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cobetter[®]
— filtration —

Cobetter High Flow Filter System

Designed for Large Flow Applications



Liquid & Gas Filtration

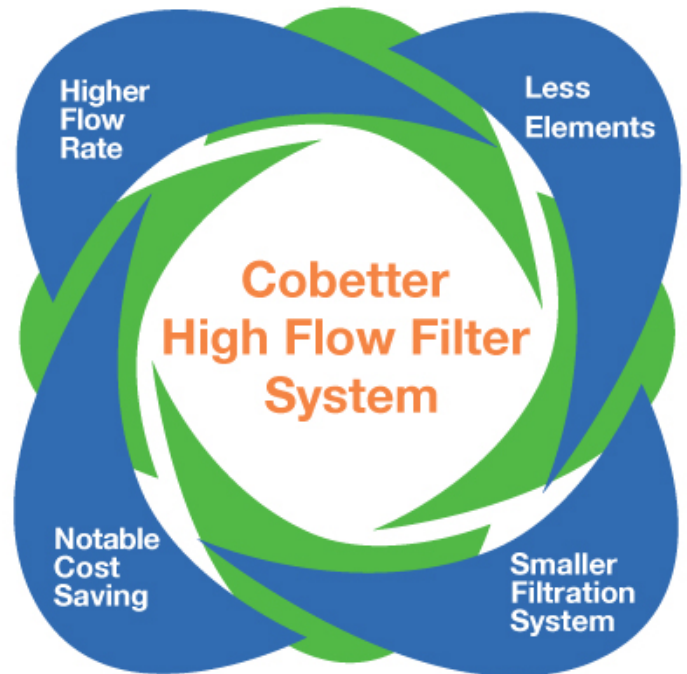
*For Microelectronics, Pharmaceutical, Fine chemical,
Food and Beverage Industries*

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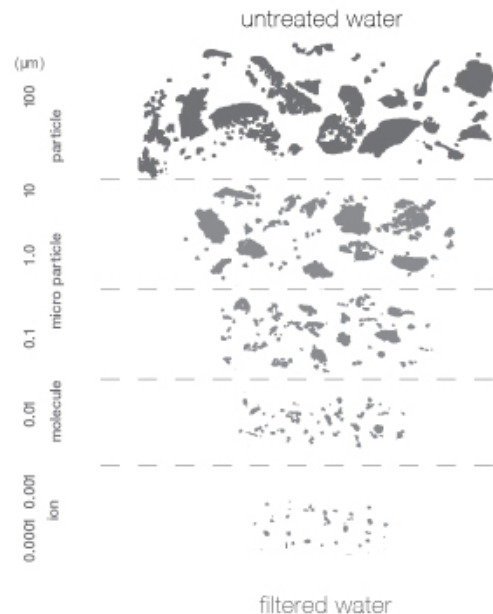
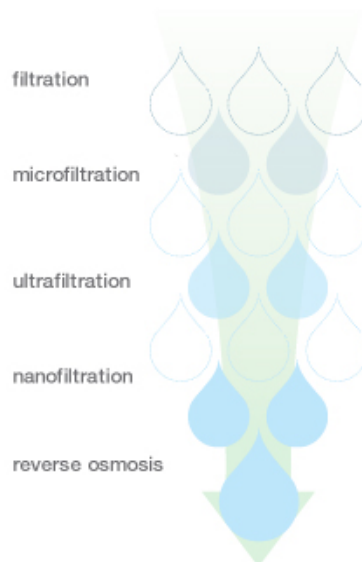
Cobetter High Flow Filter is a large diameter, single open ended pleated cartridge filter. With a 6"/152mm diameter, large filtration area, and high flow rate up to 90m³/hr. It can be widely used in a wide variety of industry with less downtime for change-out.

Features and Benefits

- High density pleated filter type resulting in a high filtration area, high flow rates, longer service life, and high dirt holding capacity.
- Multi-layered design provides gradient filtration.
- Internal PP core guarantees no distortion and resists higher reverse differential pressure.
- Ergonomically designed handle facilities fast and easy installation and remove without special tools.



Industrial	Municipal Water, Pre-RO Filtration, Reclaimed Water, Coolants, Nozzle Protection, Boiler Condensate
Chemical	Quench Water, Aqueous Salt Solutions, Final Products
Petrochemicals	Water-flooding, Produced Water, Enhances Oil Recovery, Completion Fluids, Amine Sweetening, Final Products
Electronics	Pre-RO Filtration, Process Water
Food & Beverage	Process Water
Pharmaceutical	Process Water





Materials of Construction

Filter Media	Support/Drainage	End Caps	Core	Outside Material
PP Pleated Polypropylene depth structure	Polypropylene	Glass filled polypropylene	Polypropylene	PP Cage (HFPP150 Series)
GF Rein bonded glass fiber /Polyester support	Polyester			PET Net (HF150 Serie)

Recommended Operating Conditions

Max. Temperature	PP: 80°C
	GF: 130°C
Max. Pressure	0.40 Mpa/21°C HFPP150 (PP Cage)
	0.38 MPa/21°C HF150 (PET Net)
	0.15 MPa/80°C

Flow Rate

Length	Design Flow Rate	Max Flow Rate
20"	15 m ³ /h	30 m ³ /h
40"	30 m ³ /h	40 m ³ /h
60"	45 m ³ /h	90 m ³ /h

Retention Ratings

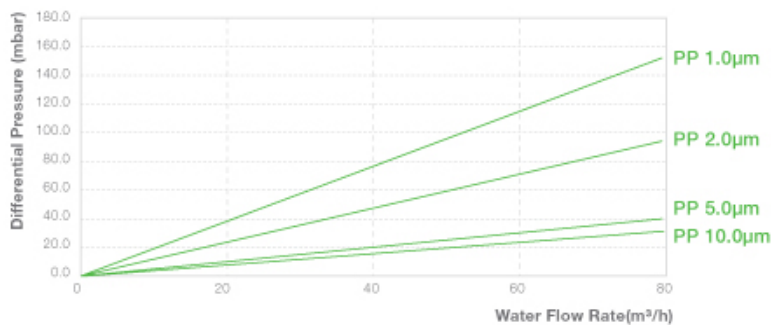
Polypropylene (PP)	1.0, 2.0, 5.0, 10, 20, 40, 70, 90µm
Glass Fiber (GF)	0.8, 1.0, 3.0, 5.0, 15, 25µm

Retention Characteristic

Particle Size	Filtration Efficiency HF150NB						
	PP0.8	PP1.0	PP2.0	PP3.0	PP5.0	PP10.0	PP20.0
≥1µm	99.89%	99.82%	95.00%	86.97%	79.86%	42.23%	24.38%
≥2µm	99.97%	99.87%	98.64%	96.84%	90.09%	70.49%	40.09%
≥5µm	100.00%	99.93%	99.90%	98.86%	98.36%	82.26%	76.66%
≥8µm	100.00%	100.00%	99.97%	99.20%	98.88%	95.25%	82.60%
≥10µm	100.00%	100.00%	100.00%	99.58%	99.39%	98.18%	89.42%
≥12µm	100.00%	100.00%	100.00%	99.78%	99.57%	98.76%	97.41%
≥25µm	100.00%	100.00%	100.00%	100.00%	100.00%	99.34%	99.14%

Remarks: The testing particle is made by mixed solution of standard silica .

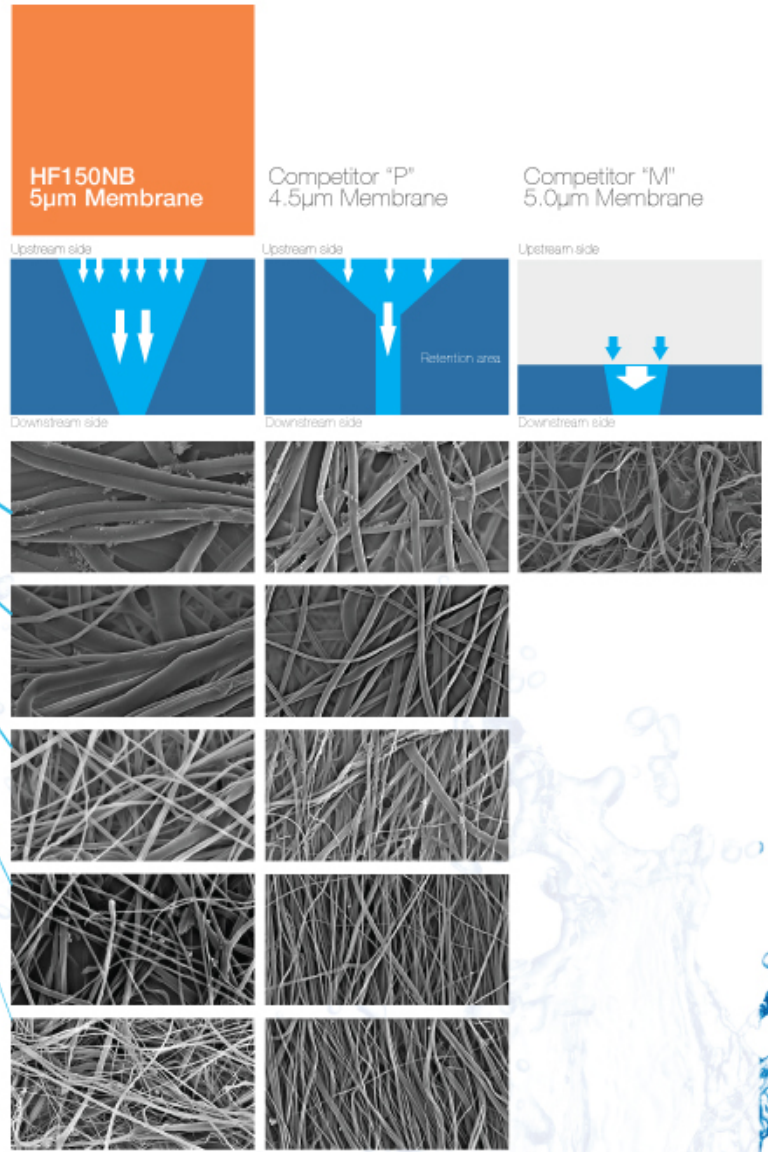
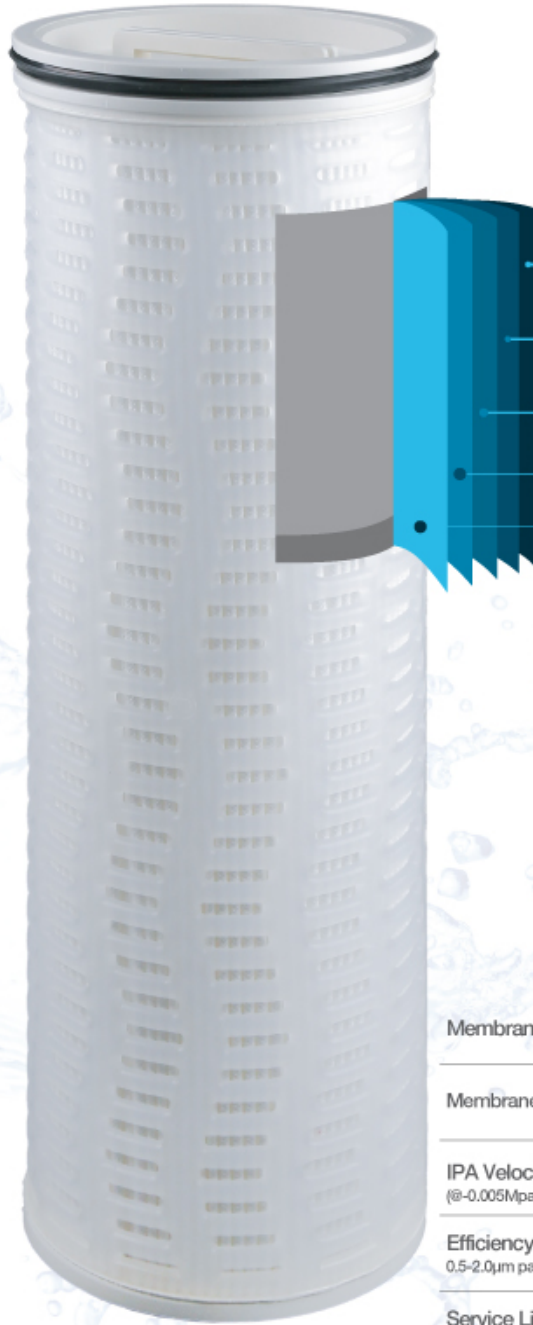
Flow Rate Characteristics



Test Criteria: Single filter (60inch length)cartridge, water at 20°C.



Performance Comparison Table I



Membrane Area-40"	5.6 m ²	5.16 m ²	12 m ²
Membrane Thickness	2.2 mm	2.2 mm	0.8 mm
IPA Velocity Time (@-0.005Mpa/50mlIPA)	11.2 s	12.78 s	5.67 s
Efficiency 0.5-2.0µm particle	99.1%	99.3 %	11.79 %
Service Life (by Hangzhou city water)	325.43 L	272.25 L	164.5 L



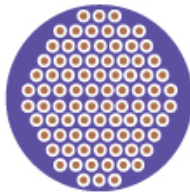
Performance Comparison Table II

Filters Quantities vs Same Filter Capacity

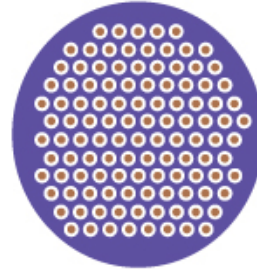
150m³/h



High Flow Filtration System

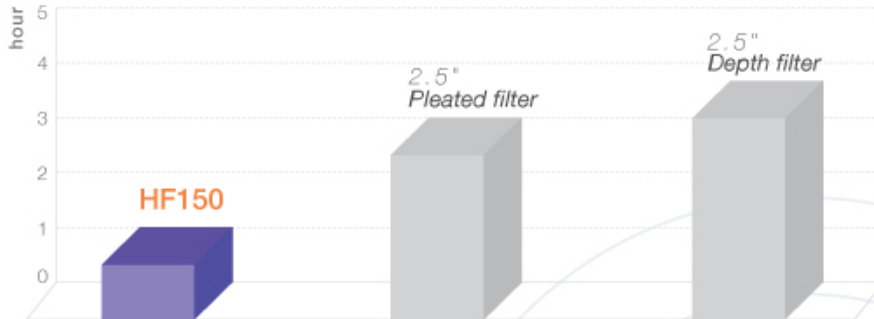


Pleated Cartridge Filtration System



Depth Filter System

Change-Out Time



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



End Cap Configuration

 HF150NB	 HFM150	 DSHF150
 HFPP150	 G1HF150	
 N1HF150	 N2HF150	 N3HF150
 N4HF150	 N5HF150	 JL-150

Ordering Information

	Filter Media	Efficiency Rate		Length	Seal
HFPP150 (PP Cage)	PP GF	0050=0.5µm	1000=10µm	20=20"	S=Silicone
		0080=0.8µm	1500=15µm	40=40"	E=EPDM
HF150NB (PET Net)		0100=1.0µm	2000=20µm	60=60"	V=Viton
HFM150		0200=2.0µm	4000=40µm		
DSHF150		0300=3.0µm	7000=70µm		
G1HF150		0500=5.0µm	9000=90µm		
N1HF150					
N2HF150					
N3HF150					
N4HF150					
N5HF150					
JL-150					

H-HF150 Series High Flow Rate Industrial Filter Housing

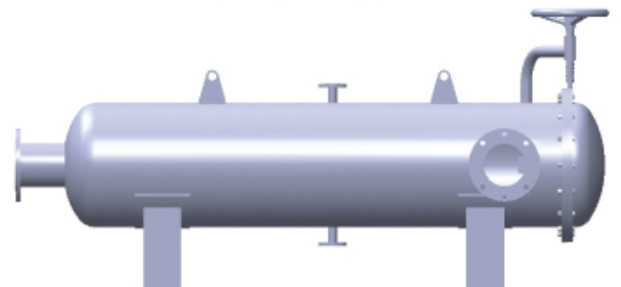
Large High Flow Rate Filter Housing

Cobetter H-HF150 Series Industrial Filter Housing designed for use with HF150 Series Filter Cartridges mainly used for large fluid (liquid/water) flow rate applications, especially in water treatment. Especially designed for large flow rates, this filter housing requires a small area for installation and is cost efficient and easy to operate when compared to traditional filter housings.

It is available in 304 or 316L stainless steel, which ensures strong corrosion resistance for a wide range of applications.



In addition, it is available in a horizontal or vertical configuration. A vertical configuration is normally composed of 10-round 40" filters. For large flow rates of over 1000m³/h, we recommend a horizontal configuration with 60" HF150 filter cartridges as it satisfies large flow rate applications and is relatively easy to change.



Surface Finish

Polish Type	Mirror Finish; Internal Mirror Finish Outer sand Blast
Surface Option	Internal Ra: 0.6µm; External Ra: 0.8µm

Operating Conditions

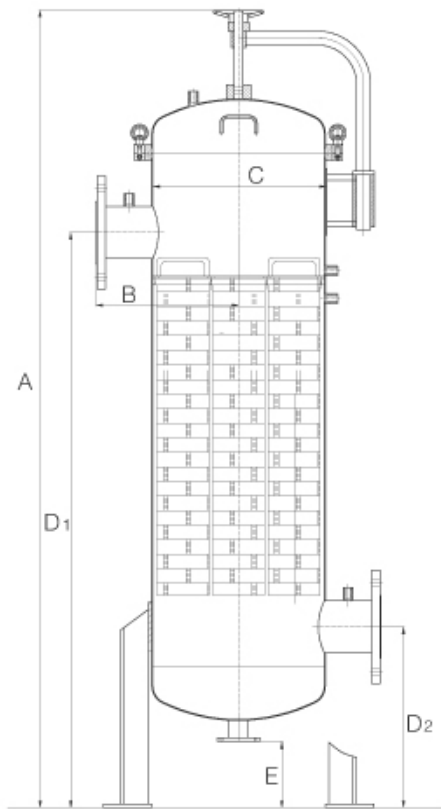
Max. Operating Pressure	0.6Mpa(6bar) / 1.0Mpa(10bar)
Max. Operating Temperature	135°C (266°F)

Material of Construction

Housing Body	304;316L
Vent / Drain	304;316L
Screw Bolt	304
Leg	304
O-ring / Gaskets	Silicon, Viton, EPDM

Connection

Body Connection	Swing Bolt / C-Clamp
Inlet / Outlet	Flange
Vent	G1/2"
Drain	G1"
Pressure Gauge	M14*1.5



Drawings & Dimensions

	1round		3round		4round	
	40"	60"	40"	60"	40"	60"
A	1555	2055	2170	2670	2200	2700
B	250	250	380	380	400	400
C	219	219	400	400	450	450
D ₁	1355	1855	1855	2155	2175	2675
D ₂	335	335	405	405	420	420
E	150	150	150	150	200	200

	5round		6round		7round	
	40"	60"	40"	60"	40"	60"
A	2580	3080	2800	3100	2800	3100
B	410	410	455	455	455	455
C	550	550	550	550	550	550
D ₁	1840	2340	1860	2360	1860	2360
D ₂	550	550	570	570	570	570
E	200	200	200	200	200	200

Ordering Information

	Number of Filters	Filter Length	Material	End Cap	Housing Connection	Inlet / Outlet	Sealing Material	Design Pressure	Surface Finish	Configuration
H-HF150	3	10	F	H	D	F80	S	X	A	V
	01 1 round	20 20 inch	F 304	H HF150	D Screw Bolt	F80 Flange DN80 (1-round)	S Silicone	X 0.6MPa	A Mirror Polish	V Vertical
	02 2 round	30 30 inch	S 316L		C C-Clamp	F125 Flange DN125 (2-3-round)	E EPDM	Y 1.0MPa	C Internal Mirror Finish Outer Sand Blast	H Horizontal
	03 3 round	40 40 inch				F150 Flange DN150 (4-round)	V Viton			
	04 4 round	60 60 inch				F200 Flange DN200 (5-6-round)				
	05 5 round					F250 Flange DN250 (7-round)				
	06 6 round					F250 Flange DN250 (8-round)				
	07 7 round					F250 Flange DN250 (9-round)				

H-FRP Housing

High Anti-Corrosive Performance
 Economical Design

Cobetter H-FRP Filter Housing designed for use with Cobetter HF-150 High Flow Filter. Since it is a separate unit, it can easily be connected and used in conjunction with a reverse osmosis system. Due to its high anti-corrosive ability and high-strength glass fiber reinforced plastic (FRP), this housing is suitable for use in seawater desalination.

Features and Benefits

- Modular Design - provides easy connection and disassembly
- Attractive Appearance
- Valve on Branch Tube Allows for Filter Change-out – system remains running
- Available in Horizontal or Vertical Design

Filter Cartridge Specifications

Number of Filter	1
Filter Length	1028mm/1540mm
Filter Diameter	152mm
Flow Direction	From Inside to Outside
Design Flow Rate	35m ³ /h

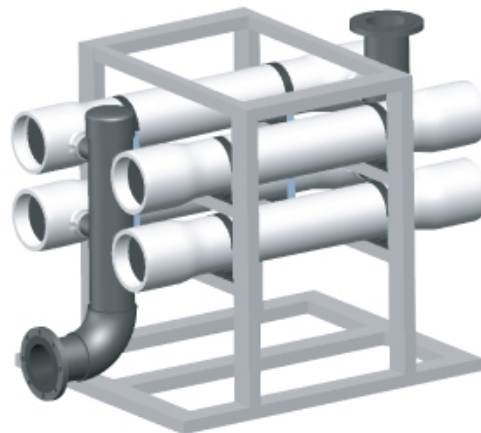
Operating Conditions

Operating Pressure	0.6Mpa / 1.0Mpa
Operating Temperature	-10 ~ 65°C

Material of Construction

Housing Material	FRP
Inlet	FRP
Saddle	Rubber
Support Strap	Stainless Steel & Rubber & Brass
Strap Bolt	Stainless Steel
Seal Material	EPDM / Silicon/Viton

Remark. The system will be custom designed and manufactured per customer site conditions if flow rate exceeds 300m³/h.



Ordering Information

	Number of Filters	Filter Length	Material	Filter Type	Inlet / Outlet	Sealing Material	Design Pressure
H-FRP150	1	60	F	H	C80	S	X
	01 1 round	20 20 inch 40 40 inch 60 60 inch	F FRP	H HF150	C65 Coupling DN65 C80 Coupling DN80 C100 Coupling DN100	S Silicone E EPDM V Viton	X 0.6MPa Y 1.0MPa Z Customize



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