

*AstroPore* Fujifilm Micro Filter

# Gas Line Filter

(Large Volume Capacity Type)

PTFE Membrane Type



**For Semiconductor Industry**

# The Large-Capacity Gas Line Filter: Best fitted for the purification of large volumes of gas and for processes use in general gas supply line and gas purifiers.

Our new product, the Large-Capacity Gas Line Filter is capable of purifying gas volumes of more than 500 L/min.

A PTFE membrane filter developed specially for gas cleaning has been adopted.

With best microfiltration performance and secured safety, this filter is line up in a variety of types suitable to different usage purposes.

It exhibits excellent performance in the semiconductor industry, which requires strict quality control, as well as in LCD manufacture, which uses large volumes of gas.

## Specific Features

### 1. Purification of large volume gas

The Large-Capacity Gas Line Filter can be purified a large volume of gas: 500 L/min [normal] or more for an effective membrane area of 0.2 m<sup>2</sup> ~ 1.5 m<sup>2</sup>.

### 2. Profit of variations

Combination of the four effective membrane areas with the five connection sizes makes a total of six kinds of filters available, allowing selection of any size, in accordance with the usage purpose.

## Major Applications

1. Purification of the large volumes gas in the gas purifiers used in the electronics industry.
2. Elimination of fine particles contained in compressed air.
3. Elimination of fine particles contained in inert gas.

## Table of Performance Characteristics

Item		Unit	Performance				Remarks	
Configuration	Filter Element		Cartridge Filter Type					
Object			Various inert gases (He, N <sub>2</sub> , Ar, etc.) and H <sub>2</sub> and Dry Air					
Material	Filter Cartridge	Membrane	PTFE					
		O-ring	Fluororesin* Coated Viton				*FEP	
		Other Parts	Polypropylene					
	Housing	SUS316L (Electropolished Inner Surface)						
Effective Membrane Surface Area		m <sup>2</sup>	0.2	0.5	1.0	1.5		
Size	Overall Length		mm	255	392	652	912	
	Outer Diameter		mm	76	102	102	102	
	Connection	Type		Butt Weld				(Note 1)
		Size		15A	15A 20A 25A	40A	50A	(Note 2)
			Thickness Sch5S (1.65 mm)					
Retention Rate		μm	0.01				(Note 3)	
Max. differential pressure	Housing Design Pressure		MPa	0.97				20°C (Note 4)
	Membrane	Forward Pressure		< 0.29				
		Backward Pressure		< 0.10				
Max. heat resistance		°C	100					
Standard Flow Rate		L/min [normal]	500	2500	5000	6600	(Note 5)	

(Note 1) For other connection types, contact Fujifilm.

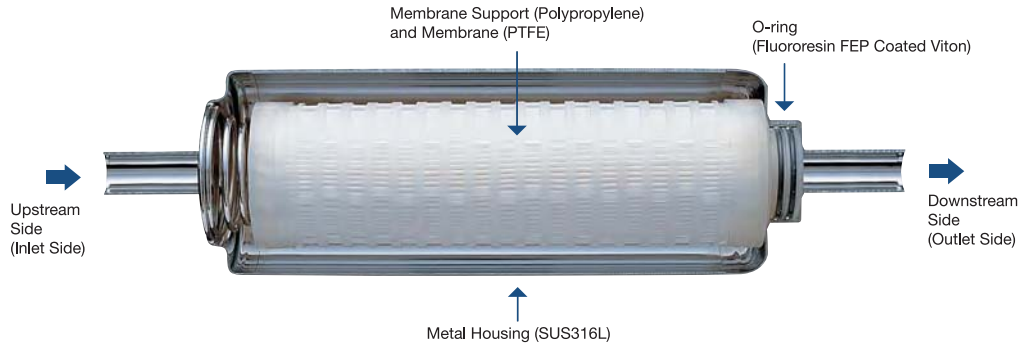
(Note 2) Sch10S may also be available. Consult Fujifilm.

(Note 3) Ten/cf or less of particles of 0.01 μm or more at the housing outlet.

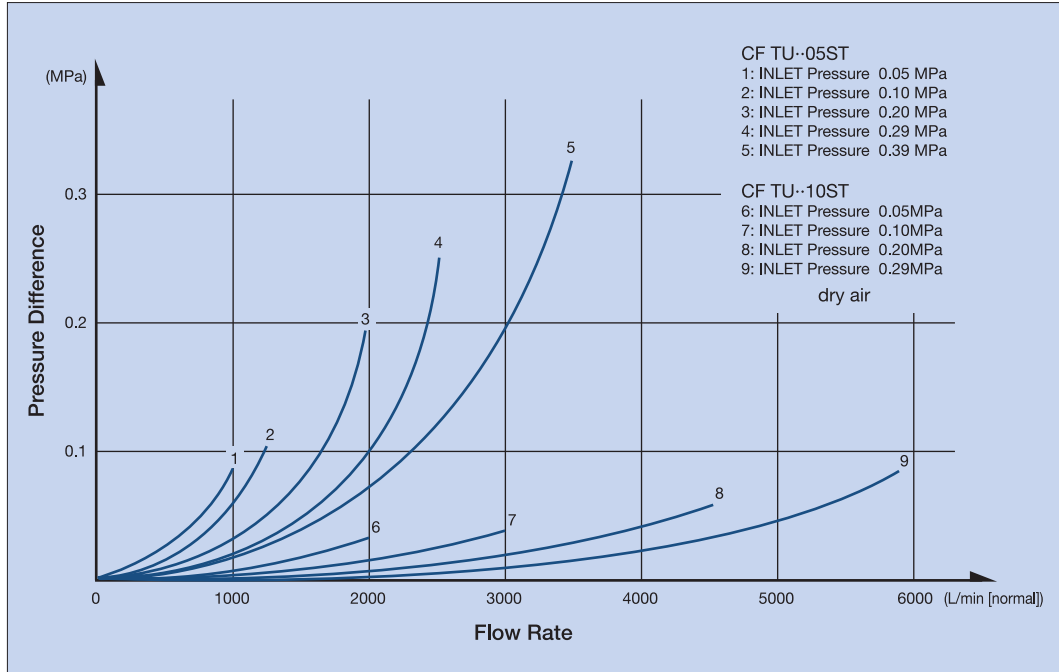
(Note 4) Recommended conditions for the reliable elimination of fine particles: 0.2 x 10<sup>5</sup> Pa (0.2kgf/cm<sup>2</sup>) or less of differential pressure.

(Note 5) Flow rates when INLET4 x 10<sup>5</sup> Pa (4 kgf/cm<sup>2</sup>), Δp = 0.05 x 10<sup>5</sup> Pa (0.05 kgf/cm<sup>2</sup>), dry air.

# Construction



# Flow Rate Characteristics



# Product Codes

CF TU 15A10 ST { CF ..... Cartridge Type Filter Element  
 TU ..... Tube Type Connection  
 15A ..... 15A of Connection Size (nominal diameter)  
 10 ..... 10" of Filter Element Length  
 ST ..... Housing Inner Surface Finishing Grade

# Outlook Dimensions (Unit:mm)

Schematic Drawing	Code	Filter Element Length	Dimensions		
			Overall Length (A)	Outer Diameter (B)	Connection's Outer Diameter (C)
5" Type Filter Element 	CF TU 15A05 ST	125 mm	255	76	21.7
10", 20" or 30" Type Filter Element 	CF TU 15A10 ST	250 mm	392	102	21.7
	CF TU 20A10 ST				27.2
	CF TU 25A10 ST				34.0
	CF TU 40A20 ST	500 mm	652		48.6
	CF TU 50A30 ST	750 mm	912		60.5

\* Connection sizes other than those listed in the table (1/2" [outer diameter of 12.7 mm] and 3/4" [outer diameter of 19.1 mm]) may also be available on request.

Filter Element Length: "05" = 5", "10" = 10", "20" = 20", "30" = 30"  
 Connection Size: "15A" = 15A, "20A" = 20A, .... "50A" = 50A (cf. JIS-B2312-1991)