



VH Series Pleated PES Media Pharmaceutical Grade Filter Cartridge

- Cartridge is a validated, pleated polyethersulphone membrane over a non-woven polyester support layer
- Code 0, Code 5, Code 7 and Code 10 configurations are available in 10, 20 30, and 40-in lengths that are 100% tested in manufacturing to ensure absolute bacteria retention
- Materials conform to the relevant requirements of 21CFR Part 177 and current USP Plastics Class VI-121°C and ISO10993 equivalents
- FCVH Series Sterilizing Grade 0.2 micron filters are validated by bacterial challenge testing to methods specified in ASTM F838-83 (10^7 organisms/cm² minimum) with typical in-house challenge levels being 10^{11} per 10 inch module for *Brevundimonas diminuta*
- Contain no surfactants or coatings to interfere with your application, and the thermo-plastic construction process minimizes extractables.

SPECIFICATIONS

Dimensions

Diameter (OD)
Length (in).....

2.75" (7.0 cm)
10, 20, 30, 40

Materials

Cartridge

Polypropylene, core and cage, nylon endcaps with 316LSS insert

Support

Polyester

Media

Polyethersulphone

Seals

Silicone o-rings

Operating Parameters

Maximum Temperature
Maximum Differential Pressure @ 25°C
Filtration Rating
Toxicity
Validation

176°F (80°C) @ 29 psid (2.0 bard)
72 psi (5.0 bar)
100% Absolute
Non-toxic by USP Class VI biological test for plastics
Microbially retentive and validated to ASTM F838-83 methodology

Recommended Water Flow Rates

0.1 µm
0.2 µm
0.45 µm

1.8 gpm/10" length (2.3 lpm/10" length)
2.0 gpm/10" length (7.6 lpm/10" length)
3.0 gpm/10" length (11.4 lpm/10" length)

Sanitizing Agents

Chlorine, hydrogen peroxide, autoclaved for 20 minutes at 121°C under no load conditions.

Sterilization

FCVH cartridges can be repeatedly in-situ steam sterilized or autoclaved up to 130°C (266°F). They can be sanitized with hot water at up to 90°C (194°F) and are compatible with a wide range of chemicals.

Integrity Test

Pore Size	Minimum Water Bubble Point	Diffusional Flow (cc/min) @ Test Pressure per 10" length
0.1 µm	≥ 34.2 psig*	≤ 27 @ 70 psig (4.9 bar)
0.2 µm	≥ 49 psig	≤ 16 @ 40 psig (2.7 bar)
0.45 µm	≥ 36 psig	≤ 16 @ 25 psig (1.7 bar)

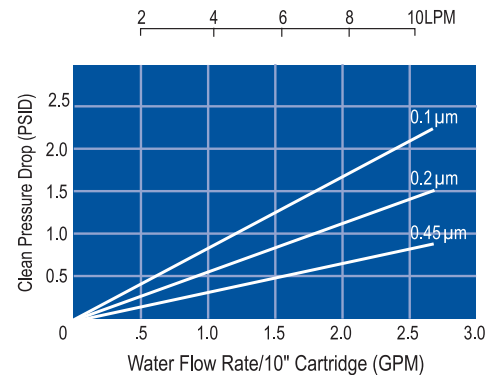
* 60/40 IPA water test solution

ORDERING INFORMATION

Catalog Number and Description

FCVH	Filter cartridge pharmaceutical/validated
X	Cartridge Code: 0 = 2-222 o-rings 1 = single open end w/internal o-ring 5 = 2-222 o-rings w/spear end 7 = 2-226 o-rings w/locking tabs/spear end
XX	Length (in): 10 = 10, 20 = 20, 30 = 30, 40 = 40
XX	Micron Rating: S1 = 0.1 µm, S2 = 0.2 µm, S4 = 0.45 µm

FLOW RATE vs. INITIAL CLEAN PRESSURE DROP



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To determine your catalog order number, replace the X with one of the numbered or lettered options beside it.
Note: Not all part number combinations are available; consult Technical Support for assistance.