



**MEDICAL - ENDOSCOPE
WASHER-DISINFECTORS**



**MEDICAL
BIRTHING POOLS**



**PHARMA
& LAB.**

INTENDED USE

The range of Endosmart in-line filters offers maximum microbiological protection of water thanks to the performance of the hollow fiber membranes used, a complete protection based on the size of the pores and the adsorbent capacity of the membranes themselves. Versatile-PES® and **Medisulfone®** membranes, have the highest levels of **bacterial retention** (up to 11 LRV) compared to similar products available on the market, the Medisulfone designed for ultrafiltration of water for dialysis, also has high **viral retention** (8 LRV) and **endotoxin retention** (5 LRV). Specifically designed for use in processes subject to thermal / chemical disinfection, thanks to the use of sterilizing grade membranes, Endosmart in-line filters also available in sterile version, ensure maximum control of micro-organisms for optimal bacteriological purification of water, ideal for use in industry, for sanitary facilities, for washing-disinfection of surgical instruments and for birthing pools. In consideration of the use in processes subject to thermal disinfection, it is strongly recommended the use of softened and demineralized water.

STRENGTHS

- Maximum control of microorganisms and particulate matter present in the water, achieved through sterilizing-grade membranes (details and technical characteristics on the back page):
 - Versatile-PES® (microfiltration) with high bacterial retention (11 LRV)
 - Medisulfone® (ultrafiltration) high Bacterial (11 LRV), Viral (8 LRV) and Endotoxin (5 LRV) retention
- High flow rates and lifespan, tested up to one year with mains water (TOC 16.2 mg / l, Total Hardness 46 ° F, Fixed Residue 796.0 mg / l)
- All materials used suitable for thermal / chemical disinfection processes
- Tri-clamp connections with specific air vents
- Possibility of using RFID sensors (upon request) for product identification
- 100% controlled production with reference to the integrity control of the filter (structural) and membranes used
- Material biocompatibility compliant with ISO 10993

Medica S.p.A.

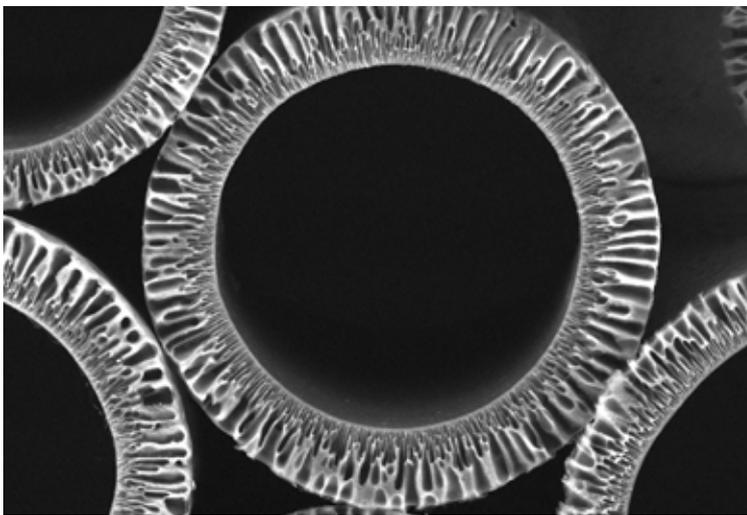
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UNI EN ISO 9001:2015
UNI CEI EN ISO 13485:2021
MOCA Certification - Report Rev. 00- 21 / 12/2018

MEDICA WATER DIVISION

Leader in the production of electromedical equipment and single-use medical devices, more than fifty registered patents, an innate vocation for research and development, the solidity of a group of 650 employees forged through nearly 40 years in a market, **Medica S.p.A.** thanks to a continuous technological innovation it's the only Italian company with capillary membrane extrusion technology for purification of blood and water developed entirely within the organisation.



TECHNICAL FEATURES

	MEDIAPURE ENDOSMART 0,005 µm	MEDIAPURE ENDOSMART 0,1 µm	MEDIAPURE ENDOSMART 0,45 µm	Tri-clamp, Air vent
Use	Single use			
Potting	Polyurethane			
Filter Body	PP (Polypropylene)			
Filtration's grade	Ultrafiltration	Microfiltration		
Membrane's type	Polysulfone Medisulfone*	Polyethersulfone Versatile-PES*		
Membrane porosity	0,005 micron	0,1 micron	0,45 micron	
Cut-off	15 KDa	1000 KDa	N/A	
Filtration's stage	Single			
Bacterial retention	>10 ¹¹ Pseudomonas Aeruginosa, Brevundimonas Diminuta (11 LRV)	N/A		
Viral retention	>10 ⁸ PhiX-174 (8 LRV)	N/A		
Endotoxins retention	>10 ⁶ EU/ml (5 LRV)	N/A		
Flow rate (lt/min) a 3 Bar	24	40	50	
Expected lifespan ⁽¹⁾	Up to 100 m ³ treated water or 6 months after installation	Up to 200 m ³ treated water or 1 year after installation		
Maximum Inlet Pressure	3,5 Bar			
Maximum working Temperature	55 °C			
Minimum working Temperature	5 °C			
Maximum Disinfection Temperature (1 Bar) ⁽²⁾	90 °C			
IN/OUT Connections	Tri-clamp 1"			
Air vent	NO.2 x ¼" GAS			
Overall dimensions (mm)	281,4 (L) x 97,5			
Tag RFID (upon request)	√	√	√	
Product Code	M90450	M90448	M90449	
Q.ty box MOQ ⁽³⁾	12	12	12	

(1) The expected filter's lifespan, it's strongly influenced by the quality of the treated water (fixed residue), by the presence of one coarse filtration upstream
 (2) In consideration of the use in processes subject to thermal disinfection, it is strongly recommended the use of softened and demineralized water.
 (3) MOQ = Minimum Order Quantity

MEMBRANES

Medica S.p.A manufactures and distributes the following hollow-fibre membranes for water purification:



Medisulfone® - polysulfone (PS) **ultrafiltration** membrane, used for almost 20 years in the field of dialysis in order to obtain ultra-pure dialysate, and in various other applications for the retention of bacteria, viruses and endotoxins, particulates/microplastics, and more generally all substances with a molecular weight greater than 15 kDa and dimensions greater than 0.005 µm



Versatile-PES® 0,1 µm - polyethersulfone (PES) **microfiltration** membrane, used in various applications for the retention of bacteria, yeasts, mould and algae, particulates/microplastics, and more generally all substances with a molecular weight greater than 1000 kDa and dimensions greater than 0.1 µm

Versatile-PES® 0,45 µm - polyethersulfone (PES) **microfiltration** membrane, used in various applications mainly for the retention of particulates matter /microplastics, and more generally all substances with dimensions greater than 0.45 µm

Medisulfone® and Versatile-PES® are registered trademarks of Medica S.p.A.

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