

FHFPT High-Flow Capacity PTFE Pleated Filter Cartridge



The FHFPT pleated filter cartridge is available in both hydrophilic and hydrophobic membrane configurations. The hydrophobic version is manufactured from naturally hydrophobic PTFE membrane, offering exceptional resistance to organic and inorganic chemical corrosion, making it suitable for sterile filtration and particle removal from highly corrosive and strongly oxidizing liquids (including chemical reagents). The hydrophilic version is produced from modified hydrophilic PTFE membrane, featuring stable hydrophilicity that requires no pre-wetting and allows for direct filtration. The expanded polytetrafluoroethylene (ePTFE) membrane exhibits superior resistance to corrosion, oxidation, and organic solvents, with broad chemical compatibility. It is suitable for particle removal and sterile filtration of chemical reagents, corrosive liquids, and strongly oxidizing solutions.

Product Features

- ❖ Excellent resistance to acids, alkalis, high temperatures, and high pressures with robust performance.
- ❖ All seals are formed using thermal welding technology.
- ❖ Precise pore size with uniform pore size distribution.
- ❖ Low initial pressure drop, large filtration area, and extended service life.
- ❖ Contains no surfactants.

Product Parameters

Parameters	Specification		
Length(inch/mm)	20(508)	40(1016)	60(1524)
Filtration Area (m ²)	3.3	6.5	8.5
Design Flow Rate (m ³ /h)	15	30	45
Maximum Flow Rate (m ³ /h)	40	80	110
Design	Pleated		
Connection	Type M、 P、 K, etc.		
Filtration Accuracy (μm)	0.05, 0.1, 0.22, 0.45, 1, 3, 5, 10		
Diameter (mm)	Outer Diameter: 157		

Maximum Operating Pressure (MPa)	0.38@20°C
Replacement Differential Pressure (MPa)	0.15@20°C
Maximum Temperature (°C)	80

Application Scenarios



Fine Chemicals



Equipment Manufacturing



Biomedicine



Food and Beverage



New Energy



Water Treatment

Precautions

Selection & Operation Guide

When selecting FHFPT series pleated filter cartridges, consider the following:

Material & Temperature Resistance

- ❖ Standard Type (PP Housing): Temperature resistance up to 65°C (long-term) / 95°C (short-term). Suitable for general liquid filtration.
- ❖ High-Temperature Type (Stainless Steel Core/Reinforced Structure): Temperature resistance up to 142°C (steam sterilization). Suitable for high-temperature processes.
- ❖ Hydrophobic Type: Withstands extreme temperatures from -200°C to 260°C. Used for gas and organic solvent filtration.

Filtration Rating & Media

- ❖ Liquids: Hydrophilic version with ratings of 0.1–5 µm, suitable for strong acids/alkalis (pH 1–13) and oxidizing liquids (e.g., hydrogen peroxide).

Dimensions & Connections

- ❖ Standard sizes: 20, 40, or 60 inches, with an outer diameter of 157 mm.
- ❖ Pleated structure: 50–100 pleats per meter, with a filtration area of 3.3 m² (for 20-inch cartridge).

Operational Guidelines

- ❖ Sterilization: Supports 121°C steam sterilization (30 minutes) or 135°C in-line sterilization.
- ❖ Pressure Limits: Liquid: ≤ 0.42 MPa (forward flow); Gas: ≤ 0.21 MPa (reverse flow).
- ❖ Cleaning: Backflush with purified water or perform chemical cleaning (for hydrophilic version, 1% sodium hydroxide solution may be used).



Product Data Sheet-High-Flow Filter Cartridges

Core Filtration, Clear Solutions

Selection Recommendations

- ❖ Provide process parameters (pH, temperature, flow rate, etc.) for accurate selection.
- ❖ Prioritize products that have passed integrity testing (e.g., FDA-compliant certifications).

*For specialized applications or customized solutions, please contact FFM Inc. directly.