FHFPA High-Flow Capacity Nylon Pleated Filter Cartridge

The FHFPA High-Flow Nylon Pleated Filter Cartridge is a high-performance liquid filtration solution engineered for critical applications in biopharmaceuticals, electronics, and fine chemicals. Utilizing a hydrophilic Nylon (Polyamide) microporous membrane, this cartridge combines a gradient pore structure with a robust pleated design to deliver high dirt-holding capacity and low pressure drop.The FHFPA series composed with a pure polypropylene core and thermally welded seals, ensuring zero media migration and compliance with FDA and GMP standards. It is ideal for applications with high flow rates, low protein binding, and excellent chemical compatibility with organic solvents.

Product Features

- Gradient Pore Structure: The "loose-to-tight" layered design integrates pre-filtration and final filtration, increasing dirt-holding capacity by over 30% compared to standard cartridges.
- High Flow Efficiency: With a filtration area of ≥0.6 m² per 10", the cartridge maintains a low initial pressure drop (<0.1 MPa), providing flow rates 30% faster than conventional designs.
- Superior Chemical Compatibility: Nylon membrane offers excellent resistance to a wide range of organic solvents (alcohols, ketones), acids, and alkalis (pH 1–13). Note: Avoid strong oxidizers (e.g., high-concentration hypochlorite).
- Steam Sterilizable: Available in high-temperature versions (with optional stainless steel core) capable of withstanding 121°C steam sterilization (SIP) for aseptic processes.

Product Parameters

Parameters	Specification			
Length(inch) (mm)	10(254)	20(508)	30(762)	40(1016)
Specifications	Pleated			
Connection	End Caps: Plain, 222/226, Fin, etc.			
Filtration Accuracy (μm)	0.1/0.22/0.45/0.65/0.8/1/3/5/10			
Diameter (mm)	Outer Diameter: 68–69 ; Inner Diameter: 32			

Product Data Sheet-High-Flow Filter Cartridges

Core Filtration, Clear Solutions

Filtering Area (m²/10")	≧0.6
Design Pressure (MPa)	0.4
Maximum Temperature (℃)	80

Applications

Fine Chemicals

Equipment Manufacturing

Biomedicine

Food and Beverage

New Energy

Water Treatment

Precautions

Selection & Operation Guide

- Accuracy Selection:
  - 0.1–0.22 μm: Sterile filtration and high-purity water.
  - 0.45–0.65 μm: Clarification of beverages and general liquids.
  - 1–10 μm: Prefiltration for RO systems and viscous liquids.
- Sterilization:
  - Steam (SIP): 121°C for 30 minutes (Ensure proper housing spacing and use high-temp version).
  - Chemical: Compatible with CIP cleaning agents.
- Flow Direction: Strictly Inside-Out to maintain structural integrity.

Maintenance & Replacement

- Disposable Design: The FHFPA filter cartridge is designed for single-use or batch-use only.
- No Backwashing: Do not backwash the cartridge. The pleated structure is not designed to withstand reverse pressure, which will cause permanent deformation and media shedding.
- Replacement Criteria:
  - When the pressure differential (ΔP) reaches 0.15 MPa.
  - At the end of a production batch or sterilization cycle.
  - If flow rate decreases by more than 30%.

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