

SKV Series PES Capsules (PES/PP Construction)

Pharmaceutical Grade Capsule

The PureFlo® SKV Series PES filter capsule with all-polypropylene construction provides excellent chemical compatibility and superior flow per unit area as compared to other membrane capsules. The PureFlo® PES filter capsules have been specially designed for sterilizing in biopharmaceutical applications. The hydrophilic PES membrane does not require pre-wetting agents, thereby eliminating a potential source of contamination. The PES membrane is a low protein-binding media.

The capsules were designed with built-in bleed valves for simple and efficient evacuation of air and liquid. The units are used for filtration of small to medium volumes used in production, laboratory and pilot runs. No adhesives, binders, or surfactants are used in the manufacturing process of these capsules. They are rinsed with pyrogen-free water to reduce extractables and downtime. All filter capsules are 100% integrity-tested to ensure filter performance each and every time out of the package. PureFlo SKV Series PES filter capsules are well-suited for pharmaceutical applications where superior flow and bacterial retention is required. The capsule can be ordered pre-sterilized.



Specifications

Materials of Construction: Media Cage,	Media: PES (Polyethersulfone) Supports: Polypropylene Core, End Caps: Polypropylene Valve O-Rings: Silicon (standard); Sealing: Thermally welded Push to Connect Fitting: Acetel-body, EPDM-O-Ring, 304 SS Grip Ring
Fitting Connections:	See ordering guide for the availability. Any inlet/outlet combinations. (Custom adaptors available upon request)
Nominal Dimensions:	Lengths: 1.5 in (38 mm), 2.5 in (75 mm), 5.0 in (127 mm), 7.5 in (191 mm), 10 in (254 mm) Diameter: 2.88 in (73 mm)
Effective Filtration Area: 5.0in:	1.5in: 0.77 ft ² (720 cm ²), 2.5in: 1.48 ft ² (1380 cm ²), 2.8 ft ² (2600 cm ²), 7.5in: 4.3ft ² (3990 cm ²), 10in: 5.6 ft ² (5200 cm ²)
Operating Conditions:	Maximum Forward Differential Pressure: Liquid: 5.5 bar (80 psi) at 22 °C Gas: 4.1 bar (59.5 psi) at 22 °C Minimum Burst Pressure: 8.3 bar (120 psi) at 25 °C Maximum Forward Differential Pressure: 5 bar (72.5 psi) at 22 °C Maximum Reverse Differential Pressure: 3.0 bar (43.5 psi) at 22 °C Maximum Operating Temperature: PP & Gamma PP: 80 °C
HDPE: 60 °C	
Regulatory Compliance:	The filters are constructed with polypropylene resins and filtration media in compliance with 21 CFR Part 177 of the US Code of Federal Regulations and USP Class VI Biological Test for Plastic.

Applications	
Buffers and Media	Fermentation Broths
Product Sterilization	SVP (Small Volume Parenterals)
BioBags Pharmaceuticals	
Vaccines Biologics	
Antibiotics Scale-up	Processing
Water Serums	

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SPECIFICATIONS (cont.)

Bacterial Retention:

Complete retention of $> 10^7$ organisms/cm² of *Brevundimonas diminuta* in accordance with the current HIMA challenge methodology (ASTM F838-83). Validation Guide upon request.

Autoclavable & Sanitizable:

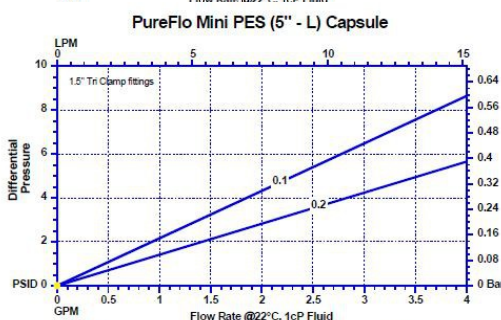
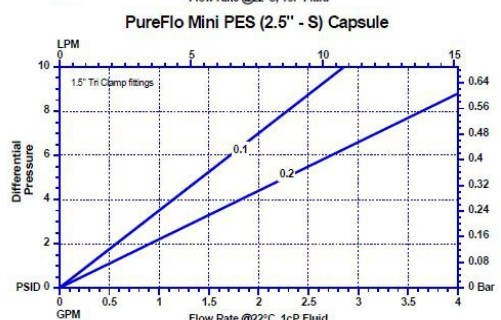
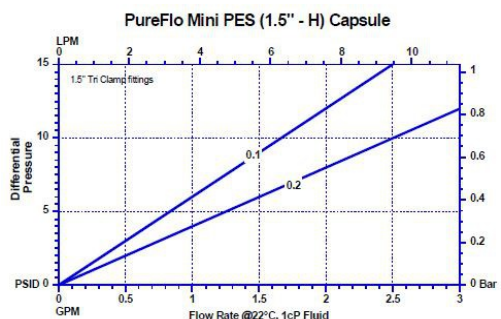
Capsules can be autoclaved 25 times at 125 °C (257°F) for 30 minutes or chemically sanitized in situ using common sanitizing agents or hot water at 90 °C (194°F) for a limited time (dependent on time and temperature). Capsules must not be in situ steam-sterilized.

Water Bubble Point Specification:

0.1 µm: 23 psi (0.16 MPa) in IPA
0.2 µm: 50 psi (0.34 MPa)

Bacterial Endotoxin:

Effluent is non-pyrogenic per USP Bacterial Endotoxin (0.25 EU/ml), determined using Limulus Amebocyte Lysate (LAL) Test.



Note - Graphs based on Sanitary fittings.

PureFlo SKV Series PES Capsule (Pharmaceutical grade) Ordering Guide

PureFlo Capsule Filters	Filter Media	Pore size (Micron)	Internal Filter Length	Input Fitting	Output Fitting	Options	
SKV 70mm Diameter Capsule with Bleed Valve	S = PES	004 = 0.04	H = 1.5"	1H = 1/8" Hose barbs	1H = 1/8" Hose barbs	Shell Material	O-Ring for Quick Coupling
		010 = 0.1	S = 2.5"	1Q = 1/8" Male Quick Coupling with Metal latch	1Q = 1/8" Male Quick Coupling with Metal latch	Blank = Polypro construction	-OE = O-ring EPDM
		020 = 0.2	L = 5"	1QF = 1/8" Female Quick Coupling with Metal latch	1QF = 1/8" Female Quick Coupling with Metal latch	-E = Polyethylene shell and HDPE media support for gamma sterilization	-ON = O-ring Nitrile
		045 = 0.45	E = 7.5"	1QFV = 1/8" Female Valved Quick Coupling with Metal latch	1QFV = 1/8" Female Valved Quick Coupling with Metal latch	-GP = Gamma stable polypropylene shell	-OV = O-ring Viton
		065 = 0.65	K = 10"	1QV = 1/8" Male Valved Quick Coupling with Metal latch	1QV = 1/8" Male Valved Quick Coupling with Metal latch	-NY = Nylon Shell	Blank = O-ring Silicon (Standard)
		080 = 0.8		2H = 1/4" to 1/2" Hose barbs, or 1/4" Hose barb	2H = 1/4" to 1/2" Hose barbs, or 1/4" Hose barb	Sterilization	Prefilters
		120 = 1.2		2N = 1/4" MNPT	2H-FB = 1/4" Hose Barb with filling bell	-ETO = Ethylene oxide sterilization	-G(pore Size) = Glass Fiber PreFilter
				2P = 1/4" Push to Connect	2N = 1/4" MNPT	Vent & Drain	-P(pore Size) = PolyPro Media PreFilter
				2PE = 1/4" Push to Connect Elbow	2P = 1/4" Push to Connect	-N = No vent or drain fittings	-S(pore Size) = PES PreFilter
				2Q = 1/4" Male Quick Coupling for Metal latch	2PE = 1/4" Push to Connect Elbow	-NI = No vent or drain inlet fitting	Filling Belts
				2QF = 1/4" Female Quick Coupling with Metal latch	2Q = 1/4" Male Quick Coupling for Metal latch	-NO = No vent or drain Outlet fitting	-FB = Filling Bell*
				2QFV = 1/4" Female Valved Quick Coupling with Metal latch	2QF = 1/4" Female Quick Coupling with Metal latch		-FC = Filling Bell w/Cap*
				2QV = 1/4" Male Quick Coupling for Plastic latch	2QFV = 1/4" Female Valved Quick Coupling with Metal latch		
				2QV = 1/4" Male Valved Quick Coupling with Metal latch	2QV = 1/4" Male Quick Coupling for Metal latch		
				2V = 1/4" Walther Quick Connect	2V = 1/4" Male Valved Quick Coupling with Metal latch		
				3H = 3/8" Hose Barb	2V = 1/4" Walther Quick Connect		
				4H = 1/2" Hose Barb	3H = 3/8" Hose Barb		
				4Q = 1/2" Male Quick Coupling for Plastic latch	3H-FB = 3/8" Hose Barb with filling bell		
				5H = 5/8" Hose Barb	4H = 1/2" Hose Barb		
				MT = 1/2" Tri clamps	4Q = 1/2" Male Quick Coupling for Plastic latch		
				TC = 1-1/2" Tri clamp	5H = 5/8" Hose Barb		
					MT = 1/2" Tri clamps		
					TC = 1-1/2" Tri clamp		
					TS = Shower Head		

Example - PureFlo SKV Series Capsule, PES, 2.5" internal filter, 0.2 micron, with 1.5" Tri-Clamp fittings I/O, would be SKVS020STCTC

Note: Quick Couplings are molded on. Female Quick Coupling with Plastic latch will be threaded on. Compatible with CPC (Colder), LinkTech and others.

* - 2H or 3H with filling bell only