ADVANTEC®

Fluoropolymer Cartridge Filters
High Flow Rate with a Long Service Life
TCF-L Type

TCF-□L-S5MF

Advantec Toyo Kaisha,Ltd.

Fluoropolymer Cartridge Filters
High Flow Rate with a Long Service Life

High flow rate with a long services life is increased the production efficiency in all industries especially in the semiconductor, industry, liquid crystal, organic EL pigments and organic synthesis compounds.


TCF-☐L-S5MF

Features

- The membrane filters and the hardware are made of fluoropolymer.
- With superior chemical resistance, the all fluoropolymer cartridge filters is compatible with acid, alkali, organic solvents and liquid crystal.
- The filtration area is increased 1.8 times compared to the conventional products.
  The provides higher performance for process applications with it high flow rate and long service life.
- Cartridge length is 125mm and 250mm with 6 pore sizes range from 0.05μm to 3.00μm.

Specifications

	TCF-☐L -H5M☐	TCF-☐L -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℃)、0.05 (at 150℃)	
Maximum Operating Temperature (℃)※	150	
Filtration Area (㎠)	4,160	9,000

※The maximum operating differential pressure and temperature were determined using silicon oil or glycerin. The maximum operating differential pressure and temperature are dependant 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 tention ≥ 32mN. 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.

Applications

- Ideal for aggressive chemicals such as xylene, toluene, THF and hydrofluoric acid.

Ordering Information

TCF - ☐ L - ☐ 5M ☐

Pore Size Code	Pore Size (μm)
005	0.05
010	0.10
020	0.20
050	0.50
100	1.00
300	3.00

Length Code	Length (mm)
H	125
S	250

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

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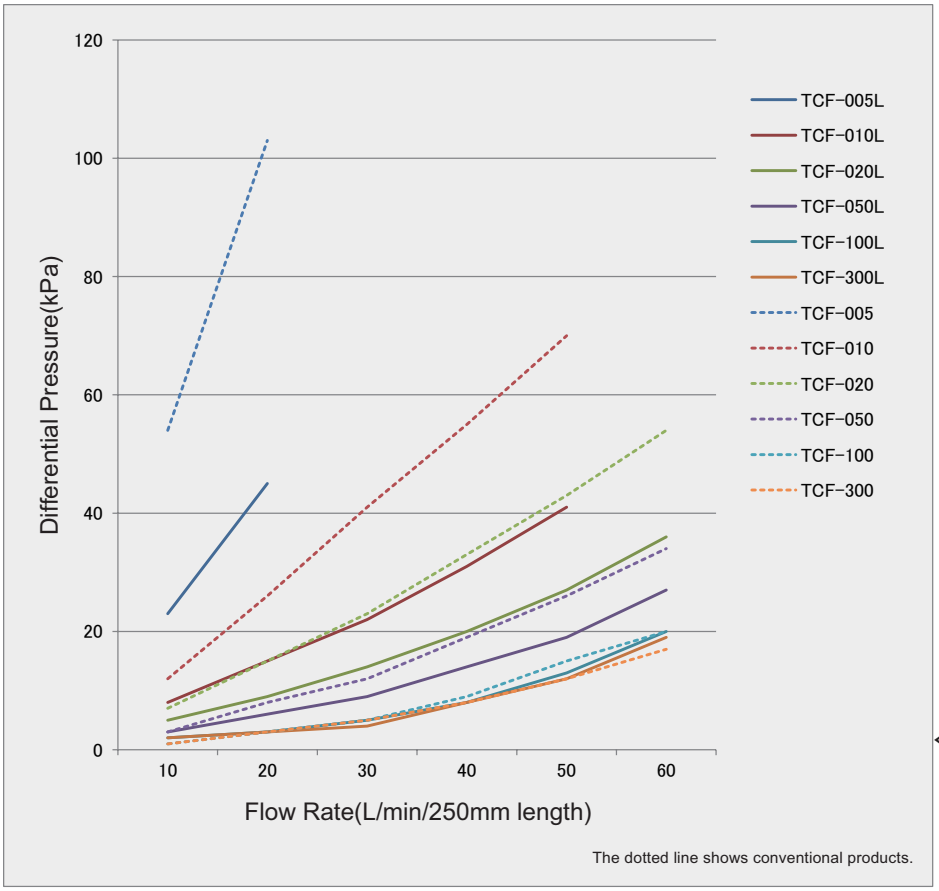
■Typical Water Flow Rate



≪Test Conditions≫
Pipe dia. : 3/4 in.
Housing : 1TWA-1S-MS
Water temp. : 20℃

Pressure drop in a 0.05um pore size is cut in half compared to the conventional one.

■Particle Retention

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

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

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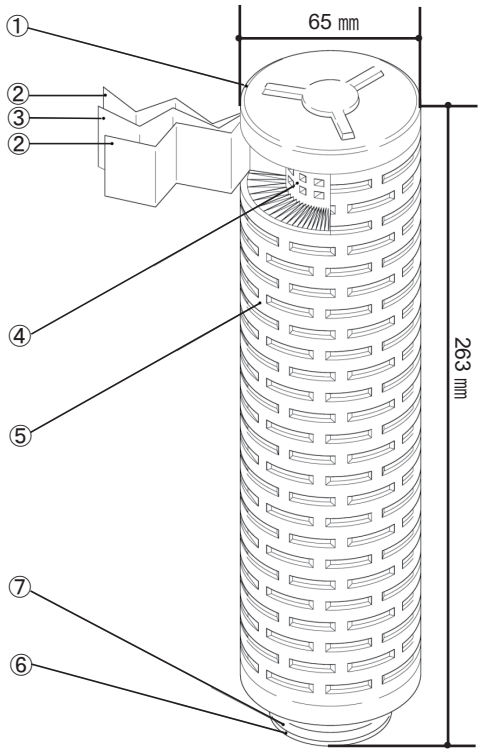
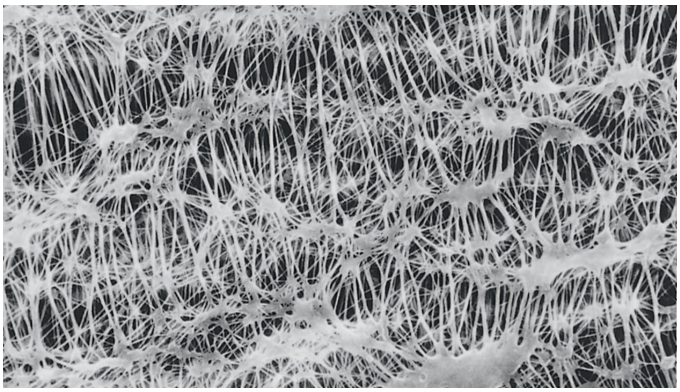


Materials

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

SEM Image of Filter Surface



0.05μm , 0.10μm , 0.20μm and 0.50μm 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.

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

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

Toward the Future of Science
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