

# DPS Capsule Filters

Double Layered Polyethersulfone (PES) Membrane



Excellent flow rates with high solids retention capacity

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

Optimized double layer membrane design for high throughput

## Applications

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

DPS Capsules are hydrophilic and manufactured with two layers of polyethersulfone (PES) membrane optimized for the highest filtration area and solids holding capacity. PES membrane has excellent flow rates.

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

DPS capsule filters are 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.

## DPS Capsule Filters - Filtration Area

Media	Capsule Length				
	2"	5"	10"	20"	30"
<b>Double Layered PES Membrane</b>	1.0 ft <sup>2</sup> (930cm <sup>2</sup> )	3.0 ft <sup>2</sup> (2788cm <sup>2</sup> )	7.0 ft <sup>2</sup> (6503cm <sup>2</sup> )	14.0 ft <sup>2</sup> (13006cm <sup>2</sup> )	21.0 ft <sup>2</sup> (19509cm <sup>2</sup> )

## 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 ft<sup>2</sup> (930 cm<sup>2</sup>) 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
<b>GPM</b>	0.16	0.26	0.46	0.71	0.86	0.91	0.97	1.0
<b>LPM</b>	0.61	0.98	1.74	2.69	3.26	3.44	3.67	3.78

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

## Construction Materials

<b>Housing</b>	Polypropylene
<b>Filtration Media</b>	Double Layered Polyethersulfone (PES) Membrane
<b>Media Support</b>	Polypropylene
<b>End Caps</b>	Polypropylene
<b>Center Core</b>	Polypropylene
<b>Outer Support Cage</b>	Polypropylene
<b>Sealing Method</b>	Thermal Bonding

## Maximum Operating Parameters

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

