

Capsule Filling Bell

Reduces contamination risk during filling applications



Capsule Filling Bell Assembly

The capsule filling bell assembly guards against airborne contaminants when used with Meissner's line of capsules to filter liquids into roller bottles, media bottles, flasks and other containers. The integral capsule filter and filling bell are ideal for filtration and aseptic filling of critical fluids such as tissue culture media, biologicals and other pharmaceutical preparations.

Features and Benefits

- Polycarbonate filling bell offers more durability and shatter-resistance than glass assemblies
- Transparent nature of the polycarbonate bell allows operators to easily position vessels as they are being filled
- Capsule with integral filling bell is ready-to-use and provides disposable convenience
- Available in gamma-irradiated version to ensure sterility
- Capsule and filling bell assembly are autoclavable
- A broad range of Meissner capsule filters can be specified with the filling bell attachment

Capsule Dimensions (Nominal)

Model	Diameter	Length w/ 3/8" hose barb/bell	Length w/ 1/4" hose barb/bell
CL	2.75" (7.0 cm)	8.6" (21.8 cm)	N/A
CS	2.75" (7.0 cm)	6.2" (15.7 cm)	N/A
CK	1.25" (3.2 cm)	7.5" (19.1 cm)	7.3" (18.5 cm)
CM	1.25" (3.2 cm)	6.7" (17.0 cm)	6.6" (16.8 cm)

Inlet/Outlet Connections

Model	Threaded (MNPT)	Threaded (FNPT)	Hose barb	Sanitary flange	Hose barb (flexible tubing)
CS/CL	1/4" (6 mm) 3/8" (10 mm)	1/4" (6 mm) 3/8" (10 mm)	3/8" (10 mm)	3/4" (19 mm) 1" (25 mm)	1/2" (13 mm)
CM/CK	1/4" (6 mm)	N/A	1/4" (6 mm) 3/8" (10 mm)	3/4" (19 mm)	N/A

Product Specifications

Materials of Construction

CS/CL Model

Filling Bell: Polycarbonate

Filter Membrane: SteriLUX® PVDF (polyvinylidene)
STyLUX® PES (polyethersulfone)
EverLUX® PES (polyethersulfone)

Capsule Housing: Animal Component Free (ACF),
gamma stable polypropylene

Support Components: Polypropylene

Sealing Method: Thermal Bonding

CM/CK Model

Filling Bell: Polycarbonate

Filter Membrane: SteriLUX® PVDF (polyvinylidene)
STyLUX® PES (polyethersulfone)
EverLUX® PES (polyethersulfone)

Capsule Housing: Animal Component Free (ACF),
gamma stable polypropylene

Support Components: Animal Component Free (ACF),
gamma stable polypropylene

Sealing Method: Thermal Bonding

CS/CL and CM/CK model capsule filter materials of construction meet FDA standards for food contact per 21 CFR 177. Capsule filters comply with European Commission Regulation No. 10/2011. Capsule filters meet the requirements as specified in the current USP Class VI plastics, pyrogen and cytotoxicity tests. No binders, adhesives or surfactants are used in their construction, and they are non-fiber-releasing as defined in 21 CFR 210.3(b)(6) and 211.72.

Max. Operating Temperature & Pressures

Maximum Operating Pressure, Liquids

CS/CL Model:

75 psig @ 32 °F to 100 °F (5.2 bar @ 0 °C to 38 °C)

CM/CK Model:

100 psig @ 32 °F to 122 °F (6.9 bar @ 0 °C to 50 °C)

Maximum Operating Pressure, Gas

CS/CL Model:

50 psig @ 32 °F to 100 °F (3.4 bar @ 0 °C to 38 °C)

CM/CK Model:

75 psig @ 32 °F to 122 °F (5.2 bar @ 0 °C to 50 °C)

Maximum Operating Temperature Rating

CS/CL Model:

160 °F @ 35 psig (71 °C @ 2.4 bar)

CM/CK Model:

160 °F @ 35 psig (71 °C @ 2.4 bar)

Sterilization

The capsule filling bell assembly may be autoclaved at a minimum of 121 °C for 60 minutes. Capsule filling bell assemblies can be repeatedly autoclaved without loss of integrity.

Capsule filling bell assemblies must not be *in-situ* steam sterilized (SIP), as exposure to direct steam flow at 121 °C, 15 psig, will exceed material design limits and can result in rupture of the plastic housing.

Options

All capsule models are available with luer or valved ports for venting, draining, or sampling, and a variety of inlet connections. They are also available in a gamma-irradiated version for sterile applications. For the Effective Filtration Area (EFA) of the capsule filter media selected, please consult Green Docs at www.meissner.com/greendocs. Contact Meissner for more details.



Ordering Information

CS/CL Capsule Model Options

Sterile Option	Filtration Area (nominal)		Filter Grade*	Retention Rating (µm)		Filling Bell	Vent/Drain Ports
C	S	2	VMH	0.2	—	2B	2
C = Standard (non-sterile)	L = 2.0 ft. ² (2000 cm ²)	SteriLUX® PVDF	VMH	0.1, 0.2, 0.4, 0.6		2B = 3/8" (10 mm) hose barb with filling bell	0 = No vent/drain
G = Gamma irradiated	S = 1.0 ft. ² (1000 cm ²)		VTH	0.1, 0.2, 0.4, 0.6		4B = 1/4" (6 mm) MNPT with filling bell	1 = One luer port with cap, outlet side
			STyLUX® PES	0.04, 0.1, 0.2, 0.4, 0.6		5B = 3/8" (10 mm) FNPT	2 = Standard - two luer ports with caps
		STyLUX® PES	SM	0.04, 0.1, 0.2, 0.4, 0.6		6B = 3/8" (10 mm) MNPT	4 = Two sanitary valves with hose barbs
			ST	0.04, 0.1, 0.2, 0.4, 0.6		7B = 3/4" (19 mm) sanitary flange	5 = One sanitary valve with hose barb, outlet side
		EverLUX® PES	SMH	0.4, 0.6		0B = 1" (25 mm) sanitary flange	6 = One sanitary valve with hose barb, inlet side
			STW	0.2, 0.4, 0.6		9B = 1/2" (13 mm) hose barb (flexible tubing)	

CM/CK Capsule Model Options

Sterile Option	Filtration Area (nominal)		Filter Grade*	Retention Rating (µm)		Filling Bell	Vent/Drain Ports
C	M	2	VTH	0.1	—	2B	4
C = Standard (non-sterile)	K = 0.4 ft. ² (400 cm ²)	SteriLUX® PVDF	VTH	0.1, 0.2, 0.4, 0.6		1B = 1/4" (6 mm) hose barb with filling bell	0 = No vent/drain
G = Gamma irradiated	M = 0.2 ft. ² (200 cm ²)		VTH	0.1, 0.2, 0.4, 0.6		2B = 3/8" (10 mm) hose barb with filling bell	1 = One luer port with cap, inlet side
			STyLUX® PES	0.04, 0.1, 0.2, 0.4, 0.6		4B = 1/4" (6 mm) MNPT	2 = Standard - two luer ports with caps
		STyLUX® PES	SM	0.04, 0.1, 0.2, 0.4, 0.6		7B = 3/4" (19 mm) sanitary flange	4 = Two sanitary valves with hose barbs
			ST	0.04, 0.1, 0.2, 0.4, 0.6			5 = One sanitary valve with hose barb, inlet side
		EverLUX® PES	SMH	0.4, 0.6			6 = One sanitary valve with hose barb, outlet side
			STW	0.1, 0.2			

*Filter Grade Descriptions

T-Grade (VTH, ST, STW)

This absolute, microbially rated, sterilizing grade filter meets full traceability requirements for the pharmaceutical industry. It is 100% integrity tested and flushed with DI water during manufacture. Each T grade filter is shipped with a Certificate of Quality stating exact quality control criteria and test performance results. This is a validatable product to meet the stringent requirements of the pharmaceutical industry.

M-Grade (VMH, SM, SMH)

This sterilizing grade filter is absolute, microbially rated and 100% integrity tested and flushed with DI water during manufacture. It is suited for critical applications when regulatory documentation requirements are minimal. A Certificate of Conformance is available on a lot basis.