

# GRECLARY® CHV FILTERS

## DURABLE, HIGH DIRT HOLDING CAPACITY

The Greclary® CHV Filter Series with its super-fine glass fiber media provides high contamination holding capacity and retention efficiency, ideal for pre-clarification of cell culture medium, clarification, filtration of blood products, and colloids/viscous liquids.

The Greclary CHV Filter Series provide low initial pressure drop, high flow rates, and long service life.

FEATURE	BENEFIT
<b>Glass Fiber filtration media</b>	High contaminant holding capacity and longer lifetime
	Low initial pressure
<b>Multiple configurations</b>	Allows for efficient use of the filtration area, minimizing wasted filtration.
<b>BIOLOGICAL SAFETY</b>	
<b>Endotoxins</b>	<0.25 EU/ml
<b>Bio-compatibility</b>	Meet the requirement of USP<87> In Vitro Cytotoxicity Test; Meet the criteria of the USP<88> Biological Reactivity Test for Class VI-121C plastics
<b>Particle Shedding</b>	Autoclaved filter effluent meets the requirements in USP <788> for large volume parenterals.
<b>Non-fiber Releasing</b>	Component materials meet the criteria for a "Non-fiber-releasing filter" as defined in 21 CFR 210.3(b) (6).
<b>Indirect Food Additive</b>	All component materials meet the FDA Indirect Food Additive requirements cited in 21 CFR 177-182.
<b>Quality Assurance</b>	These products are manufactured in a facility which adheres to ISO® 9001 Practices.

## SPECIFICATIONS

<b>Filter media</b>	Glass Microfiber
<b>Core/Cage/End Cap</b>	Polypropylene
<b>Capsule Shell</b>	Polypropylene
<b>O-ring (cartridge only)</b>	Silicone/EPDM/FKM/PTFE
<b>O-ring, Capsule Vent</b>	Silicone
<b>Max. Operating temperature</b>	80°C



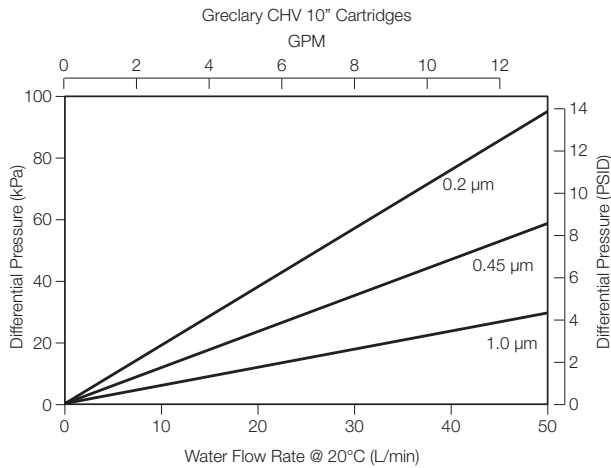
## APPLICATIONS

- Pre-filtration of Cell Culture Medium
- Clarification of Fermentation Broth/Cell Cultures
- Filtration of Blood Products/Serums
- Filtration of Colloids/Viscous Liquids
- Filtration of Blood and Blood Products

## FILTRATION AREA

Bricap C	Bricap L	Bricap T	Cartridge	Mini Cartridges	
C01: 80 cm <sup>2</sup>	L03: 0.07 m <sup>2</sup>	T10: 0.24 m <sup>2</sup>	5": 0.12 m <sup>2</sup> (1.2 ft <sup>2</sup> )	MK070: 108 cm <sup>2</sup>	MP134: 1904 cm <sup>2</sup>
C02: 200 cm <sup>2</sup>	L05: 0.12 m <sup>2</sup>	T20: 0.48 m <sup>2</sup>	10": 0.28 m <sup>2</sup> (3 ft <sup>2</sup> )	MK084: 1243 cm <sup>2</sup>	MH070: 799 cm <sup>2</sup>
C03: 300 cm <sup>2</sup>	L10: 0.24 m <sup>2</sup>	T30: 0.72 m <sup>2</sup>	20": 0.56 m <sup>2</sup> (6 ft <sup>2</sup> )	MK135: 2074 cm <sup>2</sup>	MH142: 2023 cm <sup>2</sup>
	L20: 0.48 m <sup>2</sup>		30": 0.84 m <sup>2</sup> (9 ft <sup>2</sup> )	MD135: 2023 cm <sup>2</sup>	MC127:
	L30: 0.72 m <sup>2</sup>		40": 1.12 m <sup>2</sup> (12 ft <sup>2</sup> )	MF120:	MCO69:
				MP085: 1057 cm <sup>2</sup>	

## FLOW CURVES (10" CARTRIDGE)



## RETENTION RATES

### Retention Rates of Each Particle Size (%)

Filter Type	1.0 µm	3.0 µm	5.0 µm	10 µm	20 µm
CHV 0.2 µm	≥ 99.99	≥ 99.99	≥ 99.99	≥ 99.99	≥ 99.99
CHV 0.45 µm	≥ 99.92	≥ 99.98	≥ 99.99	≥ 99.99	≥ 99.99
CHV 1.0 µm	≥ 99.00	≥ 99.20	≥ 99.90	≥ 99.99	≥ 99.99

## MAX OPERATING PRESSURE (CARTRIDGE)

0.69 MPa (6.9 bar, 100 psi) at 25°C  
 0.40 MPa (4.0 bar, 58 psi) at 60°C  
 0.24 MPa (2.4 bar, 35 psi) at 80°C






## MAX DIFFERENTIAL PRESSURE (CARTRIDGE)

Forward: 0.69 MPa (6.9 bar, 100 psi) at 25°C  
 0.40 MPa (4.0 bar, 58 psi) at 60°C  
 0.24 MPa (2.4 bar, 35 psi) at 80°C

Reverse: 0.30 MPa (3.0 bar, 44 psi) at 25°C  
 0.10 MPa (1.0 bar, 14.5 psi) at 80°C

## CARTRIDGE ORDERING INFORMATION

EXAMPLE: **ACHV10107S1P** 1.0 µm, 10", 226 o-ring/fin, silicone o-ring

<b>A</b>  <b>Removal Rating</b> CHV02 = 0.2 µm CHV04 = 0.45 µm CHV08 = 0.8 µm CHV10 = 1.0 µm CHV30 = 3.0 µm CHV50 = 5.0 µm	 <b>Nominal Length</b> 05 = 5" 10 = 10" 20 = 20" 30 = 30" 40 = 40"	 <b>Connection</b> 0 = Double Open End, Flat Gasket 2 = 226 O-ring/Flat (PBT Insert) 7 = 226 O-ring/Fin (PBT Insert) 3 = 222 O-ring/Flat (PBT Insert) 8 = 222 O-ring/Fin (PBT Insert)	 <b>Seal Material</b> S = Silicone E = EPDM V = FKM P = E-FKM (FEP/PFA encapsulated FKM)	 <b>Application</b> P = Pharmaceutical
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## Sterilization

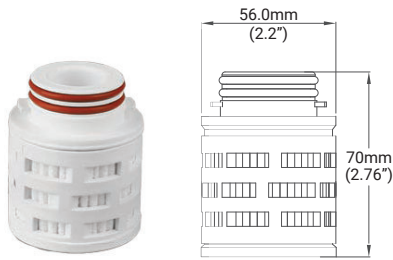
Can be steam sterilized 20 cycles for 30 minutes at 121°C at < 0.3 bar (5 psi)

## TOC/Conductivity at 25°C

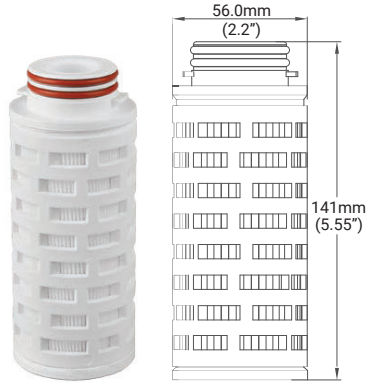
Autoclaved filter effluent meets the USP <643> for Total Organic Carbon and UPS <645> for Water Conductivity per WFI requirements after a UPW flush of 60L.



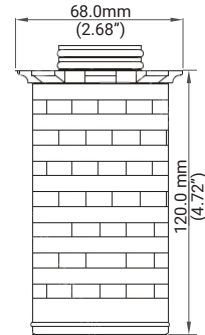
**DIMENSIONS**



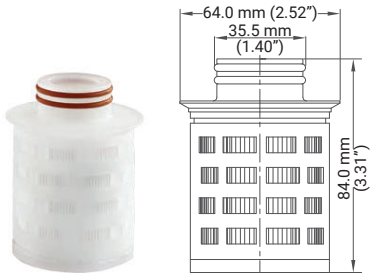
**MH070**  
126 o-ring w/locking tab



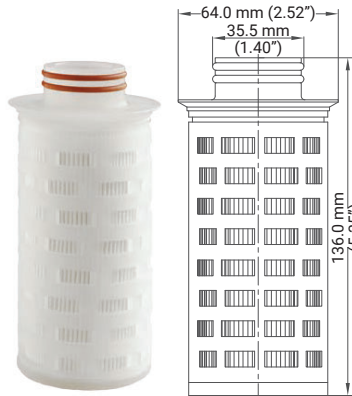
**MH142**  
126 o-ring w/locking tab



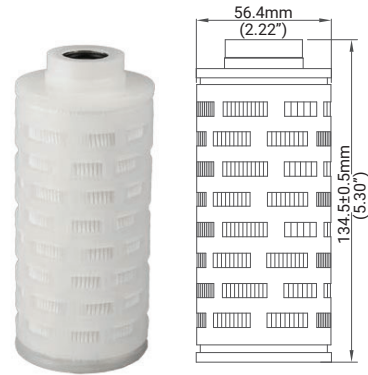
**MF120**  
123 o-ring w/ hold down clip



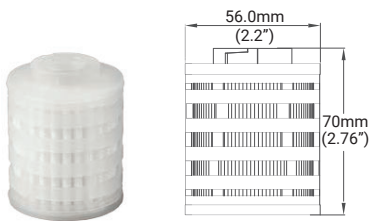
**MP085**  
123 o-ring w/ hold down clip



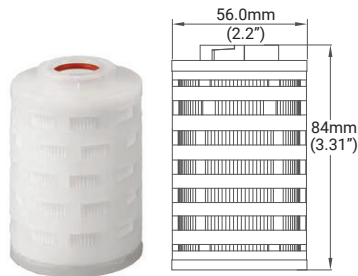
**MP134**  
123 o-ring w/ hold down clip



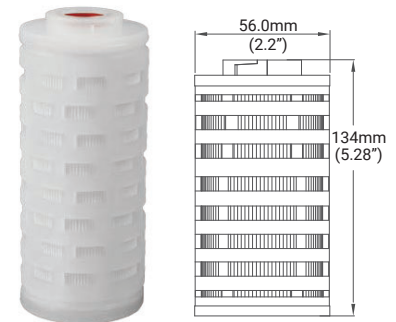
**MD135**  
116 internal o-ring



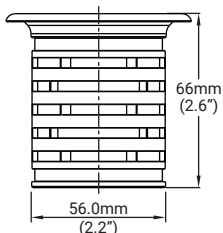
**MK070**  
116 internal o-ring w/locking grooves



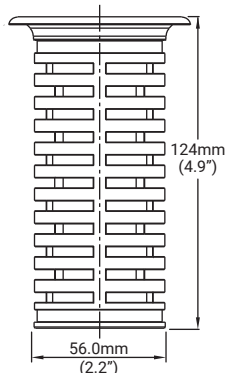
**MK084**  
116 internal o-ring w/locking grooves



**MK135**  
116 internal o-ring w/locking grooves



**MC069**  
Flanged End



**MC127**  
Flanged End

## GRECLARY GLASS FIBER SERIES - MINI CARTRIDGE ORDERING INFORMATION

EXAMPLE: **MH070CHV02S1P** = Mini cartridge, 126 o-ring w/ locking tab, 0.2 µm, silicone o-rings, Qty 1 per box, for pharmaceutical applications



### Filter Code (see drawings)

*Internal 116 O-ring w/locking groove:*

**MK070** = 70mm (2.76")

**MK084** = 84mm (3.31")

**MK135** = 134mm (5.28")

*Internal 116 O-ring:*

**MD135** = 134.5mm (5.3")

*123 O-ring w/hold down lip:*

**MF120** = 120mm (4.72")

**MP085** = 84mm (3.31")

**MP134** = 136mm (5.35")

*126 O-ring w/locking tab:*

**MH070** = 70mm (2.76")

**MH142** = 141mm (5.5")

*Flanged End:*

**MC127** = 124 mm (4.88")

**MC069** = 66 mm (2.6")



### Media

**CHV02** = 0.2 µm

**CHV04** = 0.45 µm

**CHV08** = 0.8 µm

**CHV10** = 1.0 µm

**CHV30** = 3.0 µm

**CHV50** = 5.0 µm



### Seal Material

**S** = Silicone

**V** = FKM

**P** = E-FKM (FEPFA encapsulated FKM)

**N** = No seal



### Box Quantity

**1** = 1 per box

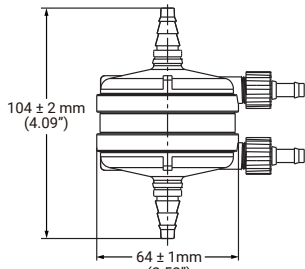


### Application

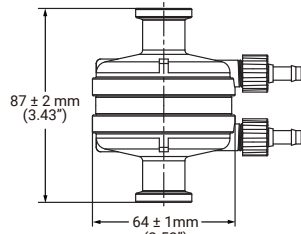
**P** = Pharmaceutical

## DIMENSIONS

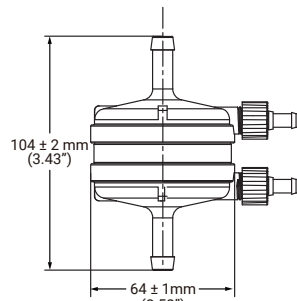
### Bricap C01



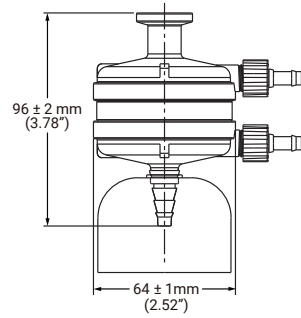
**C01BB**



**C01TT**

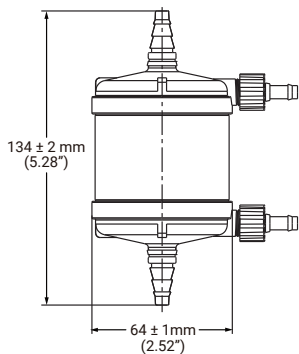


**C01YY**

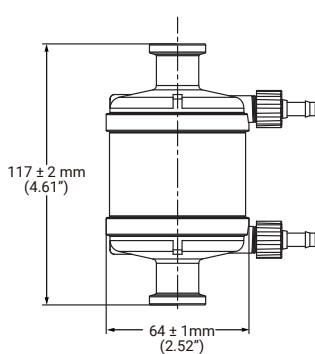


**C01TA**

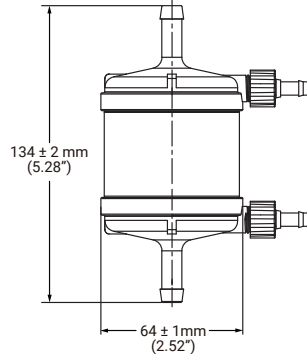
### Bricap C02



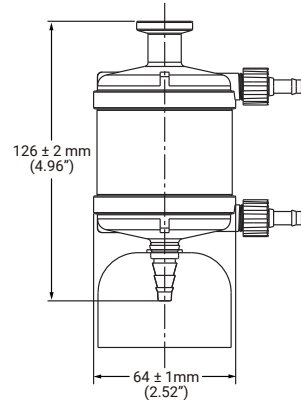
**C02BB**



**C02TT**

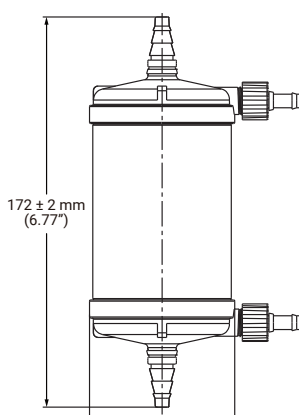


**C02YY**

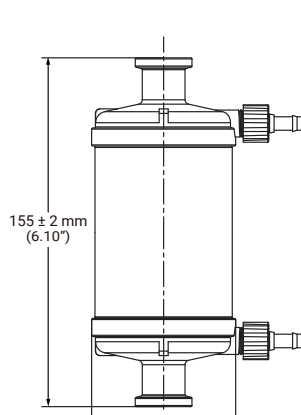


**C02TA**

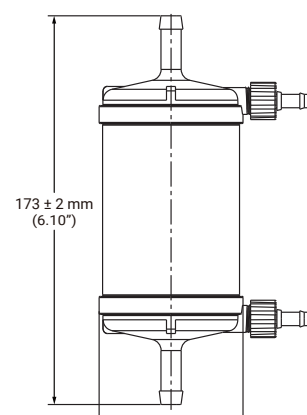
### Bricap C03



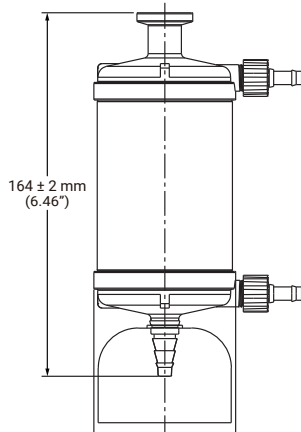
**C03BB**



**C03TT**



**C03YY**

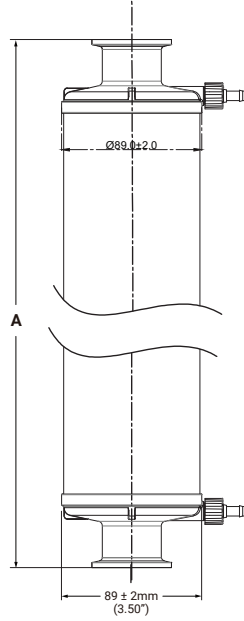
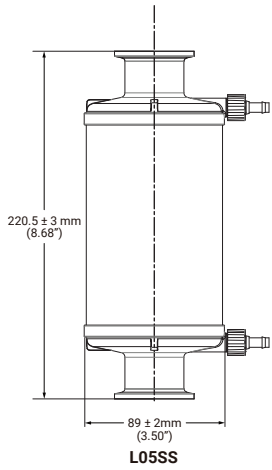
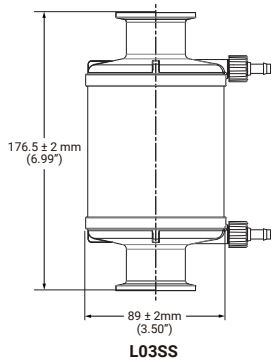


**C03TA**

### Max. Differential Pressure Capsules

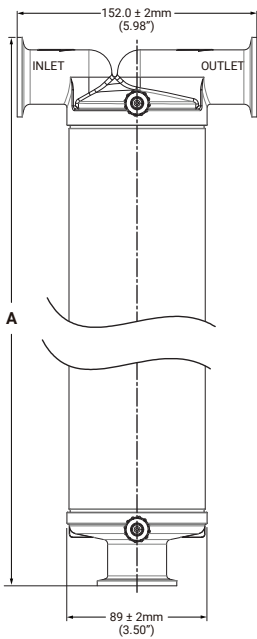
0.55 MPa (5.5 bar, 80 psi) at 25°C  
0.1 MPa (1.0 bar, 14.5 psi) at 80°C

## DIMENSIONS - BICAP L



**L10SS "A"** =  $338.5 \pm 2 \text{ mm}$  (13.31")  
**L20SS "A"** =  $575.5 \pm 3 \text{ mm}$  (22.66")  
**L30SS "A"** =  $828.0 \pm 3 \text{ mm}$  (32.60")






## DIMENSIONS - BICAP T



**T10SS "A"** =  $348.0 \pm 2 \text{ mm}$  (13.70")  
**T20SS "A"** =  $586.0 \pm 3 \text{ mm}$  (23.07")  
**T30SS "A"** =  $839.0 \pm 3 \text{ mm}$  (33.03")






## BRICAP C/D SMALL CAPSULE FILTERS - ORDERING INFORMATION

EXAMPLE: **C01TTCHV02A1P** = Bricap C01, 3/4" Tri-Clamp I/O, 0.2 µm, autoclavable

					<b>1P</b>
<b>Capsule Formats</b>	<b>Inlet</b>	<b>Outlet</b>	<b>Removal Rating</b>	<b>Sterilization</b>	
C01 = Bricap C01	K = 1/2" (14 mm) Sanitary Tri-clamp		CHV02 = 0.2 µm	A = Autoclavable	
C02 = Bricap C02	T = 3/4" (19 mm) Sanitary Tri-clamp		CHV04 = 0.45 µm		
C03 = Bricap C03	F = 1.5" (31 mm) Sanitary Tri-clamp		CHV08 = 0.8 µm		
	A = 1/4" - 1/2" (6-13 mm) Multiple Stepped Hose Barb with Filling Bell (liquids only, outlet)		CHV10 = 1.0 µm		
	B = 1/4" - 1/2" (6-13 mm) Multiple Stepped Hose Barb		CHV30 = 3.0 µm		
	L = 1/8" (3.2 mm) Hose Barb		CHV50 = 5.0 µm		
	Y = 3/8" (9.6 mm) Hose Barb				
	H = 1/2" (13 mm) Hose Barb				
	V = 9/16" (14 mm) Hose Barb				







## BRICAP L INLINE CAPSULE FILTERS - ORDERING INFORMATION

EXAMPLE: **L01SSSCHV02A1P** = Inline Bricap, 10", 1.5" Tri-Clamp I/O, 0.2 µm, autoclavable

					<b>1P</b>
<b>Capsule Formats</b>	<b>Inlet</b>	<b>Outlet</b>	<b>Removal Rating</b>	<b>Sterilization</b>	
L03 = Bricap L03	K = 1/2" (14 mm) Sanitary Tri-clamp		CHV02 = 0.2 µm	A = Autoclavable	
L05 = Bricap L05	S = 1.5" (38 mm) Sanitary Tri-clamp		CHV04 = 0.45 µm		
L10 = Bricap L10	T = 3/4" (19 mm) Sanitary Tri-clamp		CHV08 = 0.8 µm		
L20 = Bricap L20	Y = 3/8" (9.6 mm) Hose Barb		CHV10 = 1.0 µm		
L30 = Bricap L30	H = 1/2" (13 mm) Hose Barb		CHV30 = 3.0 µm		
	V = 9/16" (14 mm) Hose Barb		CHV50 = 5.0 µm		
	X = 5/8" (16 mm) Hose Barb				
	M = 3/4" (19 mm) Hose Barb				
	D = 1" (25 mm) Hose Barb				

## BRICAP T CAPSULE FILTERS - ORDERING INFORMATION

EXAMPLE: **T10SSSCHV02A1P** = T-line Bricap, 10", 1.5" Tri-Clamp I/O, 0.2 µm, autoclavable

						<b>1P</b>
<b>Capsule Formats</b>	<b>Inlet</b>	<b>Outlet</b>	<b>Gauge Port</b>	<b>Removal Rating</b>	<b>Sterilization</b>	
T10 = Bricap T10	S = 1.5" (38 mm) Sanitary Tri-clamp	S = 1.5" (38 mm) Sanitary Tri-clamp	S = 1.5" Sanitary Tri-clamp on bowl	CHV02 = 0.2 µm	A = Autoclavable	
T20 = Bricap T20	M = 3/4" Hose Barb	M = 3/4" Hose Barb	T = 3/4" (19 mm) Sanitary Tri-clamp on bowl	CHV04 = 0.45 µm		
T30 = Bricap T30			N = without	CHV08 = 0.8 µm		
				CHV10 = 1.0 µm		
				CHV30 = 3.0 µm		
				CHV50 = 5.0 µm		



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