SMV sterilizing grade PVDF membrane filters

Efficient removal of microorganisms from valuable liquids in food and pharmaceutical applications

SMV filters provide reliable and efficient microbiological reduction throughout an extended service life. Its filter media consist of a single layer asymmetric, hydrophilic SMV membrane with support layers integrated into a robust cage with reinforced core and end cap, making it suitable for nearly all operation, service and cleaning conditions.

Key features:	 Reliable reduction of microorganisms High flow and low pressure drop Wide chemical compatibility No pre-wetting required, easy to use Low adsorption of protein, colors and flavor components Reinforced end cap
Applications:	 Cold stabilization of alcoholic beverages Sterilization of bottled and process water Filtration of eye care serums
Quality first:	 Manufacturing acc. ISO9001 in a controlled environment Comply with EU Regulation No. 1935/2004 Materials used meet FDA title 21 and USP Class VI 100% integrity tested (Diffusion Flow) Full traceability

Protecting process, products and people

Atlas Copco's process filters optimize your productivity while protecting your process, product and consumers. Our portfolio of cartridges and housings covers all your filtration needs. The products are made from proven, high quality materials from reputable suppliers and manufactured in a controlled environment subjected to strict QA/QC procedures.



Product specifications

Materials of construction	
Filter media	Polyvinylidene Fluoride (PVDF)
Support	Polypropylene
Core/Cage	Polypropylene
End caps	Polypropylene + reinforcement
Dimensions	
Diameter	2.72"
Typical surface area	6.24 ft ² (2.72" - 10")
Integrity testing	
Bubble point	> 49 PSI (0.22 μm), > 17 PSI (0.45 μm)
Diffusion flow	< 20 ml/min/10" @ 41 PSI (0.22 μm)
Operating conditions	
Max. temperature	176°F
Max. differential pressure forward flow	100 PSI @ 77°F - 35 PSI @ 176°F
Max. differential pressure reverse flow	44 PSI @ 77°F - 14 PSI @ 176°F
Recommended change out differential pressure	36 PSI
SIP/CIP	
Steam sterilization	\leq 100 cycles @ 275°F for 30 minutes @ dP 4 PSI
Hot water sanitization	185°F for 30 minutes @ dP 29 PSI
Cleaning solution	2% NaOH @ < 149°F

Flow rate



Note: 10" cartridge tested with water @ 154°F, 1.005 cP (typical flow rate)

Product configuration

Series	Rating	Length	End cap	Seal
SMV	0.22 μm	10″	C2 = 2 x 226 O-ring + 2 tabs/Flat	S = Silicone
	0.45 μm	20″	C3 = 2 x 222 O-ring/Flat	E = EPDM
	0.65 µm	30″	C7 = 2 x 226 O-ring + 2 tabs/Fin	V = Viton
	1 µm	40″	C8 = 2 x 222 O-ring/Fin	
			C28 = 2 x 222 O-ring + 3 tabs/Fin	
			DOE = Flat + gasket/Flat + gasket	

Example: SMV 0.45µm 20" C7 S

