# Microfine ExPleat PFH Series Cartridges

Hydrophobic PTFE Membrane Cartridges for Superior Filtration





ExPleat PFH Series are designed to meet the special needs of the electronics and high-purity chemical industries. Polytetrafluoroethylene (PTFE) membrane is resistant to virtually all chemicals. Because of the hydrophobic nature of PTFE, it can also be used to filter process gases. To minimize extractables, each cartridge module is pre-flushed with 18 Megohm-cm DIW.

#### **Construction Materials**

PTFE Membrane				
Polypropylene				
Thermal Bonding				
Buna, Viton® (or FKM), EPDM, Silicone, FEP Encapsulated Viton (or FKM)				

#### Dimensions

Length	9.75 in to 40 in. (25.1 to 101.6 cm) nominal
<b>Outside Diameter</b>	2.75 in. (6.9 cm) nominal
Filtration Area	8.6 ft2 (0.8 m2)

# **Applications**

- Compressed Air
- Pressurized Gases
- Solvents
- ♦ Tank Ventilation

# Chemicals

Strong Acids

# **Integrity Test Information**

Representative samples from each manufacturing lot are tested for integrity to ensure consistent performance. 100% integrity testing for critical applications is also available.

# **Maximum Operating Parameters**

Differential Pressure • Forward	20 psid (1.38 bard) at 80 °C (176 °F)
	80 psid (5.52 bard) at 20 °C (68 °F)

Operating Temperature 90 °C (194 °F)

Recommended Changeout Pressure 35 psid (2.4 bard)

### Sanitization/Sterilization

Autoclave	121 °C (250 °F), 30 min, 10 cycles
In-line Steam	121 °C (250 °F), 30 min, 10 cycles
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For all elevated temperature procedures above, a stainless steel support ring is required.

#### **Chemical Sanitization**

Performed using industry standard concentrations of hydrogen peroxide, paracetic acid, sodium hypochlorite and other selected chemicals.

#### **Total Performance**

Microfine Filters is a manufacturer of filtration products to industries in which filtration is considered a critical part of the manufacturing process. We supply a complete line of products and services to help you cost effectively satisfy all your filtration requirements from a single source.

# FDA and EC Compliance

All Microfine Filter cartridge filters are designed to meet the FDA requirements for processing food and beverage products. The materials used to construct NPP filters are listed by the FDA for use in articles intended for repeated food contact as specified in Title 21 CFR sections 174.5, 177.1500, 177.1520, 177.1630, 177.2440 and 177.2600 as appropriate. NPP filters comply with Title 21 CFR sections 210.3 (b)(6) and 211.72, for non-fiber releasing filters. All materials used to make the filters are listed in European Commission Regulation EU/10/2011, Annex 1.

# Quality Assurance and Standards

Our goal is to ensure our customers the greatest possible value for their filtration dollar. Our state of the art manufacturing facility and quality management system both meet ISO 9001:2008 standards. Each operation from assembly and test to cleaning, drying, and packaging is done in appropriately rated clean rooms.

#### Flow Rate vs Differential Pressure

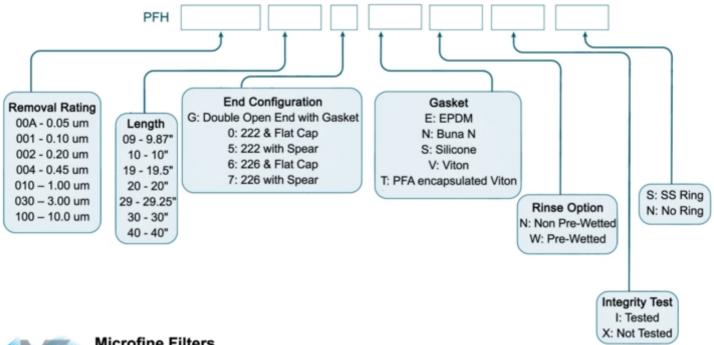
The Flow Rates vs Differential table represents typical pressure drop at 5 gallons per min flow across a single 10 in. cartridge element. The test fluid is water at ambient temperature. Extrapolation for housings with multiple elements and higher pressure drops is acceptable, but as flows increase the pressure drop of the housing becomes more apparent.

**Typical Flow Rates Vs Differential Pressure** 

Micron Rating		0.05 µm	0.10 µm	0.20 μm	0.45 μm	1.0 µm	3.0 µm	10.0 µm
Differential Pressure	psid	7.68	5.69	1.96	1.62	0.82	0.68	0.51
	bard	0.53	0.39	0.14	0.11	0.06	0.05	0.04

# Ordering Guide

Cartridge order numbers have several variables from pore size to end cap type. For example PTFE Membrane, 0.2 Micron Rating, 10" Length, 222 Flat cap with Silicone O-Rings, Non Pre Wetted, Integrity Tested = PHF00210BSNI.





## Microfine Filters

For Technical queries, please drop us an email at: technical@microfinefilters.com.tw

For all matters related to sales or distributorship please contact us at: sales@microfinefilters.com.tw

For more details visit our website: www.microfinefilters.com.tw