

SepraPor®

500 kDa Hollow Fiber Tangential Flow Filter Capsule

Description

SepraPor® XFC500 is a tangential flow filtration (TFF) capsule containing hollow fiber membranes. It is ideal for use in a variety of biopharmaceutical applications, including ultrafiltration, diafiltration, and purification. This TFF capsule is available in a range of sizes from bench through production scale for ease of scalability. The SepraPor® filter capsule is 100% integrity tested during manufacture and meets the critical demands of the pharmaceutical, biotechnology, and related industries.

Materials of Construction

All components of the filter are animal component free (ACF). These materials are listed for food contact use in the Code of Federal Regulations (CFR), Title 21, as below:

Hollow fibers:	Polysulfone	CFR Title 21, 177.1655
Fiber bundle netting:	Polypropylene	CFR Title 21, 177.1520
Capsule housing:	Polysulfone	CFR Title 21, 177.1655
Permeate ports:	Polysulfone	CFR Title 21, 177.1655
Retentate ports:	Polysulfone	CFR Title 21, 177.1655
Fiber encapsulation:	Epoxy	CFR Title 21, 175.300

Retention Rating 500 kDa

Typical Fiber Lumen 1.0 mm

Fluid Path Length (Nominal) 12 in (30 cm)
24 in (60 cm)

Maximum Diffusive Flow Rate 32 mL/min/m² @ 30 psig (2.07 bar), water with air

Normalized Clean Water Flux 465 - 1,200 LMH/bar (Liters/m²/h/bar) @ 25 °C

Operating Characteristics

Operating temperature range:	32 °F to 100 °F (0 °C to 38 °C)
Maximum operating temperature:	122 °F (50 °C) for short-term operations such as cleaning
Maximum feed pressure:	65 psig @ 77 °F (4.48 bar @ 25 °C)
Maximum transmembrane pressure:	45 psig @ 77 °F (3.10 bar @ 25 °C)

Sterilization

Autoclave: 121 °C to 123 °C (15 psi, 1.03 bar), 30 minutes.

Apply a validated autoclave sterilization cycle that increases and decreases temperature gradually.

Consult autoclave sterilization instructions in the SepraPor® Green Doc document for further guidance.

Capsules must not be in-line steam sterilized.

Biological Safety

SepraPor® filters meet the requirements as specified in the USP 43 Biological Reactivity Tests, in vitro <87> (cytotoxicity) and in vivo <88> (Class VI Plastics).

Quality Assurance

SepraPor® filters comply with the Food and Drug Administration Code of Federal Regulations, Title 21, Parts 210 and 211. Product is manufactured and packaged in a cleanroom facility that, through voluntary compliance, meets or exceeds FDA Good Manufacturing Practice Standards. To ensure product reliability, Meissner's Quality Assurance staff continually audits the manufacturing process for conformance to its Quality Management System. Each SepraPor® filter is clearly marked with filter type, lot number, and unique serial number.

Ordering Guide

Part Number¹	Filter Diameter	Fluid Path Length	Effective Filtration Area	Retentate Ports²	Permeate Ports²
XFC500C012-7711	¾" (0.95 cm)	12" (30 cm)	0.12 ft² (0.011 m²)	¾" sanitary flange	¼" hose barb
XFC500C024-7711		24" (60 cm)	0.25 ft² (0.023 m²)		
XFC500C112-7722	¾" (1.9 cm)	12" (30 cm)	0.45 ft² (0.042 m²)		¾" hose barb
XFC500C124-7722		24" (60 cm)	0.91 ft² (0.085 m²)		
XFC500C212-00CC	1" (2.5 cm)	12" (30 cm)	0.81 ft² (0.075 m²)	1" sanitary flange	½" hose barb
XFC500C224-00CC		24" (60 cm)	1.6 ft² (0.15 m²)		
XFC500C312-FFCC	1¼" (3.2 cm)	12" (30 cm)	1.3 ft² (0.12 m²)	1½" sanitary flange	
XFC500C324-FFCC		24" (60 cm)	2.5 ft² (0.23 m²)		
XFC500C412-FFCC	2.0" (5.1 cm)	12" (30 cm)	3.9 ft² (0.36 m²)		
XFC500C424-FFCC		24" (60 cm)	9.0 ft² (0.84 m²)		
XFC500C512-FF00	3.0" (7.6 cm)	12" (30 cm)	9.9 ft² (0.92 m²)	1" sanitary flange	
XFC500C524-FF00		24" (60 cm)	23 ft² (2.1 m²)		

² Retentate and Permeate port options are subject to capsule diameter size. For custom ports, please contact Meissner.
Additional information about this filter product is available in the SeptraPor® Green Docs document at www.meissner.com/green-docs.