



**Supracap™ 100 Depth Filter Capsules**

### Description

## Providing the Benefits of Seitz® Filter Media in the Most Versatile Capsule Format Available

Scalability is critical to safe and reliable process development, and the Supracap 100 capsule integrates seamlessly into any development process with its versatile configurations, sizes and available filter media.

With the Supracap 100 capsule, scalability from just a few liters to full process depth filter modules can be easily achieved. The fully disposable design eliminates any cleaning or handling concerns usually associated with housings, especially where biological and hazardous products are to be filtered. Furthermore the Supracap 100 capsule is designed to provide cost effectiveness, flexibility and ease of use, while minimizing the exposure risk for operators.

Supracap 100 capsules can be manifolded together as well with any other Kleenpak™ Nova Capsule Filter in the Pall portfolio.

Supracap 100 capsules are especially suited to process development and pilot scale applications. They can be autoclaved and used for various critical applications depending upon the filter media selected. These applications may include cell harvest clarification and protection of sterilizing membranes.

## Designed to Provide Choice and Flexibility



Supracap 100 capsules are available with either in-line or T-style configuration. The T-style design is ideally suited for manifolding multiple capsules in series or in parallel configuration. Supracap 100 capsules are available in 127mm (5 in.), 254 mm (10 in), 508 mm (20 in.) and 762 mm (30 in.) lengths and the extensive range of the Seitz depth filter sheet portfolio is available. This includes\*:

- All P-grade filter media with endotoxin levels below detection limit
- All HP-grade filter media for excellent cell clarification applications and comprised of 2 distinct layers of P-grade filter media
- All Bio-grade filter media for very low protein adsorption applications

\* Others available upon request.

Supracap 100 filter capsules are available with a variety of inlet and outlet

connections, including sanitary flange and hose barb.

## Supracap 100 Capsules Meets Industry Requirements

Supracap 100 capsules have been designed to meet industry requirements including autoclaving and low extractables. They offer high flow rates and throughputs and are designed to have minimal hold-up volumes. The translucent shell makes venting and draining easier as liquid levels are visible.

### Further Information

Further information is available on Pall's range of [Filter Modules and Capsules with Seitz Depth Filter Media](#) and on the [Pall Supracap Depth Filter Capsule](#) range.

### Specifications

#### Operating Characteristics\*

Maximum Operating Temperature	40 °C
Maximum Operating Pressure	3 barg (44 psig) at 40 °C

\* With compatible fluids that do not soften, swell or adversely affect the product or its materials of construction

#### Capsule Materials of Construction

Housing Bowl	Polypropylene
Housing Head*	Polypropylene
O Rings	Silicone elastomer

\* Formulated with TiO<sub>2</sub> whitener which does not contribute to organic extractables

### Sterilization

Autoclave	Maximum temperature of 125 °C for 1 hour
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### Filter Media Specification

Code	Depth Filter Type	Typical Water Permeability in L/min/m <sup>2</sup> @ Δp 1 bar (14.5 psid)	Nominal Retention Ratings in μm	Typical Ash Content in %	Endotoxin Level in EU/mL before Rinsing
PDD1*	PDD1	25	0.1-0.85	52	<0.06
PDE2*	PDE2	35	0.2-3.5	47	<0.06
PDH4*	PDH4	93	0.5-15.0	45	<0.06
PDK5*	PDK5	151	1.5-20.0	45	<0.06
PEKS	EKSP	29	0.1-0.3	58	<0.06
PEKM	EKMP	41	0.2-0.5	48	<0.06
PEK1	SUPRA EK1P	64	0.2-0.5	47	<0.06
P050	KS 50P	93	0.4-0.8	46	<0.06
P080	SUPRA 80P	159	1.0-3.0	49	<0.06
P100	K100P	149	1.0-3.0	45	<0.06
P200	K200P	217	3.0-6.0	43	<0.06
P250	K250P	535	4.0-9.0	44	<0.06
P700	K700P	935	6.0-15.0	45	<0.06
P900	K900P	1980	8.0-20.0	45	<0.06
B010	BIO 10	30	0.2-0.4	<1	<0.06
B020	BIO 20	75	0.4-1.0	<1	<0.06

\* HP version

## Nominal Dimensions

In-line	NP5	NP6	NP7	NP8
Maximum diameter including valves	154 mm (6.1 in.)	154 mm (6.1 in.)	154 mm (6.1 in.)	154 mm (6.1 in.)
Length with hose barb inlet/outlet	154 mm (6.1 in.)	397 mm (15.6 in.)	644 mm (25.4 in.)	895 mm (35.2 in.)
Length with sanitary inlet/outlet	213 mm (8.4 in.)	335 mm (13.2 in.)	584 mm (23.0 in.)	834 mm (32.8 in.)

T-Style	NT5	NT6	NT7	NT8
Maximum diameter including valves	N/A	240 mm (9.5 in.)	240 mm (9.5 in.)	240 mm (9.5 in.)
Length	N/A	349 mm (13.7 in.)	598 mm (23.5 in.)	848 mm (33.4 in.)

## Filter Area

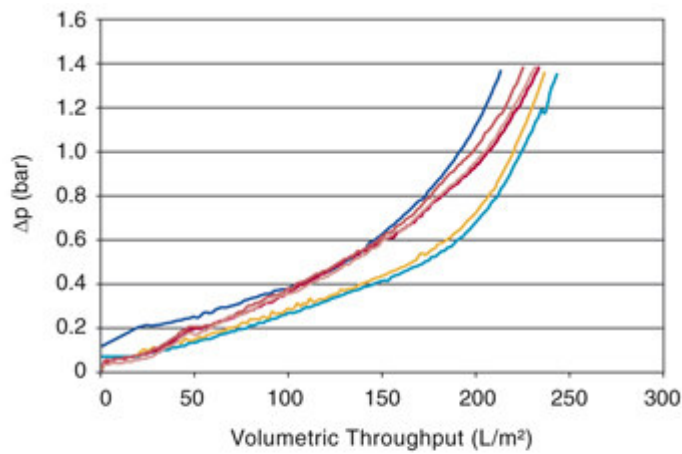
	NP5	N*6	N*7	N*8
Single layer	0.05 m <sup>2</sup> (0.54 ft <sup>2</sup> )	0.09 m <sup>2</sup> (0.97 ft <sup>2</sup> )	0.18 m <sup>2</sup> (1.9 ft <sup>2</sup> )	0.27 m <sup>2</sup> (2.9 ft <sup>2</sup> )
HP version	0.025 m <sup>2</sup> (0.27 ft <sup>2</sup> )	0.05 m <sup>2</sup> (0.54 ft <sup>2</sup> )	0.10 m <sup>2</sup> (1.08 ft <sup>2</sup> )	0.15 m <sup>2</sup> (1.61 ft <sup>2</sup> )

## Void Volumes <sup>1</sup>

Capsule Length	NP (mL)	NT (mL)
127 mm (5 in.)	652	N/A
254 mm (10 in.)	1125	1160
508 mm (20 in.)	2291	2578
762 mm (30 in.)	3399	3747

<sup>1</sup> Void volume is defined as amount of liquid required to fill entire capsule with cartridge installed inside

## Comparison of Scalability - CHO Clarification (Post Fermenter) Filter Grade - PDK5 at 150 Lmh



- Supracap 60 capsule (1)
- Supracap 60 capsule (2)
- Supracap 60 capsule (3)
- Supracap 100 5 in. capsule
- Supracap 100 10 in. capsule
- Stax capsule

Culture Harvest Conditions - Total Cells -  $9.68 \times 10^6$ /mL,  
 Viable Cells -  $1.99 \times 10^6$ /mL, Viability - 20.6, Turbidity - >1000 NTU

## Ordering Information

Pall Part Number: N

Code	Capsule Format	Code	Nominal Length	Code	Media Grade	Code	Connection Options
P	In-line	5L <sup>1)</sup>	5 in. (127 mm)	PEKS	EKSP	1	1 – 1½ in. sanitary flange inlet and outlet
T	T-style	6	10 in. (254mm)	PEXM	EKMP	9	25 mm (1 in.) single barb hose barb inlet and outlet
		7	20 in. (508 mm)	PEK1	SEK1P	19 <sup>2)</sup>	1 – 1½ in. sanitary flange inlet and 25 mm (1 in.) single barb hose barb outlet
		8	30 in. (762 mm)	P050	K50P	6 <sup>3)</sup>	13 mm (½ in.) single barb hose barb inlet and outlet
				P080	SUPRA 80P	7 <sup>4)</sup>	½ in. hose barb inlet and outlet
				P100	K100P	16 <sup>5)</sup>	1 – 1½ in. sanitary flange inlet and 13 mm (½ in.) single barb hose barb outlet
				P200	K200P	1H1 <sup>6)</sup>	1 – 1½ in. sanitary flange inlet and outlet with additional ½ in. sanitary port on inlet
				P250	K250P	1H9 <sup>6)</sup>	1 – 1½ in. sanitary flange inlet and 1½ in. single barb hose barb outlet, with additional ½ in. sanitary port on inlet
				P700	K700P		
				P900	K900P		
				B010	B010		
				B020	B020		
				P001	P001		
				P0E2	P0E2		
				PDH4	PDH4		
				PDK5	PDK5		

Note: Staßbil<sup>®</sup> vent and stepped hose barb drain fitted as standard

<sup>1)</sup> Currently available only with in-line capsule format and connection codes 1, 6, or 7.  
<sup>2)</sup> Currently available only with in-line capsule formats.  
<sup>3)</sup> Currently available only with 5 in. capsule formats.  
<sup>4)</sup> Currently available only with T-style capsule formats.

## Contact Information

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This information is accurate as of the revision date indicated.