

Masterfilter LCMK Lenticular Filter Modules

The Masterfilter LCMK lenticular filter modules are made of high-purity cross-weaved lignocellulose and activated carbon powder. The internal porous three-dimensional structure with large internal surface area delivers excellent filtration performance and high dirt holding capacity for depth filtration applications.

The activated carbon powder treated with phosphoric acid or water vapor carries ultra-high specific surface area and is very effective in decolorization and the removal of other contaminants. The cardboard is made of high-purity bleached cellulose, which greatly reduces the extractable metal ions and endotoxins content, making the LCMK series more suitable for use in biopharmaceutical and other high-purity applications. Thanks to its internal cellulose three-dimensional structure and high activated carbon content, the filter has ultra-high dirt holding capacity and decolorization ability.

Applications

- Decolorization of API
- Endotoxin removal
- Filtration of blood products
- Clarification of biochemical products

Features and Benefits

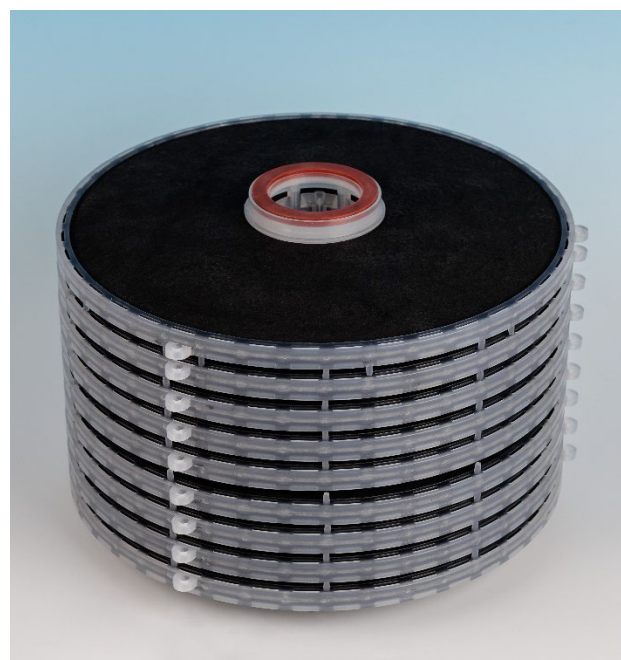
- Excellent retention ability
- Excellent operational performance
- Longer lifetime
- Available diameter: 12 and 16 inches
- Available number of discs: 7 to 16

Materials of Construction

- Filter media: Cellulose with activated carbon powder and ionic wet-strength resin, positive charged
- Core / cage: Polypropylene
- O-rings: Silicone, EPDM, Viton, PTFE

Operating Parameters

- Max. Temperature: 80 °C
- Max. Differential Pressure: 2.4 bar at 80 °C
- Filtration Area 12" diameter: 0.11 m² per disc
- Filtration Area 16" diameter: 0.23 m² per disc
- Flushing Volume before use: 50 l/m²
- Flow rate: 200 to 400 l/min/m²



Biological Standards

- Bacterial Endotoxin: Aqueous extraction of autoclaved filter contains < 0.25 EU/mL as determined by Limulus Amebocyte Lysate (LAL), USP <85>
- Meet the criteria of the USP<88> Biological Reactivity Test for Class VI-121°C plastics

Extractable Metal Ions

Ion	ppb	Ion	ppb
Mg	5.201	Ni	0.334
Al	34.540	Cu	0.770
Ca	63.447	As	0.532
Cr	0.047	Pb	0.040
Fe	27.287		

Filter medium positive charged

Chemical Compatibility

Chemical	Concentration	at 20°C	at 80°C
NaOH	2 %	R	N
HCl	5 %	R	N
HNO ₃	5 %	R	N
H ₂ SO ₄	10 %	R	N
Acetic acid	38 %	R	R
Citric acid	10 %	R	R
Acetic Peracid	0.1 %	R	R
Butanol	80 %	R	R
Ethanol	80 %	R	R

R = recommended, N = not recommended

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Single Layer – Lignocellulose with Activated Carbon Powder



Part Numbers

LCMK	100	-	P	-	DOE	-	12	-	08	-	S
	Rating [µm]		Charge		End caps		Diameter [inch]		No. of Discs		O-Ring
	050 = 0.5-1.0		P = Positive		DOE = Double open end		12		07 = 7 discs		S = Silicone
	100 = 1.0-2.0				HTC = 222 O-ring/flat cap		16		09 = 9 discs		E = EPDM
	200 = 2.0-4.0								10 = 10 discs		V = Viton
									11 = 11 discs		T = PTFE
									12 = 12 discs		
									13 = 13 discs		
									15 = 15 discs		
									16 = 16 discs		

e.g. part number: LCMK100-P-DOE-12-08-S