

SZV Series PES Filter Capsules

Pharmaceutical Capsule filter

The PureFlo® SZV Series PES filter capsule have been designed for easy wetability in processes which require critical integrity validation testing. The unit provides excellent 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 where bacterial retention is required. 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 to improve your process.

The capsules were specifically designed with easy to wet out structure of PES membrane, PET support and internal Nylon end caps. The units have 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 for fluid processing 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 speed production. All filter capsules are 100% integrity-tested to ensure filter performance each and every time out of the package. The capsule can be ordered pre-sterilized.



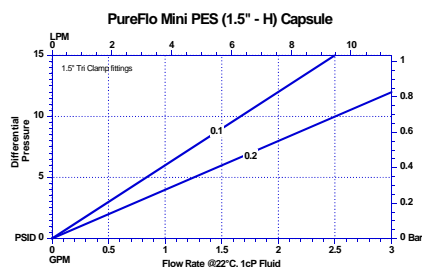
Applications

Buffers and Media	Fermentation Broths
Product Sterilization	SVP (Small Volume Parenterals)
Bio Bags	Pharmaceuticals
Vaccines	Biologics
Antibiotics	Scale up processing
Water	Serums

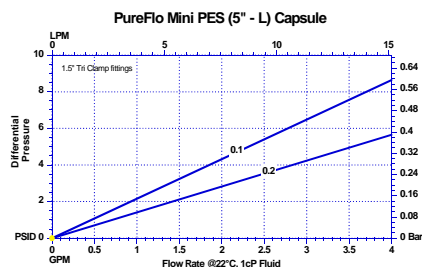
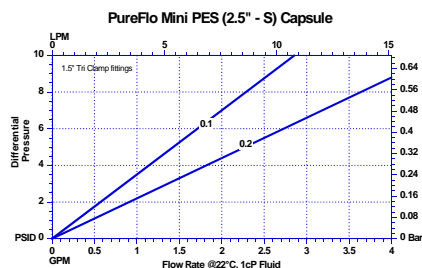
Specifications

Materials of Construction:	Membrane: PES (Polyethersulfone) Membrane Supports: PET (Polyester) Shell, Cage, Core: Gamma stabilized Polypropylene ; End Caps: Nylon O-Rings: Silicon (Standard) Push to Connect Fitting: Acetal-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 (68 mm), 2.5 in (98 mm), 5.0 in (153mm), 7.5 in (251mm), 10 in (281mm) Diameter: 2.88 in (73 mm)
Effective Filtration Area:	1.5in: 0.77 ft ² (720 cm ²), 2.5in: 1.48 ft ² (1380 cm ²), 5.0in: 2.8 ft ² (2600 cm ²), 7.5in: 4.3ft ² (3980cm ²), 10in: 5.6 ft ² (5200 cm ²)
Operating Conditions:	Maximum Working Pressure: Liquid: 5.5 bar (80psi) at 72°F/22°C Minimum Burst Pressure: 8.3 bar (120psi) at 72°F/22°C Maximum Forward Differential Pressure: 5 bar (72psi) at 72°F/22°C Maximum Reverse Differential Pressure: 3.0 bar (44psi) at 72°F/22°C Maximum Operating Temperature: 176°F/80°C
Regulatory Compliance:	The filters are constructed with polypropylene resins and filtration media in compliance with 21CFR Part 177 of the US Code of Federal Regulations and USP Class VI Biological Test for Plastic.

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Note - Graphs based on Sanitary fittings.



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:

- Autoclaved 25 times at 257°F/125°C for 30 minutes
- Chemically sanitized in situ using common sanitizing agents or hot water at 194°F/90°C for a limited time (dependent on time and temperature).
- Gamma Sterilized up to 45kGy
- Capsules must not be in situ steam-sterilized.

Water Bubble Point Specification:

0.1µm: 23psi, 0.16 MPa (IPA)
0.2µm: 50psi, 0.35 MPa

Bacterial Endotoxin:

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

PureFlo SZV Series PES Filter Capsule (Pharmaceutical grade) Ordering Guide

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

Example - PureFlo SZV Series Capsule, PES, 2.5" Internal filter, 0.2 micron, with 1.5" Tri-Clamp fittings I/O, would be SZVS020STCTC-GP

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

* - 2H or 3H with filling bell only

Your Local Distributor:

ZenPure

North & South Americas:
ZenPure Americas, Inc
www.zenpure.com
info-us@zenpure.com
703-335-9910

All Other Regions:
ZenPure Corporation
www.zenpure.com
info@zenpure.com
+86 571 2288 6800

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