

# Proflow™-HE Filter Cartridge

Pleated hydrophilic PTFE membrane and polypropylene supported cartridges for dilute high-purity aqueous fluids

The Proflow™-HE filter cartridge is designed for filtration of certain microelectronic (MiE) process fluids. Virgin polypropylene and a hydrophilic PTFE membrane provide economical alternative for filtration of MiE chemicals. The hydrophilic nature of the PTFE membrane does not require pre-wetting for aqueous based liquids typically necessitated with standard PTFE membranes. This can reduce total operating cost and improve process up-times.

Proflow-HE is available in both Standard and SELECT pleat options. SELECT pleating allows for additional membrane surface areas to increase flow rates and on-stream life.

Proflow-HE cartridges are manufactured in an ISO 9008 certified Class 10,000 cleanroom and flushed with ultra-high-purity deionized water and 100% integrity tested as well as serialized to provide complete product purity, reliability and traceability.

## Contact Information

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## Applications

Recommended applications include, but are not limited to:

- Dilute acids & alkaline chemistries
- Ultra-high-purity deionized water
- Low temperature plating solutions

## Markets

- LCD Displays
- Photovoltaics
- Bulk Chemicals
- Fine Chemical Filtration
- Compound semiconductors
- MEMs

## Benefits

- Hydrophilic membrane (pre-wetting not required)
- Broad chemical compatibility
- Long service life minimizes change-out frequency
- Low differential pressure reduces energy costs
- Top-performing retention efficiency
- Very low metals and organic extractables
- Quick rinse up-time
- Integrity-tested for quality assurance

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## SPECIFICATIONS

### Materials of Construction

Membrane: Hydrophilic PTFE

Support layers: Polypropylene

Structure: Polypropylene

Materials are thermally bonded, for maximum assurance of filter integrity and elimination of bonding or sealing compounds. Modules and final filter assemblies are flushed with 18-meg-ohm-cm high purity water, to provide extremely low extractables levels.

### Effective Filtration Area

Standard Pleating: 7.2 ft<sup>2</sup>\*

SELECT Pleating: 11.4 ft<sup>2</sup>\*

\* Per 10-inch (250mm) cartridges

### Maximum Differential Pressure

#### Forward:

70 psid (4.8 bar) @ 75°F (24°C)

40 psid (2.8 bar) @ 180°F (82°C)

#### Reverse:

40 psid (2.8 bar) @ 75°F (24°C)

### Cleanliness (Particle Shedding)

20 gal rinse-up at 1gpm achieves < 1 particle/ml @ 0.2 μm

### Chemical Compatibility

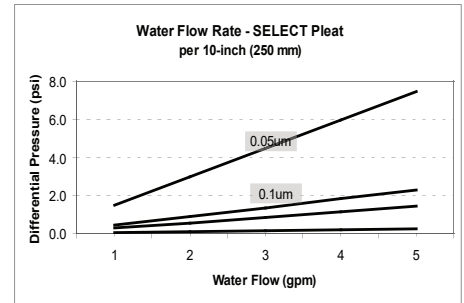
Compatible with many water based acid and alkaline solutions.

Contact Technical Services for details.

## Performance Attributes

Water flow rates, Typical*			
Type	Micron	gpm/psid	lpm/100mbar
SELECT	0.05	0.65	3.6
	0.1	2.2	12
	0.2	3.5	19
	0.5	7.3	40
	1.0	12.7	70
	3.0	20.0	110
Standard	0.05	0.45	2.5
	0.1	1.3	7.1
	0.2	2.2	12
	0.5	4.6	25
	1.0	9.8	54
	3.0	14.0	77

\* Per 10-inch (250mm) cartridge equivalent.



\*Liquids with a viscosity of 1 cp

Code 3 Lengths								
Code	10		20		30		40	
	in.	mm	in.	mm	in.	mm	in.	mm
1	11.13	282.7	20.92	531.4	30.76	781.3	40.58	1030.7
A	10.65	270.5	20.44	519.2	30.28	769.1	40.1	1018.5

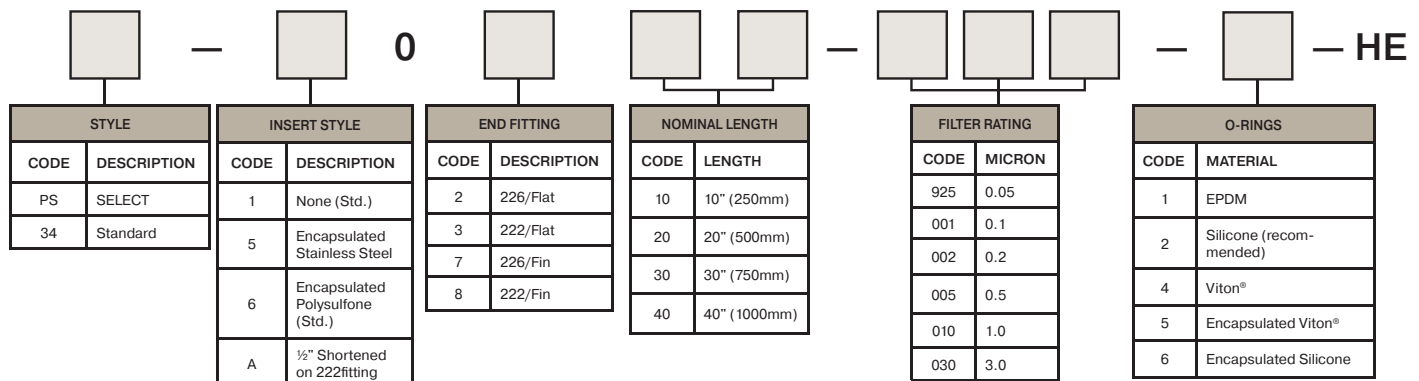
  

Code 8 Lengths								
Code	10		20		30		40	
	in.	mm	in.	mm	in.	mm	in.	mm
1	12.87	326.9	22.70	576.6	32.54	826.5	42.36	1075.9

Note: For other code lengths, please consult your local Parker representative.

## Ordering Information

Each cartridge is identified with a product number, pore size and lot number for traceability.



Specifications are subject to change without notification.  
 For User Responsibility Statement, see [www.parker.com/safety](http://www.parker.com/safety)  
 Proflow is a registered trademark of Parker-Hannifin Corporation.  
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DS\_ME\_Proflow-HE Rev. E



**WARNING:** This product can expose you to chemicals including 1,3-Butadiene which are known to the state of California to cause cancer and birth defects or other reproductive harm. For more information go to [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov)

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