



International Filter Products

Revolutionary systems for your industry

MKP Series PES Single Layer Filter Capsules

MKP pharma grade capsules were designed for small-scale filtration, clarification, and filling applications in the pharmaceutical and biotechnology industries worldwide. This family of products is particularly suitable for scale-up testing where a full-size capsule or cartridge would be excessive. The all-polypropylene construction provides excellent compatibility with a wide range of chemicals. The capsules are thermally sealed, and 100% integrity tested.

Application

- Buffers and Media
- SVP (Small Volume Parenteral)
- Vaccines
- Scale up processing
- Product Sterilization
- Bio Bags
- Biologics
- Ultrapure Water
- Fermentation Broths
- Pharmaceuticals
- Antibiotics
- Serums

Part# **MKPS020DLFLM-ETO**: MKP Filter Capsule with LF Inlet and LM Outlet Connection





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Technical Data Sheet

Popular Configuration:

Catalog Number	Micron Rating	Inlet Connection	Outlet Connection	Vent Connection	Sterilization
MKPS020D2H2H-ETO	0.2 μm (Single Layer)	Luer Loc Female	Luer Loc Male	Luer Loc Cap	ETO Sterilized

❖ Find the complete list of available standard inlet and outlet fittings in page 5.

Micron Rating:

Final Membrane: 0.2 μm PES [Sterilizing Grade Membrane]

Effective Filtration Area:

Mini Capsule; 74.4 in^2 (480 cm^2)

Materials of Construction:

Membrane: Pharmaceutical Grade PES (Polyethersulfone) Sterilizing Grade

Membrane Feature: Hydrophilic, Low Protein Binding, High Flow Rate

Media Supports: Polypropylene

Shell, Cage, Core, End Caps: Polypropylene

Valve O-Rings: Silicon (Standard)

Sealing: Thermally Bonded

Operating Conditions:

Maximum Forward Differential Pressure: **Liquid:** 5.5 bar (80psi) at 77°F/25°C

Gas: 4.1 bar (60psi) at 77°F/25°C

Minimum Burst Pressure: 8.3 bar (120psi) at 77°F/25°C

Maximum Reverse Differential Pressure: 3.0 bar (44psi) at 68°F/20°C

Maximum Operating Temperature: 176°F/80°C



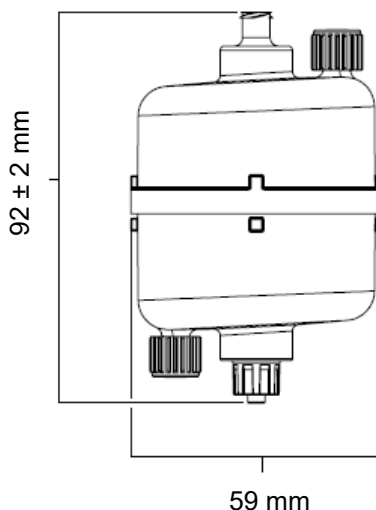


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Nominal Dimension:

Part Number: MKPS020DLFLM-ETO



Hold-Up Volume (Approx.):

Upstream Volume: 26 ml

Downstream Volume: 9 ml

Typical Filtered Volume:

10.0L – 28.0L

Filter Integrity:

The finished product was sampled and shown to exhibit a minimum bubble point of ≥ 18 psi (1.2 bar) in 60%IPA / 40% water and ≥ 50 psi (3.5 bar) in DI Water (at 22°C).

Sterilization:

Capsules can be autoclaved 25 times at 125 °C (257°F) for 30 minutes or chemically sanitized in situ using common sanitizing agents or hot water at 90 °C (194°F) for a limited time (dependent on time and temperature).

Warning: The filters cannot be sterilized by steam-in-place (SIP)



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Regulatory Compliance 21CFR Part 177 & USP <88>:

The filters are constructed with polypropylene resins and filtration media in compliance with 21CFR Part 177 of the US Code of Federal Regulations and USP Class VI Biological USP <88>Test for Plastic.

USP <85> Bacterial Endotoxins:

The filters were tested to confirm that an aqueous extraction of this product contains <0.25 EU/ml as determined by the Limulus Amebocyte Lysate (LAL) Test

USP <645> Conductivity USP:

Effluent is tested during the manufacturing process and shown to meet the requirements for USP Sterile Water for Injection for conductivity.

Bacterial Retention ASTM F838-05:

The filters are quantitatively retentive towards *Brevundimonas diminuta* (ATCC #19146) at a minimum challenge level of 10^7 CFU per cm^2 of filtration area, consistent with ASTM F838-05

USP <87> / ISO 10993-5 Cytotoxicity:

Extract from this product is non-Cytotoxic

Hemolysis ASTM F756-17:

Extract from this product is non-Hemolytic

Human and Veterinarian Use:

The product is safe for Human and Veterinarian use. CGMP CFR part 210 & 211, additional requirement of 21 CFR part 600 and 21 CFR part 680 are applicable to the aseptic manufacturing process.

Animal-Derived Components & TSE/BSE Risk:

No animal-derived material is intentionally added or used during the manufacture of this product.

Shelf Life:

The MKP capsules have a shelf life of 3 years from the date of sterilization.



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MKP- Series PES Mini Capsules (Pharmaceutical Grade)

Ordering Guide



[1]	[2]	[3] Inlet and [4] Outlet	[5]
Micron Rating (Pre-Filter/Final Filter)	Filter Size Code [Filtration Area]	Inlet and Outlet Connection	Sterilization
<ul style="list-style-type: none"> S020 : 0.2 µm DS065S020 : Highly Asymmetric 0.65/0.2 µm DS045S020 : Highly Asymmetric 0.45/0.2 µm DS045S010 : Highly Asymmetric 0.45/0.1 µm S080020 : 0.8/0.2 µm S020010: 0.2/0.1 µm <p>Note: All final membranes are sterilizing grade.</p>	<ul style="list-style-type: none"> B [Filtration Area: 360 cm²] C [Filtration Area: 420 cm²] D [Filtration Area: 500 cm²] 	<ul style="list-style-type: none"> 1H : 1/8" Hose Barb 1Q : 1/8" Male Quick Coupling with Metal Latch 2H : 1/4" Hose Barbs 2H-FB : 1/4" Hose barbs with Filling Bell 2Q : 1/4" Male Quick Coupling for Metal Latch 2N : 1/4" MNPT 3H : 3/8" Hose Barbs LF : Luer Loc Female LM : Luer Loc Male MT : 1/2" Tri clamps 	<p>-ETO</p> <p>Ethylene Oxide Sterilization</p>

Example:

MKPD065S020D3H3H-ETO

PureFlo MKP Series Mini Capsule, Highly Asymmetric Dual Layer PES 0.65µm / 0.2µm PES membrane (Sterilizing Grade), Filtration Area 500 cm², 3/8" Hose Barb (Inlet/Outlet), ETO Sterilized (Factory Sterilized)

Part Number

Description



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Special Configuration:

Layer Option:

- Single Layer
- Dual Layer

Micron Rating Option:

- 0.04 Micron
- 0.1 Micron
- 0.2 Micron
- 0.45 Micron
- 0.65 Micron
- 0.8 Micron
- 1.2 Micron

Inlet Fitting Option:

- 1H : 1/8" Hose Barb
- 1Q : 1/8" Male Quick Coupling with Metal Latch
- 2H : 1/4" Hose Barbs
- 2H-FB : 1/4" Hose barbs with Filling Bell
- 2Q : 1/4" Male Quick Coupling for Metal Latch
- 2N : 1/4" MNPT
- 3H : 3/8" Hose Barbs
- LF : Luer Loc Female
- MT : 1/2" Tri clamps

Outlet Fitting Option:

- 1H : 1/8" Hose Barb
- 1Q : 1/8" Male Quick Coupling with Metal Latch
- 2H : 1/4" Hose Barbs
- 2H-FB : 1/4" Hose barbs with Filling Bell
- 2Q : 1/4" Male Quick Coupling for Metal Latch
- 2N : 1/4" MNPT
- 3H : 3/8" Hose Barbs
- LM : Luer Loc Male
- MT : 1/2" Tri clamps

