

● Fluoropolymer Cartridge Filter TCF Type



TCF - □ - S5MF

Fluoropolymer Cartridge Filter

All fluoropolymer cartridge filter is suitable for filtration of all kinds, such as manufacturing process in the semiconductor industry, liquid crystal and organic synthesis compounds.

Features

- The membrane filters and the hardware are made of fluoropolymer.
- With superior chemical resistance, the all fluoropolymer cartridge filter is compatible with acid, alkali, organic solvents and liquid crystal.
- Fluoropolymer cartridge filter offers heat resistance.
- Cartridge length is 125mm and 250mm with 6 pore sizes range from 0.05 μm to 3.00 μm .

Specifications

	TCF-□-H5M□	TCF-□-S5M□
Pore Size (μm)	0.05、0.10、0.20、0.50、1.00、3.00	
Maximum operating differential pressure (MPa) [※]	0.49 (at 25°C)、0.05 (at 150°C)	
Maximum Operating Temperature (°C) [※]	150	
Filtration Area (cm ²)	2,350	5,000

※The maximum operating differential pressure and temperature were determined using silicon oil or glycerin. The maximum operating differential pressure and temperature are dependent on conditions such as temperature, pressure, and liquid filtered. It is recommended to verify conditions before use.

- PTFE membrane is hydrophobic and not for use with liquids with surface tension $\geq 32\text{mN}$. Prewetting the membrane with isopropyl alcohol or ethyl alcohol will allow filtration of aqueous solutions.
- The plastic cartridge housing can degrade over time. Conditions such as temperature, pressure, and the liquid filtered can all affect the level of degradation. Regular replacement is recommended.



TCF - □ - S5MF

Applications

- Ideal for process manufacturing of organic compounds and resin using solvents such as xylene and toluene.

Ordering Information

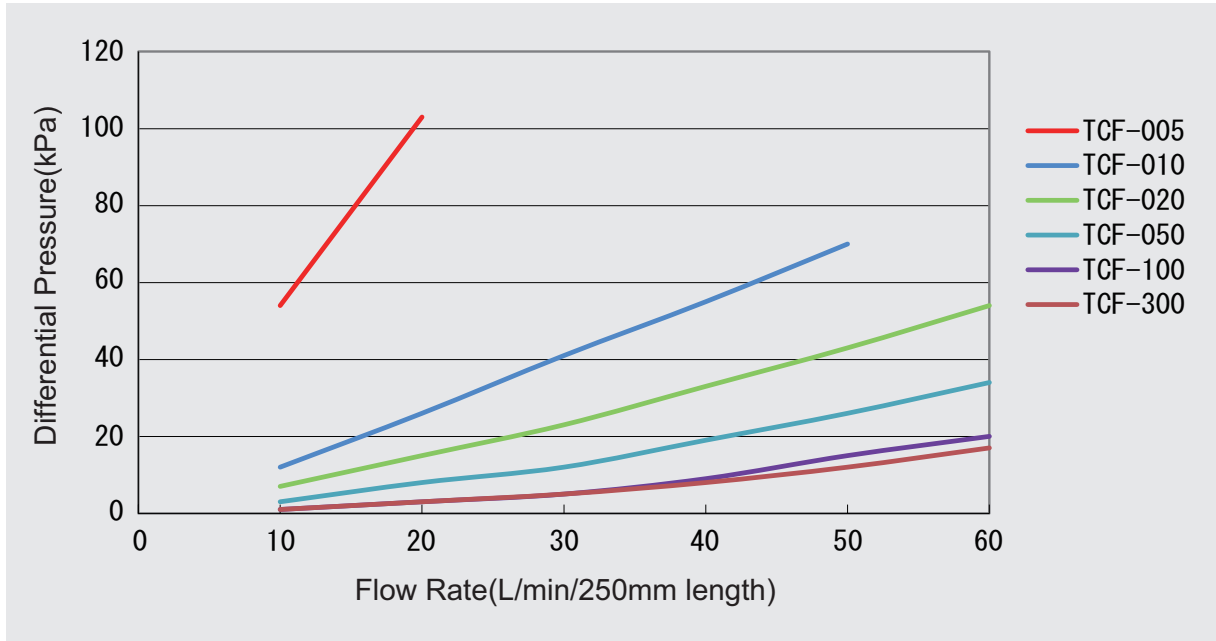
TCF - - 5M

Pore Size Code	Pore Size (μm)	Length Code	Length (mm)
005	0.05	H	125
010	0.10	S	250
020	0.20		
050	0.50		
100	1.00		
300	3.00		

O-ring Code	O-ring Polymer
F	FEP Encapsulated
P	Perfluoroelastomer

Fluoropolymer Cartridge Filter

Typical Water Flow Rate



«Test Conditions»

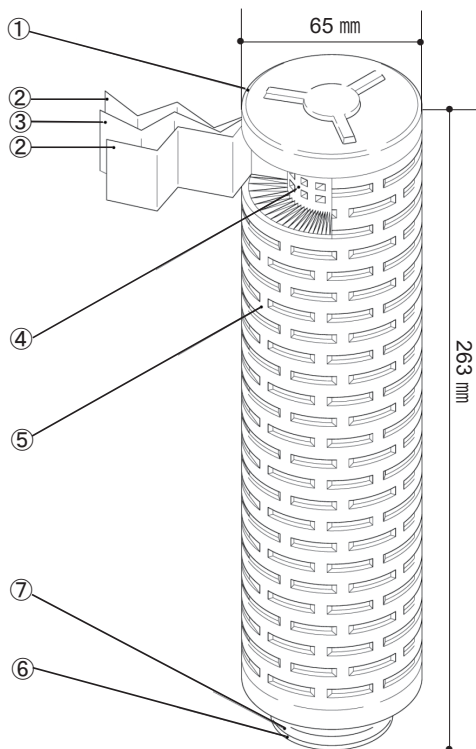
Pipe dia. : 3/4 in.
 Housing : 1TWA-1S-MS
 Water temp. : 20°C

Particle Retention

Model	Particle Size					
	0.05μm	0.10μm	0.20μm	0.50μm	1.00μm	3.00μm
TCF-005	99.92%					
TCF-010		99.94%				
TCF-020			99.99%			
TCF-050				99.99%		
TCF-100					99.99%	
TCF-300						99.98%

• Test Criteria : Single length (250mm) cartridge, flow rate 10L/min

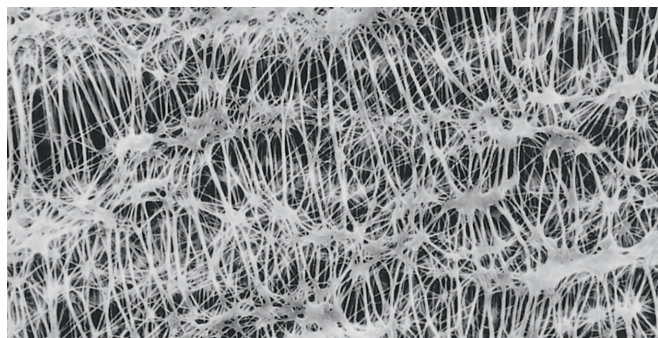
Fluoropolymer Cartridge Filter



Materials

① Blind Cap	: PFA
② Support Media	: PFA
③ Membrane	: PTFE
④ Core Tube	: PFA
⑤ Outer Sleeve	: PFA
⑥ Attachment for 222 O-ring	: PFA
⑦ 222 O-ring	: FEP Encapsulated or Perfluoroelastomer

SEM Image of Filter Surface



0.05 μm , 0.10 μm , 0.20 μm and 0.50 μm cartridge filters are intended for general industrial use.

Not certified in the following applications.

- Manufactured under GMP (Good Manufacturing Practice)
- Medical equipment parts
- Direct contact with food or cosmetics

Recommended for general industrial use only. Not certified for any other applications.

1.0 μm and 3.0 μm retentions support a wide range of applications



Do not incinerate

CAUTION

- Do not incinerate the product.
When you dispose of this product, follow corresponding regulations.

- Specifications listed in this catalog represent values in effect at the time of printing and are subject to change without notice.
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