cobetter®
filtration

2020V5O

Filtration for Semiconductor



Liquid & Gas Filtration

For Microelectronics, Pharmaceutical, Fine chemical, Food and Beverage Industries

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Our Mission

Through Excellent Products & Sustainable Innovative Solutions, We Help Customers Solve Process Problems & Increase Yield.

- Japanese Quality Control Methods are Implemented Throughout the Entire Manufacturing Process to Ensure 100% Passing Rate of Finished Products.
- Membrane Development and Research.
- Filter Material Know-How & Analysis.
- Design and Filter Production Capabilities.
- Design and Manufacture Filtration Solutions and Systems.





Quality Director Hara Shinji
Decades of Experience in the Japanese Filtration Industry

Full Range of Manufacturing Capabilities

We offer a full range of manufacturing capabilities for the filtration market including membrane development, filter production, filter housing design production, and validation analysis services.

We strive ourselves on providing our customers with high quality and cost-efficient products that meet all their requirements.











Analysis Center

ISO 17025

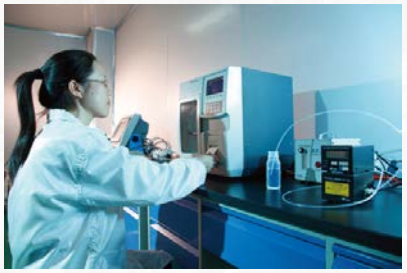
9 Laboratory

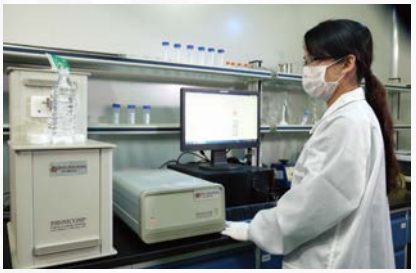
Surface Analysis Lab (FESEM,SEM,EDS,Micro FT-IR)
Filtration Performance Analysis Lab
Particle Efficiency Analysis Lab
Inorganic Chemical Analysis Lab (ICP-MS,Ion Chromatography)
Organic Chemical Analysis Lab (LC-MS,GC-MS,HPLC)
Bacteria Challenge Test Lab
Media Performance Analysis Lab
Ultra-filtration Analysis Lab
Oil Separation Analysis Lab



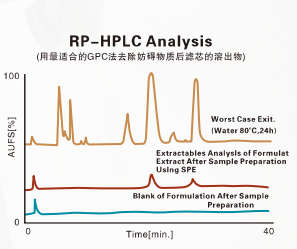
















Electronic chemicals are essential to the manufacturing process of high-quality semiconductor, LC and solar energy related products due to the rigorous requirements for particles and metal ions. The features of these filter cartridges include high efficiency and low extractable, thus they are highly recommended for the filtration of chemicals so as to ensure the quality of the finished chemical products.

HAPES Chemical Compatibility

Chemical	Condition	Water Flow	Integrity	Retention	Chemical Compatibility
SC1	Room Temperature	√	√	√	◎
SC2	≤60°C	√	√	√	◎
HCl	37%, 20°C	√	√	√	◎
H_3PO_4	<100%, ≤60°C	√	√	√	◎
CHF	49%, 20°C	↑	↓	↓	△
DHF	10%, 20°C	√	√	√	◎
BOE	20°C	√	√	√	◎
TMAH	20°C	√	√	√	◎
IPA	20°C	↓	↑	↑	△
H_2O_2	5%, 20°C	↑ ↑	↓ ↓	↓ ↓	x
BEOL Cleaning*	60°C	√	√	√	◎
HN	HNO3/HF=6:1	↑ ↑	↓ ↓	↓ ↓	x
NE111	20°C	↑ ↑	↓ ↓	↓ ↓	x
ST250	40°C	√	√	√	◎
SPM	H_2SO_4 : H_2O_2 = 5 : 1, 125°C	↑ ↑	↓ ↓	↓ ↓	x
$CuSO_4$	20°C	√	√	√	◎
DIW	20°C	√	√	√	◎

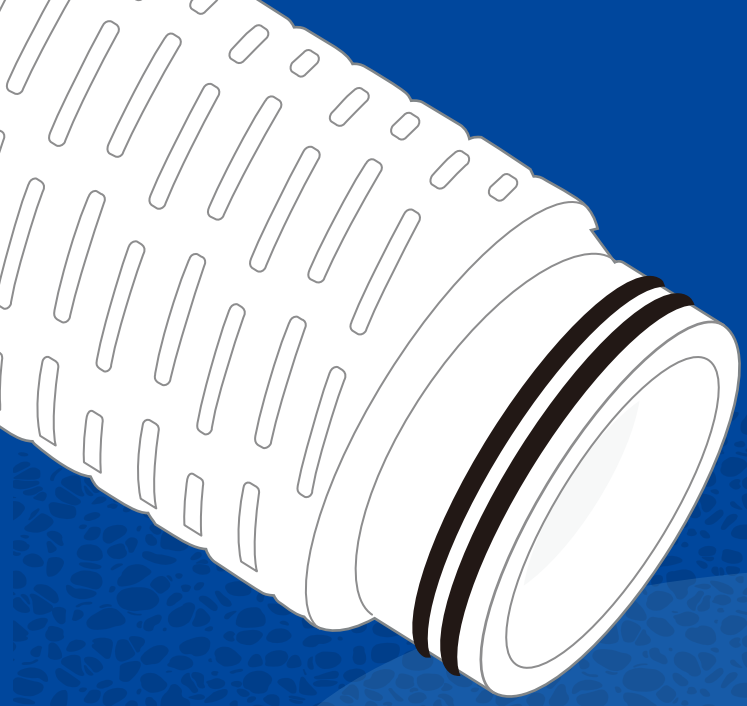
◎ Good chemical compatibility
△ Limited condition use
× Attacked or dissolved
↑ This index increased
↓ This index decreased

Note: *BEOL cleaning chemical: water base, containing surfactant and F additive ;
You can contact microelectronics sales for specific application information.

PTFE Chemical Compatibility

		Filter			O-rings	
Chemical	Condition	PTFE+HDPE	PTFE+PP	PTFE+PFA	FFKM	TEV
SC1	80°C	×	△	◎	◎	◎
SC2	80°C	×	△	◎	◎	◎
HCl	37%, 20°C	◎	◎	◎	◎	◎
CHF	49%, 20°C	◎	◎	◎	◎	◎
DHF	10%, 20°C	◎	◎	◎	◎	◎
TMAH	5%, 20°C	◎	◎	◎	◎	◎
NH_4OH	10%, 20°C	◎	◎	◎	◎	◎
IPA	20°C	◎	◎	◎	◎	◎
H_2O_2	30%, 20°C	◎	◎	◎	◎	◎
NH4F	40%, 20°C	◎	◎	◎	◎	◎
BOE	NH_4F:HF=8:1+H_2O, 20°C	◎	◎	◎	◎	◎
O_3	10ppm, 20°C	△	△	◎	◎	◎
H_2SO_4	98%, 20°C	△	×	◎	◎	◎
HNO_3	70%, 20°C	×	×	◎	◎	◎
H_3PO_4	20°C	◎	◎	◎	◎	◎
SPM	H_2SO_4:H_2O_2 = 5:1, 160°C	×	×	◎	◎	◎

◎ Good chemical compatibility
△ Limited condition use
× Attacked or dissolved



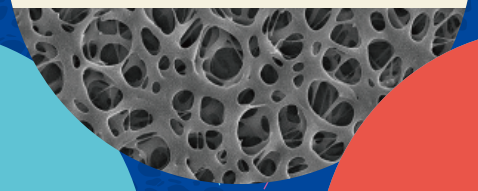
cobetter®
filtration

Filtration
Separation
Purification

HNO_3 acid
H_2SO_4 H_3PO_4
alkali

Cobetter dedicates itself to providing Filtration, Separation, & Purification Solutions across all industries. Cobetter provides over 1,800+ technical analysis reports annually for customers in the pharmaceutical industry and over 2,000+ technical analysis reports annually for customers in chemical, microelectronics and life sciences industries

Membrane Manufacturing



Analysis Center

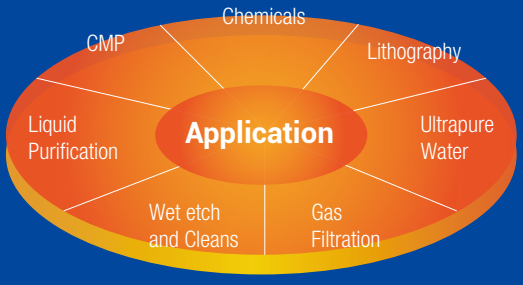


Filter Manufacturing



Housing Manufacturing









C1 Factory
Membrane Filter Manufacturing
9400 SQM

C2 Factory
Depth Filter Manufacturing
9000 SQM

C3 Factory
Semiconductor Products Manufacturring
13600 SQM, 2019

C4 Factory
Sustainless Filter Manufacturing
& Fluoroplastics Resurtech Manufacturing
& Housing Manufacturing
28000 SQM

C5 Lab
R&D, Lab Center
41000 SQM, 2020

C6 Life Center
33000 SQM, 2021

C7 Factory
Diagnosis R&D Line
1300 SQM, 2020

Content

Cleaning Process Filtration Solution

Novacon Ultra High Precision Chemical Filter

Novacise Ultra-high Filtration Retention Filter

Chemphobic Ultrapure Chemical Filter

Chemrapid Surface-modified Ultrapure Chemicals Filter

Chemvast Absolute-Rated Filter Cartridges

Chemega High-Efficiency Filtration for Chemicals

Lithography Process Filtration Solution

Photopex UPE Nano Level Filter

Photopex Nylon Ultra-high Efficiency Filter

Photopex Multi Membrane Construction Filter

Photogile POU Filter for DI/DEV (OTTII)

Photogile POU Filter for DI/DEV (PXOTT)

Photogile POU Filter for Lithography Process (PTG SIN/CIN)

CMP Slurry Filtration Solution

Keevalid Rolled or Melt-blown Depth PP Medium for CMP

Pleavalid Pleated PP Medium Filter for CMP

Nylonvalid Nylon Membrane Filter for CMP

Plusvalid PES Membrane Filter for CMP

Dualvalid Patented Construction Filter for CMP





DI-Water Filtration Solution

Prifend Long Lifetime Pre-RO

Prifend HF High Flow DI Water Filter

Apesfend Electronic-Grade DI Water Fine Filtration Filter

EPPX Electronic Grade · Low Extractable Filter

Liquid Filter Housings

Fluorolink All Fluoropolymer Filter Housing

Resin Constructed Filter Housing

Liquid Purifiers

Chemdeion Purifier

Nylonpolar PR/Solvent Purifier

IonGard SL Purifier

IonGard DL Purifier

IonGard Aqua Purifier

Gas Filtration Solution

Gasfender Ultra-pure Gas Cartridge Filter

Gasclar Chemical Filter





Novacon Ultra High Precision Chemical Filter

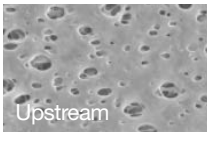
High retention efficiency, flow rates and surface area allow for a rapid operation

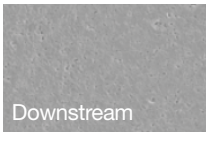
Cobetter **Novacon Series** are especially designed for acids, bases and other process chemicals as a cost-effective alternative for wet etch and clean applications where low temperature is required.

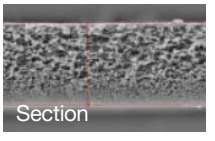
The asymmetric **PES** membrane provides significant retention of particles (down to 1nm) with additional characteristics including high flow rates, high dirt holding capacity, and longer filter lifetime. In addition, the membrane structure reduces bubbles formation during flow. These filters have high mechanical strength and are suitable for a wide variety of filtration processes.

The HDPE cage ensures low metal extractables during filtration.

Cobetter **Novacon Disposable Filters** have an all fluorine construction. Its one-piece structural design makes it easy to install and replace and ensures cleanliness.


Upstream


Downstream


Section



Application

- Process: Wet Etch and Cleans.
- Installation Point: Point of Tool.
- Low temperature processes (<70°C❶).
- Chemistry: Dilute acids (such as BOE/DHF/SC2);
- Dilute bases (such as SC1/TMAH); DIW.

Features

- Reduce equipment pre-operation time
- Excellent retention
- Very high flow rates and longer life
- Ultralow metal ion extractables option
- Manufactured in a cleanroom environment
- 100% integrity tested

❶ It is related to the type and nature of chemicals, please consult local sales for details.

Product Specification

	Cartridge	Compact Capsule	Disposable	Small In-line X type Disposable
Membrane	Hydrophobic HAPES / Hydrophilic HAPES			
Supports/Cage/Core/End caps	HDPE			
O-ring	TEV or EPDM	—	TEV	TEV
Shell (Compact Capsule)	—	HDPE	—	—
Shell (Disposable)	—	—	PFA	PFA
Max. Operating Temperature	70°C	38°C	70°C	70°C
Max. Operating Pressure	—	0.34 MPa @ 25°C	0.58 MPa @ 25°C	0.4 MPa @ 25°C
Max. FWD Differential Pressure	0.34 MPa @ 25°C	—	—	—
Max. BWD Differential Pressure	0.34 MPa @ 25°C	—	—	—
Filter Areas	**X1** (ø68mm) 0.8m²/10"	**Z1** (ø83mm) 1.4m²/10"	**Z2** (ø83mm) 1.7m²/10"	**X1** (ø68mm) 0.42m²

Ordering Information

Cartridge

NVC [1][2][3] OTC [4][5][6][7]

Block 1

Code	Membrane	
_	Hydrophobic	
H	Hydrophilic	⩾ 50nm

Block 2

Code	Diameter
Z1	ø83mm
Z2	ø83mm

Block 3

Code	Removal Ratings
NM01	1nm
NM02	2nm
NM05	5nm
NM10	10nm
NM20	20nm
NM30	30nm
NM50	50nm
0010	0.1μm

Block 4

Code	Nominal Length
04	4"
10	10"
20	20"

Block 5

Code	O-ring Material
P	TEV
E	EPDM

Block 6

Code	Cleanliness❂	
XS	<1 μg/device	1/2/5nm
S	<3 μg/device	
L	<10 μg/device	10/20/30/
M	<25 μg/device	50nm/0.1μm

Block 7

Code	Package
D	Dry
W	Prewet, UPW
WH	Prewet, UPW+1% H_2O_2

NVC [1] X1 [2] OTC [3][4][5][6]

Block 1

Code	Membrane	
_	Hydrophobic	
H	Hydrophilic	⩾ 50nm

Block 2

Code	Removal Ratings
NM10	10nm
NM20	20nm
NM30	30nm
NM50	50nm
0010	0.1μm

Block 3

Code	Nominal Length	
10	10"	
20	20"	
20C	20"	
04P	4"	
09P	9"	P AB Type
10P	10"	
20P	20"	

Block 4

Code	O-ring Material
P	TEV
E	EPDM

Block 5

Code	Cleanliness
L	<10 μg/device
M	<25 μg/device

Block 6

Code	Package
D	Dry
W	Prewet, UPW
WH	Prewet, UPW+1% H_2O_2

Compact Capsule

NVC [1][2][3][4][5]

Block 1

Code	Membrane	
_	Hydrophobic	
H	Hydrophilic	⩾ 50nm

Block 2

Code	Removal Ratings
NM01	1nm
NM02	2nm
NM05	5nm
NM10	10nm
NM20	20nm
NM30	30nm
NM50	50nm
0010	0.1μm

Block 3

Code	Connection	Inlet/Outlet	Vent/Drain
SW43E	SW	1/4"	4mm
SW44E	SW	1/4"	1/4"
SW984E	SW	1/2"	1/4"
NPT42E	NPT	1/4"	1/8"
FL64E	CFL	3/8"	1/4"

Block 4

Code	Cleanliness❂	
XS	<1 μg/device	1/2/5nm
S	<3 μg/device	
L	<10 μg/device	10/20/30/
M	<25 μg/device	50nm/0.1μm

Block 5

Code	Package
D	Dry
W	Prewet, UPW
WH	Prewet, UPW+1% H_2O_2

❂ For Addition IPA clean to reduce initial shedding particle option is available, please contact local sales.

Ordering Information

Disposable

NVC 1 2 3 4 5 6 7 8

Block 1

Code	Membrane	
_	Hydrophobic	
H	Hydrophilic	⩾ 50nm

Block 2

Code	Diameter
Z1	ø83mm
Z2	ø83mm

Block 3

Code	Flow Type
N	In-line
T	T-flow
TV	T-flow core vent
L	L-flow

Block 4

Code	Removal Ratings
NM01	1nm
NM02	2nm
NM05	5nm
NM10	10nm
NM20	20nm
NM30	30nm
NM50	50nm
0010	0.1μm

Block 5

Code	Nominal Length	
05	5"	In-line only
10	10"	

Block 6

Code	Connection	Inlet/Outlet	Head:Vent/Drain	Bowl:Vent/Drain	Total length
F82	CFL	1" male	1/4" male	1/4" male	5", 10"
F62	CFL	3/4" male	1/4" male	1/4" male	5", 10"
F42	CFL	1/2" male	1/4" male	1/4" male	5", 10"
F32	CFL	3/8" male	1/4" male	1/4" male	5", 10"

Block 7

Code	Cleanliness ✪	
XS	<1 μg/device	1/2/5nm
S	<3 μg/device	
L	<10 μg/device	10/20/30/
M	<25 μg/device	50nm/0.1μm

Block 8

Code	Package
D	Dry
W	Prewet, UPW
WH	Prewet, UPW+1% H_2O_2

Disposable Small In-line X type

NVC 1 X1X 2 3 4 5 6

Block 1

Code	Membrane	
_	Hydrophobic	
H	Hydrophilic	⩾ 50nm

Block 2

Code	Removal Ratings
NM01	1nm
NM02	2nm
NM05	5nm
NM10	10nm
NM20	20nm
NM30	30nm
NM50	50nm
0010	0.1μm

Block 3

Code	Nominal Length
04	4"

Block 4

Code	Connection	Inlet/Outlet	Head:Vent/Drain	Bowl:Vent/Drain	Total length
F42	CFL	1/2" male	1/4" male	1/4" male	4"
F32	CFL	3/8" male	1/4" male	1/4" male	4"

Block 5

Code	Cleanliness ✪	
XS	<1 μg/device	1/2/5nm
S	<3 μg/device	
L	<10 μg/device	10/20/30/
M	<25 μg/device	50nm/0.1μm

Block 6

Code	Package
D	Dry
W	Prewet, UPW
WH	Prewet, UPW+1% H_2O_2

✪ For Addition IPA clean to reduce initial shedding particle option is available, please contact local sales.

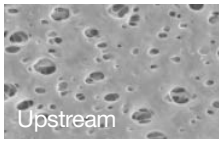
Novacise Ultra-high Filtration Retention Filter

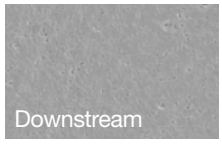
Ultra-high precision and high flow rates, and the high surface energy features to support rapid operation

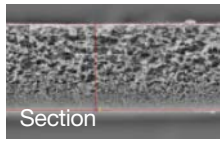
Novacisev Series are used to dilute acids, bases and other process chemicals as a cost-effective alternative for wet etch and clean applications.

The asymmetric PES membrane provides significant characteristics including high flow rates, high dirt holding capacity, and longer filter lifetime. In addition, the membrane structure reduces bubbles formation during flow.

Cobetter **Novacise Filters** have efficient particle retention and low metal extractables properties.In addition,these cartridges have high mechanical strength and are suitable for a wide variety of filtration processes.









Application

- Process: Wet Etch and Cleans.
- Installation Point: Point of Tool.
- Chemistry: Dilute acids (such as BOE/DHF/SC2); Dilute bases (such as SC1/TMAH); DIW.

Features

- Very high flow rates and longer life
- Low extractables
- Reduces equipment pre-operation time
- Excellent retention
- Manufactured in a cleanroom environment
- 100% integrity tested

Product Specification

	Cartridge	Compact Capsule
Membrane	Hydrophobic HAPES / Hydrophilic HAPES	
Supports/Cage/Core/End Caps	Polypropylene (PP)	
O-ring	TEV or EPDM	—
Shell (Compact Capsule)	—	Polypropylene (PP)
Max. Operating Temperature	90°C	Please refer to ordering information.
Max. Operating Pressure	—	
Max. FWD Differential Pressure	0.34 MPa @ 25°C	—
Max. BWD Differential Pressure	0.34 MPa @ 25°C	—
Filter Areas	**X1** (ø68mm) 0.8m²/10"	**Z1** (ø83mm) 1.4m²/10" **Z2** (ø83mm) 1.7m²/10"

Ordering Information

Cartridge

NVS 1 2 3 OTC 4 5 6 7

Block 1

Code	Membrane	
_	Hydrophobic	
H	Hydrophilic	⩾ 50nm

Block 2

Code	O-ring Material
Z1	ø83mm
Z2	ø83mm

Block 3

Code	Removal Ratings
NM05	5nm
NM10	10nm
NM20	20nm
NM30	30nm
NM50	50nm
0010	0.1μm

Block 4

Code	Nominal Length
10E	10"
20E	20"

Block 5

Code	O-ring Material
P	TEV
E	EPDM

Block 6

Code	Cleanliness	
M	<25 μg/device	5/10/20/30/50nm
H	<40 μg/device	50nm/0.1μm
E	Electronic grade	

Block 7

Code	Package
D	Dry
W	Prewet, UPW
WH	Prewet, UPW+1% H_2O_2

NVS 1 X1 2 OTC 3 4 5 6

Block 1

Code	Membrane	
_	Hydrophobic	
H	Hydrophilic	⩾ 50nm

Block 2

Code	Removal Ratings
NM10	10nm
NM20	20nm
NM30	30nm
NM50	50nm
0010	0.1μm

Block 3

Code	Nominal Length
04	4"
10	10"
20	20"
20C	20"

Block 4

Code	O-ring Material
P	TEV
E	EPDM

Block 5

Code	Cleanliness	
M	<25 μg/device	10/20/30/50nm
H	<40 μg/device	50nm/0.1/0.2μm
E	Electronic grade	

Block 6

Code	Package
D	Dry
W	Prewet, UPW
WH	Prewet, UPW+1% H_2O_2

Compact Capsule

NVS 1 2 3 4 5

Block 1

Code	Membrane	
_	Hydrophobic	
H	Hydrophilic	⩾ 50nm

Block 2

Code	Removal Ratings
NM05	5nm
NM10	10nm
NM20	20nm
NM30	30nm
NM50	50nm
0010	0.1μm

Block 3

Code	Connection	Inlet/Outlet	Vent/Drain	Max. Operating Temperature	Max. Operating Pressure
BFL64-4	CFL	3/8"	1/4"		
BFL64-10	CFL	3/8"	1/4"	40°C	0.41MPa@40°C
BFL64-20	CFL	3/8"	1/4"		
FL64	CFL	3/8"	1/4"		
NPT42	NPT	1/4"	1/8"		
NPT742	NPT	1/4"	1/8"		
NPT942	NPT	1/4"	1/8"		
SW43	SW	1/4"	4mm		
SW743	SW	1/4"	4mm		
SW943	SW	1/4"	4mm		
SW44	SW	1/4"	1/4"	60°C	0.51MPa@38°C
SW744	SW	1/4"	1/4"		
SW944	SW	1/4"	1/4"		
SW84	SW	1/2"	1/4"		
SW784	SW	1/2"	1/4"		
SW984	SW	1/2"	1/4"		
SW764	SW	3/8"	1/4"		

Block 4

Code	Cleanliness	
M	<25 μg/device	10/20/30/50nm
H	<40 μg/device	50nm/0.1μm
E	Electronic grade	

Block 5

Code	Package
D	Dry
W	Prewet, UPW
WH	Prewet, UPW+1% H_2O_2

Chemphobic Ultrapure Chemical Filter



Cobetter **Chemphobic Filter Series** are especially designed and ideally suited for high temperature and corrosive chemicals including hot H2SO4, H3PO4, HNO3, SPM, SC1, and SC2. The PTFE membrane ensures excellent chemical compatibility with consistent particles removal for a wide range of acids, bases and other process chemicals. All fluorine construction minimizes metal extractable and other contaminants and provides high flow rates and extended service life to meet high filtration efficiency.

Ultra-pure cleanliness reduces equipment set up time. Its one-piece structural design makes it easy to install and replace. Available in T, L and In-line configurations which simplify system design.

Application

- Semiconductor
- Wet etch and clean
- Bulk chemicals

Features

- Excellent chemical compatibility
- Higher flow rate and longer life time
- Ultra-low metal extractables



Product Specification

	Cartridge	Disposable	Small In-line
Filter Medium	PTFE	PTFE	PTFE
Core/Cage/End Caps	PFA	PFA	PFA
O-ring	TEV or FFKM	—	—
Shell (Disposable only)	—	PFA	PFA
Max. Operating Temperature	180°C	180°C	95°C
Max. Operating Pressure	—	0.58 MPa @ 25°C / 0.097 MPa @ 180°C	0.4 MPa @ 25°C
Max. FWD Differential Pressure	0.49 MPa @ 25°C	—	—
Max. BWD Differential Pressure	0.39 MPa @ 25°C	—	—
Filter Areas	**X1** (ø68mm) 0.91m²/10" **X2** (ø68mm) 1.21m²/10" **Z1** (ø83mm) 1.3m²/10" **Z2** (ø83mm) 2.2m²/10" **Z3** (ø83mm) 3.0m²/10" **Z4** (Especially for 120-130°C) 2.2m²/10" **Z5** (Especially for 120-130°C) 3.0m²/10" **Z6** (Especially for 160°C) 2.2m²/10"		**X1** (ø68mm) 0.42m²

Ordering Information

Cartridge

CHT 1 2 3 4 5 6 7

Block 1

Code	Diameter
X1	ø68mm
X2	
Z1	ø83mm
Z2	
Z3	
Z4	
Z5	
Z6	

Block 2

Code	Removal Ratings
NM05	5nm
NM07	7nm
NM10	10nm
NM15	15nm
NM20	20nm
NM30	30nm
NM50	50nm
0010	0.1μm
0020	0.2μm
0045	0.45μm
0050	0.5μm
0100	1μm
0300	3μm
0500	5μm
1000	10μm

Block 3

Code	End Cap	
TC	Standard	ø83mm/ø68mm
CLTC	For Cobetter PFA housing	
ETC	For E PFA housing	ø83mm
TPCJ	For P PFA housing	ø68mm

Block 4

Code	Nominal Length	
03	03"	ø68mm
04	04"	
10	10"	ø83mm/ø68mm
20	20"	

Block 5

Code	O-ring Material
P	TEV
K	FFKM

Block 6

Code	Cleanliness❂	
XS	<1 μg/device	5/7/10nm
S	<3 μg/device	
L	<10 μg/device	10/15/20/30nm
LV	Metal<10μg/device,low anion	ø68mm only
M	<25μg/device	50nm
H	<40μg/device	0.1/0.2/0.45/0.5/1/3/5/10μm
E	Electronic grade	

Block 7

Code	Package
D	Dry
W	Prewet,UPW

Disposable Small In-line X type

CHT 1 X 2 3 4 5 6

Block 1

Code	Filter Area
X1	0.42m²

Block 2

Code	Removal Ratings
NM05	5nm
NM07	7nm
NM10	10nm
NM15	15nm
NM20	20nm
NM30	30nm
NM50	50nm
0010	0.1μm
0020	0.2μm

Block 3

Code	Nominal Length
04	4"

Block 4

Code	Connection	Inlet/Outlet	Head:Vent/Drain	Bowl:Vent/Drain	Total length
F42	CFL	1/2" male	1/4" male	1/4" male	4"
F32	CFL	3/8" male	1/4" male	1/4" male	4"

Block 5

Code	Cleanliness❂	
XS	<1 μg/device	5/7/10nm
S	<3 μg/device	
L	<10 μg/device	15/20/30/50nm 0.1/0.2μm
M	<25 μg/device	

Block 6

Code	Package
D	Dry
W	Prewet, UPW

❂ For Addition IPA clean to reduce initial shedding particle option is available, please contact local sales.

Ordering Information

Disposable

CHT | 1 | 2 | 3 | 4 | 5 | 6 | 7 |

Block 1

Code	Diameter
Z1	
Z2	ø83mm
Z3	

Block 2

Code	Flow Type
N	In-line
T	T-flow
TV	T-flow core vent
L	L-flow

Block 3

Code	Removal Ratings
NM05	5nm
NM07	7nm
NM10	10nm
NM15	15nm
NM20	20nm
NM30	30nm
NM50	50nm
0010	0.1μm
0020	0.2μm
0045	0.45μm
0050	0.5μm
0100	1μm
0300	3μm
0500	5μm
1000	10μm

Block 4

Code	Nominal Length	
05	5"	In-line only
10	10"	

Block 5

Code	Connection	Inlet/Outlet	Head:Vent/Drain	Bowl:Vent/Drain	Total length
F82	CFL	1" male	1/4" male	1/4" male	5", 10"
F62	CFL	3/4" male	1/4" male	1/4" male	5", 10"
F42	CFL	1/2" male	1/4" male	1/4" male	5", 10"
F32	CFL	3/8" male	1/4" male	1/4" male	5", 10"

Block 6

Code	Cleanliness❂	
XS	<1 μg/device	5/7/10nm
S	<3 μg/device	
L	<10 μg/device	15/20/30/50nm
M	<25 μg/device	0.1/0.2/0.45/0.5μm
H	<40μg/device	1 / 3 / 5 / 10μm
E	Electronic grade	

Block 7

Code	Package
D	Dry
W	Prewet, UPW

❂ For Addition IPA clean to reduce initial shedding particle option is available, please contact local sales.

Chemrapid
Surface-modified Ultrapure Chemicals Filter



Non-dewetting modified membrane improves surface energy

Cobetter **Chemrapid** Filter Series are composed of a surface-modified PTFE membrane that is bonded with PFA which results in ultra low metal extractables. It solves the problem of defect fluidity when if filters foam.

Chemrapid Filter Series improve flow performance, cleanliness and contamination control at low wafer defect levels for highly corrosive acids and bases. The modified PTFE membrane enables semiconductor makers to meet their critical chemical filtration requirements.

Superior filtration efficiency and high flow rate

They are suitable for filtration of H_2SO_4, H_3PO_4, HNO_3, HCl, NH_4OH, H_2O_2, TMAH and deionized water at room temperature and SC1, SC2, SPM, metal etching and other applications at high temperatures. Excellent chemical compatibility and ultra-low metal extractables ensure superior filtration efficiency and extended service life. The non-dewetting PTFE membrane increases the surface energy providing high flow rates and superior filtration efficiency.

Ultra-pure cleanliness reduces equipment set up time. Its one-piece structural design makes it easy to install and replace. Available in T, L and In-line configurations which simplify system design.





Application

- Single Wafer and Batch Processing in advanced technology node
- Wet Etch and Clean
- Chemicals

Features

- Excellent Chemical Compatibility
- All fluorine construction makes it suitable for the filtration of highly corrosive high temperature chemicals.
- Suitable for critical condition
- 100% integrity tested
- High flow rates, low pressure drop, long service life
- Low extractables
- Provided prewet option, reducing equipment pre-operation time.

Product Specification

	Cartridge	Disposable	Small In-line
Filter Medium	Non-dewetting PTFE	Non-dewetting PTFE	Non-dewetting PTFE
Core/Cage/End Caps	PFA	PFA	PFA
O-ring	TEV or FFKM	—	—
Shell (Disposable only)	—	PFA	PFA
Max. Operating Temperature	180°C	180°C	95°C
Max. Operating Pressure	—	0.58 MPa @ 25°C / 0.097 MPa @ 180°C	0.4 MPa @ 25°C
Max. FWD Differential Pressure	0.49 MPa @ 25°C	—	—
Max. BWD Differential Pressure	0.39 MPa @ 25°C	—	—
Filter Areas	**X1** (ø68mm) 0.91m²/10" **X2** (ø68mm) 1.21m²/10" **Z1** (ø83mm) 1.3m²/10" **Z2** (ø83mm) 2.2m²/10" **Z3** (ø83mm) 3.0m²/10" **Z4** (Especially for 120-130°C) 2.2m²/10" **Z5** (Especially for 120-130°C) 3.0m²/10" **Z6** (Especially for 160°C) 2.2m²/10"		**X1** (ø68mm) 0.42m²

Ordering Information

Cartridge

CHR 1 2 3 4 5 6 7

Block 1

Code	Diameter
X1	ø68mm
X2	
Z1	ø83mm
Z2	
Z3	
Z4	
Z5	
Z6	

Block 2

Code	Removal Ratings
NM05	5nm
NM07	7nm
NM10	10nm
NM15	15nm
NM20	20nm
NM30	30nm
NM50	50nm
0010	0.1μm
0020	0.2μm
0045	0.45μm
0050	0.5μm

Block 3

Code	End Cap	
TC	Standard	ø83mm/ø68mm
CLTC	For Cobetter PFA housing	
ETC	For E PFA housing	ø83mm
TPCJ	For P PFA housing	ø68mm

Block 4

Code	Nominal Length
03	3"
04	4"
10	10"
20	20"

Block 5

Code	O-ring Material
P	TEV
K	FFKM

Block 6

Code	Cleanliness❂	
XS	<1μg/device	5/7/10nm
S	<3μg/device	
L	<10μg/device	10/15/20/30nm
LV	metal <10μg/device,low union	
M	<25μg/device	50nm
H	<40μg/device	0.1/0.2/0.45/0.5μm
E	Electronic grade	

Block 7

Code	Package
D	Dry
W	Prewet, UPW

Disposable Small In-line X type

CHR 1 **X** 2 3 4 5 6

Block 1

Code	Filter Area
X1	0.42m²

Block 2

Code	Removal Ratings
NM05	5nm
NM07	7nm
NM10	10nm
NM15	15nm
NM20	20nm
NM30	30nm
NM50	50nm
0010	0.1μm
0020	0.2μm

Block 3

Code	Nominal Length
04	4"

Block 4

Code	Connection	Inlet/Outlet	Head:Vent/Drain	Bowl:Vent/Drain	Total length
F42	CFL	1/2" male	1/4" male	1/4" male	4"
F32	CFL	3/8" male	1/4" male	1/4" male	4"

Block 5

Code	Cleanliness❂	
XS	<1 μg/device	5/7/10nm
S	<3 μg/device	
L	<10 μg/device	15/20/30/50nm
M	<25 μg/device	0.1/0.2μm

Block 6

Code	Package
D	Dry
W	Prewet, UPW

❂ For Addition IPA clean to reduce initial shedding particle option is available, please contact local sales.

Ordering Information

Disposable

CHR | 1 | 2 | 3 | 4 | 5 | 6 | 7 |

Block 1

Code	Diameter
X1	ø68mm
X2	
Z1	ø83mm
Z2	
Z3	
Z4	
Z5	
Z6	

Block 2

Code	Flow Type
N	In-line
T	T-flow
TV	T-flow core vent
L	L-flow

Block 3

Code	Removal Ratings
NM05	5nm
NM07	7nm
NM10	10nm
NM15	15nm
NM20	20nm
NM30	30nm
NM50	50nm
0010	0.1μm
0020	0.2μm
0045	0.45μm
0050	0.5μm

Block 4

Code	Nominal Length	
05	5"	In-line only
10	10"	

Block 5

Code	Connection	Inlet/Outlet	Head:Vent/Drain	Bowl:Vent/Drain	Total length
F82	CFL	1" male	1/4" male	1/4" male	5", 10"
F62	CFL	3/4" male	1/4" male	1/4" male	5", 10"
F42	CFL	1/2" male	1/4" male	1/4" male	5", 10"
F32	CFL	3/8" male	1/4" male	1/4" male	5", 10"

Block 6

Code	Cleanliness ✪	
XS	<1 μg/device	5/7/10nm
S	<3 μg/device	
L	<10 μg/device	
M	<25 μg/device	15/20/30/50nm
H	<40μg/device	0.1/0.2/0.45/0.5μm
E	Electronic grade	

Block 7

Code	Package
D	Dry
W	Prewet, UPW

✪ For Addition IPA clean to reduce initial shedding particle option is available, please contact local sales.

Chemvast Absolute-Rated Filter Cartridges



Cobetter **Chemvast** Filter Series are available in wide variety of PTFE membranes including hydrophobic PTFE, hydrophilic PTFE or non-dewetting PTFE.

HDPE Cage enhances its chemical compatibility making it suitbable for most chemical liquid filtration applications. It effectively removes particles from high purity chemicals in the semiconductor industry. Available in a wide range of retention ratings and pore sizes to meet customer's requirements.

Non-dewetting PTFE increases the surface energy of the membrane and ensures high flow rates and filtration efficiency. With its HDPE Cage and high purity membrane, **Chemvast** Filters reduce costs when compared to **Chemrapid** Filter Series. Chemvast Hydrophilic PTFE membrane can be used to filter polar solvents without pre-wetting.

Application

- High-viscosity photoresist and photochemicals
- Wet etch and clean
- Bulk chemicals

Features

- Wet etch and clean
- Suitable for a wide range of chemicals filtration
- 100% integrity tested
- High flow rates, low pressure drop, long life time
- Low metal extractables and Enhanced retention of particles, avoid cross contamination.

Product Specification

	Cartridge	Capsule
Filter Medium	Hydrophobic PTFE / Hydrophilic PTFE / Non-dewetting PTFE	
Support	HDPE	
Core/Cage/End Caps	HDPE or PP	HDPE
O-ring	TEV or EPDM	—
Shell (Disposable only)	—	HDPE
Max. Operating Temperature	70°C	38°C
Max. Operating Pressure	—	0.34 MPa / 25°C
Max. FWD Differential Pressure	0.4 MPa / 25°C	—
Max. BWD Differential Pressure	0.3 MPa / 25°C	—
Filter Areas	**X1** (ø68mm) 0.9m²/10" **X2** (ø68mm) 1.3m²/10"	**Z1** (ø83mm) 1.3m²/10" **Z2** (ø83mm) 1.9m²/10" **Z3** (ø83mm) 2.2m²/10"

Ordering Information

Cartridge

CHV 1 2 3 4 OTC 5 6 7 8

Block 1

Code	Support / Core
–	HDPE / HDPE
P	HDPE / PP

Block 2

Code	Membrane	
T	Hydrophobic	
H	Hydrophilic	50nm/0.1/0.2/0.5/ 1.0/3.0/5.0/10μm
R	Non-dewetting	5/7/10/15/20/50nm/ 0.1μm

Block 3

Code	Diameter
X1	ø68mm
X2	
Z1	
Z2	ø83mm
Z3	

Block 4

Code	Removal Ratings
NM05	5nm
NM07	7nm
NM10	10nm
NM15	15nm
NM20	20nm
NM30	30nm
NM50	50nm
0010	0.1μm
0020	0.2μm
0050	0.5μm
0100	1.0μm
0300	3.0μm
0500	5.0μm
1000	10μm

Block 5

Code	Nominal Length	
04	04"	
10	10"	
20	20"	
09P	09"	
10P	10"	P ABD Type
20P	20"	

Block 6

Code	O-ring Material
P	TEV
E	EPDM

Block 7

Code	Cleanliness
L	< 10ug/device
M	< 25μg/device
H	< 40μg/device
E	Electronic grade

Block 8

Code	Package
D	Dry
W	Prewet, UPW
WH	Prewet, UPW+1% H2O2

Compact Capsule

CHV 1 2 3 4 5

Block 1

Code	Membrane	
T	Hydrophobic	
H	Hydrophilic	50nm/0.1/0.2/0.5/1.0/3.0/5.0/10μm
R	Non-dewetting	5/7/10/15/20/50nm/0.1μm

Block 2

Code	Removal Ratings
NM05	5nm
NM07	7nm
NM10	10nm
NM15	15nm
NM20	20nm
NM30	30nm
NM50	50nm
0010	0.1μm
0020	0.2μm
0050	0.5μm
0100	1.0μm
0300	3.0μm
0500	5.0μm
1000	10μm

Block 3

Code	Connection	Inlet/Outlet	Vent/Drain
SW43E	SW	1/4"	4mm
SW44E	SW	1/4"	1/4"
SW984E	SW	1/2"	1/4"
NPT42E	NPT	1/4"	1/8"
FL64E	CFL	3/8"	1/4"

Block 4

Code	Cleanliness
M	<25μg/device
H	<40μg/device
E	Electronic grade

Block 5

Code	Package
D	Dry
W	Prewet, UPW
WH	Prewet, UPW+1% H2O2

Chemega High-Efficiency Filtration for Chemicals

Chemega is constructed of a PTFE membrane that provides excellent chemical compatibility and is inherently hydrophobic. It is specically designed to limition iron extraction so that it meets the requirements of chemicals and organic solvents in the electronics industry.

Chemega Filter Cartridge Series constructed of a hydrophilic PTFE membrane that is ready-to-use to filter polar solvents without the need for pre-wetting.



Application

- PTFE Membrane: IPA or Solvent in FPD, Data Storage Industry.
- Hydrophilic PTFE Membrane: DIW, WEC, Acid/Alkaline Solution of Developer

Product Specification

	Cartridge	Capsule
Filter Medium	Hydrophobic PTFE / Hydrophilic PTFE	
Support/Core/Cage/End Caps	PP	
O-ring	TEV or EPDM	—
Shell (Disposable only)	—	PP
Max. Operating Temperature	90°C	Please refer to ordering information.
Max. Operating Pressure	—	
Max. FWD Differential Pressure	0.4 MPa / 25°C	—
Max. BWD Differential Pressure	0.3 MPa / 25°C	—
Filter Areas	**X1** (ø68mm) 0.91m²/10"	**Z1** (ø83mm) 1.3m²/10"

Ordering Information

Cartridge

CHG 1 2 3 OTC 4 5 6 7

Block 1

Code	Membrane	
T	Hydrophobic	
H	Hydrophilic	50nm/0.1/0.2/0.5/1.0/3.0/5.0/10μm

Block 2

Code	Diameter
X1	ø68mm
Z1	ø83mm

Block 3

Code	Removal Ratings
NM05	5nm
NM07	7nm
NM10	10nm
NM15	15nm
NM20	20nm
NM30	30nm
NM50	50nm
0010	0.1μm
0020	0.2μm
0050	0.5μm
0100	1.0μm
0300	3.0μm
0500	5.0μm
1000	10μm

Block 4

Code	Nominal Length
04	04"
10	10"
20	20"

Block 5

Code	O-ring Material
P	TEV
E	EPDM

Block 6

Code	Cleanliness
M	<25μg/device
H	<40μg/device
E	Electronic grade

Block 7

Code	Package
D	Dry
W	Prewet, UPW
WH	Prewet, UPW+1% H2O2

Compact Capsule

CHG 1 2 3 4 5

Block 1

Code	Membrane	
T	Hydrophobic	
H	Hydrophilic	50nm/0.1/0.2/0.51.0/3.0/5.0/10μm

Block 2

Code	Removal Ratings
NM05	5nm
NM07	7nm
NM10	10nm
NM15	15nm
NM20	20nm
NM30	30nm
NM50	50nm
0010	0.1μm
0020	0.2μm
0050	0.5μm
0100	1.0μm
0300	3.0μm
0500	5.0μm
1000	10μm

Block 3

Code	Connection	Inlet/Outlet	Vent/Drain	Max. Operating Temperature	Max. Operating Pressure
BFL64-4	CFL	3/8"	1/4"		
BFL64-10	CFL	3/8"	1/4"	40°C	0.41MPa@40°C
BFL64-20	CFL	3/8"	1/4"		
FL64	CFL	3/8"	1/4"		
NPT42	NPT	1/4"	1/8"		
NPT742	NPT	1/4"	1/8"		
NPT942	NPT	1/4"	1/8"		
SW43	SW	1/4"	4mm		
SW743	SW	1/4"	4mm		
SW943	SW	1/4"	4mm		
SW44	SW	1/4"	1/4"	60°C	0.51MPa@38°C
SW744	SW	1/4"	1/4"		
SW944	SW	1/4"	1/4"		
SW84	SW	1/2"	1/4"		
SW784	SW	1/2"	1/4"		
SW984	SW	1/2"	1/4"		
SW764	SW	3/8"	1/4"		

Block 4

Code	Cleanliness
M	<25μg/device
H	<40μg/device
E	Electronic grade

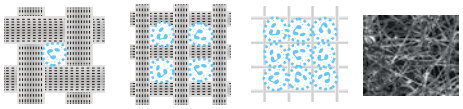
Block 5

Code	Package
D	Dry
W	Prewet, UPW
WH	Prewet, UPW+1% H2O2

CMP Slurry Filtration Solution

Suitable for CMP polishing system in the slurry recirculation / global loop and at point-of-use (POU)

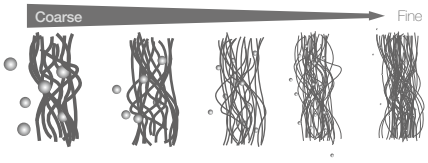
Nano-fiber Media
Multi-layer Nano-fiber media provides high flow rates and dirt holding capacity



Strict Japanese quality assurance to ensure product stability

Patent on Filter Construction Design
Perfectly integrate depth, pleated and rolled technologies in filter design

Continuously Graded Pore Structure
Effectively removes defective particles with the size distribution unchanged.
Provides long service life and high dirt holding capacity.

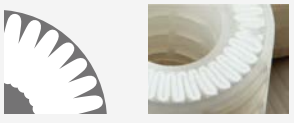




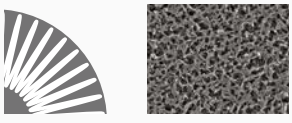
One-piece Construction
One-piece construction means it's easy to install, clean, and replace



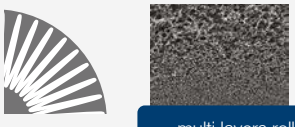
Keevalid
Rolled or Melt-blown Depth PP Medium for CMP
50nm-40μm



Pleavalid
Pleated PP Medium Filter for CMP
0.2μm-5.0μm



Nylonvalid
Nylon Membrane Filter for CMP
0.1μm, 0.2μm



Plusvalid
PES Membrane Filter for CMP
0.1μm, 0.2μm, 0.45μm



Dualvalid
Patented Construction Filter for CMP
50nm-3.0μm

Ordering Information

Cartridge I

Keevalid

VDKD 1 2 3 4 5

Block 1

Code	Removal Ratings
0010	0.1μm
0020	0.2μm
0030	0.3μm
0050	0.5μm
H0500	0.5μm
0100	1.0μm
H0100	1.0μm
0200	2.0μm
0300	3.0μm
0500	5.0μm
0600	6.0μm
0700	7.0μm
1000	10μm
1200	12μm
1500	15μm
2000	20μm
3000	30μm
4000	40μm

Block 2

Code	Filter Fitting
OTC	
OAC	Upgraded OTC

Block 3

Code	Nominal Length
10	10"
20	20"

Block 4

Code	O-ring Material
P	TEV
E	EPDM

Block 5

Code	Package
D	Dry

VDKR 1 2 3 4 5

Block 1

Code	Removal Ratings
NM50	50nm
NM70	70nm
0010	0.1μm
0100	1.0μm
0300	3.0μm
0500	5.0μm
0700	7.0μm
0900	9.0μm
1100	11μm
1300	13μm

Block 2

Code	Filter Fitting
OTC	
OAC	Upgraded OTC

Block 3

Code	Nominal Length
10	10"
20	20"

Block 4

Code	O-ring Material
P	TEV
E	EPDM

Block 5

Code	Package
D	Dry

Pleavalid

VDL 1 2 3 4 5

Block 1

Code	Removal Ratings
0010	0.1μm
0020	0.2μm
0030	0.3μm
0050	0.5μm
0100	1.0μm
0150	1.5μm
0300	3.0μm
0500	5.0μm

Block 2

Code	Filter Fitting
OTC	
OAC	Upgraded OTC

Block 3

Code	Nominal Length
10	10"

Block 4

Code	O-ring Material
P	TEV
E	EPDM

Block 5

Code	Package
D	Dry

Nylonvalid

VDN 1 2 3 4 5

Block 1

Code	Removal Ratings
0010	0.1μm
0020	0.2μm

Block 2

Code	Filter Fitting
OTC	
OAC	Upgraded OTC

Block 3

Code	Nominal Length
10	10"

Block 4

Code	O-ring Material
P	TEV
E	EPDM

Block 5

Code	Package
D	Dry

Ordering Information

Cartridge II

Plusvalid

VDS 1 2 3 4 5

Block 1

Code	Removal Ratings
0010	0.1μm
0020	0.2μm
0045	0.45μm

Block 2

Code	Filter Fitting
OTC	
OAC	Upgraded OTC

Block 3

Code	Nominal Length
10	10"

Block 4

Code	O-ring Material
P	TEV
E	EPDM

Block 5

Code	Package
D	Dry

Dualvalid

VDP 1 2 3 4 5

Block 1

Code	Removal Ratings
NM50	50nm
0010	0.1μm
0020	0.2μm
0030	0.3μm
0050	0.5μm
0100	1.0μm
0300	3.0μm

Block 2

Code	Filter Fitting
OTC	
OAC	Upgraded OTC

Block 3

Code	Nominal Length
10	10"

Block 4

Code	O-ring Material
P	TEV
E	EPDM

Block 5

Code	Package
D	Dry



Ordering Information

Capsule

Keevalid

VDKD 1 2 3 4

Block 1

Code	Removal Ratings
0010	0.1μm
0020	0.2μm
0030	0.3μm
0050	0.5μm
0070	0.7μm
0100	1.0μm
0200	2.0μm
0300	3.0μm
0500	5.0μm

Block 2

Code	Connection	Inlet/Outlet	Vent/Drain
BFL64-4	CFL	3/8"	1/4"
BFL64-10	CFL	3/8"	1/4"
FL64	CFL	3/8"	1/4"
NPT42	NPT	1/4"	1/8"
CC2	Easy-Touch		

Block 3

Code	O-ring Material
_	–
V	Viton CC2 only

Block 4

Code	Package
D	Dry

VDKR 1 2 3 4

Block 1

Code	Removal Ratings
NM50	50nm
NM70	70nm
0010	0.1μm
0030	0.3μm
0070	0.7μm
0100	1.0μm
0300	3.0μm

Block 2

Code	Connection	Inlet/Outlet	Vent/Drain
BFL64-4	CFL	3/8"	1/4"
CC2	Easy-Touch		

Block 3

Code	O-ring Material
_	–
V	Viton CC2 only

Block 4

Code	Package
D	Dry

Pleavalid

VDL 1 2 3

Block 1

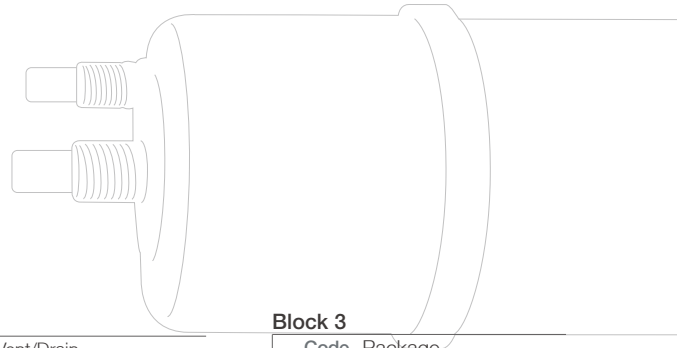
Code	Removal Ratings
0020	0.2μm
0030	0.3μm
0050	0.5μm
0100	1.0μm
0150	1.5μm
0300	3.0μm
0500	5.0μm

Block 2

Code	Connection	Inlet/Outlet	Vent/Drain
NPT42	NPT	1/4"	1/8"
FL64	CFL	3/8"	1/4"

Block 3

Code	Package
D	Dry



Nylonvalid

VDN 1 2 3

Block 1

Code	Removal Ratings
0010	0.1μm
0020	0.2μm

Block 2

Code	Connection	Inlet/Outlet	Vent/Drain
NPT42	NPT	1/4"	1/8"

Block 3

Code	Package
D	Dry

Photopex UPE Nano Level Filter

With retention ratings from 1nm to 0.2μm, Cobetter **Photopex** UPE Filter Cartridges ensure excellent retention capabilities, cleanliness and high chemical compatibility to meet the critical demands in semiconductor processes.

Using its superior cleaning method, the high purity PE structure ensures cleanliness, low particle shedding and eliminates contaminants, thereby improving removal efficiency. In addition, the filter's large surface area provides high flow rates and extended service life.

Available in a wide variety of sizes and configurations to meet all your requirements. Please contact your Cobetter Sales Engineer for additional information.



Application

- Photoresist Filtration
- Solvent Filtration
- Photochemical Filtration
- Wet Clean

Features

- Higher Efficiency
- Higher Chemical Compatibility
- Better Initial Cleanliness
- Ultra-low Metal and Organic Extractables

Product Specification

	Cartridge	Capsule
Filter Medium	Hydrophobic UPE	
Support	HDPE / PP	
Core/Cage/End Caps	HDPE / PP	
O-ring	TEV or EPDM	—
Shell (Disposable only)	—	HDPE / PP
Max. Operating Temperature	60°C	38°C
Max. Operating Pressure	—	0.34MPa @ 25°C
Max. FWD Differential Pressure	0.34MPa @ 25°C	—
Max. BWD Differential Pressure	0.24MPa @ 25°C	—
Filter Areas	**X1** (ø68mm) 1.3m²/10" **X2** (ø68mm) 1.8m²/10"	**Z1** (ø83mm) 1.9m²/10" **Z2** (ø83mm) 2.6m²/10"

Ordering Information

Cartridge

PPU 1 2 3 OTC 4 5 6 7

Block 1

Code	Support / Core
_	HDPE/HDPE
P	PP/PP
A	HDPE/PP

Block 2

Code	Diameter
X1	ø68mm
X2	
Z1	ø83mm
Z2	

Block 3

Code	Removal Ratings
NM01	1nm
NM02	2nm
NM03	3nm
NM05	5nm
NM10	10nm
NM20	20nm
NM30	30nm
NM50	50nm
0010	0.1μm
0020	0.2μm

Block 4

Code	Nominal Length
04	04"
10	10"
20	20"

Block 5

Code	O-ring Material
P	TEV
E	EPDM

Block 6

Code	Cleanliness
UU	⩽10nm
UH	10nm-50nm
U	⩾50nm
E	Electronic grade

Block 7

Code	Package
D	Dry
W	Prewet, UPW

F016 / 118 Serise

PPU
PPF[1] 1 2 3 4 5 6

Block 1

Code	Diameter
S1	ø60mm

Block 2

Code	Removal Ratings	
NM20	20nm	PPU/PPF
NM50	50nm	
0010	0.1μm	
0020	0.2μm	
0100	1.0μm	PPF

Block 3

Code	Length
F016E	51.5±0.5mm
MF016E	51.5±0.5mm
M118E	123.5±1.0mm

Block 4

Code	O-ring Material
P	TEV
E	EPDM
V	FKM

Block 5

Code	Cleanliness
UU	⩽10nm
UH	10nm-50nm
U	⩾50nm
E	Electronic grade

Block 6

Code	Package
D	Dry
W	Prewet,UPW

Capsule

PPU 1 2 3 4 5

Block 1

Code	Support / Core
_	HDPE/HDPE
P	PP/PP
A	HDPE/PP

Block 2

Code	Removal Ratings
NM01	1nm
NM02	2nm
NM03	3nm
NM05	5nm
NM10	10nm
NM20	20nm
NM30	30nm
NM50	50nm
0010	0.1μm
0020	0.2μm

Block 3

Code	Connection	Inlet/Outlet	Vent/Drain	
SW43E	SW	1/4"	4mm	
SW44E	SW	1/4"	1/4"	
SW984E	SW	1/2"	1/4"	
NPT42E	NPT	1/4"	1/8"	HDPE
FL64E	CFL	3/8"	1/4"	
BFL64-4	CFL	3/8"	1/4"	
BFL64-10	CFL	3/8"	1/4"	
BFL64-20	CFL	3/8"	1/4"	
FL64	CFL	3/8"	1/4"	
NPT42	NPT	1/4"	1/8"	
NPT742	NPT	1/4"	1/8"	
NPT942	NPT	1/4"	1/8"	
SW43	SW	1/4"	4mm	PP
SW743	SW	1/4"	4mm	
SW943	SW	1/4"	4mm	
SW44	SW	1/4"	1/4"	
SW744	SW	1/4"	1/4"	
SW944	SW	1/4"	1/4"	
SW84	SW	1/2"	1/4"	
SW784	SW	1/2"	1/4"	
SW984	SW	1/2"	1/4"	
SW764	SW	3/8"	1/4"	

Block 4

Code	Cleanliness
UU	⩽10nm
UH	10nm-50nm
U	⩾50nm
E	Electronic grade

Block 5

Code	Package
D	Dry
W	Prewet, UPW

[1]PPF=PTFE Membrane

Please contact Cobetter for additional information.

Photopex Nylon Ultra-high Efficiency Filter

With high flow rate performance, excellent retention capabilities and cleanliness, Cobetter **Photopex Nylon** Filter Cartridges are able to filter photoresists, solvents and other chemicals in semiconductor processes.

Photopex Nylon Filter Cartridges use a pure unmodified hydrophilic nylon membrane with guaranteed levels of metal extractable and particle cleanliness. The filter's cleanliness reduces equipment set up time.

Available in a wide variety of sizes and configurations to meet all your requirements. Please contact your Cobetter Sales Engineer for additional information.



Application

- Photoresist Filtration
- Solvent Filtration
- Photochemical Filtration

Features

- Higher Efficiency
- Naturally Hydrophilic
- Better Initial Cleanliness
- 100% Integrity Tested

Product Specification

	Cartridge	Capsule
Filter Medium	Nylon 66	
Support	HDPE / PP	
Cage/Core/End Caps	HDPE / PP	
O-ring	TEV or EPDM	—
Shell (Capsule only)	—	HDPE / PP
Max. Operating Temperature	50°C	38°C
Max. Operating Pressure	—	0.34MPa @ 25°C
Max. FWD Differential Pressure	0.34MPa @ 25°C	—
Max. BWD Differential Pressure	0.27MPa @ 25°C	—
Filter Areas	**X1** (ø68mm) 0.9m²/10"	**X2** (ø68mm) 1.4m²/10"

Photopex Multi Membrane Construction Filter

According to different application requirements, use Cobetter's know-how and experience to customize the product

Dual-layer membrane structure, to provide higher filtration efficiency for more sophisticated semiconductor process

Using high purity PE structure and apply the ultra-clean technology to ensure filter's cleanliness

Ordering Information

Cartridge

PPN 1 2 3 OTC 4 5 6 7

Block 1

Code	Support / Core
_	HDPE/HDPE
P	PP/PP
A	HDPE/PP

Block 2

Code	Diameter
X1	ø68mm
X2	ø68mm

Block 3

Code	Removal Ratings
NM01	1nm
NM02	2nm
NM05	5nm
NM10	10nm
NM20	20nm
NM40	40nm
0010	0.1μm
0020	0.2μm

Block 4

Code	Nominal Length
04	04"
10	10"
20	20"

Block 5

Code	O-ring Material
P	TEV
E	EPDM

Block 6

Code	Cleanliness
UU	⩽10nm
UH	10nm-50nm
U	⩾50nm
E	Electronic grade

Block 7

Code	Package
D	Dry
W	Prewet, UPW

PPM 1 2 OTC 3 4 5 6

Block 1

Code	Diameter
X1	ø68mm
Z1	ø83mm

Block 2

Code	Removal Ratings
NM02	2nm
NM03	3nm
NM05	5nm
NM07	7nm
NM10	10nm
NM15	15nm
NM20	20nm
NM30	30nm
NM50	50nm
0010	0.1μm
0020	0.2μm

Block 3

Code	Nominal Length
04	04"
10	10"
20	20"

Block 4

Code	O-ring Material
P	TEV
E	EPDM

Block 5

Code	Cleanliness
UU	⩽10nm
UH	10nm-50nm
U	⩾50nm
E	Electronic grade

Block 6

Code	Package
D	Dry
W	Prewet, UPW

Ordering Information

Capsule

PPN 1 2 3 4 5

Block 1

Code	Support / Core
_	HDPE/HDPE
P	PP/PP
A	HDPE/PP

Block 2

Code	Removal Ratings
NM01	1nm
NM02	2nm
NM05	5nm
NM10	10nm
NM20	20nm
NM40	40nm
0010	0.1μm
0020	0.2μm

Block 3

Code	Connection	Inlet/Outlet	Vent/Drain	
SW43E	SW	1/4"	4mm	
SW44E	SW	1/4"	1/4"	
SW984E	SW	1/2"	1/4"	HDPE
NPT42E	NPT	1/4"	1/8"	
FL64E	CFL	3/8"	1/4"	
BFL64-4	CFL	3/8"	1/4"	
BFL64-10	CFL	3/8"	1/4"	
BFL64-20	CFL	3/8"	1/4"	
FL64	CFL	3/8"	1/4"	
NPT42	NPT	1/4"	1/8"	
NPT742	NPT	1/4"	1/8"	
NPT942	NPT	1/4"	1/8"	
SW43	SW	1/4"	4mm	
SW743	SW	1/4"	4mm	
SW943	SW	1/4"	4mm	
SW44	SW	1/4"	1/4"	
SW744	SW	1/4"	1/4"	
SW944	SW	1/4"	1/4"	PP
SW84	SW	1/2"	1/4"	
SW784	SW	1/2"	1/4"	
SW984	SW	1/2"	1/4"	
SW764	SW	3/8"	1/4"	

Block 4

Code	Cleanliness
UU	⩽10nm
UH	10nm-50nm
U	⩾50nm
E	Electronic grade

Block 5

Code	Package
D	Dry
W	Prewet, UPW

PPM 1 2 3 4

Block 1

Code	Removal Ratings
NM02	2nm
NM03	3nm
NM05	5nm
NM07	7nm
NM10	10nm
NM15	15nm
NM20	20nm
NM30	30nm
NM50	50nm
0010	0.1μm
0020	0.2μm

Block 2

Code	Connection	Inlet/Outlet	Vent/Drain
SW43E	SW	1/4"	4mm
SW44E	SW	1/4"	1/4"
SW984E	SW	1/2"	1/4"
NPT42E	NPT	1/4"	1/8"
FL64E	CFL	3/8"	1/4"

Block 3

Code	Cleanliness
UU	⩽10nm
UH	10nm-50nm
U	⩾50nm
E	Electronic grade

Block 4

Code	Package
D	Dry
W	Prewet, UPW

Please contact Cobetter for additional information.

Photogile POU Filter for DI/DEV (OTTII)

One-piece construction is easy to install, clean and replace this filter capsule.

Available in a wide range of membranes to meet all customer requirements.



Product Specification

	OTTII
Purification Membrane	UPE / Nylon / HAPES
Support/Core/Cage/End Caps	HDPE
Shell	PP / HDPE
O-Rings	EPDM or FFKM
Max. Operating Temperature	40°C
Max. Operating Pressure	0.34 MPa @ 25°C

Application

- DI / DEV

Ordering Information

OTTII+UPE

PPU 1 2 3 4 5 6

Block 1

Code	Support/Shell
_	HDPE/HDPE
A	HDPE/PP

Block 2

Code	Removal Rating
NM05	5nm
NM10	10nm
NM20	20nm
NM30	30nm
NM50	50nm
0010	0.1μm
0020	0.2μm

Block 3

Code	Configuration	
LOTTII	Long	PP
MOTTII	Short	
LOTTIIE	Long	HDPE
MOTTIIE	Short	

Block 4

Code	O-ring Material
E	EPDM
K	FFKM
N	None

Block 5

Code	Cleanliness
UU	Super clean grade
AU	

Block 6

Code	Package
D	Dry
W	Prewet, UPW

OTTII+Nylon

PPN 1 2 3 4 5 6

Block 1

Code	Support/Shell
_	HDPE/HDPE
A	HDPE/PP

Block 2

Code	Removal Rating
NM05	5nm
NM10	10nm
NM20	20nm
NM30	30nm
NM50	50nm
0010	0.1μm
0020	0.2μm

Block 3

Code	Configuration	
LOTTII	Long	PP
MOTTII	Short	
LOTTIIE	Long	HDPE
MOTTIIE	Short	

Block 4

Code	O-ring Material
E	EPDM
K	FFKM
N	None

Block 5

Code	Cleanliness
UU	Super clean grade
AU	

Block 6

Code	Package
D	Dry
W	Prewet, UPW

OTTII+HAPES

NVSH 1 2 3 4 5

Block 1

Code	Removal Rating
NM50	50μm
0010	0.1μm
0020	0.2μm

Block 2

Code	Configuration	
LOTTII	Long	PP
MOTTII	Short	
LOTTIIE	Long	HDPE
MOTTIIE	Short	

Block 3

Code	O-ring Material
E	EPDM
K	FFKM
N	None

Block 4

Code	Cleanliness
M	<25ug/device
H	<40ug/device
E	Electronic grade

Block 5

Code	Package
D	Dry
W	Prewet, UPW

Please contact Cobetter for additional information.

Photogile POU Filter for DI/DEV/PR (PXOTT)

One-piece construction is easy to install, clean and replace this filter capsule.

Available in a wide range of membranes to meet all customer requirements.



Product Specification

	PXOTT
Purification Membrane	UPE / Nylon / PTFE
Support/Core/Cage/End Caps	HDPE
Shell	HDPE
O-Rings	EPDM or FFKM
Max. Operating Temperature	40°C
Max. Operating Pressure	0.34 MPa @ 25°C

Application

- DI / DEV / PR

Ordering Information

PXOTT+UPE

PPU 1 2 3 4 5

Block 1

Code	Removal Rating
NM02	2nm
NM05	5nm
NM10	10nm
NM30	30nm
NM50	50nm
0010	0.1μm
0020	0.2μm

Block 2

Code	Configuration
PXOTTLE	Long
PXOTTME	Short

Block 3

Code	O-ring Material
E	EPDM
K	FFKM
N	None

Block 4

Code	Cleanliness
UU	Super clean grade
AU	

Block 5

Code	Package
D	Dry
W	Prewet, UPW

PXOTT+Nylon

PPN 1 2 3 4 5

Block 1

Code	Removal Rating
NM02	2nm
NM05	5nm
NM10	10nm
NM20	20nm
NM40	40nm
0010	0.1μm
0020	0.2μm

Block 2

Code	Configuration
PXOTTLE	Long
PXOTTME	Short

Block 3

Code	O-ring Material
E	EPDM
K	FFKM
N	None

Block 4

Code	Cleanliness
UU	Super clean grade
AU	

Block 5

Code	Package
D	Dry
W	Prewet, UPW

PXOTT+PTFE

CHVT 1 2 3 4 5

Block 1

Code	Removal Rating
NM50	50nm
0010	0.1μm
0020	0.2μm

Block 2

Code	Configuration
PXOTTLE	Long
PXOTTME	Short

Block 3

Code	O-ring Material
E	EPDM
K	FFKM
N	None

Block 4

Code	Cleanliness
L	<10ug/device
M	<25ug/device
H	<40ug/device
E	Electronic grade

Block 5

Code	Package
D	Dry
W	Prewet, UPW

Please contact Cobetter for additional information.

Photogile POU Filter for Lithography Process (PTG SIN/CIN)

One-piece construction is easy to install, clean and replace this filter capsule.

Unique vent structure effectively removes bubbles in the photoresist.

Available in a wide range of membranes to meet all customer requirements.



Product Specification

	PTG SIN/CIN
Purification Membrane	UPE / Nylon / Multi
Support/Core/Cage/End Caps	HDPE
Shell	HDPE
O-Rings	FFKM
Max. Operating Temperature	40°C
Max. Operating Pressure	0.34 MPa @ 25°C

Application

- POU photoresist, ancillary photochemicals and solvent filtration

PTG SIN

PTG 1 2 3 4 5 6

Block 1 / Block 2

Code	Membrane	Code	Removal Ratings
U	UPE	NM01	1nm
		NM02	2nm
		NM03	3nm
		NM05	5nm
		NM10	10nm
		NM20	20nm
		NM30	30nm
		NM50	50nm
		0010	0.1μm
		0020	0.2μm
N	Nylon	NM02	2nm
		NM05	5nm
		NM10	10nm
		NM20	20nm
		NM40	40nm
		0010	0.1μm
		0020	0.2μm
M	Multi	NM05	5nm
		NM10	10nm

Block 3

Code	Configuration
SINL	Long
SINM	Short

Block 4

Code	O-ring Material
K	FFKM
N	None

Block 5

Code	Cleanliness
UN	<50nm
AU	⩾50nm

Block 6

Code	Package
D	Dry
W	Prewet, UPW

PTG CIN

PTG 1 2 3 4 5 6

Block 1 / Block 2

Code	Membrane	Code	Removal Ratings
U	UPE	NM01	1nm
		NM02	2nm
		NM03	3nm
		NM05	5nm
		NM10	10nm
		NM20	20nm
N	Nylon	NM02	2nm
		NM05	5nm
		NM10	10nm
		NM20	20nm
M	Multi	NM05	5nm
		NM10	10nm

Block 3

Code	Configuration
CINL	Long
CINM	Short

Block 4

Code	O-ring Material
K	FFKM
N	None

Block 5

Code	Cleanliness
UN	<50nm
AU	⩾50nm

Block 6

Code	Package
D	Dry
W	Prewet, UPW

Please contact Cobetter for additional information.

Prifend Long Lifetime Pre-RO Cartridge Filter

FDP Filter Cartridge Series

Cobetter High Service Time FDP (Guard Filters) Filter Cartridges are made of continuously rolled microfiber. They provide 3x greater lifetime than normal meltblown filters. These filters are generally used where longer lifetime, high dirt holding capacity, and low change-out frequency are required. They are suitable for use in pre-RO filtration in water treatment applications.



Feature and Benefits

Extended Service Life

Made of continuously rolled microfiber media, they provide high dirt holding capacity. Their lifetime is 3x greater than normal meltblown filters.

Rolled Construction Design

A rolled construction design provides improved retention efficiency, which results in a better filtration performance when compared to other meltblown filters.

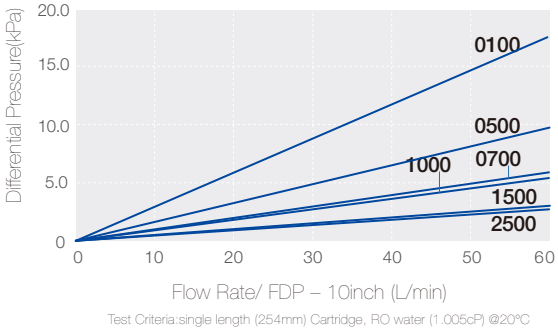
Available in a Wide Range of Pore Sizes

Available in a wide range of pore sizes from 0.5-20μm to meet different application requirements. Also available in different end cap configurations so as to fit different filter housings.

Operating Conditions

Filter Media	PP
End Cap/Core/Cage	PP
Max. Operating Temperature	80°C
Max. Differential Pressure	0.3 MPa @ 21°C 0.12 MPa @ 80°C

Flow Rate Characteristics



Test Criteria:single length (254mm) Cartridge, RO water (1.005cP) @20°C



Ordering Information

FDP 1 2 3 4

Block 1

Code	Removal Ratings
0050	0.5μm
0100	1μm
0500	5μm
0700	7μm
1000	10μm
1500	15μm
2500	25μm
5000	50μm

Block 2

Code	End Cap
TC	222 Flat
H	PE Gasket
N	None

Block 2

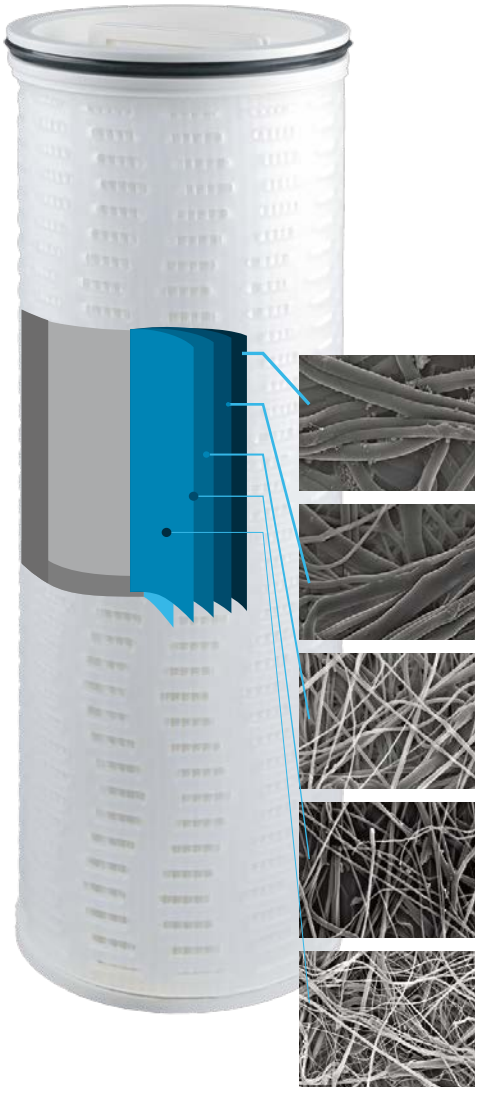
Code	Nominal Length
04	04"
10	10"
20	20"
30	30"
40	40"

Block 3

Code	O-ring Material
E	EPDM
N	None

Prifend High Flow DI Water Filter

FDPHF Filter Cartridge Series



Cobetter FDPHF High Flow Filter Cartridge is a large diameter, single open-ended pleated cartridge filter with PP core and polyester net cover. It has a diameter of 6"/150mm with a 8m² filtration area which results in a high flow rate up to 60m³/hr. Flow direction is from inside to outside which ensures that all contamination is held within the filter.

The PP membrane provides high efficiency filtration for pure water manufacturing. With the PTFE membrane, FDPHF is also an excellent choice for bulk-chemical filtration.

Feature and Benefits

Large Filtration Area and High Throughput
Multi-layer pleated structure helps remove particles gradually and enhances filter service life.

Available in 20"/40"/60" Filter Configuration

Pure PP Core and Cage Provides Cleanliness and Stength

Available in PP, PES, and PTFE Media
PP media's unique multi-layer design has a gradient filter structure which provides large dirt holding capacity and longer service, significantly reducing filter replacement

Operating Conditions

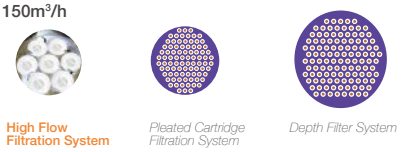
Filter Media	PP / PTFE
End Cap/Core/Cage	PP
Max. Operating Temperature	80°C
Max. Differential Pressure	Forward 0.38 MPa@21°C 0.15 MPa@80°C
Filter Diameter	150mm

Flow Rate Characteristics

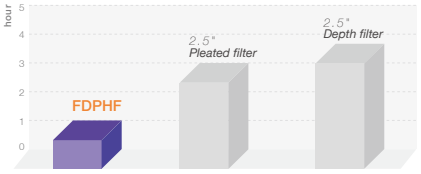
Length	20"	40"	60"
Design Flow	15 m³/h	30 m³/h	45 m³/h
Max. Allowable Flow	30 m³/h	60 m³/h	90 m³/h
Effective Filtration Area	2.8 m²	5.6 m²	8.4 m²

Performance Comparison Table

Filters Quantities vs Same Filter Capacity



Time for Disassembly and Assembly



Reduce the number of filters by 90%,
Decrease the volume of housing by 50%,
Easier operation and change-out.

Ordering Information

FDPHF 1 2 3 4

Block 1

Code	Filter Media
P	PP
F	PTFE

Block 2

Code	Removal Ratings	Code	Removal Ratings
0050	0.5μm	1000	10.0μm
0080	0.8μm	2000	20.0μm
0100	1.0μm	4000	40.0μm
0200	2.0μm	7000	70.0μm
0300	3.0μm	9000	90.0μm
0500	5.0μm		
0002	0.02μm	0045	0.45μm
0003	0.03μm	0100	1.0μm
0005	0.05μm	0300	3.0μm
0010	0.1μm	0500	5.0μm
0020	0.2μm	1000	10.0μm

Block 3

Code	Nominal Length
20	20"
40	40"
60	60"

Block 4

Code	O-ring Material
P	TEV
E	EPDM
V	Viton
S	Silicon

Apesfend Electronic-Grade DI Water Fine Filtration Filter

FDS Filter Cartridge Series

Apesfend Filter Cartridges are constructed of a high polymer-based asymmetric PES membrane which provides high dirt holding capacity and long service lifetime. EAPS Filter Cartridges are ideally suited for ultra-pure water and diluted acid/base filtration.

Apesfend Filter Cartridges are constructed of a high polymer-based asymmetric PES membrane and widely used in DI and ultra-pure water filtration applications. Features include low ion release and good recovery conductivity capability which saves inline flushing time. In addition, it provides an efficient particle removal efficiency to ensure the quality of pure water.



Feature and Benefits

Efficient Particle Removal

Removal Ratings up to 30nm ensure the quality of pure water. It can be used in the semiconductor industry. Additionally, it can be regarded as a replacement for UF filters.

Pre-Romsed with 18MΩ/cm Water Ensures Filter Cleanliness

Higher Dirt Holding Capacity and Longer Lifetime

Asymmetric membrane structure provideshigh flow rates with lower differential pressures and a longer filter lifetime.

Each Element is Individually Integrity Tested

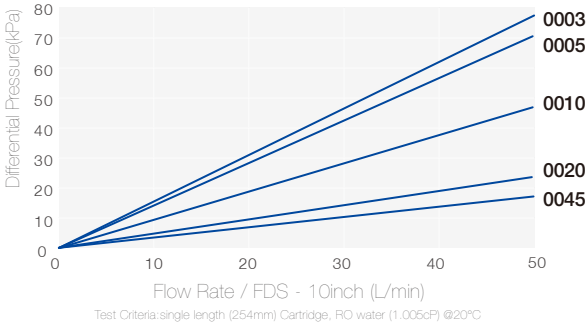
Low Extractable

Low ion release and good recovery conductivity save inline flushing time

Operating Conditions

Filter Media	Asymmetric PES
End Cap/Core/Cage	PP
Max. Operating Temperature	80°C
Max. Differential Pressure	0.3 MPa @ 21°C 0.18 MPa @ 80°C

Flow Rate Characteristics



Test Criteria:single length (254mm) Cartridge, RO water (1.005cP) @20°C

Ordering Information

FDS 1 2 3 4

Block 1

Code	Removal Ratings
0003	30nm
0005	50nm
0008	80nm
0010	0.1μm
0020	0.2μm
0045	0.45μm

Block 2

Code	End Cap
TC	222/Flat
SC	226/Flat
TF	222/Fin
SF	226/Fin
DOE	Double Open End

Block 3

Code	Nominal Length
04	04"
10	10"
20	20"
30	30"
40	40"

Block 4

Code	O-ring Material
P	TEV
E	EPDM
V	Viton
S	Silicon

Electronic Grade · Low Extractable

EPPX Filter Cartridge Series

EPPX series cartridge is an upgrade to EPP. EPPX Filter Cartridges are constructed of electronic grade PP to effectively control iron extraction and provide excellent chemical compatibility. It is highly recommended for the pre-filtration of acids, bases, organic solvents, and process water.



Feature and Benefits

Low Extractable and Quick Response to Conductivity

High-purity PP heated and melted without adhesives during the welding process ensure that electronic grade requirements are met. Its features include low extractable and quick response to conductivity.

Available in a Wide Range of Pore Sizes

Available in removal rating from 0.1μm to 25 μm as well as customizable removal ratings to meet all requirements and specifications.

High Flow Rates and Long Service Life

Nano-fiber media provides high flow rates, longer service life, and is cost-effective.

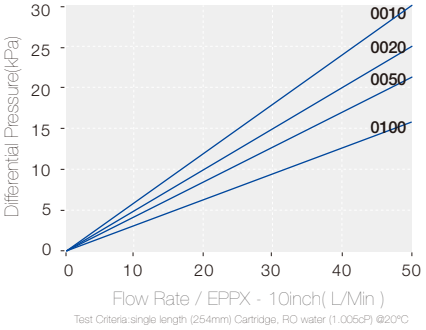
Excellent Chemical Compatibility

An all polypropylene construction provides excellent chemical compatibility to meet the filtration requirements of various acids, bases, and solvents

Operating Conditions

Filter Media	PP
End Cap /Core/Cage	PP
Max. Operating Temperature	80°C
Max. Differential Pressure	0.4 MPa / 21°C 0.24 MPa / 80°C
Filter Area	0.1- 0.5μm 0.61m² / 10" 10 - 25μm 0.64m² / 10"

Flow Rate Characteristics



Ordering Information

EPPX 1 2 3 4

Block 1

Code	Removal Ratings
0010	0.1μm
0020	0.2μm
0030	0.3μm
0050	0.5μm
0100	1.0μm
0250	2.5μm
0500	5.0μm
1000	10μm
1500	15μm
2500	25μm

Block 2

Code	End Cap
TC	222/Flat
SC	226/Flat
TF	222/Fin
SF	226/Fin
DOE	Double Open End

Block 3

Code	Nominal Length
05	5"
10	10"
20	20"
30	30"
40	40"

Block 4

Code	O-ring Material
P	TEV
E	EPDM
V	Viton
S	Silicon

Chemdeion Purifier

Cobetter **Chemdeion** Purifier has been specifically designed for the removal of metal contaminants in IPA critical cleaning applications.

The high retentive PTFE membrane and the cleanest PFA material of Chemdeion Purifier guarantee high initial cleanliness and high thermal stability.

With a high ion exchange capacity and high retention rating PTFE membrane, the **Chemdeio** Purifier can meet the requirement of lowest metal ions and particles contamination in critical IPA application at the most demanding technology nodes.

Available in a wide variety of sizes and configurations to meet all your requirements. Please contact your Cobetter sales engineer for additional information.



Features and Benefits

- Superior metal and particle removal for critical clean IPA application
- Ultra-low particle shedding and organic extractables
- Manufactured in a cleanroom environment

Application

- Advanced metals removal in critical IPA cleaning application
- Bulk and Point-of -use cleaning application

Product Specifications

	Cartridge	Disposable	Small In-line
Purification Membrane	Surface-Modified PTFE		
Removal Rating	15nm		
Support/Drainage/Core/ Cage/End Caps	PFA		
Shell	-	PFA	PFA
O-Rings	TEV or FFKM		
Maximum Operating Temperature	80°C		
Maximum Differential Pressure	0.49 MPa	0.58 MPa	0.40 MPa
Filter Area	**X2** (ø68mm) 1.21 m^2	**Z2** (ø83mm) 2.2 m^2	**X2** (ø68mm) 0.4 m^2
Total Metal Ion Exchange Capacity (90% Efficiency)	3 meq	5.5 meq	1 meq

Ordering Information

Cartridge

CHP 1 NM15 2 3 4 5 6

Block 1

Code	Diameter
X2	68mm
Z2	83mm

Block 2

Code	End Cap	
TC	Standard	ø83mm/ø68mm
CLTC	For Cobetter PFA housing	
ETC	For E PFA housing	ø83mm
TPCJ	For P PFA housing	ø68mm

Block 3

Code	Nominal Length
10	10"
20	20"

Block 4

Code	O-ring Material
P	TEV
K	FFKM

Block 5

Code	Cleanliness
AAS	<3 μg/device

Block 6

Code	Package
D	Dry
W	UPW

Disposable Small In-line X type

CHP 1 XNM15 2 3 4 5 6

Block 1

Code	Diameter
X2	68mm

Block 2

Code	Nominal Length
04	4"

Block 3

Code	Connection	Inlet/Outlet	Head:Vent/Drain	Bowl:Vent/Drain	Total length
F42	CFL	1/2" male	1/4" male	1/4" male	4"/218mm
F32	CFL	3/8" male	1/4" male	1/4" male	4"/218mm

Block 4

Code	Cleanliness
AAS	<3 μg/device

Block 5

Code	Package
D	Dry
W	UPW

Disposable

CHP 1 NM15 2 3 4 5 6

Block 1

Code	Diameter
X2	68mm
Z2	83mm

Block 2

Code	Flow Type
N	In-line
T	T-flow
TV	T-flow core vent
L	L-flow

Block 3

Code	Nominal Length	
05	5"	In-line
10	10"	In-line/T-flow/T-flow core vent/L-flow

Block 4

Code	Connection	Inlet/Outlet	Head:Vent/Drain	Bowl:Vent/Drain	Total length
F82	CFL	1" male	1/4" male	1/4" male	5", 10"
F62	CFL	3/4" male	1/4" male	1/4" male	5", 10"
F42	CFL	1/2" male	1/4" male	1/4" male	5", 10"
F32	CFL	3/8" male	1/4" male	1/4" male	5", 10"

Block 5

Code	Cleanliness
AAS	<3 μg/device

Block 6

Code	Package
D	Dry
W	UPW

Nylonpolar Solvent Purifier



Nylonpolar Solvent Purifier with surface-modified nylon membrane is specifically designed for the removal of metal contaminants from various base solvents and resin solvent mixtures.

It is well-suited for photoresist production and ultra high purity solvent applications.

Features and Benefits

- High metal removal efficiency
- ppt level of metal contaminant removal performance
- Nylon membrane material for ultraclean performance
- Total metal removal for ultraclean chemical manufacturers
- Ultraclean surface modification technology

Application

- Most organic solvents used in semiconductor manufacturing
- Raw materials (resin, polymer solutions, etc.) used in photochemical manufacturing
- Bulk and point-of -use filtration

Product Specification

	Cartridge	Capsule
Purification Membrane	Surface-modified Nylon	
Support/Drainage/Core/ Cage/End Caps	HDPE	
Shell	-	HDPE
O-Rings	TEV	-
Max. Operating Temperature	50°C	
Max. Operating Pressure	0.27MPa@20°C	

Ordering Information

Cartridge

NPL 1 **OTC** 2 3 4 5

Block 1

Code	Diameter
X1	68mm

Block 2

Code	Nominal Length
10	10"
20	20"

Block 3

Code	O-ring Material
P	TEV

Block 4

Code	Cleanliness
UN	Super clean grade
UH	High clean grade

Block 5

Code	Package
D	Dry

Capsule

NPL 1 2 3

Block 1

Code	Connection	Inlet/Outlet	Vent/Drain
SW43E	SW	1/4"	4 mm
SW44E	SW	1/4"	1/4"
SW984E	SW	1/2"	1/4"
NPT42E	NPT	1/4"	1/8"
FL64E	CFL	3/8"	1/4"

Block 2

Code	Cleanliness
UN	Super clean grade
UH	High clean grade

Block 3

Code	Package
D	Dry

IonGard SL Purifier



Cobetter **IonGard** SL Purifier has been specifically designed for the removal of metal contaminants from photoresists and ultra high purity solvents.

By modifying the ion exchange groups on the surface of membrane, the **IonGard**™ SL Purifier provides a fast and effective metal ions removal capability in various solvents and solvent resin mixtures.

Available in a wide variety of sizes and configurations to meet all your requirements. Please contact your Cobetter sales engineer for additional information.

Features and Benefits

- High metal removal efficiency
- High ion-exchange capacity
- Total metal removal for ultraclean chemical manufacturers
- Manufactured in a cleanroom environment

Application

- Most organic solvents and photoresists in semiconductor manufacturing
- Precursor materials (solvent,resins and polymers, etc.) used in photo-chemical manufacturing
- Bulk and point-of -use solvent purification

Product Specification

	Cartridge		Capsule
Purification Membrane	Modified PE		Modified PE
Support/Drainage /Core/ Cage/End Caps	HDPE		HDPE
Shell	-		HDPE
O-Rings	TEV or EPDM		TEV or EPDM
Max. Operating Temperature	60°C		60°C
Max. Operating Pressure	0.34 MPa @ 25°C		0.34 MPa @ 25°C
Filter Areas	**X1** (ø68mm) 0.5 m^2	**Z1** (ø83mm) 0.7 m^2	**X1** (ø68mm) 0.1 m^2
Total Metal Ion Exchange Capacity (90% Efficiency)	>80 meq	>120 meq	>16 meq

Note: The filter area of the capsule refers specifically to SW44.

Ordering Information

Cartridge

MGS 1 **OTC** 2 3 4 5

Block 1

Code	Diameter
X1	68mm
Z1	83mm

Block 2

Code	Nominal Length
10	10"
20	20"

Block 3

Code	O-ring Material
P	TEV
K	FFKM

Block 4

Code	Cleanliness
UH	High Clean Grand

Block 5

Code	Package
D	Dry

Capsule

MGS 1 2 3

Block 1

Code	Connection	Inlet/Outlet	Vent/Drain
SW43E	SW	1/4"	4 mm
SW44E	SW	1/4"	1/4"
SW984E	SW	1/2"	1/4"
NPT42E	NPT	1/4"	1/8"
FL64E	CFL	3/8"	1/4"

Block 2

Code	Cleanliness
UH	High Clean Grand

Block 3

Code	Package
D	Dry

IonGard DL Purifier



Cobetter **IonGard** DL Purifier has been specifically designed for critical cleaning water filtration in semiconductor industry .

Utilizing the structure of polyethylene and polyethersulfone composite membranes, the **IonGard** DL Purifier assures excellent removal of trace metal ions as well as particles, reducing particles on the wafer. However, the Ultraclean product design minimizes system start up time and dowmtime.

Available in a wide variety of sizes and configurations to meet all your requirements. Please contact your Cobetter sales engineer for additional information.

Features and Benefits

- Superior removal rates of multiple metallic cation contamination in critical cleaning water application
- High removal efficiency for both trace metals and particles
- Ultra-low Particles and Metal Ions extractables
- Manufactured in a cleanroom environment

Application

- Bulk and point-of -use for critical cleaning DI water purification

Product Specification

	Cartridge		Capsule
Filter Membrane	Polyethersulfone		Polyethersulfone
Ion Exchange Media	Modified PE		Modified PE
Support/Core/Cage/End Caps	HDPE	PP	HDPE
Shell	-		PP
O-Rings	TEV or FFKM		TEV or FFKM
Max. Operating Temperature	60°C	80°C	60°C
Max. Operating Pressure	0.34 MPa		0.34 MPa
Filter Area	**X1** (ø68mm) 0.5 m^2	**Z1** (ø83mm) 0.7 m^2	**X1** (ø68mm) 0.1 m^2
Total Metal Ion Exchange Capacity (90% Efficiency)	>80 meq	>120 meq	> 16 meq

Note: The filter area of the capsule refers specifically to SW44.

Ordering Information

Cartridge

MGD 1 2 3 OTC 4 5 6 7

Block 1

Code	Support/Core
_	HDPE
P	PP

Block 2

Code	Diameter
X1	68mm
Z1	83mm

Block 3

Code	Removal Rating
NM07	7 nm
NM20	20 nm
NM50	50nm
0010	0.1μm

Block 4

Code	Nominal Length
10	10"
20	20"
30	30"

Block 5

Code	O-ring Material
P	TEV
K	FFKM

Block 6

Code	Cleanliness
S	＜10 μg/device

Block 7

Code	Package
W	Prewet

Capsule

MGD 1 2 3 4

Block 1

Code	Removal Rating
NM07	7 nm
NM20	20 nm
NM50	50nm
0010	0.1μm

Block 2

Code	Connection	Inlet/Outlet	Vent/Drain
BFL64-4	CFL	3/8"	1/4"
BFL64-10	CFL	3/8"	1/4"
BFL64-20	CFL	3/8"	1/4"
FL64	CFL	3/8"	1/4"
NPT42	NPT	1/4"	1/8"
NPT742	NPT	1/4"	1/8"
NPT942	NPT	1/4"	1/8"
SW43	SW	1/4"	4 mm
SW743	SW	1/4"	4 mm
SW943	SW	1/4"	4 mm
SW44	SW	1/4"	1/4"
SW744	SW	1/4"	1/4"
SW944	SW	1/4"	1/4"
SW84	SW	1/2"	1/4"
SW784	SW	1/2"	1/4"
SW984	SW	1/2"	1/4"
SW764	SW	3/8"	1/4"

Block 3

Code	Cleanliness
S	＜10 μg/device

Block 4

Code	Package
W	Prewet

IonGard Aqua Purifier



Cobetter **IonGard** Aqua Purifier has been specifically designed for the removal of metal contaminants from ultrapure water.

The **IonGard** Aqua Purifierr can immediately and spontaneously remove metal ions from the water through ion exchange groups, making it especially suitable for the semiconductor industry's most terminal final cleaning processes.

Available in a wide variety of sizes and configurations to meet all your requirements. Please contact your Cobetter sales engineer for additional information.

Features and Benefits

- High metal removal efficiency
- Total metal removal for ultrapure water
- Manufactured in a cleanroom environment

Application

- Bulk and point-of -use water purification

Product Specifications

	Cartridge		Capsule
Purification Membrane	Modified PE		
Support/Drainage/Core/ Cage/End Caps	HDPE or PP		HDPE
Shell	-		HDPE
O-Rings	TEV or FFKM		
Max. Operating Temperature	30°C	85°C	30°C
Max. Operating Pressure	0.34 MPa		
Filter Area	**X1** (ø68mm) 0.7 m^2/10"	**Z1** (ø83mm) 1.1 m^2/10"	**X1** (ø68mm) 0.15 m^2
Total Metal Ion Exchange Capacity (90% Efficiency)	>50 meq	>80 meq	>10 meq

Note: The filter area of the capsule refers specifically to SW44.

Ordering Information

Cartridge

MGA 1 2 **OTC** 3 4 5 6

Block 1

Code	Support/Core
_	HDPE
P	PP

Block 2

Code	Diameter
X1	68mm
Z1	83mm

Block 3

Code	Nominal Length
10	10"
20	20"

Block 4

Code	O-ring Material
P	TEV
K	FFKM

Block 5

Code	Cleanliness
S	<10 μg/device

Block 6

Code	Package
D	Dry

Capsule

MGA 1 2 3

Block 1

Code	Connection	Inlet/Outlet	Vent/Drain
SW43E	SW	1/4"	4 mm
SW44E	SW	1/4"	1/4"
SW984E	SW	1/2"	1/4"
NPT42E	NPT	1/4"	1/8"
FL64E	CFL	3/8"	1/4"

Block 2

Code	Cleanliness
S	<10 μg/device

Block 3

Code	Package
D	Dry

Fluorolink All Fluoropolymer Filter Housing

Overall PFA construction makes it suitable for highly corrosive high temperature ultra-pure chemicals



Filter's cleanliness reduces equipment pre-operation

Compact structure saves space

Available in a wide variety of adapters to meet all customer requirements

Using wrench tools, the housing can be replaced easily reducing production downtime

Product Specification

Housing Bowl	PFA
Housing Head	PFA
Locking Ring	PVDF / PP+GF / PTFE
Max. Operating Temperature	100°C
Max. Operating Pressure	0.75 MPa @ 25°C 0.3 MPa @ 100°C
Connection Spec	CFL
Connection Size	1" / 3/4"

Chemical Compatibility

	PVDF	PP+GF	PTFE	Commonly use
Acid	√	☑	√	HCl , H2SO4
Bases	×	√	√	KOH , TMAH
Alcohols	☑	√	√	Ethanol , IPA
Esters	×	×	√	ABE , Ethyl Acetate
Hydrocarbons	√	×	√	CCl4 , C2H6 , Toluene
Ketones	×	√	√	Acetone , Cyclohexanone

√ **Excellent** ☑ **Limited** × **Unusable**

Notices : For brief reference only, please contact with Cobetter for more details

Ordering Information

KML [1] **TC** [2] [3] [4] [5] [6]

Block 1

Code	Nominal Length
10	10"
20	20"

Block 2

Code	Connection	Inlet/Outlet	Vent	Drain
F642	CFL	3/4"	1/2"	1/4"
F842	CFL	1"	1/2"	1/4"

Block 3

Code	O-ring Material
P	TEV
K	FFKM

Block 4

Code	Locking Ring
G	PP + GF
P	PVDF
F	PTFE

Block 5

Code	Cleanliness
S	Semicon grade
E	Electronic grade

Resin Constructed Filter Housing

Resin Filter Housing Series have the cage media composed of PP, PVDF or PC depending on the requirements and specifications. PP Filter Housings are ideally suited to filter water and regular chemicals, PVDF Filter Housings are ideally suited to filter most chemicals while



Feature and Benefits

- Quick and Efficient Filter Change-out
- Excellent Chemical Compatibility
- Long Service lifetime
- Low Extractable
- Wide Range of Filter Connections
- Wide Range of Filter Diameters
- Wide Range of Inlet/Outlet Connections
- Up-down Vent Design with Low Residual

Product Specification

Housing Bowl	PP	PVDF
Housing Head	PP	PVDF
Locking Ring	PP+GF	PVDF
Seal Material	EPDM / FKM / FFKM	
Max. Operating Conditions	0.6 MPa @ 25°C 0.4 MPa @ 40°C	

Ordering Information

H83A 1 2 3 4 5 6 7

Block 1

Code	Housing
PP	PP
PV	PVDF

Block 2

Code	Nominal Length
10	10"
20	20"

Block 3

Code	Filter Connection
C	222
K	226

Block 4

Code	Inlet/Outlet
A	3/4"NPT
B	1"NPT
C	1"UN
D	1-1/2"UN

Block 5

Code	Vent/Drain
_	3/8"RC / 1/4"G
R32	3/8"RC / 1/4"RC

Block 6

Code	Pipe Fitting
_	None
G40A	40A

Block 7

Code	O-ring
K	FFKM
E	EPDM
V	FKM
AF	acid-resisting

H83B 1 2 3 4 5 6 7

Block 1

Code	Housing
PP	PP

Block 2

Code	Nominal Length
10	10"

Block 3

Code	Filter Connection
C	222

Block 4

Code	Inlet/Outlet
N	DIN25

Block 5

Code	Vent/Drain
_	1/4"RC / 1/4"RC

Block 6

Code	Pipe Fitting
_	None

Block 7

Code	O-ring
K	FFKM
E	EPDM
V	FKM

Gasfender Ultra-pure Gas Cartridge Filter

Gasfender is constructed of electronic-grade stainless steel. It is specially designed for the inline gas filtration in the semiconductor process at high temperatures and pressures.



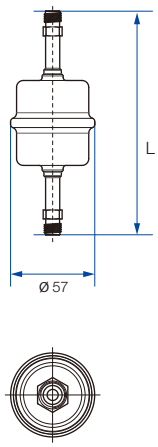
· Cleanest 316L stainless steel with internal electro-polished
· High efficiency PTFE membrane
· Precise fine filtration @0.003μm
· A wide range of size to meet all customer requirement
· High flow rates & low pressure drops
· 100% helium leak test
· 100% integrity tested
· Easy to installation
· Cleanroom manufactured and packaged

Product Specification

Filter Membrane	PTFE
Filter Core	PFA / PP / PVDF
Filter Housing	Stainless 316L
Removal Rating	0.003μm / 0.01μm
Fitting Spec	SW (Swagelok Compatible) / Gasket Seal (VCR Compatible) / NPT / Rc
Fitting Size	1/4" / 3/8" / 1/2" / 3/4"
Max Operating Pressure	5.2 MPa @ 80°C
Max Forward Differential Pressure	0.69 MPa @ 21°C
Max Reverse Differential Pressure	0.34 MPa @ 21°C

Ordering Information

Normal Type



GSFNF (PFA)

Part Numbers❶❷	Fitting Option	Inlet	Outlet	Overall Length: L(mm)
GSFNFNM03SMM4L42	1/4 SW(Swagelok Compatible)	Male	Male	142.0±1.0
GSFNFNM03SMM4L06	1/4 SW(Swagelok Compatible)	Male	Male	106.0±1.0
GSFNFNM03SMM6L49	3/8 SW(Swagelok Compatible)	Male	Male	149.0±1.0
GSFNFNM03SMM6L28	3/8 SW(Swagelok Compatible)	Male	Male	128.0±1.0
GSFNFNM03SMM8L49	1/2 SW(Swagelok Compatible)	Male	Male	149.0±1.0
GSFNFNM03SMM8L28	1/2 SW(Swagelok Compatible)	Male	Male	128.0±1.0
GSFNFNM03SMM810MML28	SW10MM(Swagelok Compatible)	Male	Male	149.0±1.0
GSFNFNM03VMF4L42	1/4 Gasket Sea(VCR Compatible)	Male	Female	142.0±1.0
GSFNFNM03DTVMF4L42	1/4 Gasket Sea(VCR Compatible)	Male	Female	142.0±1.0
GSFNFNM03VMM4L41	1/4 Gasket Seal(VCR Compatible)	Male	Male	141.0±1.0
GSFNFNM03VMM4L28	1/4 Gasket Seal(VCR Compatible)	Male	Male	128.0±1.0
GSFNFNM03VMM6L49	1/2 Gasket Seal(VCR Compatible)	Male	Male	149.0±1.0
GSFNFNM03VMM8L49	1/2 Gasket Seal(VCR Compatible)	Male	Male	149.0±1.0
GSFNFNM03VMM6L28	1/2 Gasket Seal(VCR Compatible)	Male	Male	128.0±1.0
GSFNFNM03VMM8L28	1/2 Gasket Seal(VCR Compatible)	Male	Male	128.0±1.0
GSFNFNM03VMF8L29	1/2 Gasket Seal(VCR Compatible)	Male	Female	129.0±1.0
GSFNFNM03NMF4L42	1/4 NPT	Male	Female	142.0±1.0
GSFNFNM03NFF4L33	1/4 NPT	Female	Female	133.0±1.0
GSFNFNM03NFF4L42	1/4 NPT	Female	Female	142.0±1.0
GSFNFNM03NMM4L42	1/4 NPT	Male	Male	142.0±1.0

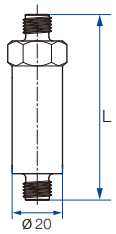
GSFNP (PP)

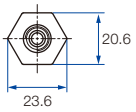
Part Numbers❶❷	Fitting Option	Inlet	Outlet	Overall Length: L(mm)
GSFNPNM03NFF4L33	1/4 NPT	Female	Female	133.0±1.0
GSFNPNM03NFF4L42	1/4 NPT	Female	Female	142.0±1.0
GSFNPNM03VMM4L41	1/4 Gasket Seal(VCR Compatible)	Male	Male	141.0±1.0
GSFNPNM03VMM4L28	1/4 Gasket Seal(VCR Compatible)	Male	Male	128.0±1.0
GSFNPNM03VFM4L48	1/4 Gasket Seal(VCR Compatible)	Female	Male	148.0±1.0
GSFNPNM03VMM6L49	1/2 Gasket Seal(VCR Compatible)	Male	Male	149.0±1.0
GSFNPNM03VMM8L49	1/2 Gasket Seal(VCR Compatible)	Male	Male	149.0±1.0
GSFNPNM03VMM6L28	1/2 Gasket Seal(VCR Compatible)	Male	Male	128.0±1.0
GSFNPNM03VMM8L28	1/2 Gasket Seal(VCR Compatible)	Male	Male	128.0±1.0
GSFNPNM03SMM4L42	1/4 SW (Swagelok Compatible)	Male	Male	142.0±1.0
GSFNPNM03SMM4L06	1/4 SW (Swagelok Compatible)	Male	Male	106.0±1.0
GSFNPNM03SMM6L49	3/8 SW (Swagelok Compatible)	Male	Male	149.0±1.0
GSFNPNM03SMM6L28	3/8 SW (Swagelok Compatible)	Male	Male	128.0±1.0
GSFNPNM03SMM6L17	3/8 SW (Swagelok Compatible)	Male	Male	117.9±1.0
GSFNPNM03SMM8L49	1/2 SW (Swagelok Compatible)	Male	Male	149.0±1.0
GSFNPNM03SMM8L28	1/2 SW (Swagelok Compatible)	Male	Male	128.0±1.0
GSFNPNM03SMM8L11	1/2 SW (Swagelok Compatible)	Male	Male	111.0±1.0

❶ For Semiconductor grade, add "**S**" to the end of the part number.
For Electronic grade, add "**E**" to the end of the part number.
❷ If accessory(nut) is needed, please add "**N**" after graded options.
Only available for SW(Swagelol Cmpatible)

Ordering Information❶

M-Type





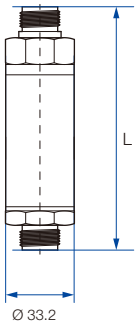
GSFMF (single membrane)

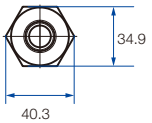
Part Numbers❶❷	Fitting Option	Inlet	Outlet	Overall Length: L(mm)
GSFMFNM03VMM4S85	1/4 Gasket Seal (VCR Compatible)	Male	Male	85.0±1.0
GSFMFNM03VFM4S88	1/4 Gasket Seal (VCR Compatible)	Female	Male	88.0±1.0
GSFMFNM03SMM4S74	1/4 SW (Swagelok Compatible)	Male	Male	74.0±1.0
GSFMFNM03VMF4L00	1/4 Gasket Seal (VCR Compatible)	Male	Female	100.0±1.0
GSFMFNM03SMM4S74	1/4 SW (Swagelok Compatible)	Male	Male	74.0±1.0
GSFMFNM03SMM6S74	3/8 SW (Swagelok Compatible)	Male	Male	74.0±1.0
GSFMFNM03VMM8S85	1/2 Gasket Seal (VCR Compatible)	Male	Male	85.0±1.0
GSFMFNM03RFF4S67	1/4 Rc	Female	Female	67.0±1.0

GSFMF-D (double membranes)

Part Numbers❶❷	Fitting Option	Inlet	Outlet	Overall Length: L(mm)
GSFMFNM03DVMM4S85	1/4 Gasket Seal (VCR Compatible)	Male	Male	85.0±1.0
GSFMFNM03DVFM4S88	1/4 Gasket Seal (VCR Compatible)	Female	Male	88.0±1.0
GSFMFNM03DSMM4S74	1/4 SW (Swagelok Compatible)	Male	Male	74.0±1.0
GSFMFNM03DVMF4L00	1/4 Gasket Seal (VCR Compatible)	Male	Female	100.0±1.0
GSFMFNM03DSMM4S74	1/4 SW (Swagelok Compatible)	Male	Male	74.0±1.0
GSFMFNM03DSMM6S74	3/8 SW (Swagelok Compatible)	Male	Male	74.0±1.0
GSFMFNM03DVMM8S85	1/2 Gasket Seal (VCR Compatible)	Male	Male	85.0±1.0
GSFMFNM03DRFF4S67	1/4 Rc	Female	Female	67.0±1.0

W-Type





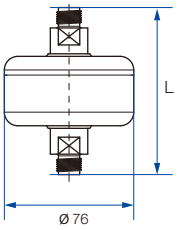
GSFWF

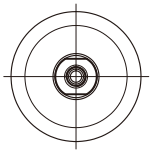
Part Numbers❶❷	Fitting Option	Inlet	Outlet	Overall Length: L(mm)
GSFWFNM03VMF4L41	1/4 Gasket Seal (VCR Compatible)	Male	Female	141.0±1.0
GSFWFNM03VMM4L27	1/4 Gasket Seal (VCR Compatible)	Male	Male	127.0±1.0
GSFWFNM03VMM8L27	1/2 Gasket Seal (VCR Compatible)	Male	Male	127.0±1.0
GSFWFNM03VMM6L27	3/8 Gasket Seal (VCR Compatible)	Male	Male	127.0±1.0
GSFWFNM03VMM8L34	1/2 Gasket Seal (VCR Compatible)	Male	Male	134.0±1.0
GSFWFNM03SMM4L13	1/4 SW (Swagelok Compatible)	Male	Male	113.0±1.0
GSFWFNM03SMM4L41	1/4 SW (Swagelok Compatible)	Male	Male	141.0±1.0
GSFWFNM03SMM6L18	3/8 SW (Swagelok Compatible)	Male	Male	118.0±1.0
GSFWFNM03SMM6L48	3/8 SW (Swagelok Compatible)	Male	Male	148.0±1.0
GSFWFNM03SMM8L18	1/2 SW (Swagelok Compatible)	Male	Male	118.0±1.0
GSFWFNM03SMM8L48	1/2 SW (Swagelok Compatible)	Male	Male	148.0±1.0

❶ For Semiconductor grade, add "**S**" to the end of the part number.
For Electronic grade, add "**E**" to the end of the part number.
❷ If accessory(nut) is needed, please add "**N**" after graded options.
Only available for SW(Swagelol Cmpatible)

Ordering Information[1]

V-Type

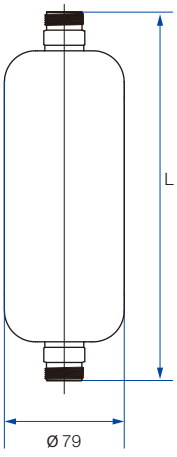




GSFVV

Part Numbers[1][2]	Fitting Option	Inlet	Outlet	Overall Length: L(mm)
GSFVVNM10RFF4S68	1/4 Rc	Female	Female	68.0±1.5
GSFVVNM10RFF6S68	3/8 Rc	Female	Female	68.0±1.5
GSFVVNM10VMM4L27	1/4 Gasket Seal (VCR Compatible)	Male	Male	127.0±1.5
GSFVVNM10VMM6L27	3/8 Gasket Seal (VCR Compatible)	Male	Male	127.0±1.5
GSFVVNM10VMM8S98	1/2 Gasket Seal (VCR Compatible)	Male	Male	98.0±1.5
GSFVVNM10SMM4S98	1/4 SW (Swagelok Compatible)	Male	Male	98.0±1.5
GSFVVNM10SMM6S99	3/8 SW (Swagelok Compatible)	Male	Male	99.0±1.5

P-Type



GSFPP/GSFPF

Part Numbers[1][2]	Fitting Option	Inlet	Outlet	Overall Length: L(mm)
GSFPPNM03SMM8L60	1/2 SW (Swagelok Compatible)	Male	Male	160.0±1.0
GSFPPNM03SMM12H43	3/4 SW (Swagelok Compatible)	Male	Male	243.0±1.0
GSFPPNM03SMM12H21	3/4 SW (Swagelok Compatible)	Male	Male	221.2±1.0
GSFPFNM03SMM12H43	3/4 SW (Swagelok Compatible)	Male	Male	243.0±1.0
GSFPFNM03SMM12H63	3/4 SW (Swagelok Compatible)	Male	Male	263.0±1.0
GSFPFNM03SOO12H36	Ø19.1mm Butt weld	/	/	236.6±1.0
GSFPPNM03K55H20	K55	/	/	200.0±1.0

❶ For Semiconductor grade, add "**S**" to the end of the part number.
For Electronic grade, add "**E**" to the end of the part number.
❷ If accessory(nut) is needed, please add "**N**" after graded options.
Only available for SW(Swagelol Cmpatible)

Gasclar Chemical Filter

Gasclar Filter Cartridges remove chemical compositions from gas. They are specifically designed for exposure machines, LAB factory, and as air filtration solutions for Clean Rooms.



Gasclar FM Filter Cartridges are composed of a uniquely constructed foam media with active carbon media and non-woven support. The design ensures no particle leaking during the downstream process. It can be used to remove acids (including acetic acid and HCl), bases (NH3), and VOC (PGMEA and Halocarbons).

- Minimum pressure loss
- High adsorption capacity for odors/ VOCs (with optional carbon filters)
- No particle leaks
- Low energy consumption
- Minimum weight

Gasclar SCS Filter Cartridges utilize self-bonding technology. This reduces the chance of clogging by the active carbon media or the release of contaminating particles as there are no adhesives used in the construction of the filter cartridge. This filter effectively reduces pressure drops and has high adsorption ability.

- High adsorption efficiency
- High adsorption capacity
- Minimum pressure loss

Gasclar IC Filter Cartridges are composed of carbon media with non-woven support. Even in low concentration, this filter provides high retention for targeted objects.

- High adsorption efficiency even in low concentration
- High adsorption capacity
- No secondary pollution
- Low pressure drops

Product Specification

Please contact Cobetter for additional information.

Collaboration Makes a Better Future

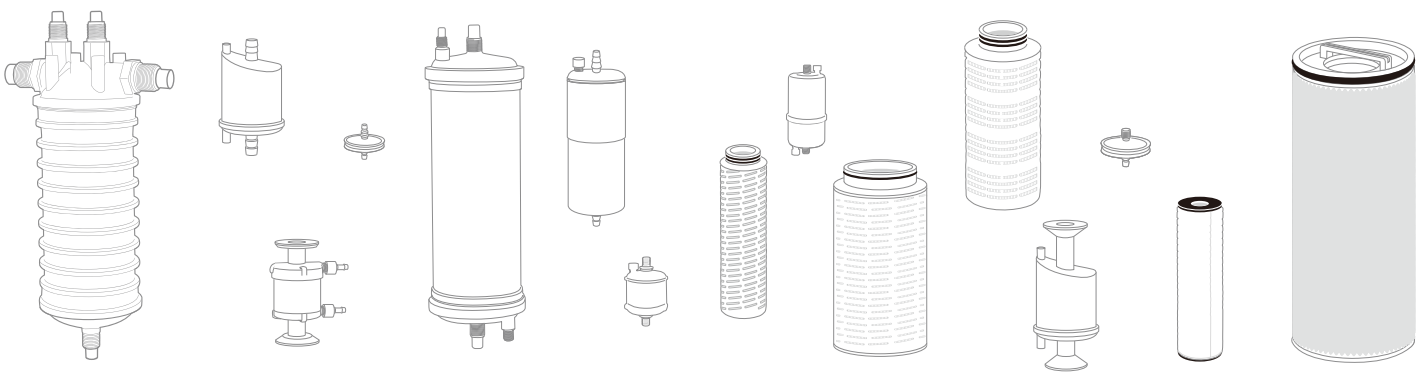
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We Help Customers Solve Process Problems and Increase Yield.



Cobetter Filtration

- *Customers in more than* 80 *countries.*
- *More than* 300 *Japanese customers.*
- 12 *million pleated membrane filters are provided to* 20,000 *customers every year.*



cobetter®
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Please contact us for more information
Hangzhou Cobetter Filtration Equipment Co.,Ltd.
Sales Add:19/F Building B, Huanyu Bussiness Center, No.626 Kejiguan Road, Binjiang District, Hangzhou 310052, China
Factory Add:Daqiao Industry Park,Heshang Town, Xiaoshan District Hangzhou 311265,China

Tel +86-571-87704266
Fax +86-571-87704256
www.cobetterfiltration.com