Pall Corporation

VARAFINE™ VFSG Series Filter Cartridges

High Flow Asymmetric Membrane Filter Cartridge

- Absolute Rated at >99.9% Efficiency With Retention Ratings of 0.05, 0.1, 0.2, 0.45, 0.65, 0.8, or 1.2 µm
- Patented Highly Asymmetric Membrane Ensures Superior Flow Rates And Long Life
- Contaminants Trapped and Held by Positive Mechanical Retention
- Manufactured in an ISO Class 7 Cleanroom
- Pre-Flushed and Tested with Ultrapure 18 Megohm-cm Water
- Compatible with Most Sanitizing Agents

Performance Specifications

Filter Grades (>99.9% Retention Rating by Standard Latex Bead Challenge):
0.05, 0.1, 0.2, 0.45, 0.65, 0.8, 1.2 µm

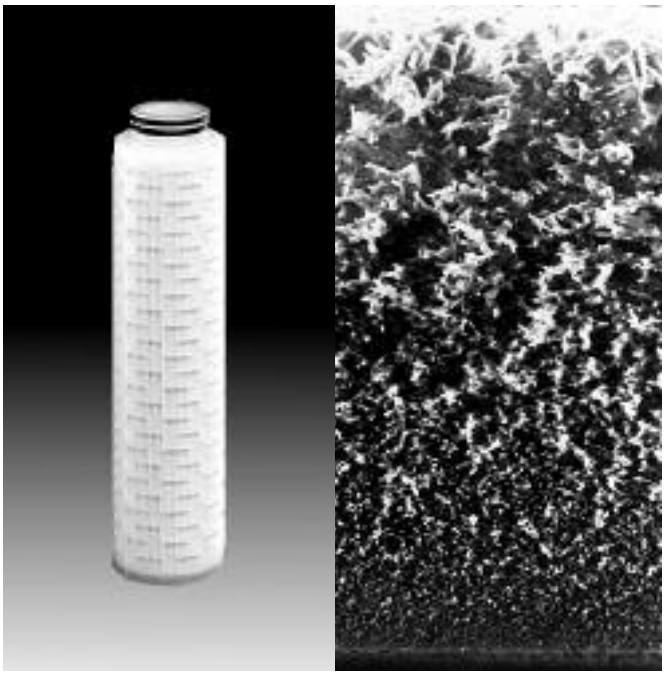
Maximum Differential Pressure:
20 psid (1.4 bard) @ 203°F (95°C)
80 psid (5.5 bard) @ 68°F (20°C)

Recommended Change Out Differential Pressure[1]:
35 psid (2.4 bard)

Chemical Compatibility:
Cartridge resists most acids and bases, pH 1-14, and most oxidizing agents. Consult factory for specific application information.

Sanitizing Agents:
Cartridge may be sanitized in place with common oxidizing agents. Consult factory for compatibility information.

Rinse-Up:
Cartridges will rinse-up to 18 Megohm-cm in less than 6 minutes at a flow rate of 2.6 gpm (10 lpm).



Cross-section of the Varafine VFSG Series membrane (thickness approx. 125 µm).

Product Specifications

Materials of Construction:

Filter Media:	Hydrophilic Highly Asymmetric Polysulfone Membrane
Support Material:	Polypropylene
Hardware:	Polypropylene
Surface Treatment:	Hydroxypropylcellulose
Sealing:	Thermal Bond
Gaskets/O-rings:	Silicone Elastomer, EPDM, Buna N, Fluoroelastomer, Expanded PTFE FEP Encapsulated Silicone, FEP Encapsulated Fluoroelastomer, White Silicone

Dimensions (nominal):

Outside Diameter:	2 ⅜" (6.6 cm)
Lengths:	4" (10.2 cm), 10" (25.4 cm), 20" (50.8 cm), 30" (76.2 cm), 40" (102 cm)
Surface Area:	6.1 ft^2 (0.57 m^2) per 10" (25.4 cm) equivalent

[1] - *Provided that the maximum differential pressure is not exceeded based on temperature limits defined above.*

Liquid Flow Specifications

Filter Grade (µm)	DI Water Flow (10" equivalent) GPM/PSID	lpm/mbard
0.05	1.0	0.05
0.1	1.7	0.09
0.2	3.0	0.16
0.45	5.5	0.30
0.65	6.0	0.33
0.8	7.0	0.38
1.2	8.0	0.44

Part Numbers/Ordering Information

VFSG ■ – ● ▼ ◆ (e.g., VFSG100–10M3S)

Code ■	Filter Grades
050	0.05 µm
100	0.1 µm
200	0.2 µm
450	0.45 µm
650	0.65 µm
800	0.8 µm
1200	1.2 µm

Code ●	Cartridge Lengths (nominal)
4	4"
10	10"
20	20"
30	30"
40	40"

[2] - *For details, contact Pall Corporation.*

Code ▼	End Configurations
M2	SOE flat closed end, fits housings with 020 O-ring post
M3	SOE flat closed end, external 222 O-rings (retrofits other manufacturers' Code 0)[2]
M5	DOE, internal 120 O-rings (retrofits 213 O-ring style)[2]
M6	SOE flat closed end, external 226 O-rings (retrofits other manufacturers' Code 6)[2]
M7	SOE fin end, external 226 O-rings (retrofits other manufacturers' Code 7)[2]
M8	SOE fin end, external 222 O-rings (retrofits other manufacturers' Code 5)[2]
M10	DOE, internal O-rings (fits other manufacturers' housings)[2]
M11	SOE flat closed end, internal 120 O-ring (retrofits other manufacturers' X-style)[2]
DOE	DOE with elastomer gasket seals & end caps

Code ◆	Gasket/O-ring Materials
S	Silicone (standard O-rings)
E	Nordel
V	Fluoroelastomer
N	Buna N (standard gaskets)
M	White Silicone (O-rings)
T	FEP Encapsulated Silicone (O-rings)
F	FEP Encapsulated Fluoroelastomer (O-rings)
T	Expanded PTFE (gaskets)