

# SF DEEP-BED FILTERS INNOVATIVE FILTER MEDIA

# SF DEEP-BED FILTERS RELIABLE, COST-EFFECTIVE, POWERFUL – WITH ANY FIBER

The fibrillation of the pulp fibers and the incorporation of highly porous diatoms produce structures with excellent levels of filtration activity that can be loosened up using perlites or coarse kieselgur as required.

This special character and the sophisticated production technology are decisive factors when it comes to the particular efficacy of the SF deep-bed filters.

#### Clear advantages

Great performance and really cost-effective

Excellent retention capacity thanks to filter layering

Top quality thanks to first-class raw mate

Certified production reliability in accordance with ISO 9001



Surface filtration, screening effect
Deep-bed filtration, mechanical absorption
Deep-bed filtration, absorption, coating
Drain side, wet-strengthened

#### Structure and operating principle

Pulp fibers form the basic structure of the filter beds. The design and structure of deep-bed filters can be compared to an extremely fine-mesh three-dimensional screen with countless branches.

Particles and microorganisms are held back mechanically in an increasingly fine labyrinth of pores. The particles are deposited in the pores of the filter medium.

The deep-bed filtration effect can also act on particles that are smaller than the pores of the filter bed. This is why the filtration effect of filter beds is not specified by giving pore diameters, as is the case for membranes. Instead, the filtration efficiency is characterized by specifying water permeability in defined conditions.

### Filtration and retention capacity

Three parameters are responsible for the special retention capacity of the filter beds:

Surface filtration or mechanical screening effect

Deep-bed filtration, mechanical absorption

Adsorption effect





# Application and criteria

Choosing the perfect filter bed means ensuring maximum output while guaranteeing a sufficient level of filtration efficiency. Pressure differentials and flow speed are other key criteria. To prevent clouding, certain filtration speeds should not be exceeded depending on the filtration type and medium.

SF type	Applications
SF-SSS	Sterile filtration of wine at high pH values and high bacterial load, pharmaceuticals, serum
SF-SS1	Sterile filtration of wine with residual sugar, grape juice, beer, water
SF-SSO	Sterile filtration of wine for hot filling, sparkling wine, beer, grape juice and cider
SF-SSF	Sterile filtration for fully fermented white wines, not at risk from bacteria, beer with high germ reduction, clarifying filtration of pharmaceuticals, gelatin
SF-SK 1000	Fine filtration before the bottling of wine, sugar syrup, cosmetics, beer
SF-SK 700	Fine filtration of wine, clarifying filtration of pharmaceuticals, beer
SF-SK 500	Fine filtration of wine, sugar syrup, cosmetics, fruit juice and beer
SF-SK 400	Fine filtration of wine, sugar syrup, cosmetics, fruit juice and beer
SF-SK 300	Fine clarification of wine, clarifying filtration of cosmetics, pharmaceuticals and chemical products
SF-SK 200	Coarse filtration of wine after effective fining, pre-filtration of serums, antibiotics
SF-SK 100	Coarse filtration of wine after the first racking, pre-filtration of serums, antibiotics
SF-SK 10	Coarse filtration of wine, polishing filtration of vegetable oils
SF-SK 0	Coarse filtration of sugar syrup, oils, gelatin and chemical products, kieselgur filtration
SF-DD	Double bed for kieselgur alluvial filtration, rinseable

	Water, wine and frui	t juice	Beer			
	Flow rate Pressure differen		Flow rate	Pressure difference		
Sterile filtration	350 l/h m²	1 bar	1.2 hl/h m²	1.5 bar		
Clarifying filtration	750 l/h m²	3 bar	1.5 hl/h m²	2.0 bar		



#### Packaging and availability

Filter beds are sealed in film to prevent them absorbing moisture from the air.

When unpacking SF deep-bed filters, it is important to take care not to damage the smooth side of the bed. It is also important to make sure that the filter beds are not buckled, since this can result in clouding. When inserting the filter beds into the plate filters, make sure that the marked side with the label (clear side) is always in contact with the clear drain plate. The sides are therefore alternated when the beds are inserted.

# SF deep-bed filters are available in the following standard dimensions:

20 x 20 cm

40 x 40 cm

60 x 61.2 cm

Different sizes are available in many further dimensions.



## Technical data

Туре	Grammage	Thickness	Ash	Permeability	Separation limit	Extractable cations mg/kg			Titer reduction	Wet strength
	g/m²	mm	%	l/min m²	μm	Fe	Ca	Al	LRV	К Ра
SSS	1410	3.8	51	40	0.4	< 15	< 2000	< 300	> 9	> 200
SS1	1260	3.8	46	65	0.6	< 15	< 2000	< 300	> 9	> 200
SSO	1350	3.8	46	90	0.6-0.8	< 15	< 2000	< 300	> 7	> 200
SSF	1350	3.8	46	110	0.7 – 0.9	< 20	< 1500	< 300	> 7	> 200
SK1000	1350	3.8	46	140	1.0 - 3.0	< 20	< 1500	< 200		> 200
SK700	1350	3.9	46	180	1.5 - 3.5	< 20	< 1500	< 200		> 200
SK500	1350	3.9	46	210	3.5 - 6.0	< 20	< 1500	< 200		> 200
SK400	1300	4.0	46	500	3.0-8.0	< 20	< 1000	< 200		> 200
SK300	1300	4.2	46	780	5.0-12.0	< 20	< 1000	< 200		> 200
SK200	1300	4.2	46	910	6.0-15.0	< 15	< 1000	< 200		> 200
SK100	1300	4.2	46	1270	7.0 - 18.0	< 15	< 1000	< 200		> 200
SK10	1200	4.2	46	1750	8.0-20.0	< 10	< 800	< 100		> 200
SKO	700	2.9	< 1	10200	12.0-40.0	< 2	< 500	< 100		> 200
DD	920	3.6	< 1	4600	6.0 - 20.0	< 2	< 500	< 100		> 200



# Our services

Technical application consulting

Filtration tests on a laboratory or technical center scale

Packaging of filter media in various sizes and designs

Short-term leasing of filtration systems

### Contact us

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