

Claricap M02 Depth Filter Capsule



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The Cobetter Claricap M02 depth filter capsule is composed of high-purity cellulose fibers and inorganic filter aids through a special process. Its internal interwoven three-dimensional structure makes it a depth filtration medium, providing excellent filtration efficiency and high contaminant-holding capacity.

The production of the depth filter capsule utilizes advanced and highly automated manufacturing processes. All raw materials undergo rigorous quality control inspections to ensure consistent product quality and filtration performance.

Excellent Retention Efficiency

The cellulose fibers within the Claricap M02 series filter media are interwoven to form a dense three-dimensional structure. As the depth increases, the pore size gradually decreases, creating a gradient structure. This design reduces the flow rate of solid particles during filtration, ultimately capturing them.

Diatomaceous earth, used as an inorganic filter aid, has a naturally porous structure that enhances the particle adsorption capability of the filter Capsule and increases its permeability.

Additionally, the filter Capsule contains a small amount of special synthetic resin, which not only improves the wet strength of the filter but also imparts a charge, enabling effective adsorption.

Excellent Characteristics

The filter components use high-purity bleached cellulose, significantly reducing the levels of ionic extractables and endotoxins, making the Claricap M02 series more suitable for use in high-purity fields such as biopharmaceuticals.

Its internal three-dimensional cellulose structure and the porous nature of diatomaceous earth provide it with an exceptionally high contaminant-holding capacity.

Product Characteristics

- Linear scale-up design (area, flow path, dead volume)
- Single-use design eliminates CIP and cleaning validation costs
- Modular design allows flexible use of the area, capable of handling scales from 0.5 to more than 10,000 liters
- Resistant to autoclave sterilization:
Lab and pilot-scale specifications withstand 2 cycles of 123°C for 60 minutes
Production scale withstands 1 cycle of 123°C for 60 minutes
- Capable of fully recovering target products, improving yield
- Flexible selection of filter media for different applications or feed solutions
- Reliable performance and robust structure ensure process safety
- Resistant to reverse filtration (backwash, reverse waste discharge, and abnormal backwash pressure up to 2.1 bar)
- Compatible with Cobetter and common market holders



Applications

- Clarification filtration of fermentation broth and cell culture fluids
- Filtration of serum and blood products
- Filtration of enzyme preparations
- Impurity removal and decolorization filtration in traditional pharmaceuticals
- Filtration of colloidal or viscous liquid

Product Parameters



Area	23 cm ²	270 cm ² 540 cm ²	0.11 m ² 0.55 m ² 0.77 m ² 1.1 m ² 1.4 m ²
Number of Layers	Single-layer Double-layer	Single / Double-layer	Single / Double-layer Double-layer Single-layer Double-layer Single-layer

Material Composition

Filter Membrane Material	Diatomaceous earth, cellulose, synthetic resin		
Housing Material	Glass fiber-reinforced polypropylene		
Accessory Material	Polypropylene	Polypropylene	Glass fiber-reinforced polypropylene
Sealing Material	/	/	Silicone
Connector Type	Luer Lock	6mm Hose Barb Connector	Flat Seal (Capsule) + 1.5" Sanitary Flange (Adapter)

Size

Length	2.8 cm 2.8 cm	In progress	62 cm
high	7.1 cm 7.1 cm	In progress	32 cm
Thickness	2.8 cm 3.3 cm	In progress	3.0 cm 7.1 cm In progress 12.2 cm In progress
Max. Operating Pressure	50psi (3.5bar) @≤40°C	In progress	50psi (3.5bar) @25°C ; 15psi (1.0bar) @80°C
Max. Operating Differential Pressure			
Forward Differential Pressure	30psi (2.1bar) @40°C	In progress	30psi (2.1bar) @25°C ; 15psi (1.0bar) @80°C
Reverse Differential Pressure	15psi (1.0bar) @40°C	In progress	30psi (2.1bar) @25°C
Sterilization	2 autoclave cycles of 60 minutes at 123°C	In progress	1 autoclave cycle of 60 minutes at 123°C

Biological Safety	All components comply with USP<87> and USP<88> Class VI requirements.		
Indirect Food Additives	All components comply with FDA 21 CFR requirements.		
Bacterial Endotoxins	Bacterial endotoxin level < 0.25 EU/mL (LAL)		

Ordering information

Claricap M02 Double-Layer Depth Filter Capsule (Production Scale)

M	D						
Filter Capsule	Layers	Pore size	Process Type	Area	Connection Type	Package	Industry
M Claricap M02	D Double-layer	4070 4.0~18.0 μm HOHP 0.02~0.2 μm H2HP 0.01~0.2 μm S840 0.1~9.0 μm S870 0.1~18.0 μm	PC Positive Charge	01 0.11 m ² 05 0.55 m ² 11 1.1 m ²	T 50mm TC	1 1pc/pack 2 2pc/pack (Only for 0.11m ²)	P Pharmaceutical



Accessories Part Number

Adapter Assembly Product Name: Claricap M02 Adapter Assembly
Product Part Number: M02ADAPTORKIT

Separator Assembly Product Name: Claricap M02 Separator Assembly
Product Part Number: M02SEPARATORKIT

* The assembly includes 3 adapters + 3 end caps per package

Claricap M02 Double-Layer Depth Filter Capsule (Pilot Scale)

M	D						
Filter Capsule	Layers	Pore size	Process Type	Area	Connection Type	Package	Industry
M Claricap M02	D Double-layer	4070 4.0~18.0 μm HOHP 0.02~0.2 μm H2HP 0.01~0.2 μm S840 0.1~9.0 μm S870 0.1~18.0 μm	PC Positive Charge	27 270 cm ² 54 540 cm ²	B 6mm Hose Barb	1 1pc/pack	P Pharmaceutical



Claricap M02 Double-Layer Depth Filter Capsule (Lab Scale)

M	D						
Filter Capsule	Layers	Pore size	Process Type	Area	Connection Type	Package	Industry
M Claricap M02	D Double-layer	4070 4.0~18.0 μm HOHP 0.02~0.2 μm H2HP 0.01~0.2 μm S840 0.1~9.0 μm S870 0.1~18.0 μm	PC Positive Charge	23 23 cm ²	L Female Luer	1 1pc/pack 3 3pc/pack	P Pharmaceutical



Note: More models are under development.



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