

Masterfilter DPES series

The Masterfilter *OptiPes* DPES series double layer polyether sulphone (PES) cartridges are designed to meet the highest requirements for removal of micro-organisms. The DPES cartridge combines an asymmetric pre-filtration membrane followed by a final symmetric layer both PES membrane.

The double layer PES provides a graded filtration throughout their depth facilitating long life, improved flux rates and optimized sterilization of liquids. The hardware selected in the construction of the DPES cartridges can withstand repeated chemical cleaning and steam sterilization.

Applications

- Bottled water – microbial stabilisation, colloidal retention, bio-burden reduction
- Wine – spoilage reductions, microbial stabilisation

Features and Benefits

- Double layer membrane structure provides excellent sterilization and reliability
- Constructed using asymmetric & symmetric membrane provides optimised microbial retention
- Asymmetric pre-filter layer provides longer service life and reduces filtration costs
- Unique thermal and mechanical resistance

Materials of Construction

- Membrane: Dual layer asymmetric / symmetric PES
- Support layers: Polypropylene
- Inner core: Polypropylene
- Outer cage: Polypropylene
- End caps: Polypropylene
- O-rings: Silicone, EPDM, Viton, PFA

Operating Parameters

- Maximum differential pressure:
Forward: 4.0 bar at 21 °C, 2.4 bar at 90 °C
Reverse: 2.0 bar at 25 °C
- Hot water sanitisation: 30 minutes at 85 °C, max. allowable pressure drop of < 2.0 bar
- Steam sterilisation: 50 cycles for 30 minutes at 21°C, max. allowable pressure drop of < 0.3bar
- Filtration area 10" module: 0,58 m²



Quality Assurance

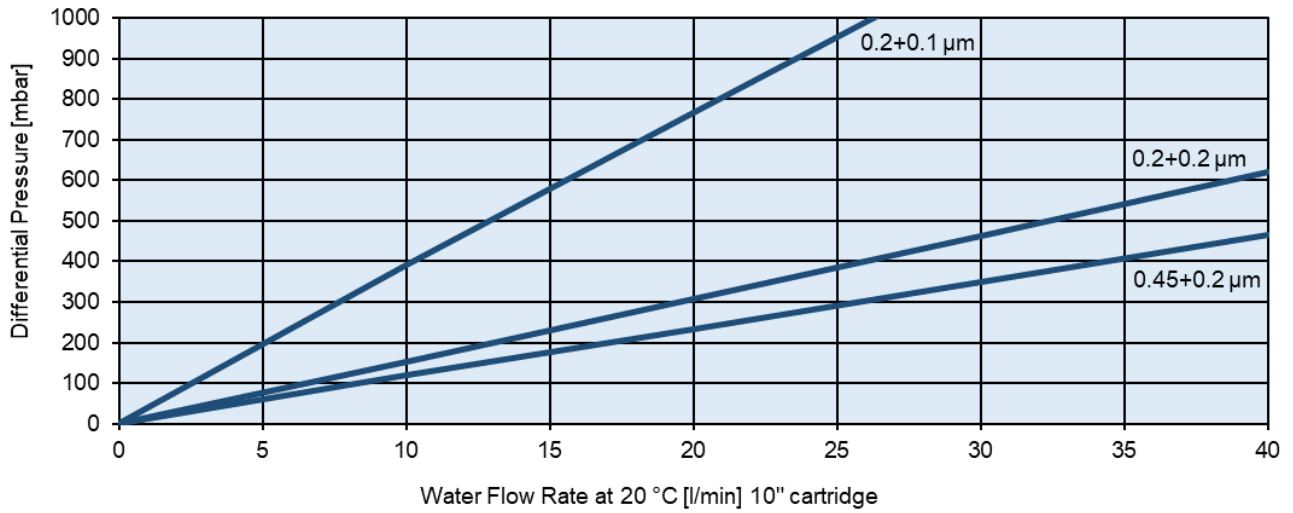
- Tested with *Brevundimonas Diminuta* (ATCC 19146) at 107 CFU/cm² according with ASTM-F838
- Cartridges is marked with unique serial number for identification and traceability
- All components meet with FDA food additive as per 21 CFR 177-182
- Manufactured under ISO 9001:2015 certified quality management system and cGMP

Biological Standards

- Component materials toxicity meets the USP <88> tests for Class VI-121 °C and ISO 10993 equivalents
- Bacterial Endotoxin testing as per LAL test determined by USP <85> < 0.25 EU/ml
- Component materials meet criteria for Non-fibre releasing filter as defined in 21 CFR.3 (b) (6)
- Comply with EC food compliance requirements of EU 1935/2004 and EU directive EU10/2011

Flow Rate Characteristics

Flow Rate Characteristics DPES 0.2+0.1 µm | 0.2+0.2 µm | 0.45+0.2 µm



Part Numbers

DPES 045020 - 10 - HSF - S

Code	Removal rating [µm]	Code		Length		Code	End caps	Code	O-rings
				[mm]	[inch]				
020010	0.2 + 0.1	02		50.8	2	STC	Sartorius code 28	S	Silicone
020020	0.2 + 0.2	05		127	5	HTC	222 O-ring/flat (Code 3)	E	EPDM
045020	0.45 + 0.2	10		254	10	HTF	222 O-ring/fin (Code 8)	V	Viton
045045	0.45 + 0.45	20		508	20	HSF	226 O-ring/fin (Code 7)	P	PFA
065020	0.65 + 0.20	30		762	30	HSH	UF retrofit plug in		
065045	0.65µ + 0.45	40		1016	40	HSC	226 O-ring/flat (Code 2)		
						STT	126 O-ring T-code		
						HST	MCY 4463 / code 18		
						SLV	MCY 4440		
						SLK	Sealkleen		

e.g. part number: DPES045020-10-HSF-S

Dual layers DPES filter, 0.45 + 0.2 µm, 10" Length, Code 7 End caps, Silicone O-rings