50 mm Filter

Critical Small Scale Filter Device

MEISSNER

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Meissner's 50 mm filter portfolio has been optimized for use in critical small-scale liquid or air/gas filtration applications, delivering the same high quality, high performance, fully supported solution as larger scale filters common to typical process scale applications.

Meissner's 50 mm filters are available sterile (irradiated) or non-sterile and feature minimal extractables, low adsorption, and low hold-up volumes.

50 mm filters are manufactured from the same materials of construction as Meissner's entire capsule filter portfolio to facilitate scale-up without requalification or revalidation concerns.

General Design

- T-grade filters are 100% integrity tested during manufacture
- Individually serialized for optimum traceability in critical applications
- Materials of construction are identical to Meissner's portfolio of larger capsule filters, providing seamless scale-up
- Irradiation stable and animal component free (ACF)
- Stepped hose barb and, sanitary flange, process connections

Ideal for filtering small scale liquid volumes from 50 mL to 2 L

Typical Applications

- Serum and serum additives
- Growth media, additives, and buffers
- Tissue and cell culture media
- Protein solutions
- Monoclonal antibodies
- DNA solutions
- Aqueous solutions
- Solvents
- Pharmaceutical preparations and intermediates
- Reagents
- Sterile filtration of small volume liquids
- Drug development studies
- Filterability testing
- Sterile filtration of gases and air
- Sterile venting
- Clarification

Product Specifications

Materials of Construction

Capsule Housing: PP

Support Components: PP

Sealing Method: Thermal Bonding

Filter Media

Hydrophilic Membranes
SteriLUX® polyvinylidene fluoride (PVDF)
STyLUX® polyethersulfone (PES)
EverLUX® polyethersulfone (PES)

Hydrophobic Membranes
Steridyne® polyvinylidene fluoride (PVDF)
Ultradyne® polytetrafluoroethylene (PTFE)

Microfiber
Protec® RM borosilicate glass + PVDF membrane
ALpHA® polypropylene (PP)
ALpHA® G polyester (PBT)

Filters comply with European Commission Regulation No. 10/2011. The filters meet the requirements as specified in the current USP <88> Class VI plastics, pyrogen, and USP <87> cytotoxicity tests. No binders or adhesives are used in the construction of these filters. Capsule filters are non-fiber-releasing as defined in 21 CFR 210.3(B)(6) and 211.72. All materials of construction meet FDA standards for food contact per CFR 177.

Additional Offerings

Meissner's portfolio of scalable capsule filter options is available in configurations offering from 3.6 cm^2 to more than 3.5 m^2 to meet application requirements.

Sterilization

Autoclave: 121 °C to 135 °C (15 to 30 psi, 1 to 2 bar), 30 to 60 minutes, ≥3 cycles.

Irradiation: 25 to 40 kGy once*. Do not autoclave irradiated capsules.

Capsules must not be in-line steam sterilized.

Operating Characteristics

Operating temperature range:
32 °F to 100 °F (0 °C to 38 °C)

Maximum temperature rating:
160 °F @ 35 psig (71 °C @ 2.4 bar)

Maximum operating pressure:
80 psig @ 100 °F (5.5 bar @ 38 °C)

Effective Filtration Area

19.6 cm^2

Filter Connections

Inlet/Outlet: Sanitary hose barb and sanitary flange fittings, optional filling bell
Vent Port: Luer

Retention Ratings

0.04 µm to 20 µm

*Irradiation option is only available for ALpHA® G, STyLUX®, EverLUX®, SteriLUX®, and Steridyne® capsule filters.

Ordering Information

Sterile Option	Effective Filtration Area	Material Designator	Filter Grade	Retention Rating (µm)		Inlet/Outlet Connections	Vent/Drain Ports
C	B	2	SM	0.2	-	33	0

C = Standard capsule

G* = Sterile capsule

B = 50 mm (19.cm²)

2 = Animal component free (ACF) capsule shell material, optimized for gamma irradiation compatibility

33 = Stepped barb (¼"- ⅜") inlet/outlet

3B = Stepped barb (¼"- ⅜") inlet; filling bell outlet

73 = ¾" sanitary flange inlet; ⅜" hose barb outlet

77 = ¾" sanitary flange inlet/outlet

7B = ¾" sanitary flange inlet & filling bell outlet

0 = No vent/ drain ports

1 = One, Luer port with cap, inlet side

	Media	Grade	Retention Rating (µm)
Hydrophilic membranes	SteriLUX® PVDF	**VMH**	0.1, 0.2, 0.4, 0.6
		VTH	0.1, 0.2, 0.4
	STyLUX® PES	**SC**	0.1
		SM	0.04, 0.1, 0.2, 0.4, 0.6
		ST	0.04, 0.1, 0.2, 0.4
	EverLUX® PES	**SMH**	0.4, 0.6
		STC	0.1
		STS	0.2
		STW	0.1, 0.2
Hydrophobic membranes	Steridyne® PVDF	**VMV**	0.2
		VTV	0.2
	Steridyne® High Flow PVDF**	**VMF**	0.2
		VTF	0.2
	Ultradyne® PTFE	**TA**	0.2
		TT	0.2
		TM	0.1, 0.2, 0.4
Microfiber media	ALpHA® PP	**MF**	0.6, 0.8, 1.2, 2.4, 5, 7, 10
	ALpHA® G polyester	**MG**	0.6, 1.2, 2.4, 5, 7, 10, 20

*G option is not available for ALpHA® PP or Ultradyne PTFE capsule filters.
**For Steridyne HF (High Flow) specifications, see High Flow Steridyne® Filter Brochure.

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