

GPS Capsule Filters

Polyethersulfone (PES) Membrane



Excellent flow rates with high efficiency retention

High quality filtration of process water, specialty chemicals, inks and dyes

Optimized membrane design for high throughput

Applications

- ◆ Process Water
- ◆ DI Water
- ◆ Inks & Dyes
- ◆ Specialty Chemicals

GPS Capsules are hydrophilic and manufactured with polyethersulfone (PES) membrane. PES membrane exhibits excellent flow rates with high efficiency retention.

GPS capsule filters are used for removal of particulates from process water, and for final filtration of DI water, inks, dyes and specialty chemicals.

Polyethersulfone is particularly suited for high flow rate filtration of product streams that contain high contaminant loads and have elements that can adsorb to the media, such as preservatives. The lower binding characteristics of PES membrane make it a good choice for inks, dyes, specialty chemicals and service fluids.

GPS Capsule Filters - Filtration Area

Media	Capsule Length				
	2"	5"	10"	20"	30"
PES Membrane	1.0 ft ² (0.093m ²)	3.0 ft ² (0.279m ²)	7.0 ft ² (0.650m ²)	14.0 ft ² (1.301m ²)	21.0 ft ² (1.951m ²)

Flow Rate / Filtration Area

The following table represents typical water flow at a one psi (69 mbar) pressure differential across a single 2 inch capsule with 1.0 ft² (0.093 m²) of media with 1/2" FNPT ports. The test fluid is water at ambient temperature. Higher pressure drops are acceptable, but as flows increase the pressure drop of the housing becomes more apparent.

Pore Size	0.03 µm	0.10 µm	0.22 µm	0.45 µm	0.65 µm	0.80 µm	1.0 µm	1.2 µm
GPM	0.21	0.36	0.64	1.0	1.2	1.3	1.36	1.4
LPM	0.79	1.36	2.42	3.79	4.54	4.92	5.15	5.30

* For approximate flow rates for 5" through 30" capsules, refer to the appropriate cartridge data sheet

Construction Materials

Housing	Polypropylene
Filtration Media	Polyethersulfone (PES) Membrane
Media Support	Polypropylene
End Caps	Polypropylene
Center Core	Polypropylene
Outer Support Cage	Polypropylene
Sealing Method	Thermal Bonding

Maximum Operating Parameters

Liquid Operational Pressure	80 psi (5.5 bar) at 20 °C (68 °F)
Gases Operational Pressure	60 psi (4.1 bar) at 20 °C (68 °F)
Operating Temperature	43 °C (110 °F) at 30 psi (2.1 bar) in water
Forward Differential Pressure	50 psid (3.4 bard) at 20 °C (68 °F)
Reverse Differential Pressure	40 psid (2.7 bard) at 20 °C (68 °F)
Recommended Changeout Pressure	35 psid (2.4 bard)

