

# 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. They are designed for the filtration of a broad range of pharmaceutical products and the removal of particle, cysts, oocysts, and bacteria in aqueous filtration application.



### Applications

- **Pharmaceuticals** - Vaccines, Blood Proteins, Monoclonal Antibodies, API, Antibiotics, PW, and UP Water

### Features and Benefits

- Double layer membrane ensures extended service life and so reduced operating costs
- Constructed using asymmetric & symmetric membrane provides optimised microbial retention
- Unique thermal and mechanical resistance
- Hydrophilic membrane ensures low protein binding and colour stripping
- Broad chemical compatibility
- Easy to wet membrane for Integrity testing

### 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

### Operating parameters

- Maximum differential pressure:  
Forward: 6,9 bar @ 25°C | 4,0 bar @ 60°C | 2,4 bar @ 80°C  
Reverse: 3,0 bar @ 25°C ,30min. | 1,0 bar @ 80°C,30 min. Note : Reverse filtration is not recommended
- Recommended SIP/Autoclave cycles : 30 cycles of 30 min,121°C ,  $\Delta P \leq 30$  kPa
- Filtration Area 10" Module: 0,60 m<sup>2</sup>

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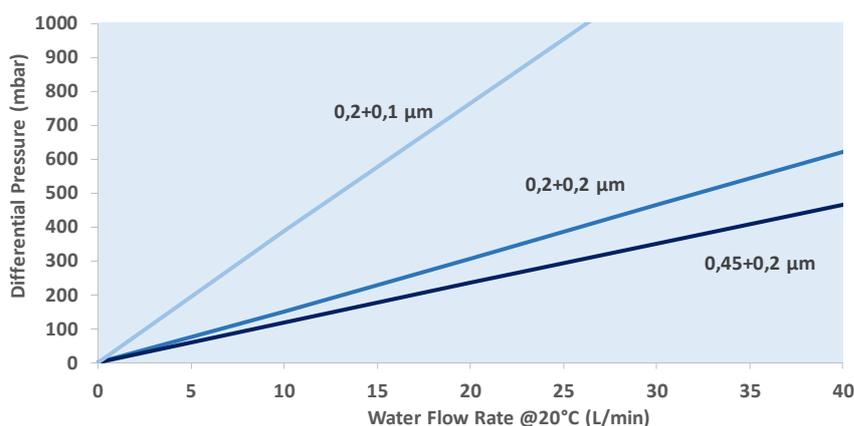
## Quality assurance

- Tested with Brevundimonas Diminuta (ATCC 19146)  $\geq 10^7$  CFU/cm<sup>2</sup> according with ASTM-F838
- Cartridges is marked with unique serial number for identification and traceability
- 100% Integrity testing in manufacturing
- 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 equivalentents
- 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**

Code	Removal rating micron
020010	0,2µ + 0,1µ
020020	0,2µ + 0,2µ
045020	0,45µ + 0,2µ
045045	0,45µ + 0,45µ
065020	0,65µ + 0,20µ
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
P	PFA

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

Dual layers PES filter, 0,45/0,2 µm, 10" length, Code 7 end caps, silicone O-rings