

SKR

Small Flow Filter

SFE Cartridge with Skirt Flange

SKR filter cartridges are pleated, small-area filters for critical point-of-use filtration and small batch processing of liquids and gases. Available in 2.5" and 5" lengths, they are designed for use in Meissner's SKR filter housings and in competitive filter housings that accommodate a skirt-flange sealing mechanism. SKR filter cartridges are part of Meissner's SFE (Small Flow Element) filter product line.

A skirt-flange adapter is integrally welded to the end cap of each SKR filter cartridge. In conjunction with the closure O-ring, the adapter prevents downstream fluid bypass.

Design Features

- Full range of hydrophilic or hydrophobic filter media
- Retention ratings from 0.04 μm to 100 μm
- High flow rates at low pressure drops
- Ideal for flow rates less than 3 gpm in liquids, and 60 scfm in gases
- Extremely low extractables
- Wide chemical compatibility
- Cleanroom manufactured
- All materials of construction meet FDA requirements for food contact use and are biosafe in compliance with USP Class VI Plastics biological reactivity tests
- Ultraclean - no additives, surfactants or post-treatments
- No glues, adhesives, epoxies or other extraneous materials used in construction
- Extremely rugged - withstands backpressure surges, hydraulic shocks, multiple sterilizations, and rigorous application conditions



Industries

- Pharmaceutical
- Biopharmaceutical
- Biologics
- Bioprocessing
- Chemical
- Cosmetics
- Food and beverage
- Microelectronics

Applications

- Point-of-use filtration
- Continuous or small batch processing
- Laboratory, pilot plant and production
- Clarification
- Particulate filtration
- Prefiltration
- Sterile filtration
- Sterile air/gas/venting
- Mycoplasma removal
- Virus reduction

Specifications

Materials of Construction

Filtration Media:

Hydrophilic Membranes

SteriLUX® Polyvinylidene fluoride (PVDF)

EverLUX™ Polyethersulfone (PES)

STyLUX® Polyethersulfone (PES)

Hydrophobic Membranes

Steridyne® Polyvinylidene fluoride (PVDF)

Chemdyne® Polypropylene (PP)

Ultradyne® PTFE

Microfiber

ALpHA® Polypropylene (PP)

Vanguard® Polypropylene (PP)

Upstream Support: Polypropylene

Downstream Support: Polypropylene

Outer Guard: Polypropylene

Core: Polypropylene

End Caps: Polypropylene

Sealing Method: Thermal Bond

All materials are cited for food contact use in the Code of Federal Regulations (CFR) Title 21.

Effective Filtration Area (Nominal)

2SK Model: 1 ft² (1000 cm²)

5SK Model: 2 ft² (2000 cm²)

Operating Characteristics

Maximum Operating Temperatures and Pressures

100 °F (38 °C) @ 80 psid (5,5 bar)

150 °F (66 °C) @ 60 psid (4,1 bar)

180 °F (82 °C) @ 30 psid (2,1 bar)

Cartridge Dimensions (nominal)

Diameter: 2.25" (5,7 cm)

Lengths: 2.5" or 5" (6,4 cm or 12,7 cm)

Sterilization

Inline Steam: 121-135 °C, 30-60 min.

Autoclave: 121-125 °C, 30-60 min.

SKR cartridges are capable of repeated sterilization cycles without loss of integrity.

Biosafety

All materials of construction meet FDA requirements for food contact use and are biosafe in compliance with USP Class VI Plastics biological reactivity tests. All materials are non-cytotoxic and non-pyrogenic.

Filter Element Selection

SKR filter cartridges are available in a variety of filtration media and pore sizes for both pre- and final filtration applications. For complete specifications and a description of available media, refer to Meissner's "Small Flow Filters" brochure.

Ordering Information

Filter Media - Grade	Retention Rating (µm)	Cartridge Length
L MF	5	5 SK
Membrane Media	Grade	Retention Rating (µm)
SteriLUX® PVDF	VMH*, VTH**	0.1, 0.2, 0.4, 0.6
EverLUX™ PES	SMH*, STW**	0.2, 0.4, 0.6
STyLUX® PES	SM*, ST**	0.04, 0.1, 0.2, 0.4, 0.6
Steridyne® PVDF	VMV*, VTV**	0.2
Chemdyne® PP	PM*, PT**	0.04, 0.1, 0.2
Ultradyne® PTFE	TM, TT** TA*	0.1, 0.2, 0.4, 1.0, 5.0 0.2
Microfiber Media		
ALpHA® PP	MF	0.45, 0.6, 0.8, 1.2, 2.4, 5, 7, 10, 20, 30, 40, 70
Vanguard® PP	MN	0.1, 0.2, 0.4, 1, 3, 5, 10, 30, 60, 99 (nominal)

Grade Description:

**T-grade (VTH, STW, ST, VTV, PT, TT)

This absolute, microbially rated filter meets full traceability requirements for the pharmaceutical industry. It is 100% integrity tested 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, SMH, SM, VMV, PM, TA)

This absolute, microbially rated filter is 100% integrity tested during manufacture. It is suited for critical applications when regulatory documentation requirements are minimal.



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