

DPES Series

Sterilizing grade double layer PES filter



Masterfilter DPES series

The DPES series double layer polyethersulphone (PES) cartridges are designed to meet the highest requirements for removal of micro-organisms. The DPES cartridge combines an asymmetric prefiltration 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

Operating parameters

- Maximum differential pressure:
Forward: 4,0 bar @ 21°C | 2,4 bar @ 90°C
Reverse: 2,0 bar @ 21°C
- Hot Water sanitisation: 30 minutes @ 85°C, maximum allowable pressure drop of <2,0bar
- Steam sterilisation: 50 cycles for 30 minutes @ 21°C, maximum allowable pressure drop of <0,3bar
- Filtration Area 10" Module: 0,58 m²

Quality assurance

- Tested with *Brevundimonas Diminuta* (ATCC 19146) @ 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

DPES Series

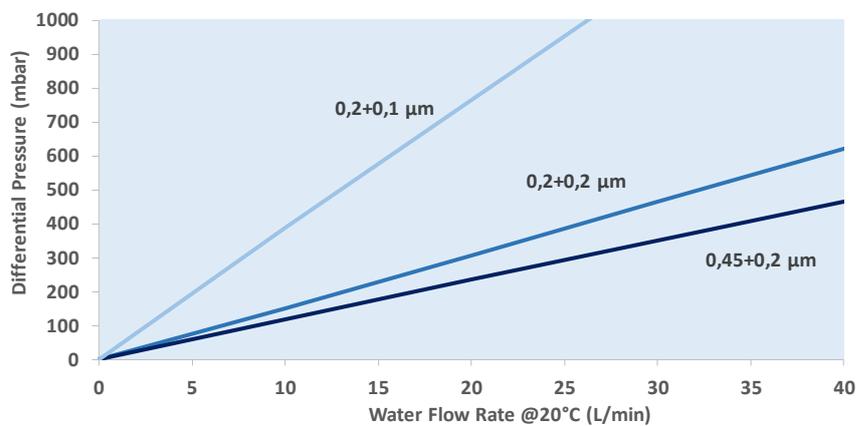
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Biological standards

- 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



Part Numbers

DPES	045020	-	10	-	HSF	-	S	-
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Code	Removal rating micron
020010	0,2µ + 0,1µ
020020	0,2µ + 0,2µ
045020	0,45µ + 0,2µ
045045	0,45µ + 0,45µ
065045	0,65µ + 0,45µ

Code	Length	
	mm	inch
02	50.8	2
05	127	5
10	254	10
20	508	20
30	762	30
40	1016	40

Code	End caps
STC	Satorius code 28
HTC	222 O-ring/flat (Code 3)
HTF	222 O-ring/fin (Code 8)
HSF	226 O-ring/fin (Code 7)
HSH	UF retrofit plug in
HSC	226 O-ring/flat (Code 2)
STT	126 O-ring T-code
HST	MCY 4463 / code 18
SLV	MCY 4440
SLK	Sealkleen

Code	O-rings
S	Silicone
E	EPDM
V	Viton

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

Dual layers PES filter, 0.45/0.2µm, 10" length, Code 7 end caps, silicone O-rings