

Pharmsteri APFS PES Liquid Cartridge Filter

Improved throughput and wide chemical compatibility for various challenging feed streams in Bioprocessing

Pharmsteri™ APFS PES liquid cartridge filters are made of highly asymmetric 0.45 µm or 0.65 µm single-layer hydrophilic polyethersulfone (PES) membranes, and high-grade polypropylene (PP) non-woven, core, cage and shell.

Pharmsteri APFS filters are compatible with existing stainless steel process system, and more economical for large scale manufacturing. Various cartridge sizes from 5" to 30" allow end users to perform lab scale scalability study and easily scale up to pilot and commercial manufacturing. Different codes are available for easy integration with various stainless-steel housings.

APPLICATIONS

- Process intermediates in mAb, vaccines, etc.
- Bulk drug substances
- Protein solutions or formulations
- Other fouling fluids

FEATURES & BENEFITS

Best-in-class throughput or capacity	Highly asymmetric membrane minimizes pressure build-up while processing large volume challenging fluids
Broad chemical compatibility	pH 1~14, allows use in a range of chemicals including acids and bases
Comprehensive validation	Product has been rigorously validated to product specification and industry standards with comprehensive documentation to support compliance



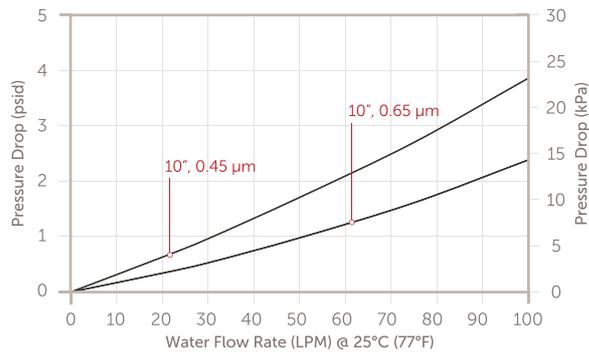
Allows high flow and low pressure drop, lowering cost of ownership

SPECIFICATIONS

Materials	Media	Asymmetric Polyethersulfone		
	Support	Polypropylene		
	Core, cage, end caps	Polypropylene		
	O-ring	Silicone		
Sealing technology	Thermal bonding without adhesives			
Retention rating	0.45 µm, 0.65 µm			
Filtration area	5"	0.3 m ²		
	Per 10"	0.6 m ²		
Integrity	Minimum bubble point@ 25°C (77°F)	0.45 µm	≥2.3 bar (33.3 psi) air with water	
		0.65 µm	≥1.3 bar (18.8psi) air with water	
	Maximum water diffusion flow @ 25°C (77°F)	0.45 µm, 5"	≤ 11 mL/min @ 1500 mbar (21.7 psi)	
		0.45 µm, Per 10"	≤ 20 mL/min @ 1500 mbar (21.7 psi)	
		0.65 µm, 5"	≤ 8 mL/min @ 600 mbar (8.7 psi)	
		0.65 µm, Per 10"	≤ 15 mL/min @ 600 mbar (8.7 psi)	
Maximum operating conditions	Maximum forward differential pressure	61 psi (4.2 bar) @ 25°C (77°F)		
		29 psi (2.0 bar) @ 80°C		
	Maximum operating temperature	80°C (176°F)		
Multiple sterilization cycles	25 cycles of autoclave, 30 min at 127°C (260.6°F), or 25 cycles of 30 min steam in place (SIP) at 131°C with differential pressure under 300 mbar			
Endotoxin releasing	<0.25 EU/mL as determined by the LAL test, meeting the requirements of USP <85>			
Particulates	Particulate matter release meets the requirement of USP <788>			
Non-fiber releasing	Manufactured with non-fiber release materials and tested according to 21 CFR 210.3 (b) (6)			
TOC	<0.5 mg/L post gamma and after a water flush, meeting the requirements of USP <643>			
Conductivity	≤1.3 µS/cm post gamma and after water flush, meeting the requirements of USP <645>			
Material toxicity	All components meet the requirements of the USP <87>, Biological Reactivity Test and the USP <88> Reactivity Test for Class VI Plastics			
Animal Free	Raw materials used to manufacture this product are not animal derived, meeting the EU directive for animal free CPMP EMA/410/01 and 21 CFR parts 189.5			
Extractables	Tested according to BioPhorum Operations Group (BPOG) guideline. Report is available upon request.			
Quality	100% integrity tested, manufactured in accordance with ISO 9001 and ISO 13485 certified quality management system			

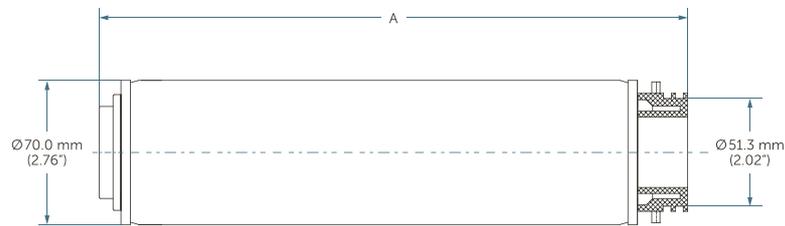
PERFORMANCE DATA

Water Flow



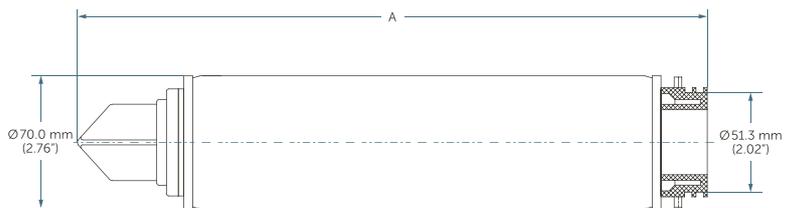
DIMENSIONS

Code 6



Length	Code 6 Dimension A
5"	150.5 mm (5.9")
10"	276.0 mm (10.9")
20"	520.0 mm (20.5")
30"	764.5 mm (30.1")

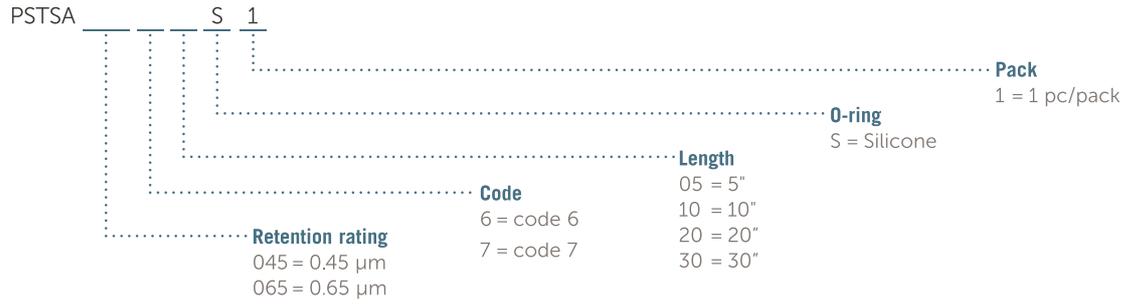
Code 7



Length	Code 7 Dimension A
5"	199.0 mm (7.8")
10"	316.5 mm (12.5")
20"	561.0 mm (22.1")
30"	805.5 mm (31.7")

ORDERING INFORMATION

Pharmsteri APFS PES liquid cartridge filter: part number



FOR MORE INFORMATION

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