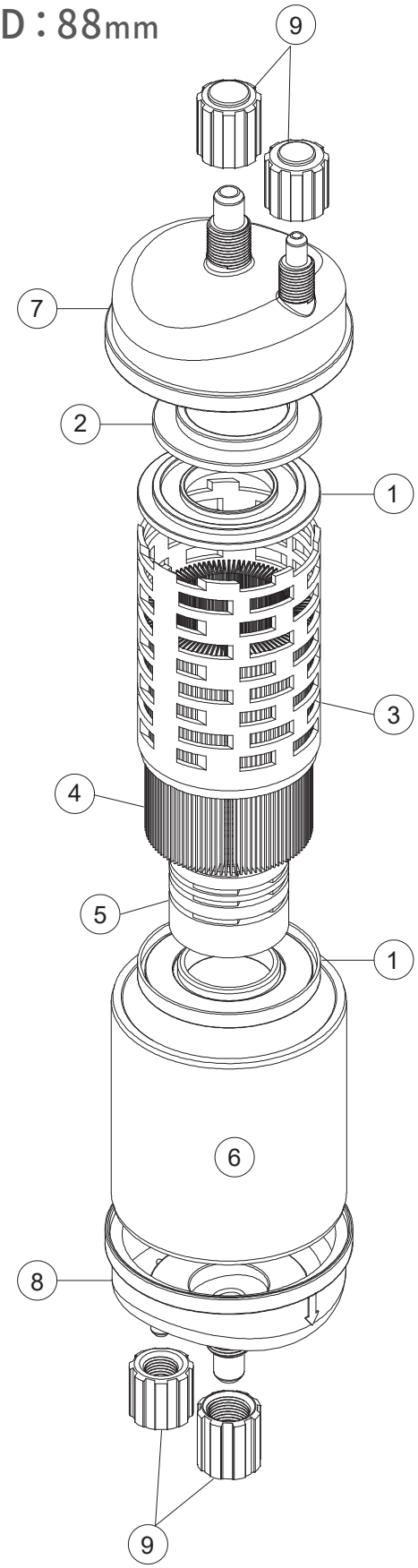


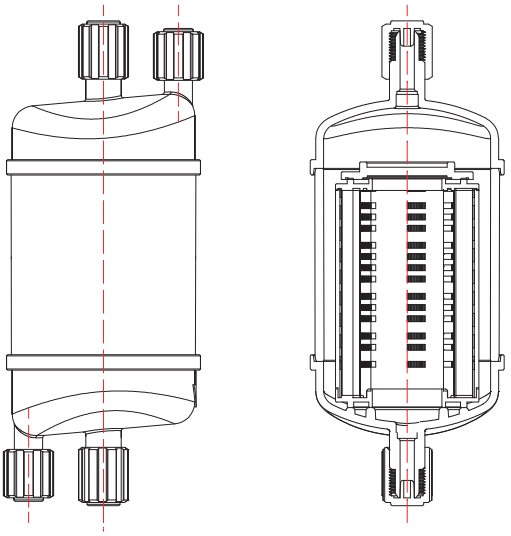


No.	名　稱
1	End Cap
2	End Cap
3	Filter Cartridge
4	Filter Media
5	Core
6	Inner Cap
7	Outer Cap
8	Cap

CMP Series Capsule Filter

✷ OD : 88mm

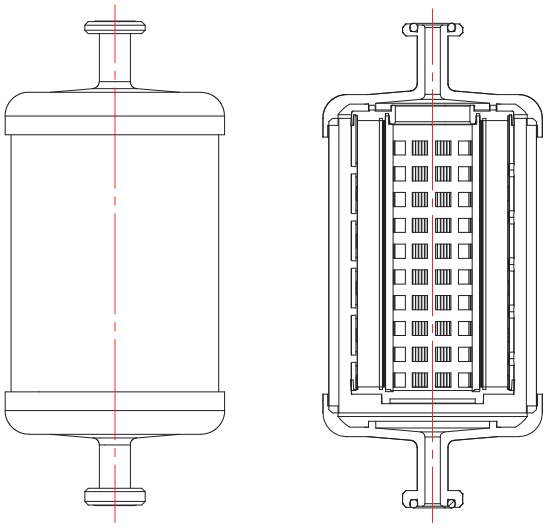


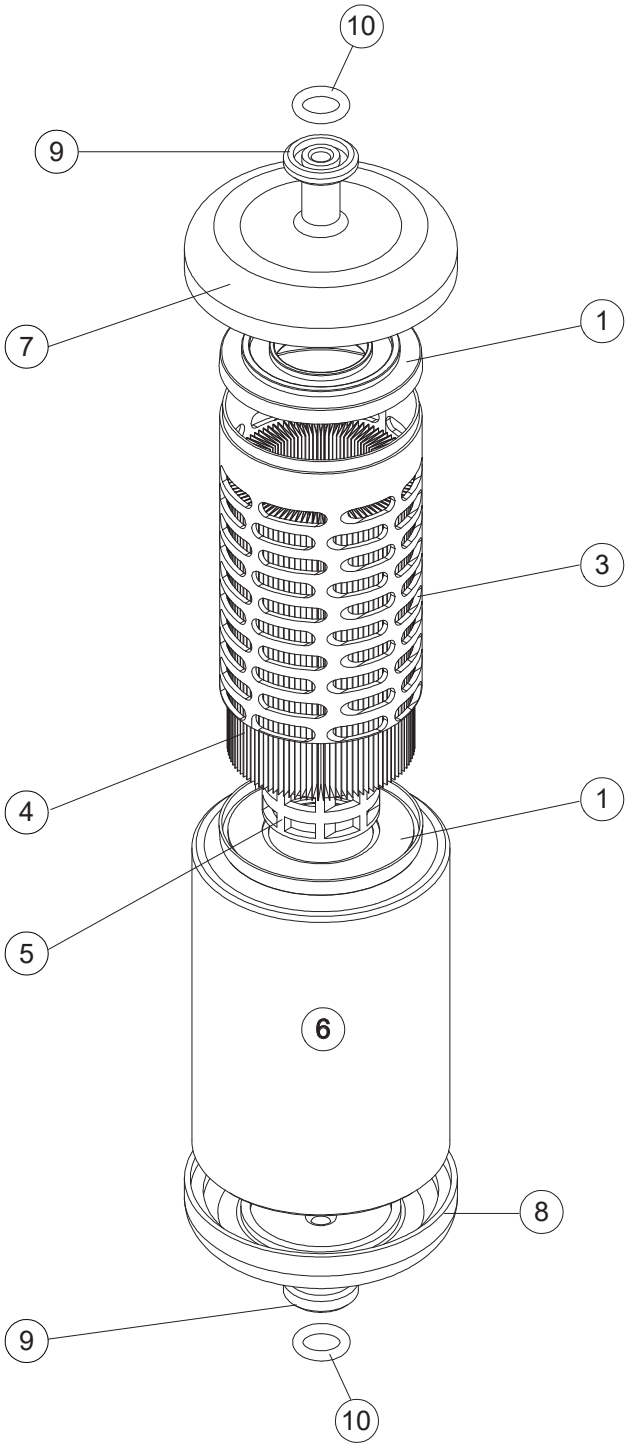


No.	Description
1	End Cap
2	End Cap
3	Filter Cartridge
4	Filter Media
5	Core
6	Cage
7	Inner Cap
8	Outer Cap
9	Cap

CMP Series Capsule Filter

OD：93mm

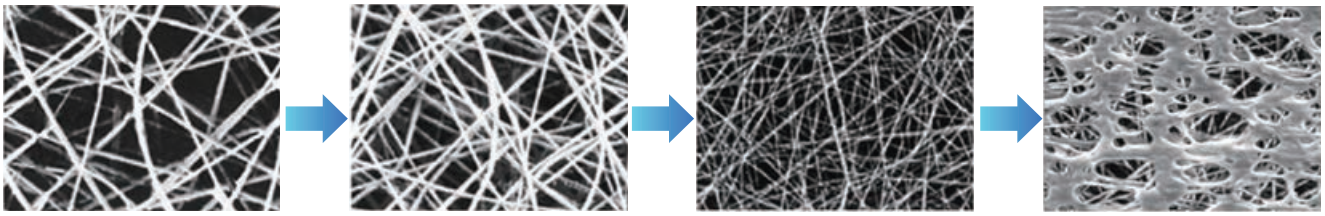


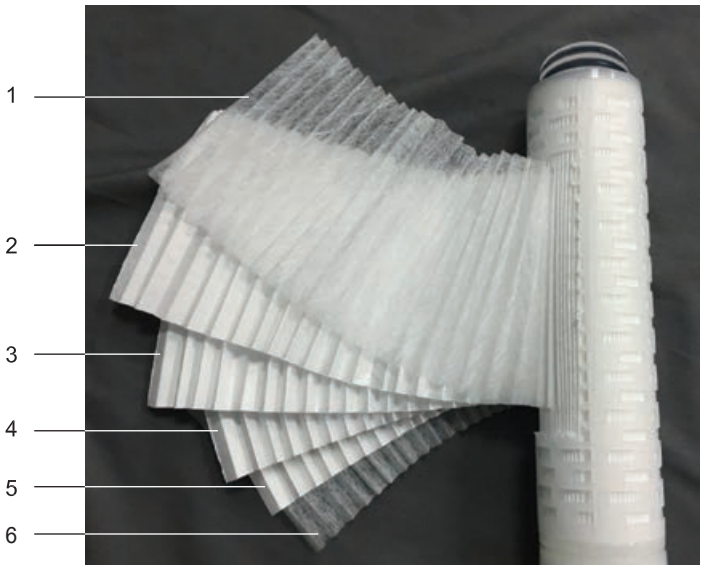


No.	Description
1	End Cap
2	End Cap
3	Filter Cartridge
4	Filter Media
5	Core
6	Cage
7	Inner Cap
8	Outer Cap
9	Cap
10	O - ring

CMP Series Pleated Filter Cartridges

- CMP pleated filter cartridge adopts multi layers of different micron rating, with progressive cascading to achieve the result of layered filtration and precise
- Outer loose & inner dense fiber structure increase the capacity and extend the service life, enhance the interception capacity for different particle sizes
- Use membrane media with stable welding enable better filtration efficiency by avoiding bridging phenomenon
- Customized by different demands



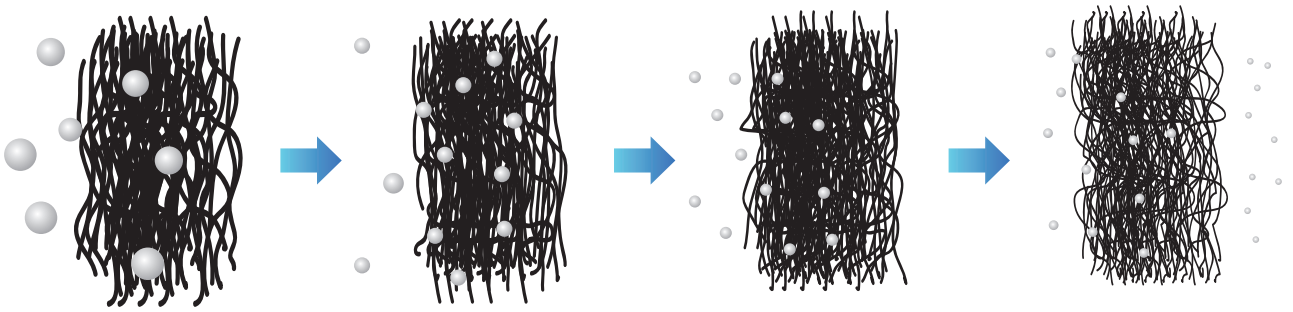


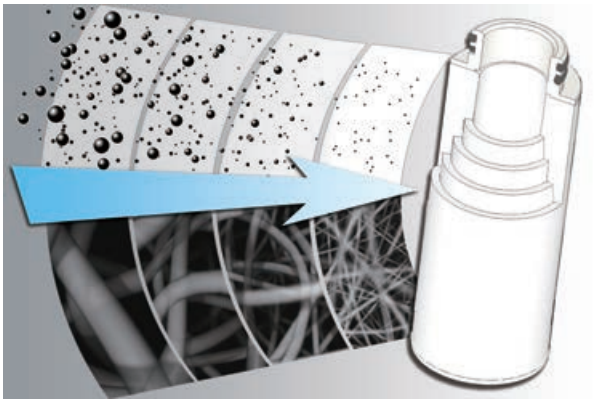
No.	Description
1	Inflow Support Layer
2	10µm
3	5µm
4	1µm
5	0.5µm
6	Outflow Support Layer

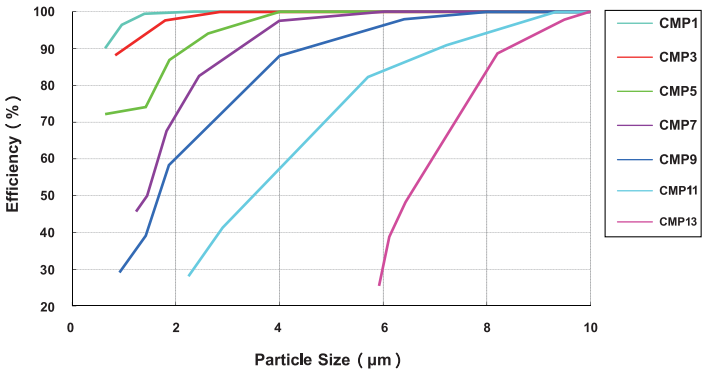
Material	Polypropylene
Length	10, 20, 30 inch
Micron Rating	0.1, 0.2, 0.5, 0.8, 1, 3, 5, 7, 9, 11, 13, 15 µm
End Cap	2-222 Flat
Operating Data	ΔP : 4.8 bar at 25°C
Applications	CMP Process

CMP Series Melt-Blown Filter Cartridges

- Catch particles effictively and ensure stable efficiency by multi-layers' structure
- High dirt holding capacity and longer service life caused by depth structure
- Melt-blowing polymer technology with firmed fibers leads to precision filtration result
- Outstanding efficiency captures the larger CMP slurry particles accurately
- NSF/ANSI 42 certified





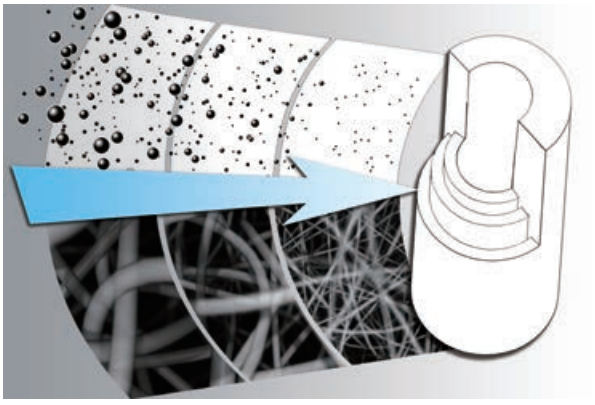


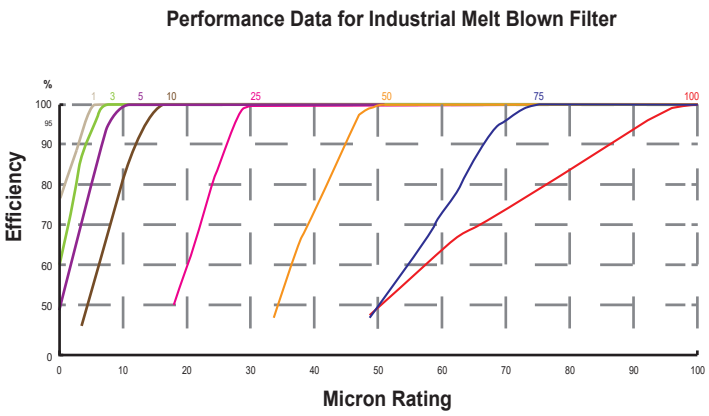
Material	Polypropylene
Length	10, 20, 30 inch
Micron Rating	1, 3, 5, 7, 9, 11, 13 µm
End Cap	2-222 Flat
Operating Data	ΔP : 4.8 bar at 25°C
Applications	CMP Process

Melt-Blown Filter Cartridges

PP material is molten and directly sprayed with high temperature and pressure to be three-layer structure. Filter is inside with dense fibers and outside with loose ones. This structure can seize particle from different sizes. This melt blown filter usability make them the ideal pre-filters for most industrial processes.

- Produced by superfine PP fibers. Presenting great filtration efficiency
- Three-layer design enhances dirt holding while maintain the longer service life
- Filter surface and inner core are no fiber release
- Stable structure design keeps the contaminant from release
- 100% Polypropylene material. No adhesive. Good chemical compatibility. No fiber release
- PP material is FDA 21 CFR compliant
- NSF/ANSI 42 certified



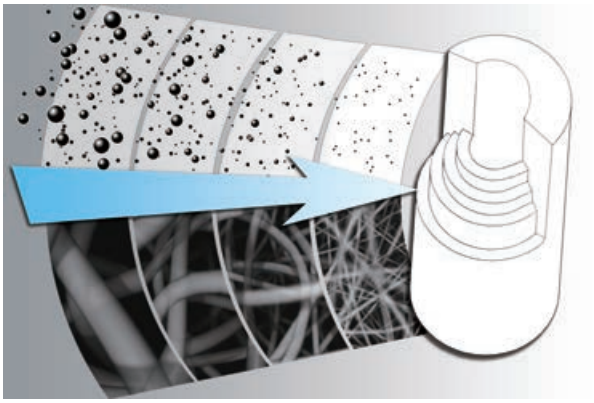


Material	Polypropylene
Length	5, 6, 9.75, 10, 19.5, 20, 29.25, 29.5, 30, 39, 40 inch and Customization
Micron Rating	1, 5, 10, 25, 50, 75, 100 µm
End Cap	DOE, 2-222 Flat, 2-222 Fin, 2-226 Flat, 2-226 Fin
Operating Data	ΔP : 3.0 bar at 25°C, 2.0 bar at 40°C, 1.0 bar at 60°C
Applications	PCB, Electroplating, Reverse Osmosis Pretreatment, Reclaimed Water Treatment, Chemical and Petrochemical Processing, Food and Beverage

Industrial Melt-Blown Filter Cartridges

Four-layer structure design. It is formed by spinning at high temperature and pressure after the Polypropylene is melted. The structure is loose outside and dense inside, which can evenly capture different sizes particles in the filter cartridge. With excellent filtration efficiency and dirt holding capacity. It can maintain stable flow, differential pressure and long service life. The fiber structure is stable to ensure filtration quality and applicable to precision industrial processes.

- Produced by superfine PP fibers. Presenting great filtration efficiency
- Four-layer design enhances dirtholding while maintain the longer service life
- Filter surface and inner core are no fiber release
- Stable structure design keeps the contaminant from release
- 100% Polypropylene material. No adhesive. Good chemical compatibility. No fiber release
- PP material is FDA 21 CFR compliant
- NSF/ANSI 42 certified

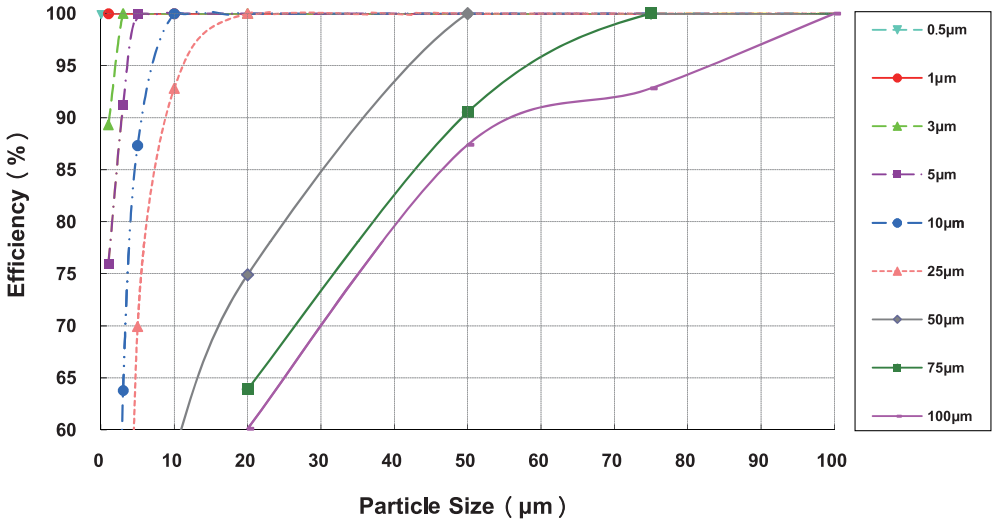


Material	Polypropylene
Length	5, 6, 9.75, 10, 19.5, 20, 29.25, 29.5, 30, 39, 40 inch and Customization
Micron Rating	0.5, 1, 5, 10, 25, 50, 75, 100 µm
End Cap	DOE, 2-222 Flat, 2-222 Fin, 2-226 Flat, 2-226 Fin
Operating Data	ΔP : 3.0 bar at 25°C, 2.0 bar at 50°C, 1.0 bar at 70°C
Applications	PCB, Electroplating, Reverse Osmosis Pretreatment, Reclaimed Water Treatment, Chemical and Petrochemical Processing, Food and Beverage

Absolute-Rated Melt-Blown Filter Cartridges

The fibers are tightly fixed from the outside to the inside, and particles will not be released due to the pump pressure or high differential pressure. Filtration efficiency up to 99% and applicable to industries with strict processes.

- State of the art Japan microfiber technology can reach up to 99% filtration efficiency
- Progressive absolute pore size structure enhances the dirt holding capacity
- Rigid structure keeps the contaminant from release
- Capture flexible particles
- 100% Polypropylene material. No adhesive. Good chemical compatibility. No fiber release
- PP material is FDA 21 CFR compliant
- NSF/ANSI 42 certified



Material	Polypropylene
Length	5, 6, 9.75, 10, 19.5, 20, 29.25, 29.5, 30, 39, 40 inch and Customization
Micron Rating	0.5, 1, 3, 5, 10, 25, 50, 75, 100 µm
End Cap	DOE, 2-222 Flat, 2-222 Fin, 2-226 Flat, 2-226 Fin
Operating Data	ΔP : 4.0 bar at 25°C, 2.0 bar at 60°C, 1.0 bar at 80°C
Applications	Flexible Particles Involving Process, Electroplating, Chemical and Petrochemical Processing, High Temperature and Pressure Manufacturing Process

Activated Carbon Filter Cartridges

Select high quality activated carbon and through multi processes with 300~500 degree C carbonization treatment. Make carbon to be porous structure. Under 800~1100 degree C high temperature activation in order to clear reaction products in the pores. The process improves the absorption ability of the activated carbon filter cartridges.

CCT-Carbon Block Filter Cartridge

- CCT is manufactured using both granular and powdered activated carbon
- It is well suited for removing impurities from large-scale water systems
- CCT are ideal in the removal of organic contamination

CCP-Carbon Impregnated Cellulose Filter Cartridge

- CCP is made of activated carbon fiber
- The production procedure keeps the carbon powder from releasing
- The performance of petroleum gases, vapors absorption and filtration is excellent ; CCP is usually used in electroplating process

CCW-Granular Carbon PP String Wound Filter Cartridge

- The outer layer of PP string blocks the particles out as pre filtration
- The middle layer of granular activated carbon performs great absorption
- The inner layer of PP string is the final filtration to increase quality of filtration and to prevent carbon release
- (BET, N_2) $\geq$ 1000 m^2/g

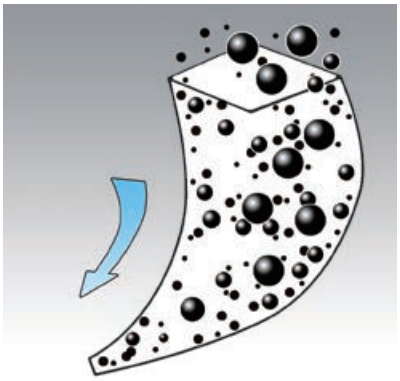
GDC-Custom-made Pleated Cellulose Carbon Filter Cartridge

- Import American activated carbon fiber to make the carbon filter
- Various connections and sizes can be customized
- Can be produced into pleated and spiral winding styles

Length	Nominal Type: 10, 20, 30, 40 inch High-Flow Large Size: 10, 20 inch
Applications	PCB, Electroplating, Reverse Osmosis Pretreatment, Chemical Processing, General Filtration, Reclaimed Water Treatment

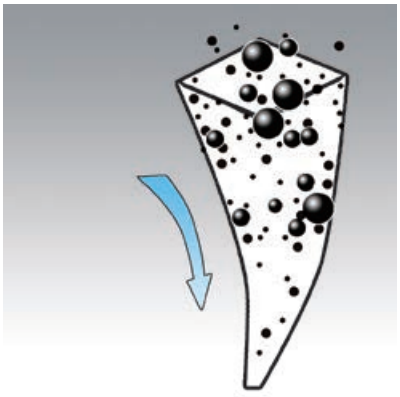
String-Wound Filter Cartridges

The unique diamond winding pattern can block large particles on the outer layer while capture small particles on the inner layer, which provides great contamination absorption. Life time is 20~40% longer than traditional design. The special treatment on the filter surface serves to prevent fibers from releasing.



Grace

The whole element offers great filtration efficiency.
Filtration area is large, extending the lifetime.



Other Brand

Contaminants are clogged on outer string layer.
Filtration area is small, lifetime is short.

Material	Polypropylene, Bleached Cotton, Glass Fiber
Central Core	PP, SUS304, SUS316
Length	9.75, 10, 19.5, 20, 29.25, 29.5, 30, 39, 40 inch and Customization
Micron Rating	1, 5, 10, 20, 30, 50, 75, 100, 150 µm
End Cap	DOE, 2-222 Flat, 2-222 Fin, 2-226 Flat, 2-226 Fin
Polypropylene Type Applications	PCB, Electroplating, Chemical and Petrochemical Processing, Reclaimed Water Treatment, Food and Beverage
Bleached Cotton Type Applications	Solvent, Ultrasonic cleaning, Chemical and Petrochemical Processing, Beverage Industry, High Temperature Process, Steam Filtration
Glass Fiber Type Applications	Under 250°C of High Temperature Filtration

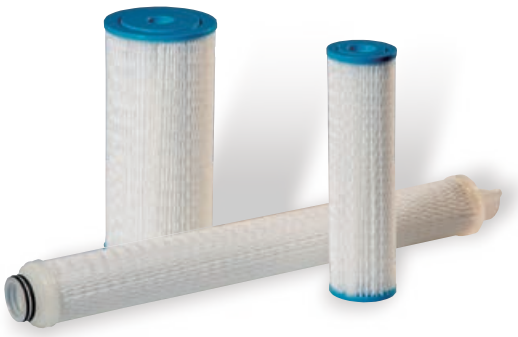
Large Size Filter Cartridges

- Featured with bigger outer diameter, exhibiting large filtration area and supplying longer service life
- Recommended to use with plastic big filter housings

Type	Melt Blown, String Wound, High Flow Rate Pleated, Activated Carbon
Length	10, 20 inch
Micron Rating	0.5, 1, 5, 10, 25, 50, 100 µm
Flow Rate	10 ~ 40 GPM Base on selection of filter element
Applications	PCW, Pre RO/DI, Chemical Processing, Household Water Filtration, Waste Water Treatment

High-Flow Pleated Filter Cartridges

- Manufactured by high quality Polyester media. The cartridges exhibit highly effective retention efficiency and reach up to 90%
- Pleated surface results in great filtration area, low pressure drop and high flow capacity, extends service life and makes the cartridge one of the most economic options in water treatment
- Free of additives and binders due to special processing avoid organic releasing and suitable for various filtration systems
- Enable to be washed and reused, saving operation and cleaning cost



Material	Polypropylene, Polyester
Length	5, 10, 20, 30, 40 inch and Customization
Micron Rating	0.5, 1, 5, 10, 20, 30, 50, 100 µm
End Cap	DOE, 2-222 Flat, 2-222 Fin, 2-226 Flat, 2-226 Fin
Operating Data	ΔP : 3.0 bar at 25°C, 2.4 bar at 50°C
Applications	PCW, Pre RO/DI, Chemical Processing

334 Series High-Flow Filter Cartridges

- High surface area design provides superior flow rate and high dirt holding capacity, resulting in better cost-saving solutions
- Plastic materials in compliance with EU RoHS regulations

Filter Media	Polypropylene	Polyethersulfone	PTFE	SUS
Micron Rating	0.2, 0.5, 0.8, 1, 3, 5, 10, 20, 30, 40, 50, 70, 100 µm	0.04, 0.1, 0.2, 0.45, 0.6, 0.8, 1.2 µm	0.05, 0.1, 0.2, 0.45, 1, 3, 5, 10 µm	1, 2, 3, 5, 10, 20, 30, 50, 70, 100 µm
O-ring	EPDM, Viton, PTFE Encapsulated Viton			
Operating Data	ΔP : 4.8 bar at 25°C, 3.4 bar at 50°C, 1.4 bar at 80°C			

233 Series High-Flow Filter Cartridges

- Maximum flow rate up to 300 ~ 500 LPM
- Patent no# M555248

Filter Media	Polypropylene	Polyethersulfone	Hydrophobic PTFE	Hydrophilic PTFE
Micron Rating	0.2, 0.5, 0.8, 1, 3, 5, 10, 20, 30, 40, 50, 70, 100 µm	0.04, 0.1, 0.2, 0.45, 0.6, 0.8, 1.2 µm	0.05, 0.1, 0.2, 0.45, 1, 3, 5, 10 µm	0.05, 0.1, 0.2, 0.45, 1, 3, 5, 10 µm
O-ring	EPDM, Viton, PTFE Encapsulated Viton			
Operating Data	ΔP : 4.8 bar at 25°C, 3.4 bar at 50°C, 1.4 bar at 80°C			

Jumbo Pleated Filter Cartridges

- Large filtration area handles larger flow rate, which can reduce volume and quantity of the filter housing and minimize the installation space
- For high flow filtration systems and lower down the cost and risk on the replacement. Suitable for high flow filtration systems, and lower down the cost and risk on the replacement
- Excellent formula of filter ensures flow rate and differential pressure of the system remain stable
- End caps with automatic bonding. No by-pass issue when used under high pressure and high differential pressure conditions for a long period of time
- PP core strengthens the supporting structure. Cage is integrally one-piece and thickening molding. Thickness is 3mm and overall structure is increased by 2 times stronger, which can deal with various complex filtration conditions without deformation

Filter Media	Polypropylene, Polyester, Glass Fiber, Stainless Steel
Length	20, 40, 60 inch and Customization
Micron Rating	0.2, 0.5, 1, 5, 10, 20, 40, 50, 70, 100 µm
Flow Rate	20"：40 CMH ，40"：85 CMH ，60"：110 CMH
Operating Data	ΔP：4.8 bar at 25℃
Applications	Pre RO/DI, PCW , Recycled Water, High-Flow Filtration, Petrochemical Processing

7000 Series High-Flow Filter Cartridges

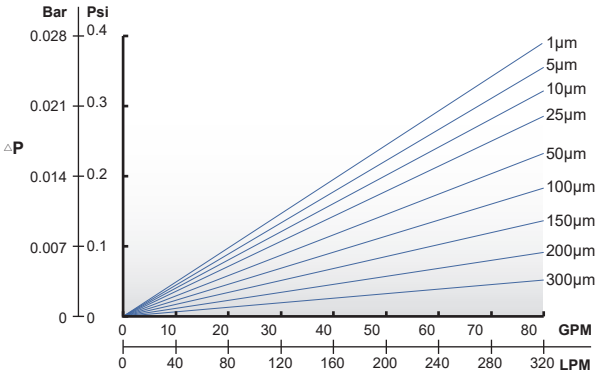
- Large filtration area processes larger flow rate, which can reduce volume and quantity of the filter housing and minimize the installation space
- Suitable for high flow filtration systems, and lower down the cost and risk on the replacement
- Excellent support and diversion design ensures flow rate and differential pressure of the system remain stable
- End caps made by automatic welding machine. No by-pass issue when used under high pressure and high differential pressure conditions for long-term

Filter Media	Polypropylene
Length	40, 60 inch
Micron Rating	1, 3, 5, 10, 20, 30, 40, 70 µm
Flow Rate	40"：75 CMH ，60"：110 CMH
Operating Data	ΔP：4.8 bar at 25℃
Applications	Pre RO/DI, PCW , Recycled Water, High-Flow Filtration, Petrochemical Processing

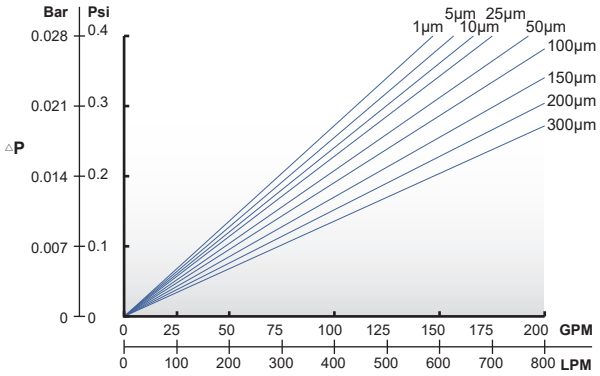
Liquid Filter Bags

Filter Media	PP, PET, Nylon, Teflon, Nomex, Different kinds of woven, non-woven fabric, oil-absorbing fabric, activated carbon
Top Ring	PP, Nylon, Santoprene, Galvanized Steel, Stainless Steel
Ring Type	F Ring, G Ring and Others
Seam	Sewn, Welded
Micron Rating	0.5 ~ 1000 µm
Size	#1 (Ø17.8 cm × 42 cm, Q : 20 CMH) #2 (Ø17.8 cm × 81 cm, Q : 45 CMH) #3 (Ø10.1 cm × 23 cm, Q : 4.5 CMH) #4 (Ø10.1 cm × 38 cm, Q : 10 CMH) X Series (Ø15 cm × 52 cm) U Series (Ø11.8 cm × 52 cm) BP Series (Ø22 cm × 43 cm) Y Series (Ø20 cm × 33 cm) Others

Size 1 Filter Bag



Size 2 Filter Bag



Bag Type High Flow Filter Cartridges

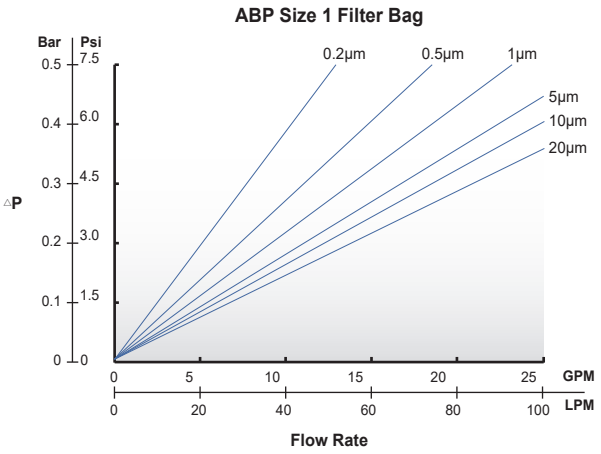
- Integrated molding design solve the by-pass problem of liquid leakage from the gap between O-ring and the handle

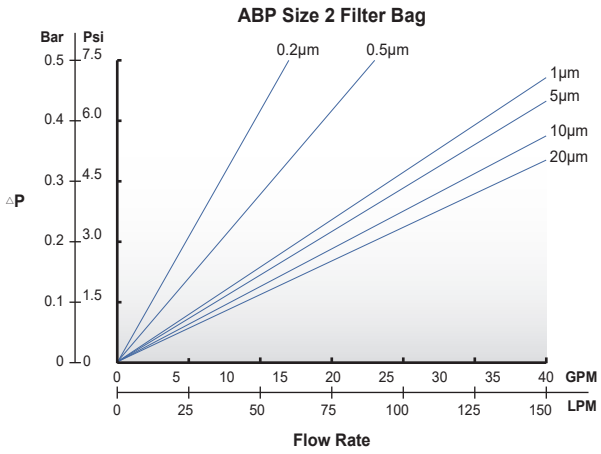
Filter Media	Polypropylene, Polyester
Micron Rating	0.2, 0.5, 1, 5, 10, 20, 30, 50 µm
Gasket/O-ring	EPDM, Viton, TPV
Operating Data	△P : 4.8 bar at 25°C, 1.4 bar at 50°C

High Performance Liquid Filter Bags

- The innovative welding technology applies the main layer of the pleated filter cartridge to the filter bag, replacing the traditional stacking type to improve the filter efficiency, increase the flow rate by 20% and reduce the pressure difference by 35%. Easier to install and greatly reduce the disposal cost
- Using melt-blown ultra-fine nanofiber as the main layer, which improves the efficiency up to 95% ~ 99.9%
- The progressive pore size increases dirt holding capacity of the filter bag, keeping the differential pressure rising steadily and extend the filter life
- PP raw material complies with FDA 21 CFR, which is safe and secure
- Customized formula can be provided to satisfy user's requirement

Filtration Efficiency						
Type	**0.2 µm**	**0.5 µm**	**1 µm**	**5 µm**	**10 µm**	**20 µm**
ABP02	95	98	99	99.9	-	-
ABP05	85	95	98	99	>99.9	-
ABP1	80	90	95	98	99	>99.9
ABP5	-	80	90	95	98	99
ABP10	-	-	80	90	95	98
ABP20	-	-	-	80	90	95





Filter Clothes

Filter Media	PP, PET, Nylon, Carbon Cloth
Type	Non-Woven, Woven, Brushed Woven, Woven Mesh
Micron Rating	0.5 ~ 1000 µm

Stainless Steel Filter Cartridges

- Metallic elements analyzed by XRF
- Assessed by bubble point test

Material	SUS304, SUS316, SUS316L
Length	5, 10, 20, 30, 40 inch and Customization
Micron Rating	0.5 ~ 1000 µm
Media Type	Plain Weave, Dutch Twill Weave, Plain Dutch Weave, Metal Fiber Non-woven, 3/5 layers Sintered Mesh
End Caps	DOE, 2-222, 2-226 and others
Max. Operating Temperature	250°C
Max. Operating Pressure	5 ~ 150 bar (according to the spec.)
Applications	CPF, CPL, Petrochemical Processing, Acid/Alkali, High Density Treatment, Steam Filtration, Beverage Industry

Sintered Metal Filter Cartridges

Material	SUS304, SUS316, SUS316L, Titanium, Nickel, Copper and Others
Length	5, 10, 20, 30, 40 inch and Customization
Micron Rating	0.5 ~ 200 µm
Filter Type	Filter Cartridges, Filter Disks, Filter Sheets
End Caps	DOE, 2-222, 2-226 and others
Max. Operating Temperature	250°C
Max. Operating Pressure	5 ~ 150 bar (according to the spec.)
Applications	Petrochemical Processing, Chemical Fiber Industry, Steam Filtration, Beverage Industry

Stainless Steel Single-Cartridge Filter Housings

Filter Length	5, 10, 20, 30, 40 inch ϕ145mm: 10, 20 inch
Material	SUS304, SUS316
In/Outlet	3/4, 1 inch NPTF, 1 1/2 inch Flange
Closure Type	Ring-nut Closure, V-Clamp Closure
Flow Rate	1 ~ 10 CMH Flowrate may vary according to different model & element type
Filter Type	DOE, 2-222 Flat, 2-222 Fin
Max. Operating Pressure	Ring-nut Closure: 5 bar V-Clamp Closure: 7 bar
Applications	Circulating Filtration System, PCW, Chemical Processing

Stainless Steel Sanitary Filter Housings

Filter Length	10, 20, 30, 40 inch
Number of Cartridges	Single or multi-round
Material	SUS304, SUS316, SUS316L
In/Outlet	1 ~ 6 inch Sanitary Clamp
Finish	Mechanical Polishing 400 mesh
Max. Operating Pressure	7 bar Higher pressure housings can be customized
Applications	Pharmaceutical, Beverage Industry, Chemical Processing, Ultrapure Water Filtration

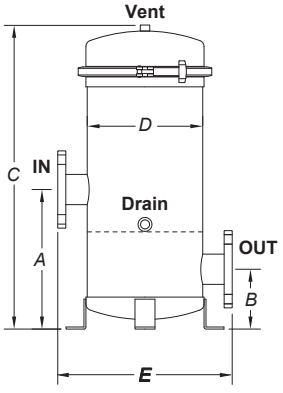
Top-Loading High Pressure Bag Filter Housings

Top Cover Design improves sealing and reduces the possibility of liquid bypass.

Filter Size	#1 Bag, #2 Bag
Material	SUS304, SUS316, SUS316L
In/Outlet	2, 2 1/2 inch Flange
Flow Rate	#1 Bag Filter Housing: 0~20CMH #2 Bag Filter Housing: 0~45CMH Flowrate may vary according to different element type
Max. Operating Pressure	10 bar
Applications	High Temperature, Pressure and Density Manufacturing Process

Stainless Steel Cartridge Filter Housings

Filter Length	5, 10, 20, 30, 40 inch
Number of Cartridges	3 ~ 7 rounds
Material	SUS304, SUS316, SUS316L
In/Outlet	1, 1 1/2, 2, 2 1/2, 3, 4 inch NPT, BSP, Flange, Clamp, or others
Flow Rate	10" : 0 ~ 7 CMH 20" : 0 ~ 14 CMH 30" : 0 ~ 21 CMH 40" : 0 ~ 28 CMH *Above flowrate is based on standard PP melt blown cartridge; Flowrate may vary according to different filter elements
Closure Type	V-Clamp
Max. Operating Pressure	7 bar
Applications	Reverse Osmosis Pretreatment, PCW Filtration, Circulating Filtration System, Chemical Processing, Reclaimed Water Treatment, Beverage Industry

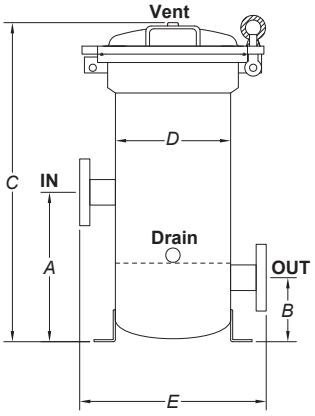


Model	A	B	C	øD	E
UFC10 3 ~ 4	280	120	617	180	300
UFC20 3 ~ 4	280	120	882	180	300
UFC30 3 ~ 4	280	120	1137	180	300
UFC10 5 ~ 7	280	120	611	232	352
UFC20 5 ~ 7	280	120	877	232	352
UFC30 5 ~ 7	280	120	1132	232	352
UFC40 5 ~ 7	280	120	1387	232	352

unit: mm

Stainless Steel High Pressure Cartridge Filter Housings

Filter Length	5, 10, 20, 30, 40 inch
Number of Cartridges	3 ~ 12 rounds
Material	SUS304, SUS316, SUS316L
In/Outlet	1, 1 1/2, 2, 2 1/2, 3, 4 inch NPT, BSP, Flange, Clamp, or others
Flow Rate	10" : 0 ~ 7 CMH 20" : 0 ~ 14 CMH 30" : 0 ~ 21 CMH 40" : 0 ~ 28 CMH *Above flowrate is based on standard PP melt blown cartridge; Flowrate may vary according to different filter elements High flow filter is optional to increase the flow and reduce the differential pressure
Closure Type	Swing Bolt
Max. Operating Pressure	10 bar
Applications	Reverse Osmosis Pretreatment, PCW Filtration, Circulating Filtration System, Chemical Processing, Reclaimed Water Treatment, Beverage Industry

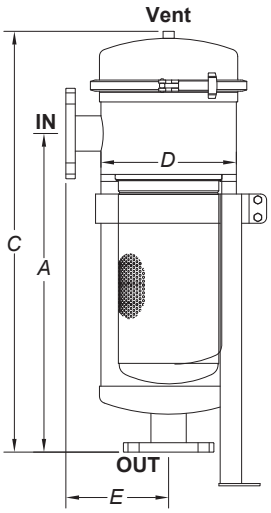


Model	A	B	C	øD	E
UFCG10 3 ~ 4	280	120	661	180	300
UFCG20 3 ~ 4	280	120	926	180	300
UFCG30 3 ~ 4	280	120	1181	180	300
UFCG40 3 ~ 4	280	120	1353	181	300
UFCG10 5 ~ 7	280	120	664	232	350
UFCG20 5 ~ 7	280	120	929	232	350
UFCG30 5 ~ 7	280	120	1184	232	350
UFCG40 5 ~ 7	280	120	1439	232	350
UFCG10 8 ~ 12	600	350	924	306	506
UFCG20 8 ~ 12	700	350	1179	306	506
UFCG30 8 ~ 12	700	350	1434	306	506
UFCG40 8 ~ 12	700	350	1689	306	506

unit: mm

Stainless Steel Bag Filter Housings

Filter Size	#1, #2, #3, #4
Material	SUS304, SUS316, SUS316L
In/Outlet	1, 1 1/2, 2, 2 1/2, 3, 4 inch NPT, BSP, Flange, Clamp and others
Flow Rate	#1: Up to 20 CMH ; #2: Up to 45 CMH #3: Up to 4.5 CMH ; #4: Up to 10 CMH
Closure Type	V-Clamp
Max. Operating Pressure	7 bar
Applications	Reverse Osmosis Pretreatment, PCW Filtration, Circulating Filtration System, Chemical Processing, Reclaimed Water Treatment, Automotive, Paints, Inks, Resins and Coatings, Beverage Industry

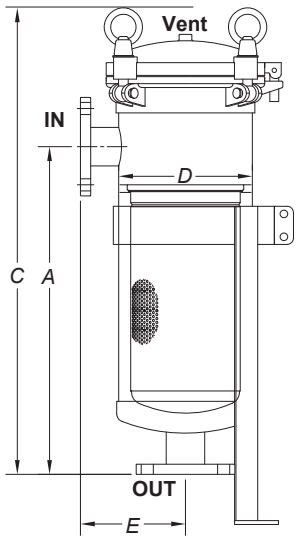


Model	A	C	øD	E
UFB01	545	727	232	175
UFB02	1000	1182	232	175
UFB03	355	532	180	150
UFB04	490	667	180	150

unit: mm

Stainless Steel High Pressure Bag Filter Housings

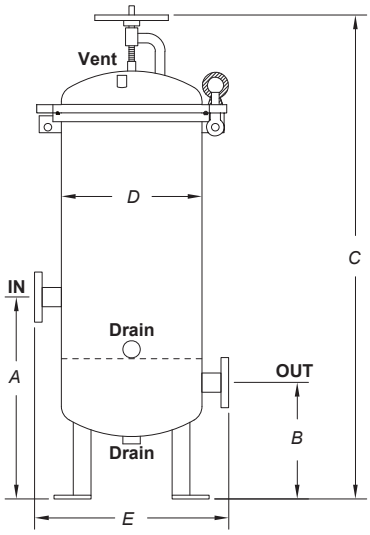
Filter Size	#1, #2, #3, #4
Material	SUS304, SUS316, SUS316L
In/Outlet	1, 1 1/2, 2, 2 1/2, 3, 4 inch NPT, BSP, Flange, Clamp and others
Flow Rate	#1: Up to 20 CMH ; #2: Up to 45 CMH #3: Up to 4.5 CMH ; #4: Up to 10 CMH
Closure Type	Swing Bolt
Max. Operating Pressure	10 bar
Applications	Reverse Osmosis Pretreatment, PCW Filtration, Circulating Filtration System, Chemical Processing, Reclaimed Water Treatment, Automotive, Paints, Inks, Resins and Coatings, Beverage Industry



Model	A	C	øD	E
UFBG01	515	728	210	165
UFBG02	905	1134	210	165
UFBG03	340	532	140	130
UFBG04	450	642	140	130

unit: mm

High-Flow Multi-Cartridge Filter Housings

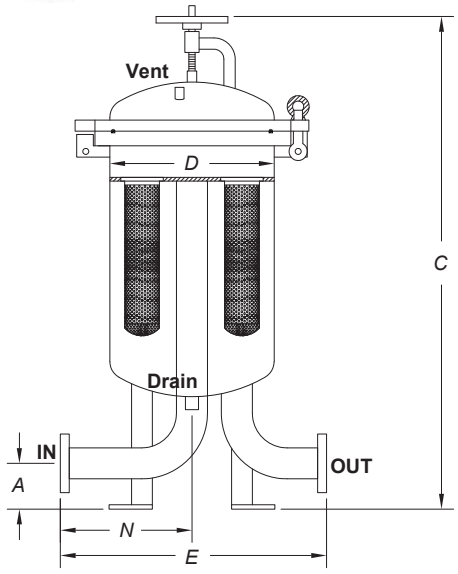


Model	A	B	C	øD	E
UFC20 8 ~ 12	700	350	1400	306	506
UFC30 8 ~ 12	700	350	1655	306	506
UFC40 8 ~ 12	700	350	1905	306	506
UFC20 13 ~ 20	700	350	1415	406	606
UFC30 13 ~ 20	700	350	1670	406	606
UFC40 13 ~ 20	700	350	1920	406	606
UFC20 21 ~ 28	700	350	1437	486	686
UFC30 21 ~ 28	700	350	1692	486	686
UFC40 21 ~ 28	700	350	1942	486	686
UFC20 29 ~ 36	700	350	1523	560	760
UFC30 29 ~ 36	700	350	1778	560	760
UFC40 29 ~ 36	800	400	2028	560	760
UFC20 37 ~ 46	800	400	1529	600	800
UFC30 37 ~ 46	800	400	1784	600	800
UFC40 37 ~ 46	800	400	2034	600	800
UFC20 47 ~ 56	850	450	1587	650	850
UFC30 47 ~ 56	850	450	1842	650	850
UFC40 47 ~ 56	850	450	2092	650	850
UFC20 57 ~ 81	950	500	1710	762	962
UFC30 57 ~ 81	950	500	1965	762	962
UFC40 57 ~ 81	950	500	2215	762	962
UFC20 82 ~ 95	1000	550	1895	900	1100
UFC30 82 ~ 95	1000	550	2150	900	1100
UFC40 82 ~ 95	1000	550	2400	900	1100
UFC20 96 ~ 135	1100	600	1985	1000	1200
UFC30 96 ~ 135	1100	600	2240	1000	1200
UFC40 96 ~ 135	1100	600	2490	1000	1200
UFC20 136 ~ 155	1250	650	2090	1100	1300
UFC30 136 ~ 155	1250	650	2345	1100	1300
UFC40 136 ~ 155	1250	650	2595	1100	1300
UFC20 156 ~ 173	1250	650	2095	1220	1400
UFC30 156 ~ 173	1250	650	2350	1220	1400
UFC40 156 ~ 173	1250	650	2600	1220	1400

unit: mm

Filter Length	5, 10, 20, 30, 40 inch
Number of Cartridges	9 ~ 200 rounds
Material	SUS304, SUS316, SUS316L
In/Outlet	2 ~ 15 inch Flange
Flow Rate	0 ~ 1600 CMH Depending on the specification and quantity of the filter cartridge
Max. Operating Pressure	10 bar
Applications	Reverse Osmosis Pretreatment, PCW Filtration, Circulating Filtration System, Chemical Processing, Reclaimed Water Treatment, Beverage Industry

High-Flow Multi-Bag Filter Housings



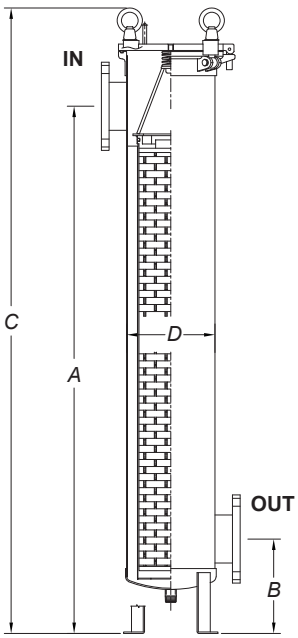
Model	Port	A	C	øD	E	N
UFB02 2	3” F	108	1410	406	584	254
UFB02 2	4” F	127	1447	406	660	292
UFB02 3	3” F	108	1455	508	686	343
UFB02 3	4” F	127	1492	508	724	343
UFB02 4	3” F	108	1506	560	698	330
UFB02 4	4” F	127	1545	560	737	330
UFB02 4	6” F	152	1616	560	876	356
UFB02 5	3” F	108	1506	560	698	330
UFB02 5	4” F	127	1545	560	737	330
UFB02 5	6” F	152	1635	600	876	356
UFB02 6	3” F	108	1520	600	724	356
UFB02 6	4” F	127	1558	600	763	356
UFB02 6	6” F	152	1635	600	876	356
UFB02 7	3” F	108	1658	762	813	406
UFB02 7	4” F	127	1695	762	864	406
UFB02 7	6” F	152	1772	762	927	406
UFB02 7	8” F	184	1848	762	991	432
UFB02 8	4” F	127	1695	762	864	432
UFB02 8	6” F	152	1772	762	991	432
UFB02 8	8” F	184	1848	762	1047	432
UFB02 9	6” F	152	1880	814	1016	457
UFB02 9	8” F	184	1955	814	1016	457
UFB02 10	6” F	152	1918	864	1092	483
UFB02 10	8” F	184	1993	864	1067	483
UFB02 10	10” F	216	2160	965	1219	533
UFB02 12	8” F	184	2085	965	1130	533
UFB02 12	10” F	216	2160	965	1219	533
UFB02 14	10” F	216	2267	965	1219	533

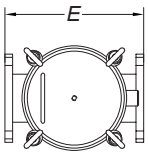
unit: mm

Filter Size	#1, #2
Number of Filter Bags	2 ~ 50
Material	SUS304, SUS316, SUS316L
In/Outlet	2 ~ 15 inch Flange
Flow Rate	0 ~ 2250 CMH Depending on the specification and quantity of the filter bag
Max. Operating Pressure	10 bar
Applications	Reverse Osmosis Pretreatment, PCW Filtration, Circulating Filtration System, Chemical Processing, Reclaimed Water Treatment, Automotive, Paints, Inks, Resins and Coatings, Beverage Industry

Stainless Steel High Flow Single-Cartridge Filter Housings

Filter Length	20, 40, 60 inch
Number of Cartridges	Single
Material	SUS304, SUS316, SUS316L
In/Outlet	2, 2 1/2, 3, 4 inch NPT, Flange, Clamp and others
Flow Rate	40" : 0 ~ 85 CMH 60" : 0 ~ 110 CMH
Max. Operating Pressure	10 bar
Applications	Reverse Osmosis Pretreatment, PCW Filtration, Circulating Filtration System, Chemical Processing, Reclaimed Water Treatment, Automotive, Paints, Inks, Resins and Coatings, Beverage Industry



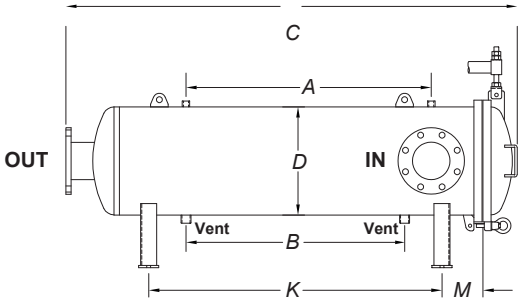


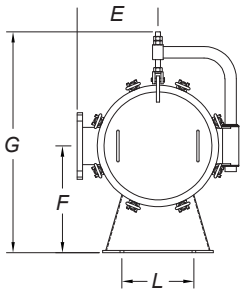
Model	A	B	C	øD	E
UFL20 1	745	225	979	210	330
UFL40 1	1255	225	1489	210	330

unit: mm

Stainless Steel High Flow Multi-Cartridge Filter Housings

Filter Length	40, 60 inch
Number of Cartridges	2 ~ 19 rounds
Material	SUS304, SUS316, SUS316L
In/Outlet	4, 5, 6, 8, 14, 16 inch NPT, Flange, Clamp and others
Flow Rate	0 ~ 2200 CMH Depending on the specification and quantity of the filter cartridge
Max. Operating Pressure	7 bar
Applications	Reverse Osmosis Pretreatment, PCW Filtration, Circulating Filtration System, Chemical Processing, Reclaimed Water Treatment, Automotive, Paints, Inks, Resins and Coatings, Beverage Industry





Model	A	B	C	øD	E	F	G	K	L	M
UFL40 2	920	820	1693	406	303	400	828	1100	270	150
UFL40 3	920	820	1693	406	303	400	828	1100	270	150
UFL40 4	920	820	1722	486	343	450	918	1100	370	150
UFL40 5	920	820	1778	508	354	450	929	1150	370	150
UFL40 6	920	820	1792	560	380	500	1005	1150	470	150
UFL40 7	920	820	1823	560	400	500	1025	1150	470	150
UFL40 8	920	820	1871	650	425	550	1100	1150	520	150
UFL40 9	920	820	1904	700	500	550	1131	1150	630	200
UFL40 10	920	820	1960	762	531	600	1217	1150	630	200
UFL40 12	920	820	1979	814	557	650	1293	1150	720	200

unit: mm

Titanium Cartridge Filter Housings

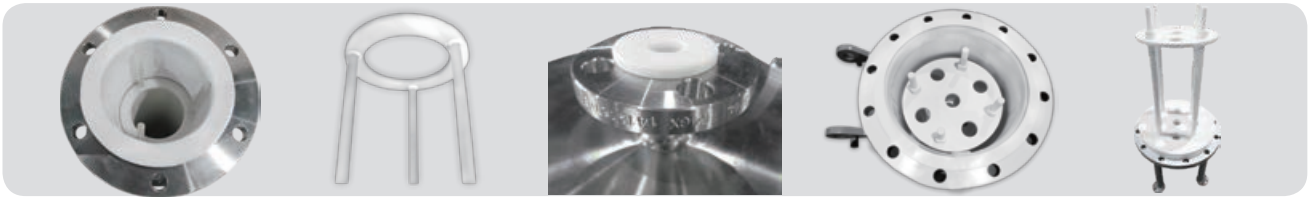
Filter Length	10、20、30 inch
Number of Cartridges	1, 3 ~ 7 or more rounds
Material	Titanium Alloy
In/Outlet	NPT, Flange
Flow Rate	10" : 0 ~ 7 CMH 20" : 0 ~ 14 CMH 30" : 0 ~ 21 CMH
Closure Type	Swing Bolt
Max. Operating Pressure	7 bar
Applications	Highly Corrosive Liquids, Chemical Processing, Electroplating

Titanium Bag Filter Housings

Filter Size	#1, #2
Number of Filter Bags	Single-Bag, Multi-Bag
Material	Titanium Alloy
In/Outlet	NPT, Flange
Flow Rate	#1: Up to 20 CMH ; #2: Up to 45 CMH
Closure Type	Swing Bolt
Max. Operating Pressure	7 bar
Applications	Highly Corrosive Liquids, Chemical Processing, Electroplating

Stainless Steel PTFE Lined Cartridge Filter Housings

Filter Length	10、20、30 inch
Number of Cartridges	1, 3 ~ 7 or more rounds
Material	SUS304, SUS316, SUS316L
In/Outlet	Flange
Flow Rate	10" : 0 ~ 7 CMH 20" : 0 ~ 14 CMH 30" : 0 ~ 21 CMH
Max. Operating Pressure	7 bar
Applications	Semiconductor, Acid-suppling System



Stainless Steel PTFE Lined Bag Filter Housings

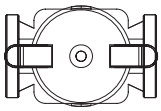
Filter Size	#1, #2
Material	SUS304, SUS316, SUS316L
In/Outlet	Flange
Flow Rate	#1: Up to 20 CMH ; #2: Up to 45 CMH
Max. Operating Pressure	7 bar
Applications	Semiconductor, Acid-suppling System

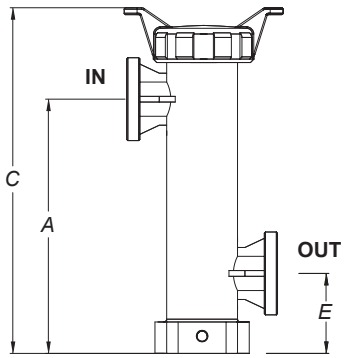
PP Bag Filter Housings

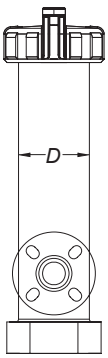
- Integral moulding design. Finishing of the housing inside is smooth, making it easy to clean and maintain. Pressure resistance is up to 6 bar
- Seamless welding structure is different from regular drilling and welding process in the industry which reduce pollution on the production
- Brand new sealing design solves by-pass issue. The pressure plate avoids O-ring deformation during rotating threads on the top lid
- Filter bag ring is completely fitted with housing in good tightness which reduce by-pass effectively

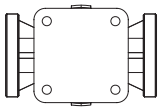
Filter Size	#1 Bag; #2 Bag; #4 Bag
Material	Polypropylene
In/Outlet	1 1/2, 2, 2 1/2 inch Flange
Closure Type	Swing bolt(Swing bolt in Titanium is optional), Screw style top lid
Flow Rate	#1: Up to 20 CMH #2: Up to 45 CMH #4: Up to 10 CMH
Max. Pressure	6 bar
Applications	PCB Wet Processing Equipment, Chemicals, Circulating Water









Model	A	C	øD	E
UFBH01	450	656	230	135
UFBH02	635.5	843	230	152.5
UFBH04	445	605	124	140

unit: mm

UPVC Filter Cartridge Housings

Filter Length	10, 20, 30, 40 inch
Number of Cartridges	5, 9 rounds
Material	UPVC
In/Outlet	1.5, 2 inch DIN or ANSI UNION
Closure Type	Swing Bolt
Flow Rate	10" : 0 ~ 9 CMH 20" : 0 ~ 18 CMH 30" : 0 ~ 27 CMH 40" : 0 ~ 36 CMH *Above flowrate is based on standard PP melt blown cartridge; Flowrate may vary according to different filter elements
Max. Operating Pressure	4 bar
Applications	Circulating Filtration System, Chemical Processing, Reclaimed Water Treatment, Sea Water Applications

UPVC Bag Filter Housings

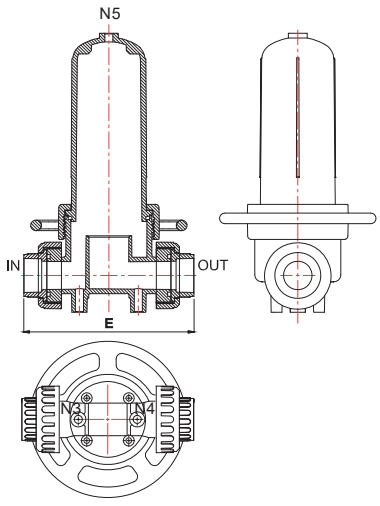
Filter Size	#1 Bag; #2 Bag
Material	UPVC
In/Outlet	2 inch DIN or ANSI Flange
Closure Type	Swing bolt
Flow Rate	#1: Up to 20 CMH ; #2: Up to 45 CMH
Max. Operating Pressure	4 bar
Applications	Circulating Filtration System, Chemical Processing, Reclaimed Water Treatment, Sea Water Applications

Pure Polypropylene Filter Housings

- Wheel model can be easily disassembled without wrench.
  Patent No# M560937
- Wrench model saves on-site space, can be used with DOE、2-222、2-226 End filter cartridges.
  Patent No# M604233

Filter Length	10 inch
Material	Polypropylene (PP)
In/Outlet	1, 1 1/2 inch JIS CPVC Union, 1 inch NPTF
Flow Rate	Up to 10 CMH Flowrate may vary according to different model & element type
Filter Type	Ø63, Ø69, Ø83 DOE, 2-222 Flat, 2-226 Flat
Color	Translucent White
Max. Operating Pressure	7 bar at 25°C
Applications	Circulating Filtration System, Chemical Processing, Pure Water Purification

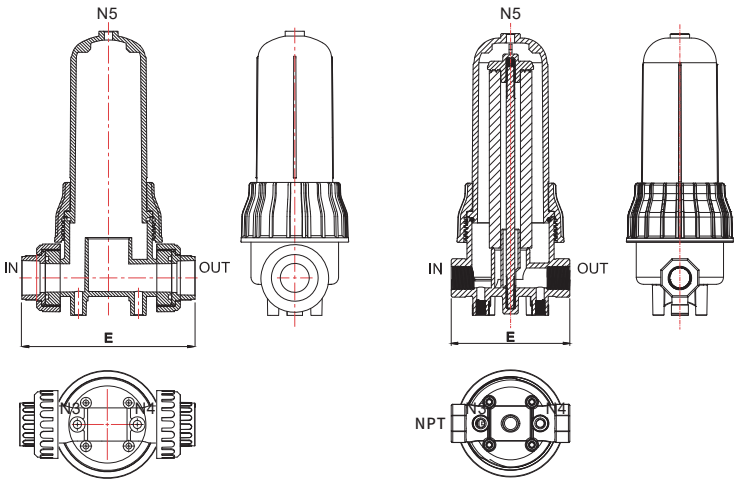
✳ Wheel Model



Inlet / Outlet	N3/ N4/ N5	E
1" JIS Union	1/4"NPTF	241
1 1/2" JIS Union	1/4"NPTF	243

unit: mm

✳ Wrench Model



Inlet / Outlet	N3/ N4/ N5	E
1" NPT	1/4"NPTF	167
1" JIS Union	1/4"NPTF	241
1 1/2" JIS Union	1/4"NPTF	243

unit: mm

Plastic Filter Housings

- Central core design to avoid bypass caused by shaking of the filter cartridge and ensure the filtration quality
- Patent No. M594990 for the design of fixed filter cartridge core

Filter Length	5, 10, 20 inch
Material	Clear: Styrene Acrylonitrile (SAN), Blue: Polypropylene (PP)
In/Outlet	1/4, 1/2, 3/4 inch NPTF
O-ring Quantity	Single, Double
Flow Rate	Up to 2.5 CMH Flowrate may vary according to different model & element type
Filter Type	Double Open End
Color	**Clear, Blue**
Max. Operating Pressure	7 bar at 25°C, 2 bar at 40°C
Applications	Circulating Filtration System, Reverse Osmosis Pretreatment, PCW Filtration

Large-Size Plastic Filter Housings

- Central core design to avoid bypass caused by shaking of the filter cartridge and ensure the filtration quality
- Patent No. M594990 for the design of fixed filter cartridge core

Filter Length	10, 20 inch
Material	Clear: Polycarbonate (PC), Blue: Polypropylene (PP)
In/Outlet	1, 1 1/2 inch NPTF
O-ring Quantity	Single, Double
Flow Rate	Up to 10 CMH Flowrate may vary according to different model & element type
Filter Type	Double Open End
Color	Clear, Blue
Max. Operating Pressure	7 bar at 25°C, 2 bar at 40°C
Applications	Circulating Filtration System, Reverse Osmosis Pretreatment, PCW Filtration

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2023,06