

## PLEATED POLYPROPYLENE DEPTH COMPACT/CAPSULE CARTRIDGE FILTERS MCP-AM Type / CCP-AM Type



MCP-AM Type / CCP-AM Type

# PLEATED POLYPROPYLENE DEPTH COMPACT/CAPSULE CARTRIDGE FILTERS

This series of Compact/Capsule Cartridge Filters are suitable for filtering gel which are prone to clog our conventional cartridge filters.

## Features

- Decreasing the pore sizes from the outer layer to the inner layer enables to capture gel efficiently.
- The pleated structure with a large filtration area enables to reduce differential pressure significantly compared to conventional depth type cartridge filters.  
In particular, you can expect increasing the filtration velocity in the filtration of viscous liquids with which achieving high filtration velocity can be difficult.
- The thick multiple-layer structure enables to improve particle retention although its filtration area is narrower compared with conventional PP pleated type cartridge filters.

## ORDERING INFORMATION – COMPACT CARTRIDGE FILTERS

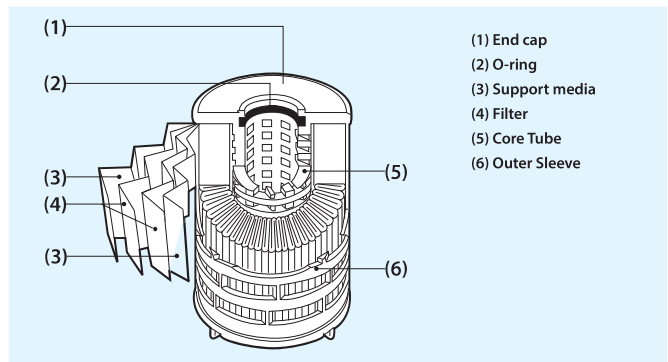
**MCP- [ ] - [ ] 10 [ ]**

Nominal Rating	Length Code	Length (mm)	Code	O-ring Polymer
003AM	C	48	S	Silicone (Standard)
005AM	D	78	V	FPM
010AM	E	145	E	Ethylene propylene
015AM			F	FEP jacket
020AM				

## Major applications

- Filtration of pigment resists, coating liquid, ultrapure water, solvents, chemical agents, electromagnetic slurry, and process gases, etc. in the microelectronics industry
- Filtration of abrasive particles, resins, monomers, catalysts, and various types of gases, etc. in the chemical industry
- Prefilters and final filters for process water, solvents, intermediates, and products, etc. in the pharmaceutical and cosmetics industries
- Filtration of water, syrups, and soft drinks, etc. in the food, beverage, and brewing industries

## MCP-AM Type Composition



- For use in filtration, set this product in the housing (sold separately).
- The layers of #4: 6 layers for MCP-003AM and 010AM, 5 layers for MCP-005AM, and 4 layers for MCP-015AM and 030AM.

## ORDERING INFORMATION – CAPSULE CARTRIDGE FILTERS

**CCP- [ ] - [ ] 1 [ ]**

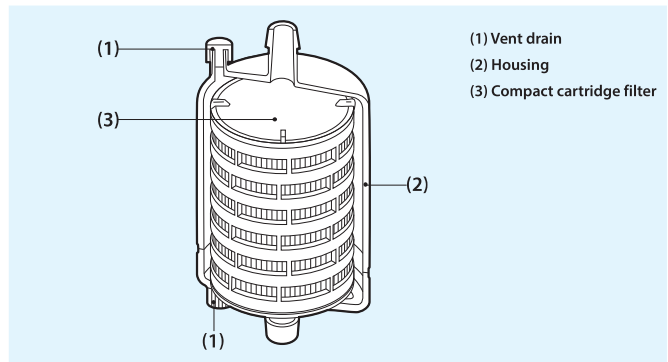
Nominal Rating	Length Code	Length (mm)			
		End Fixture Code B	End Fixture Code D	End Fixture Code H	End Fixture Code N
003AM	C	97	—	102	117
005AM	D	125	130	129	144
010AM	E	196	202	201	216
015AM					
020AM					

End Fixture Code	End Fixtures (Inlet and Outlet)
B	1/4" NPTM
D*	1/2" NPTM
H	3/8" hose barb, 13 mm in outer diameter
N	1.5S Ferrule

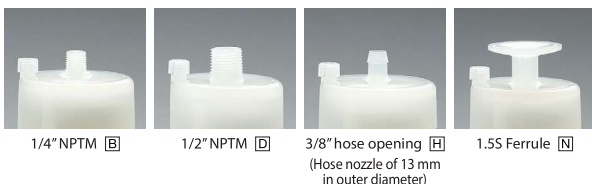
\* CCP- [ ] - C1D type is not available.

## CCP-AM Type Composition



- Cannot be used for gas filtration.
- Wrap the tapered thread for piping with sealing tape before use.

## Inlet and outlet shapes



# PLEATED POLYPROPYLENE DEPTH COMPACT/CAPSULE CARTRIDGE FILTERS

## ■ Specifications: MCP-AM Type Compact Cartridge Filters

Model	MCP-003AM-			MCP-005AM-			MCP-010AM-			MCP-015AM-			MCP-020AM-		
	C10S	D10S	E10S	C10S	D10S	E10S	C10S	D10S	E10S	C10S	D10S	E10S	C10S	D10S	E10S
Filtration area (cm <sup>2</sup> )	330	660	1,320	280	570	1,140	190	390	780	260	520	1,040	310	620	1,250
Nominal Rating (µm)	0.3			0.5			1			1.5			2		
Layers	6			5			6			4					
Maximum Operating Differential Pressure	0.39 MPa (25°C)														
Maximum operating temperature	80°C														
Materials	O-ring: Silicone (Standard), and polypropylene for others														
Dimension (Φ 62 mm x Overall length in mm)	48	78	145	48	78	145	48	78	145	48	78	145	48	78	145

## ■ Specifications: CCP-AM Type Capsule Cartridge Filters

Model	CCP-003AM-			CCP-005AM-			CCP-010AM-			CCP-015AM-			CCP-020AM-		
	C1 □	D1 □	E1 □	C1 □	D1 □	E1 □	C1 □	D1 □	E1 □	C1 □	D1 □	E1 □	C1 □	D1 □	E1 □
Filtration area (cm <sup>2</sup> )	330	660	1,320	280	570	1,140	190	390	780	260	520	1,040	310	620	1,250
Nominal Rating (µm)	0.3			0.5			1			1.5			2		
Layers	6			5			6			4					
Maximum Operating Pressure	0.39 MPa (25°C)														
Maximum operating temperature	60°C														
Material	Polypropylene														
Dimension (Φ 77 mm x Overall length in mm)*	102	129	201	102	129	201	102	129	201	102	129	201	102	129	201

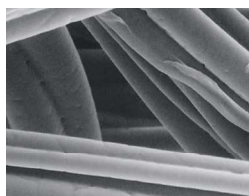
\* The dimensions for the products whose code of inlet and outlet shapes is H.

## ■ Particle Retention (Standard)

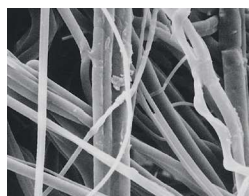
Model	Particle size				
	0.309 µm	0.506 µm	1.081 µm	1.696 µm	2.005 µm
MCP-CCP-003AM	> 99 %				
MCP-CCP-005AM		> 99 %			
MCP-CCP-010AM			> 99 %		
MCP-CCP-015AM				> 99 %	
MCP-CCP-020AM					> 99 %

● The particle retention that can be achieved when water in which latex balls with the above diameters are dispersed is filtered at a rate of 2 L/min. (Type D).

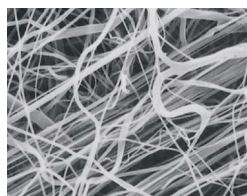
## ■ Surface of the filtering layer (Electron Micrography)



Outer layer



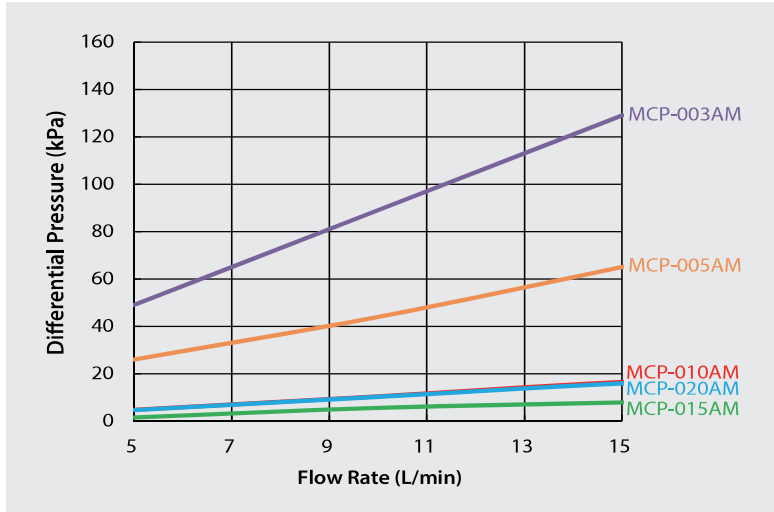
Middle layer



Inner layer

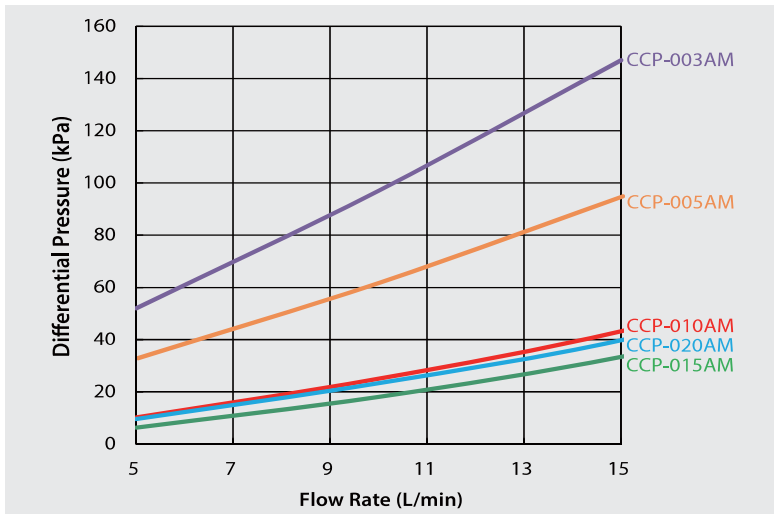
# PLEATED POLYPROPYLENE DEPTH COMPACT/CAPSULE CARTRIDGE FILTERS

## ■ Typical water flow rate for MCP Type



Conditions Sample: MCP-□ AM-D10S Housing: PSF-1000P Water temperature: 25°C

## ■ Typical water flow rate for CCP Type



Conditions Sample: CCP-□ AM-D1B Water temperature: 25°C



■Applicable products  
CCP-003AM・005AM・010AM  
CCP-015AM・020AM

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