International Filter Products
Revolutionary systems for your industry

ZenPure

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 Pure-Flo® 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.

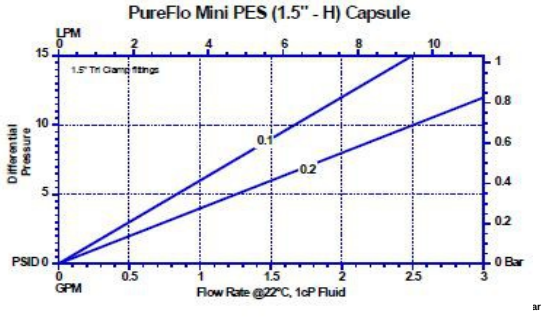
The capsules were specifically designed with easy to wet out structure of PES membrane, PET support and internal Nylon end caps. The units have built-in bleed valves for simple and efficient evacuation of air and liquid. The units are used for filtration of small to medium volumes used for fluid processing 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.

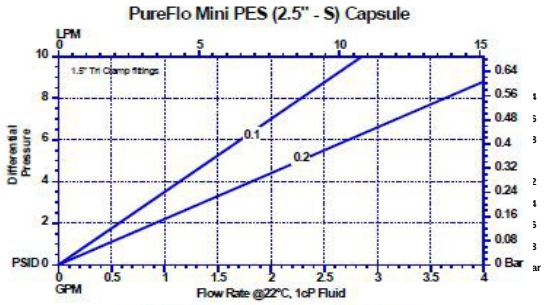
Applications	
Buffers and Media	Fermentation Broths
Product Sterilization	SVP (Small Volume Parenterals)
Bio Bags	Pharmaceuticals
Vaccines Biologics	
Antibiotics	Scale up processing
Water Serums	

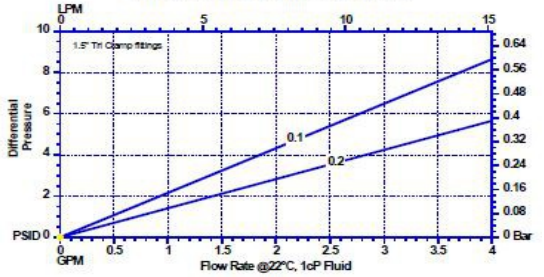
Specifications

Materials of Construction: Membrane Shell, O-Rings:	Membrane: PES (Polyethersulfone) Supports: PET (Polyester) Cage, Core: Gamma stabilized Polypropylene ; End Caps: Nylon 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: 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 (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.

SZV Series PES Filter Capsules







Note - Graphs based on Sanitary fittings.

SPECIFICATIONS (cont.)

Bacterial Retention:

Complete retention of > 10^7 organisms/cm^2 of *Brevundimonas diminuta* in accordance with the current HIMA challenge methodology (ASTM F838-83). Validation Guide upon request.

Autoclavable & Sanitizable:

35 17 Autoclaved 25 times at 257°F/125°C for 30 minutes

35 17 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).

35 17 Gamma Sterilized up to 45kGy

35 17 Capsules must not be in situ steam-sterilized.

Water Bubble Point Specification:

0.1um: 23psi, 0.16 MPa (IPA)
0.2um: 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	
						Shell Material	**O-Rings**
SZV	**S = PES**	**004** = 0.04um	**H** = 1.5"	**1H 1H**	= 1/8" Hose barbs	**-GP** = Gamma stable polypropylene shell	**Blank** = O-ring Silicone
PP Shell & Nylon end-caps		**010** = 0.1um	**S** = 2.5"	**1Q 1Q**	= 1/8" Male Quick Coupling with Metal latch	Standard	**-OE** = O-ring EPDM
Polyester support		**020** = 0.2um	**L** = 5"	**1QF 1QF**	= 1/8" Female Quick Coupling with Metal latch		**-ON** = O-ring Nitrile
Gamma Stabilized Polypropylene Cage & Core		**045**= 0.45um	**E** = 7.5"	**1QFV 1QFV**	= 1/8" Female Valved Quick Coupling with Metal latch		**-OV** = O-ring Viton
Internal Silicone O-ring		**065** = 0.65um	**K** = 10"	**1QV 1QV**	= 1/8" Male Valved Quick Coupling with Metal latch		**Prefilter (add before Filter Media in part#)**
70mm Diameter Capsule with Bleed Valve		**080** = 0.8um		**2H**	**2H** = 1/4" to 1/2" Hose barbs, or 1/4" Hose barb	**Filling Bells**	**G(pore Size)**= Glass Fiber PreFilter
		120 =1.2um		**2H-FB**	**2H-FB** = 1/4" Hose Barb with filling bell	**-FB** = Filling Bell*	**P(pore Size)**= PolyPro Media PreFilter
				2N 2N	= 1/4" MNPT	**-FC** = Filling Bell w/Cap*	**S(pore Size)** = PES PreFilter
				2P 2P	= 1/4" Push to Connect	**Sterilization**	
				2PE 2PE	= 1/4" Push to Connect Elbow	**-ETO =** Ethylene oxide sterilization	
				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 = 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 = 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), LinkTech and others. * - 2H or 3H with filling bell only

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