

FHFPA High-Flow Capacity Nylon Pleated Filter Cartridge



The FHFPA series high-flow pleated filter cartridge is a liquid filtration component manufactured using Nylon (Polyamide) microporous membrane as the filtration medium, through processes including pleating, edge sealing, core and cage assembly, and thermally bonded end cap welding. Its structure comprises:

- ◆ Filtration Layer: Nylon microporous membrane, combining electrostatic adsorption and mechanical interception, effectively removing colloidal particles (such as silica) and microbial debris.
- ◆ Support Layer: Polypropylene non-woven fabric or mesh screen for flow distribution, enhancing flow velocity and preventing membrane collapse.
- ◆ Housing and Seals: Polypropylene outer cage and silicone/fluororubber O-rings, thermally welded and molded without adhesives or fiber shedding, compliant with FDA and GMP standards.

Product Features

- ❖ High-Efficiency Gradient Filtration: The gradient pore design (loose outer layer, tight inner layer) integrates pre-filtration and final filtration, increasing dirt-holding capacity by over 30%.
- ❖ Large Filtration Area & Low Pressure Drop: With a large filtration area, the initial pressure drop is maintained below 0.1 MPa, and flow rates are 30% faster than conventional cartridges.
- ❖ Chemical Stability: Resistant to acids, alkalis (pH 1–13), and organic solvents (e.g., alcohols, ketones). Note: Avoid strong oxidizing agents (e.g., sodium hypochlorite > 10 ppm).
- ❖ Thermal Stability: Standard version operates at temperatures up to 60°C; high-temperature version (with stainless steel core) withstands 121°C steam sterilization for 30 minutes.

Product Parameters

Parameters	Specification		
Length(inch/mm)	20(508)	40(1016)	60(1524)
Filtrating 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

Applications



Fine Chemicals



Equipment Manufacturing



Biomedicine



Food and Beverage



New Energy



Water Treatment

Precautions

Selection & Operation Guide

When selecting FHFA series high-flow pleated filter cartridges, consider the following:

Application Areas

- ❖ Electronics Industry: High-purity water terminal filtration, particle removal from semiconductor cleaning fluids.
- ❖ Pharmaceutical/Food: Liquid sterilization, beverage clarification.
- ❖ Chemical/Water Treatment: Solvent refining, RO system pre-filtration.

Installation & Maintenance

- ❖ Installation: Moisten O-rings before installation. Insert the cartridge slowly into the housing and secure it properly. Avoid sudden pressure shocks.
- ❖ Cleaning: Backflush with purified water at pressures below 0.2 MPa, or alternately soak in 4% acid/alkali solutions (remove O-rings before soaking).
- ❖ Replacement Criteria: Replace when the pressure differential exceeds 0.15 MPa or when the flow rate drops by more than 30%.

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