

# SUPRAdisc™ II

## DEPTH FILTER MODULES WITH SEITZ FILTER SHEETS

SUPRAdisc™ II depth filter modules, were developed to meet the increasing process demands in the biopharmaceutical industry. The SUPRAdisc II design combines the filtration performance of Seitz media and the structural robustness of interlocking dual drainage plates.

The dual drainage plate design of the SUPRAdisc II modules optimizes the flow distribution by providing unobstructed process flow. The design also enhances module integrity as well as resistance to back pressure failures of the filter media.

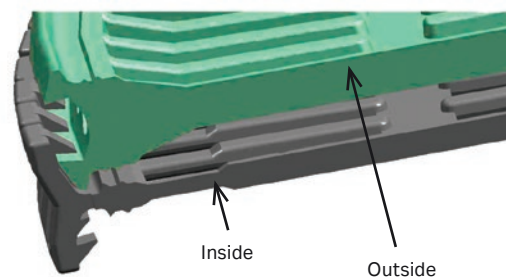
### Features

- High structural robustness due to dual drainage plates:
  - Interlocking and welded drainage plates provide robust structural integrity.
- Optimized flow distribution upstream and downstream of the filter sheets facilitates high filter utilization:
  - Filter media is less susceptible to blinding from media-to-media contact within the module assembly.
  - Unobstructed process flow.
- Fully supported filter sheets are designed to inhibit the rupturing of filter media that is frequently associated with back pressure.
- Shipping and handling damage is significantly reduced through the very same interlocking and welded drainage plates.
- High packing density maintains a high hold up volume.
- SUPRAdisc II modules are steam sterilizable at 125°C for 30 min.
- The plastic components used in construction meet the specifications for the biological test listed in the current version of the *USP Class VI 121°C*.
- SUPRAdisc II modules and all their components are fully traceable by serial number.



**Fig 1.** SUPRAdisc II depth filter module.

The filter sheets meet the specifications set forth in the *US Code of Federal Regulations Title 21, parts 177.2260 e, f, g, h, i, j, k, and l*. The materials for all plastic components are listed in *US Code of Federal Regulations Title 21, part 177.1520*. With regard to food law conformity, the manufacture of depth filter sheets is also subject to ongoing analysis by the German ISEGA Forschungs- und Untersuchungsgesellschaft mbH, Aschaffenburg.



**Fig 2.** Separator plate design.

# Technical specifications

## Operating characteristics

Maximum operating temperature	80°C
Maximum operating pressure	2.4 bard (35 psid)

With compatible fluids that do not soften, swell or adversely affect the products or its material of construction.

## Materials of construction

SUPRAdisc II components	Polypropylene
O-rings	Platinum cured silicone elastomer

## Sterilization

Steam-in-place	125°C for 30 min at 0.3 bard (4.3 psid) maximum
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## Nominal dimensions

Total length double O-ring	332 mm (13.1 in.)
Total length flat gasket	272 mm (10.7 in.)
Total diameter	284 mm (12.0 in.) in 232 design 410 mm (16.1 in.) in 440 design
Filter area	1.8 m <sup>2</sup> (19.4 ft <sup>2</sup> ) in 232 design 5.0 m <sup>2</sup> (53.8 ft <sup>2</sup> ) in 440 design

# Filter media specifications

Code	Depth filter type	Typical water in permeability at Δp 1 bard (14.5 psid) (L/min/m <sup>2</sup> )	Nominal retention rating (μm)	Ash content (%)	Endotoxin level before rinsing (EU/mL)
PEKS	EKSP	29	0.1 to 0.3	58	< 0.06
PEKM	EKMP	41	0.2 to 0.5	48	< 0.06
PEK1	SUPRA EK1P	64	0.2 to 0.5	47	< 0.06
P050	KS 50P	93	0.4 to 0.8	46	< 0.06
P080	SUPRA 80P	159	1.0 to 3.0	49	< 0.06
P100	K100P	149	1.0 to 3.0	45	< 0.06
P200	K200P	217	3.0 to 6.0	43	< 0.06
P250	K250P	535	4.0 to 9.0	44	< 0.06
P700	K700P	935	6.0 to 15.0	45	< 0.06
P900	K900P	1980	8.0 to 20.0	45	< 0.06
B010	BIO 10	30	0.2 to 0.4	< 1	< 0.06
B020	BIO 20	75	0.4 to 1.0	< 1	< 0.06
B040	BIO 40	1135	4.5 to 12.0	< 1	< 0.06
XEK1	EK1	41	0.2 to 0.4	51	NA
XEK	EK	68	0.3 to 0.5	46	NA
X050	KS50	93	0.4 to 0.8	46	NA
X080	KS80	113	0.6 to 2.0	46	NA
X100	K100	146	1.0 to 3.0	46	NA
X150	K150	185	2.5 to 4.0	46	NA
X200	K200	213	3.0 to 6.0	46	NA
X250	K250	510	4.0 to 9.0	46	NA
X300	K300	785	5.0 to 12.0	46	NA
X700	K700	925	6.0 to 15.0	46	NA
X900	K900	1700	8.0 to 20.0	46	NA
T950	T950	1700	8.0 to 20.0	40	NA
T100	T1000	3400	10.0 to 25.0	35	NA
T150	T1500	7185	11.0 to 30.0	33	NA
T210	T2100	10 200	13.0 to 35.0	13	NA
T260	T2600	10 200	15.0 to 40.0	< 1	NA
T350	T3500	12 750	19.0 to 50.0	13	NA
T550	T5500	25 500	25.0 to 70.0	< 1	NA

NA = Not applicable as endotoxin content is not a measured criteria for these sheets



Ordering information

Product code: 

200

S

 P\*

Code	Module type	Code	Filter media	Code	Adapter	Code	Filter area	Code	Gasket material
200	SUPRAdisc II	See <i>Filter media</i> table		S	Double O-ring	232	1.8 m <sup>2</sup> (19.4 ft <sup>2</sup> )	S	Silicone elastomer
				C	Flat gasket adapter	440	5.0 m <sup>2</sup> (53.8 ft <sup>2</sup> )		

\* Polypropylene plastic parts.

Example product code:  
200PEKMS232SP

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