



## 99 µm MN-grade Large Capsule Filter (UltraCap® H.D. Model)

### Description

The Vangard® capsule filter is a nominal-rated PP microfiber filter that provides economical high efficiency filtration of fluids in a wide range of industrial processes. This general purpose filter delivers high flow rates with substantial dirt holding capacity for long service life. Its all-polypropylene construction provides minimal extractables and wide chemical compatibility. The Vangard® filter is a cost-effective choice for clarification, prefiltration, and final filtration applications where high-quality output and consistency are important.

### Materials of Construction

All components of the filter are either animal free or in compliance with EMA/410/01 Rev. 3 (EDQM 5.2.8 07/2011:50208), and US Code of Federal Regulations 9 CFR 94.18 and 21 CFR 189.5. These materials are listed for food contact use in the Code of Federal Regulations (CFR), Title 21, as below:

Media:	Polypropylene (PP)	CFR Title 21, 177.1520
Upstream support:	Polypropylene	CFR Title 21, 177.1520
Downstream support:	Polypropylene	CFR Title 21, 177.1520
Outer guard:	Polypropylene	CFR Title 21, 177.1520
Core:	Polypropylene	CFR Title 21, 177.1520
End caps:	Polypropylene	CFR Title 21, 177.1520
Capsule housing:	Polypropylene	CFR Title 21, 177.1520
Sealing method:	Thermal bonding	

**Retention Ratings** 99 µm

**Effective Filtration Area** 5.75 ft<sup>2</sup> (0.53 m<sup>2</sup>) per 10"

**Typical Water Flow Rate** < 2 to 10 gpm per 10" length (< 7.5 to 38 L/min)

### Operating Characteristics

Operating temperature range:	32 °F to 100 °F (0 °C to 38 °C)
Maximum temperature rating:	140 °F @ 55 psig (60 °C @ 3.8 bar) liquid, @ 35 psig (2.4 bar) gas
Maximum operating pressure:	90 psig @ 100 °F (6.2 bar @ 38 °C), liquid service
Maximum operating pressure:	60 psig @ 100 °F (4.1 bar @ 38 °C), gas service
Maximum reverse pressure:	15 psig @ 100° F (1.0 bar @ 38° C)

### Sterilization

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

Capsules must not be in-line steam sterilized.

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

### Biological Safety

The Vangard® filter complies with European Commission Regulation No. 10/2011. The filter meets requirements as specified in the current USP <88> Class VI plastics, pyrogen and cytotoxicity tests. No binders, adhesives, or surfactants are used in the construction of Vangard® filters. The filters are non-fiber-releasing as defined in 21 CFR 210.3(b)(6) and 211.72.

### Quality Assurance

Vangard® 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 Vangard® filter is clearly marked with filter type, lot number, and serial number.

## Ordering Guide

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Sterile Filter Options	
Standard capsule	CR
Sterile capsule	GR

  

Housing Material Designator	
Gamma-stable polypropylene, animal component free (ACF)	2

Vent/Drain Ports	
Inline Configuration	
0	No vents/drains
2	Vent/drain at inlet and outlet
4	Vent/drain at outlet
K	SPD vent/drain at inlet and outlet
L	SPD vent/drain at outlet
T-Style Configuration	
0	No vent; no drain
1	No vent; standard 1/4" drain plug
2	Standard vent valve; standard drain plug
3	Standard vent valve & drain plug; 3/4" sanitary gage port
4	Standard vent valve; no drain
5	Standard vent valve; no drain; gage port
6	No vent; no drain; gage port
A	No vent; sanitary drain valve
B	Standard vent; sanitary drain valve
C	Standard vent; sanitary drain valve; gage port

  

Inlet/Outlet Connections			
00	1" sanitary flange	77	3/4" sanitary flange
02	1" sanitary flange in & 3/8" hose barb out	88	3/4" hose barb
08	1" sanitary flange in & 3/4" hose barb out	99	9/16" hose barb
09	1" sanitary flange in & 9/16" hose barb out	AA	1/2" male Flaretek®
0C	1" sanitary flange in & 1/2" hose barb out	BB	3/4" male Flaretek®
0D	1" sanitary flange in & 1" hose barb out	CC	1/2" hose barb
22	3/8" hose barb	DD	1" hose barb

  

Body Style	
N	Inline configuration
T	T-style configuration

  

Filter Length									
1	10"	2	20"	3	30"	4	40"	5	50"

  

Product	Grade	Retention Rating
Vanguard® polypropylene microfiber media	MN	99 µm

Additional information about this filter product is available in the Vanguard® Green Docs document at [www.meissner.com/green-docs](http://www.meissner.com/green-docs).

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