

# 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) @ 10<sup>7</sup> CFU/cm<sup>2</sup> 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

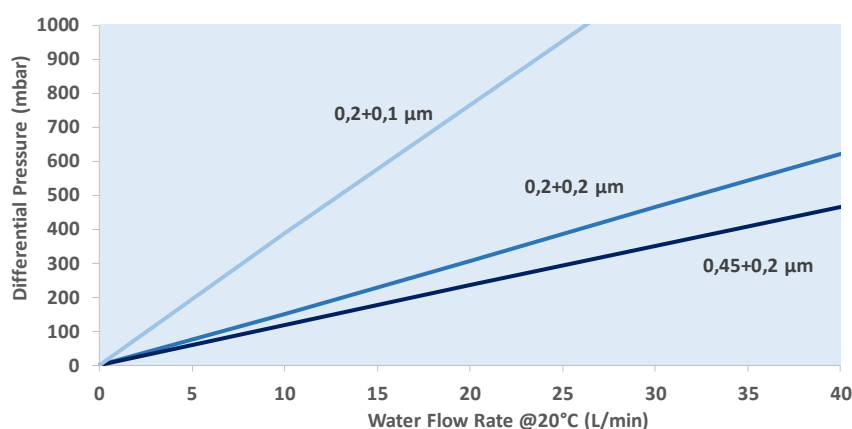
Sterilizing grade double layer PES filter



## 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>  $\leq 0,25$  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	-
Code	Removal rating micron	Code	Length		Code	End caps	Code	O-rings
			mm	inch				
020010	0,2µ + 0,1µ	02	50.8	2	STC	Satorius code 28	S	Silicone
020020	0,2µ + 0,2µ	05	127	5	HTC	222 O-ring/flat (Code 3)	E	EPDM
045020	0,45µ + 0,2µ	10	254	10	HTF	222 O-ring/fin (Code 8)	V	Viton
045045	0,45µ + 0,45µ	20	508	20	HSF	226 O-ring/fin (Code 7)		
065045	0,65µ + 0,45µ	30	762	30	HSH	UF retrofit plug in		
		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 PES filter, 0.45/0.2µm, 10" length, Code 7 end caps, silicone O-rings