OptiPes PESS Series Filter

Polyether Sulfone Cartridge Filter

Masterfilter PESS series

The Masterfilter *OptiPes* PESS series cartridges manufactured with perfectly hydrophilic polyether sulfone symmetric membranes are specially designed to provide high flowrate with secure and reliable removal of spoilage microorganisms. Its unique construction structure allows optimal sterilization performances of a wide range of fluids. Good inertia and low protein binding of PESS polyether sulfone membrane ensures perfect transmission of active ingredients.

Applications

- Pharma grade water (PW and UPW)
- Mineral water, soft drinks
- Wine, beer

Features and Benefits

- Low diffusion flow
- Inherently hydrophilic PES membrane
- High surface area provides excellent flow rates and extended service life while maintaining high bacteria removal efficiency
- Low protein binding

Materials of Construction

- Membrane: Polyether sulfone
- Support layers: Polypropylene
- Inner core: Polypropylene
- Outer cage: Polypropylene
- End caps: Polypropylene
- O-rings: Silicone, EPDM, PTFE enc. Vition

Operating Parameters

- Max. differential pressure forward: 6.9 bar at 25 °C, 4.0 bar at 60 °C, 2.4 bar at 80 °C
- Max. differential pressure reverse: 3.0 bar at 25 °C, 1.0 bar at 80°C
- Steam sterilisation: 100 cycles of 30 minutes at 135 °C, max. allowable pressure drop of < 0.3 bar
- Autoclave: 200 cycles of 30 minutes at 130 °C
- Filtration area 10” module: 0.58 m²

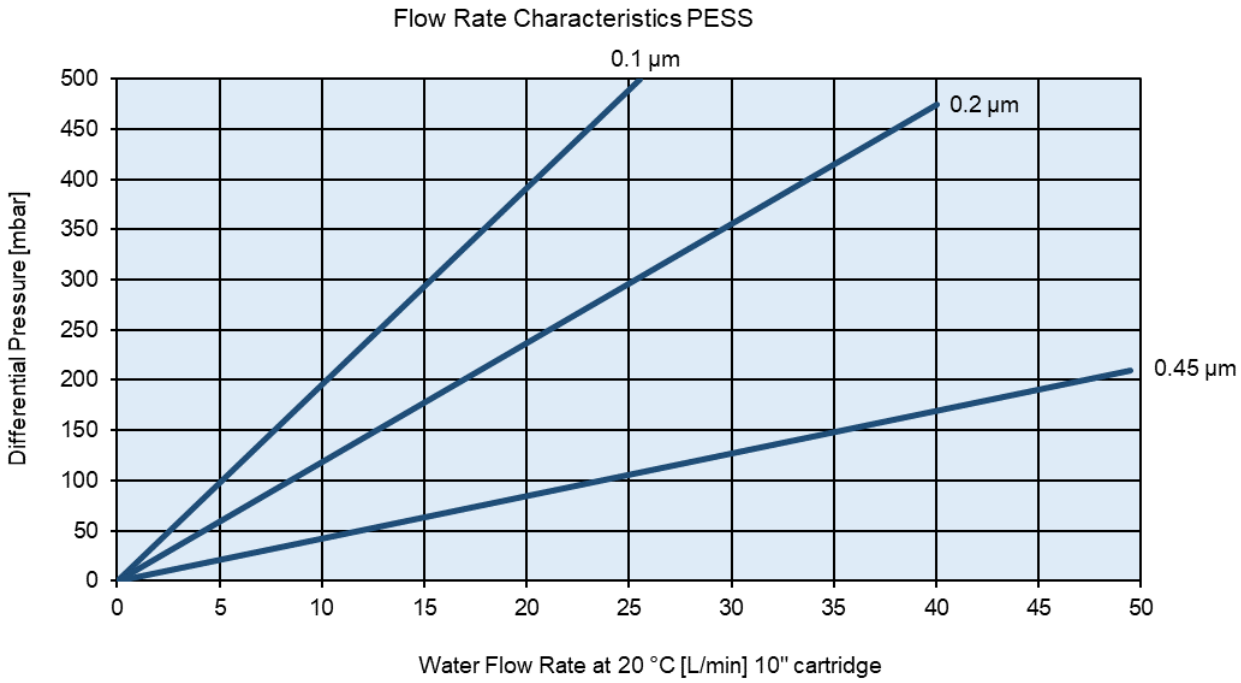
Quality Assurance

- Tested with Brevundimonas Diminuta (ATCC 19146) at 107 CFU/cm² according with ASTM-F838
- Cartridges is marked with unique serial number for identification and traceability
- Manufactured in a facility which adheres to ISO 9001:2015 Practices.
- 100% Integrity testing in manufacturing

Biological Standards

- Bacterial Endotoxin: aqueous extraction of autoclaved filter contains < 0.25 EU/ml as determined by Limulus Amebcyte Lysate (LAL), USP <85>
- Non-fiber releasing: component materials meet the criteria for a Non fiber releasing filter as defined in 21 CFR 210.3(b)(6)
- Component material toxicity: meet the requirement of USP <87> In Vitro Cytotoxicity Test, meet the criteria of USP <88> Biological Reactivity Test for Class VI-121 °C plastics
- TOC/ Conductivity at 25 °C: Autoclaved filter effluent meet the USP <643> for Total Organic Carbon and USP <645> for Water Conductivity per WFI requirements after a UPW flush of specified volume.

Flow Rate Characteristics



Part Numbers

PESS	020	-	10		HSF	-	S

Code	Removal rating [µm]
010	0.1
020	0.2
045	0.45
065	0.65
120	1.2

Code	Length	
	[mm]	[inch]
2.5	70	2.5
05	127	5
10	254	10
20	508	20
30	762	30
40	1016	40

Code	End caps
STC	Sartorius code 28
HTC	222 O-ring/flat (Code 3)
HSF	226 O-ring/fin (Code 7)
HSC	226 O-ring/flat (Code 2)
STZ	Dh Z
CP2	R-2”
CP1	R-1”
HSH	H code
HSU	MCY 1001
SLK	Sealkeen retrofit
STT	126 O-ring
HST	MCY 4463 (Code 18)
SLV	MCY 4440

Code	O-Ring
S	Silicone
E	EPDM
P	PTFE enc. Viton

e.g. part number: PESS-020-10-HSF-S

PESS filter, 0.2 µm, 10” Length, End caps Code 7, Silicone O-rings