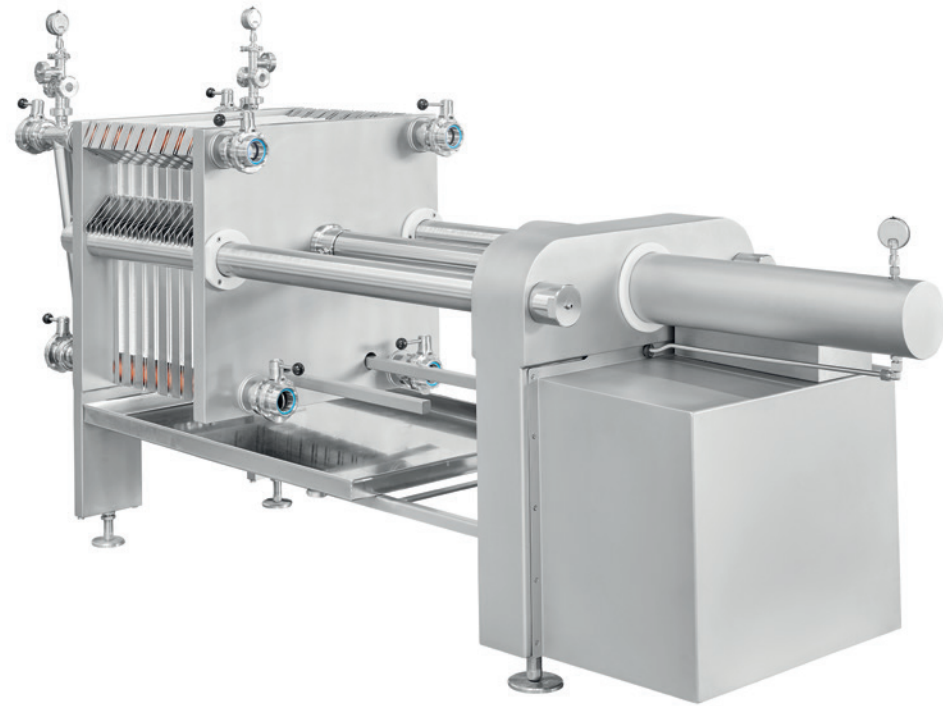




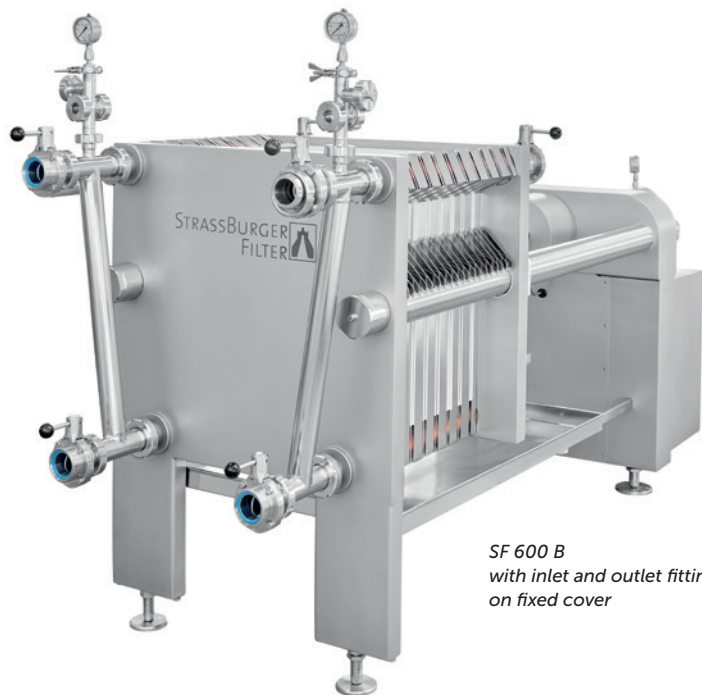
DEEP-BED FILTRATION WITH
SF 400 B, SF 600 B, SF 1000 B

Design and construction of the SF-B sheet filter

As with a filter press, a filter pack is arranged here in a chassisrack between a "fixed cover" and a "loose cover". Depending on the filtration type, this filter pack can consist of filter plates or a combination of plates and frames. Filter sheets are placed between the filter elements, and then clamped together between the fixed and loose cover. The fixed cover is connected to the crosshead with connecting and traction bars, while the filter pack is pressed together with the filter sheets by a press assembly that is integrated into the crosshead.



*SF 600 B
with powered hydraulic press mechanism*



*SF 600 B
with inlet and outlet fittings
on fixed cover*

SF 400 B and SF 600 B models

Available with plate formats of
400 x 400 mm (SF 400 B) and
600 x 600 mm (SF 600 B)

Self-supporting filter chassisrack with spindle

Solid, fixed press-on cover

Fittings and drip tray

In SS 304 or SS 316 stainless steel

Wheeled mobile version on wheels or stationary
on levelling feet

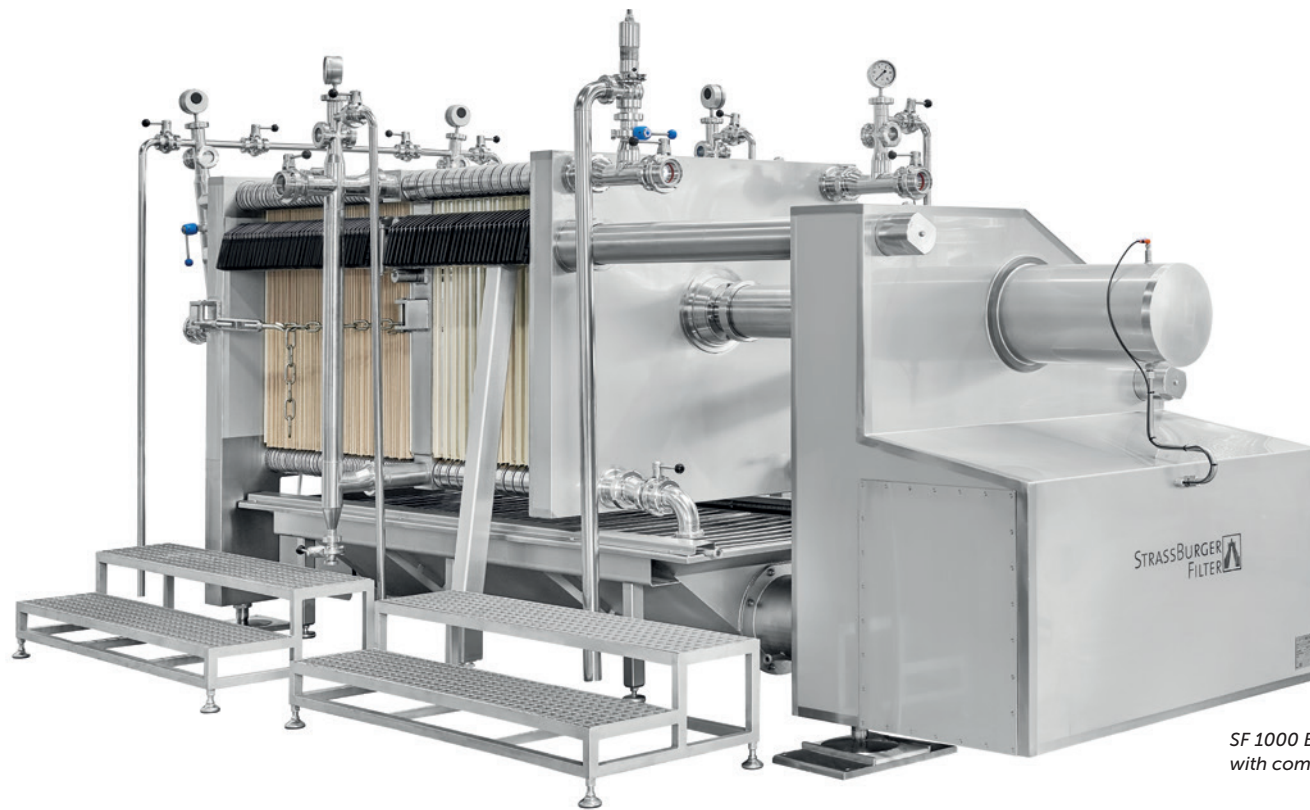
Press mechanism

Counter-pressure filtration usually requires
increased contact pressure during filtration.
Options here include:

A manual hydraulic device, fitted between
the spindle and the loose cover

A ratcheting hand wheel with an integrated
planetary gear

Powered hydraulics – either electric or pneumatic



*SF 1000 B
with combo pack and diversionter chamber*

SF 1000 B features

Plate format 1000 x 1000 mm

Stationary, free-standing filter chassisrack on height-adjustable levelling feet

Filter cover, crosshead, support beams and hydraulic cylinders made from high-quality solid steel with stainless steel panels.

Split operator walkways on both sides

Depending on rack length, bracing is provided to relieve the support beams.

On the operator side, the suspension assemblies on the filter elements and support bars are arranged lower down, to simplify inserting the filter sheets as well as performing cleaning work. This also avoids the problem of inserting the wrong filter plates on a particular side.

Press mechanism

The hydraulic unit and the electronic components are integrated underneath the crosshead within a splash-proof housing.

The hydraulic cylinder is installed so that the loose cover is not subjected to additional structural loads by its weight.

Automatic pressure re-adjustment to the respective contact pressure during the filtration process

Fittings on fixed cover

Removable risers, choice of inlet and outlet with angle seat piston valve, butterfly valve or angle valve

Manometer (sterile design)

Safety inspection glass with vents and drains

Fittings on loose cover

Other fittings as required (vents, drains)

Fittings selected to maximise the level of microbiological safety during sterilisation



Diverzionter chamber
SF 600 B combo pack

Filtration with filtration aids (cake filtration)

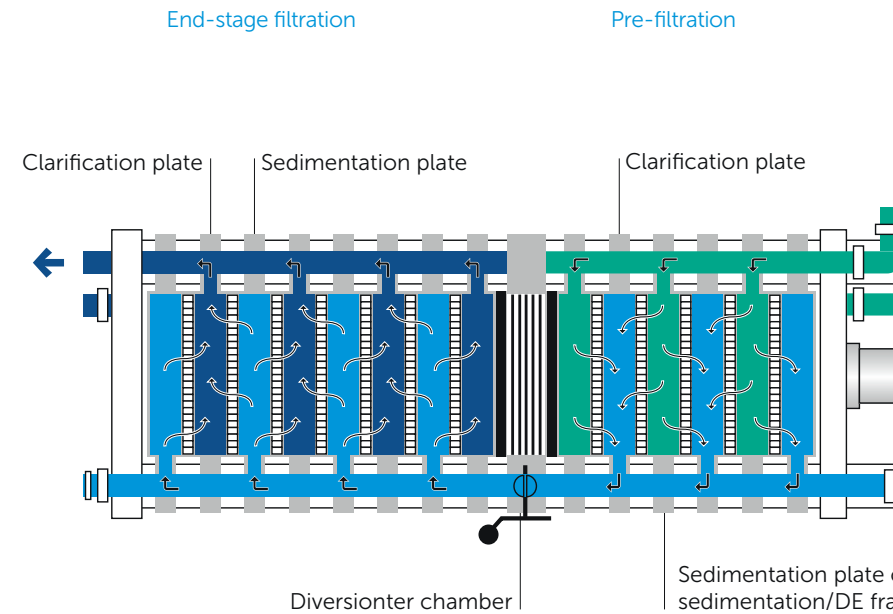
For this option, the filter pack must be equipped with plates and a frame. The filtration aid (e.g. diatomaceous earth) forms a filter cake in the frame elements with the solids in the liquid to be filtered out. The filter cake determines the clarity of filtration obtained.

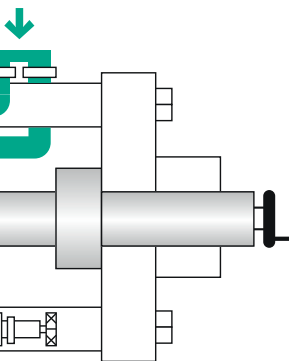
Filtration with deep-bed filter sheets

Outstanding filtration results can be expected from an optimal selection of deep-bed filter sheets according to the respective requirements. This is a very flexible option, given the wide choice of SF deep-bed filter sheets.

Double filtration

Multi-stage filtration – e.g. diatomaceous earth and sterile filtration or clarification filtration and sterile filtration – is possible with a diverzionter chamber or diverzionter plate.





or
ame

Filter elements

Ideal flow distribution with 4 eyes in the plates and frames for filtrate inflow and outflow

To ensure optimal venting, the upper eyes are positioned a few millimetres above the sealing edge and outside of the plate width

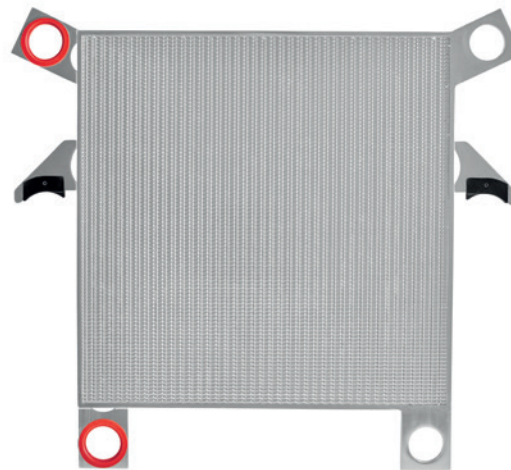
The lower eyes are located beneath the sealing edge and outside of the plate width, to ensure the filter system can be drained in full

Effective sealing is provided by universal cuff seals that can be used for any sheet thickness

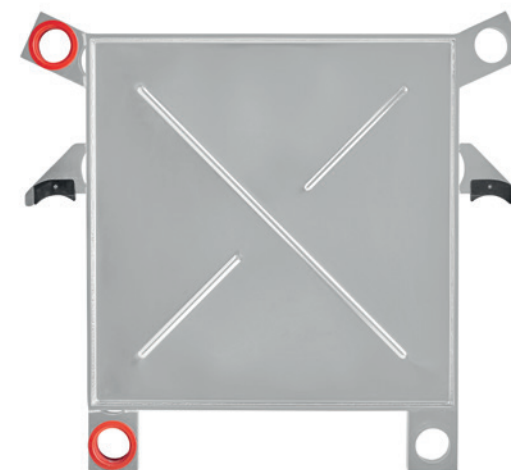
Optimal utilisation of the filter surface area maximises filter sheet performance with interrupted slot drainage

Optional: less soiling thanks to a smoother surface finish with well drainage

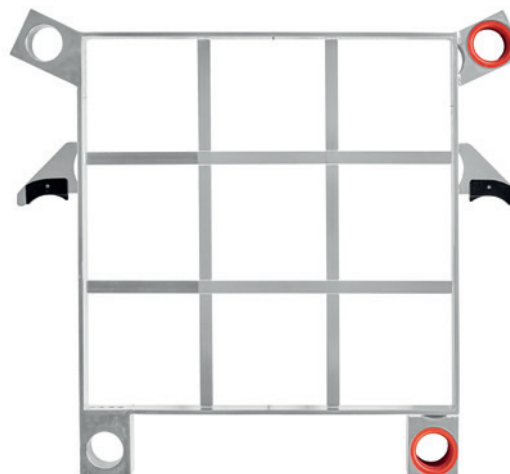
Material stainless steel: SS 304 or SS/316 stainless steel or plastic



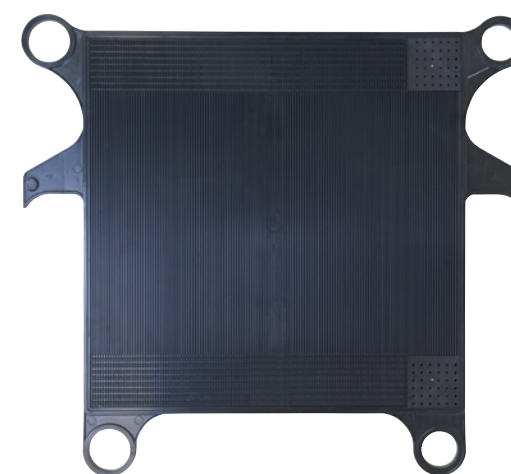
SF 600 B filter plate



SF 600 B end plate



SF 600 B frame



SF 600 B Noryl plate

Technical data

Type	SF 400 B			
ChassisRack size	24	50	74	100
Max. no. of filter plates	23	49.0	73.0	99.0
Max. no. of filter sheets	24	50.0	74.0	100
Max. filter surface area in m ²	3.4	7.2	10.6	14.3
Max. no. of diatomaceous earth frames/filter plates	5/6	12/13	19/20	27/28
Max. no. of support sheets (double-fold sheet)	6.0	13.0	20.0	28.0
Max. filter surface area in m ²	1.7	3.7	5.7	8.0
Dimensions in mm with spindle				
Total length in mm	1550	2550	2870	3240
Max. width in mm	730	730	730	730
Max. height in mm	1090	1090	1090	1090
Weight without plates with spindle in kg	252	283	295	322
Weight without plates with powered hydraulics in kg	312	343	355	382
Weight of stainless steel filter plate in kg	4.3	–	–	–
Weight of plastic filter plate in kg	1.6	–	–	–
Weight of diatomaceous earth frame in kg	5.3	–	–	–

Type	SF 600 B					
ChassisRack size	50	100	150	200	250	300
Max. no. of filter plates	49	99	149	199	249	299
Max. no. of filter sheets	50	100	450	199	250	300
Max. filter surface area in m ²	16.5	33.5	51.0	66.5	83.0	102.0
Max. no. of diatomaceous earth frames/filter plates	14/15	28/29	42/43	56/57	70/71	88/89
Max. no. of support sheets (double-fold sheet)	15	29	43	57	71	89
Max. filter surface area in m ²	10.1	19.2	28.5	31.2	47.5	59.5
Dimensions in mm with spindle						
Total length in mm	2680	3580	47900	5750	6650	7750
Max. width in mm	810	810	810	810	810	810
Max. height in mm	1370	1370	1370	1370	1370	1370
Weight without plates with spindle in kg	954	1054	1156	1254	1422	1594
Weight without plates with powered hydraulics in kg	1012	1112	1216	1315	1484	1652
Weight of stainless steel filter plate in kg	10	–	–	–	–	–
Weight of plastic filter plate in kg	3.8	–	–	–	–	–
Weight of stainless steel diatomaceous earth frame in kg	11.4	–	–	–	–	–

Type	SF 1000 B					
ChassisRack size	100	150	200	250	300	350
Max. no. of filter plates	99	149	199	249	299	349
Max. no. of double filter sheets	50	75	100	125	150	175
Max. filter surface area in m ²	95	142.5	190	237.5	285	332.5
Max. no. of diatomaceous earth frames/filter plates	28/29	42/43	56/57	79/71	84/85	98/99
Max. no. of support sheets (double-fold sheet)	29	43	57	71	85	99
Max. filter surface area in m ²	55.1	81.7	108.3	134.9	161.5	188.1
Dimensions in mm with powered hydraulics						
Total length in mm	4575	5395	6375	7275	8575	9475
Max. width in mm	1320	1320	1320	1320	1320	1320
Max. height in mm	2260	2260	2260	2260	2260	2260
Weight without plates with powered hydraulics in kg	4030	4120	4180	4230	4320	4420
Weight of filter plates in kg	24	-	-	-	-	-
Weight of filter frame in kg	26.5	-	-	-	-	-



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