

# Pharmsteri™ PES Disposable Filter

*Cost-effective, safe, sterile filtration for pharmaceutical applications*

Pharmsteri™ PES disposable filters are designed to provide smart, disposable, safe filtration for pharmaceutical applications. Constructed of polypropylene (PP) components and a hydrophilic polyethersulfone (PES) membrane, these disposable filters can help eliminate cleaning problems and extra validation costs.

Our portfolio of Pharmsteri PES filters is 100% tested during manufacturing to ensure high quality performance, providing sterility assurance. The T-style configuration is ideal for quicker and easier installation.

## APPLICATIONS

- Bioburden reduction or sterile filtration for injections
- Bulk chemicals
- Buffers

## FEATURES & BENEFITS

<b>Polypropylene and PES construction</b>	Allows use in a broad range of applications
<b>1.5" Tri-Clamp connector</b>	Allows easier, user-friendly installation
<b>Optimized form factor</b>	Allows high flow and low pressure drop, lowering cost of ownership
<b>All components meet USP &lt;88&gt; Class VI Plastics Test</b>	Provides biosafety insurance and global regulatory compliance



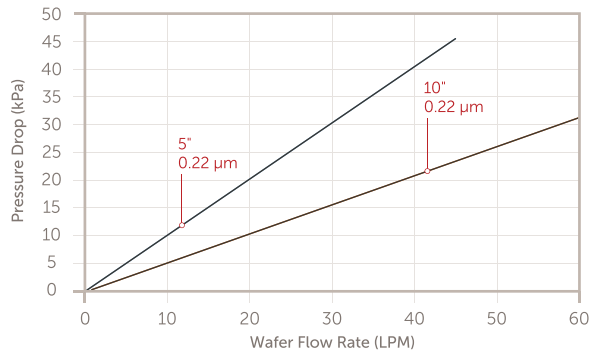
*Allows high flow and low hold-up volume of liquids.*

## SPECIFICATIONS

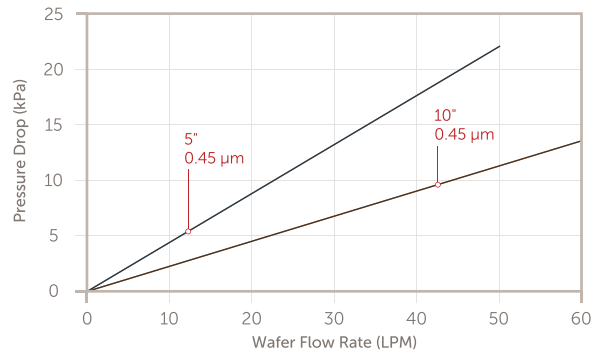
<b>Retention rating</b>	0.22, 0.45 µm	
<b>Materials</b>	Membrane	Polyethersulfone (PES)
	Housing, support	Polypropylene
	Sleeve, core, top, end caps	Polypropylene
	O-ring	Silicone
<b>Sealing technology</b>	Thermal bonding without adhesives	
<b>Filtration area</b>	10"	≥0.6 m <sup>2</sup>
	5"	≥0.3 m <sup>2</sup>
<b>Integrity test (0.22 µm)</b>	Minimum bubble point at 25°C (77°F)	≥3500 mbar
	Maximum diffusion flow at 2800 mbar @ 25°C (77°F)	5": ≤15 mL/min
		10": ≤30 mL/min
<b>Maximum operating conditions</b>	Maximum forward differential pressure	3.5 bar @ 25° ±2°C (77°F), 3.0 bar @ 60° ±2°C (140°F)
<b>Sterilization cycles</b>	Maximum 5 cycles of autoclave @ 127°C (261°F), 30 min	
<b>Endotoxin releasing</b>	<0.25 EU/mL according to the USP test methodology	
<b>TOC</b>	<0.5 mg/L after a water flush of 11 L/10" filter	
<b>Conductivity</b>	≤1.3 µS/cm after water flush of 11 L/10" filter	
<b>Particle release</b>	Meets the requirements of WFI set by USP	
<b>NVR</b>	After autoclaving and 24-hours in 50% ethanol water with vibration (contact Entegris for details)	
<b>Material toxicity</b>	All components meet the requirements of the USP <88> Reactivity Test for Class VI Plastics	
<b>Bacterial challenge test</b>	Passed the bacterial challenge test using <i>Brevundimonas diminuta</i> (ATCC 19146) at a minimum challenge concentration 1x10 <sup>7</sup> CFU/cm <sup>2</sup> (0.22 µm) per ASTM methodology	
<b>Indirect food additive</b>	Meets the FDA Indirect Food Additive requirements cited in 21 CFR 177-182	
<b>Food contact material</b>	(EU) No. 1935/2004, (EU) No. 10/2011	
<b>Quality</b>	Manufactured in accordance with ISO 9001 and ISO 13485 certified quality management system	

## PERFORMANCE DATA

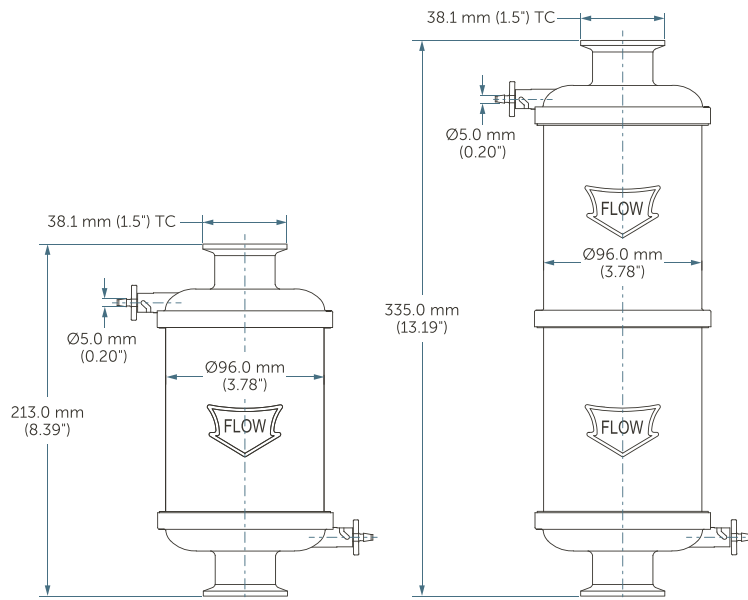
Flow Rate for 0.22  $\mu\text{m}$



Flow Rate for 0.45  $\mu\text{m}$



## DIMENSIONS



## ORDERING INFORMATION

PART NUMBER	RETENTION RATING	LENGTH
PSTSUS022FS05-A2	0.22 $\mu\text{m}$	5"
PSTSUS022FS10-A2	0.22 $\mu\text{m}$	10"
PSTSUS045FS05-A2	0.45 $\mu\text{m}$	5"
PSTSUS045FS10-A2	0.45 $\mu\text{m}$	10"

#### FOR MORE INFORMATION

Please call your Regional Customer Service Center today to learn what Entegris can do for you. Visit [entegris.com](http://entegris.com) and select the [Contact Us](#) link to find the customer service center nearest you.

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