

# FilterPES

## PRODUCT INFORMATION

FilterPES cartridges are built with a polyethersulfone pleated membrane, have high mechanical, thermal and chemical resistance.

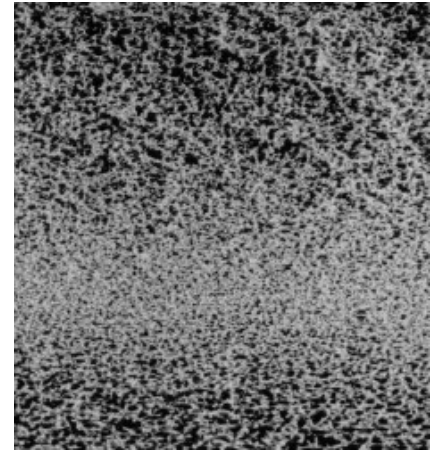
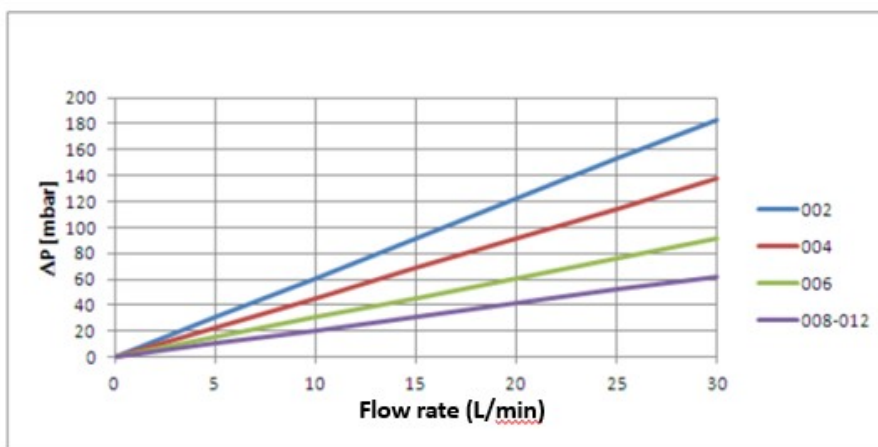
The asymmetrical structure of the membrane and the large filtering surface guarantee autonomy and long service life.

The polyethersulfone and polypropylene that make up the cartridge are chemically inert to proteins, colloids, aromas and color and do not alter the filtered fluid.

Filtration rate: from 0.1 to 1.2 micron for application of sterilization and microbiological stabilization of pharmaceutical, biological, chemical, solvents, perfumes, mouthwashes, water, wine, beer, beverages

### Typical Liquid Flow vs. Differential Pressure

Water at 20°C per 10" module



FilterPES: Electron microscope photography

## QUALITY STANDARDS

- ⇒ Designed, developed and manufactured in accordance with an ISO 9001 certified Quality Management System
- ⇒ Fully validated as sterilizing-grade filters according to current ASTM F-838 guidelines
- ⇒ Each individual element is tested for integrity by Bubble Point and Diffusion test

## BIO-SAFETY STANDARDS

- ⇒ Non-pyrogenic according to USP<85> Bacterial Endotoxins
- ⇒ Pass USP Plastic Class VI Test Non-fiber releasing according to 21 CFR

## REGULATORY COMPLIANCE

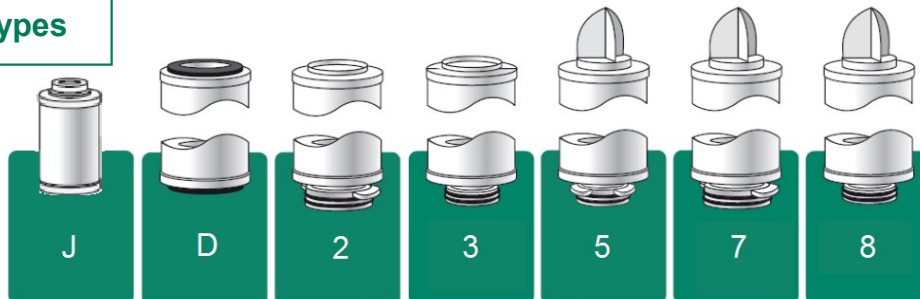
- ⇒ FilterPES meets the requirements for food contact as detailed in European Regulation (EC) Number 1935/2004 and Code of Federal Regulations, 21 CFR paragraphs 170-199

## Specifications

Materials of Costruction		Microbial Removal Efficiency	
Filter Membrane	polyethersulfone	0,2 µm	<i>Brevundimonas diminuta</i> TR>10 <sup>7</sup> /cm <sup>2</sup>
Support and drainage layers	polypropylene	0,45 µm	<i>Serratia marcescens</i> TR>10 <sup>7</sup> /cm <sup>2</sup>
Cage	polypropylene	0,65 µm	<i>Saccaromices cerevisiae</i> TR>10 <sup>7</sup> /cm <sup>2</sup>
Adapter ilnsert	AISI316L		
Operating Parameters		Sterilization	
Maximum operating temperature	Up to 70°C	Steam	Up to 130 °C per 30 minuties
Maximum differential pressure	5,0 barg at 24°C	Hot water	Up to 90°C per 30 minutes
Forward direction	1,8 barg at 50°C		
Nominal Dimentions		Integrity Test Values	
<b>Junior</b> Length: 125 mm, Diameter: 56 mm <b>Standard</b> Length: 250, 500, 750, 1000 mm, Diameter. 70 mm		The specification values for the different filtration rates are shown in the instructions for use attached to the cartridge packaging	

## ORDERING INFORMATION

### Adater types



PES	7	10	002	S	I	PH
Product identification	Adapter	Length	Filtration Rating	Gaskets o-rings	Insert	Version
PES	D = DOE (double open end) 2 = OR226/2 bayonet without fin 3 = OR222/without fin 5 = OR222/ 3 bayonet s with fin 7 = OR226/2 bayonet with fin 8 = OR222/ with fin	10=10" 20=20" 30=30" 40=40"	001 = 0,1 µm 002 = 0,2 µm 004 = 0,45 µm 006 = 0,65 µm 008 = 0,8 µm 012 = 1,2 µm	E = EPDM S = Silicone V = FPM X = FEP	I = with (*) 0 = without  (* ) When filter has to be sterilized by steam	PH = Pharma version
	J = JUNIOR	05=5.0"				

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IPM reserves the right to modify any product feature for technical reasons and to offer customers the best technology. For clarification please contact IPM.

For orders and requests for information  
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