

SF

Maximum pressure and process consistency

The SF Filtration System operates automatically, continuously, pressure- and process-constant. The screen change procedure does not influence the product quality.

Furthermore, short flow channels – free from dead spots – guarantee an extremely short dwell time of the melt in the system.

The advantages of the SF Filtration System

- **Constant melt pressure, temperature and viscosity**

By always keeping the size of the free active screen area constant, the pressure can be kept constant during the whole production process (max. pressure variations of ± 25 psi). Also, melt temperature and viscosity are permanently free from variations. Thus, the end product quality is always constant.

- **Melt purity and quality are always guaranteed**

Melt purity and quality downstream of the filtration system are permanently achieved. The optimal flow channel design and the airtight encapsulation are of great importance.

- **Very short dwell time of the melt**

Due to the optimal rheological flow channel design, the dwell time of all the melt in the filtration system is very short (< 1 minute), which also enables, for example, very quick material or color changes.

- **Simple handling during screen changes**

The operator is informed in time about upcoming screen changes by the control system. Changing screens is a simple and quick procedure and does not have any influence on the process and product quality.

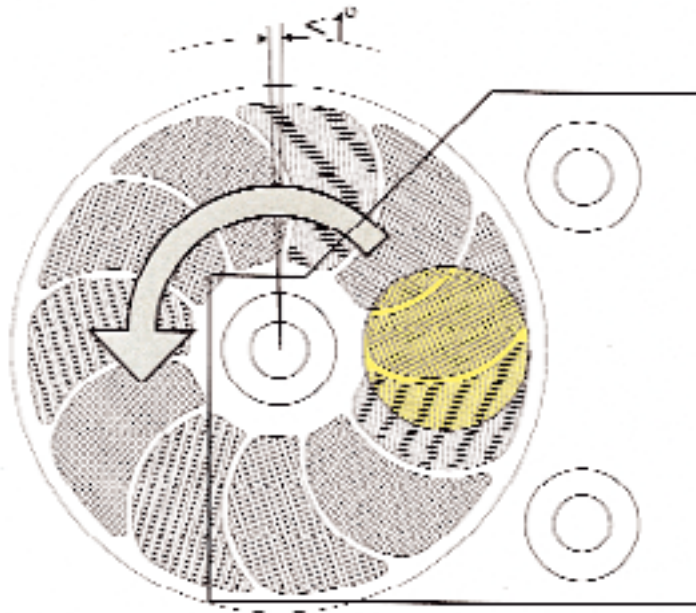
- **Compact size and simple installation**

The small and compact design of the SF makes even in a very confined space a simple and cost-efficient integration possible.



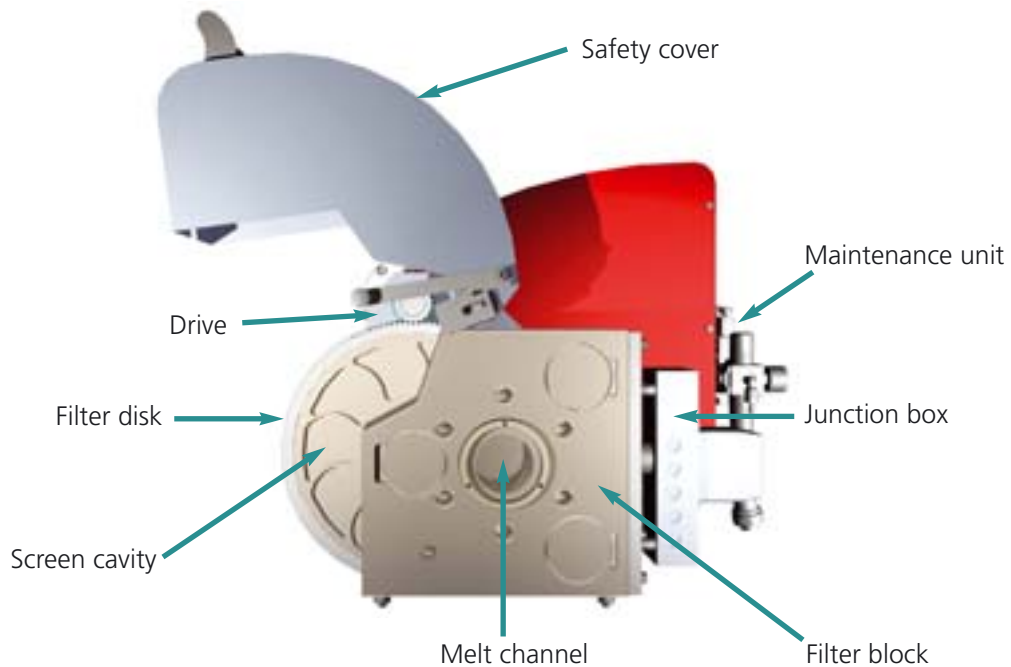
Mode of operation

When a pressure increase upstream of the filter due to contamination is registered, the filter disk is indexed by means of a pneumatic drive. This guarantees that the free screen area is always kept constant and that the pressure in front of the filter is consistent during the whole production process.

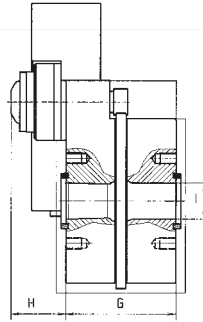
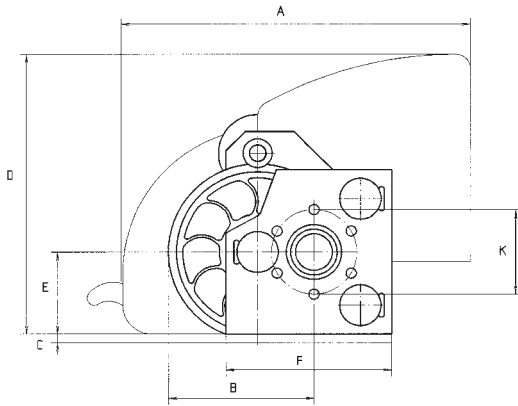
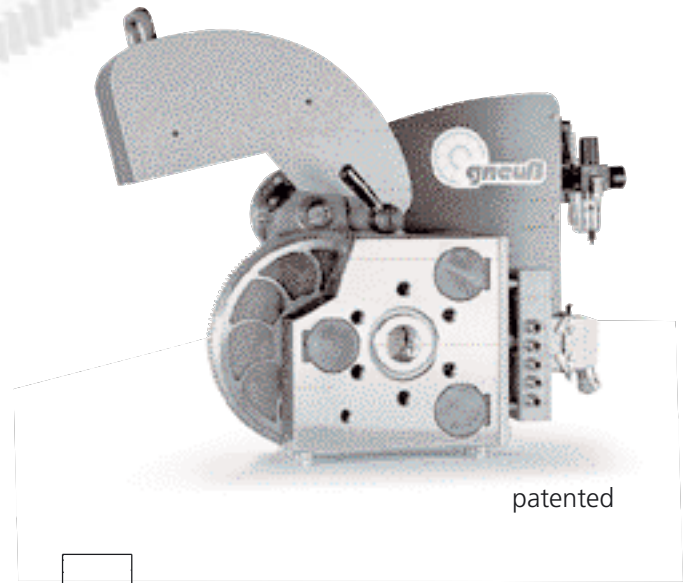


Design

The filter disk – on which the screen cavities are located in a ring pattern – rotates between the two filter blocks. To change the screens, the safety cover has to be opened. The production process is not disturbed by the screen change procedure. Thanks to the modular design of this filtration system, it is possible to replace the few wearing parts (such as heater elements and bearing bushings) during operation. Continuous production over many years is thus made possible.



Technical data



Technical data SF

as of 08.2004

filter type	active screen area in in ²	heating capacity in watt		heater zones		pressure in psi max. ⁽¹⁾	temp. in °F max. ⁽²⁾	Q ⁽³⁾ in lbs/h	dimensions in inches											weight in lbs
		electric	oil/vapor	electric	oil/vapor				A	B	C	D	E	F	G	H	I ⁽⁴⁾	K		
SF 30	1,2	1200	1870	2	2	7250	600	88	18,11	6,1	-	9,8	3,5	7,9	3,7	3,7	0,6	3,5	66	
SF 45	2,9	1900	2730	2	2	7250	600	264	22,0	8,3	-	13,2	5,1	9,8	5,4	4,4	0,8	4,7	165	
SF 60	5,4	2240	3690	2	2	7250	600	484	26,4	10,6	-	16,5	5,9	12,2	6,8	4,4	0,8	5,5	253	
SF 75	7,0	5860	8580	2	2	7250	600	682	28,3	11,4	-	17,3	6,7	13,8	8,9	4,4	1,0	6,9	484	
SF 90	10,9	7300	10140	2	2	5075	600	1210	35,4	15,6	0,8	22,8	8,7	17,3	12,6	4,8	1,2	8,7	1012	
SF 130	20,9	8000	10760	2	2	5075	600	2002	37,4	17,0	0,8	24,8	9,6	18,5	13,9	4,8	1,2	8,7	1166	
SF 150	27,9	8000	10760	2	2	5075	600	3146	37,4	17,0	0,8	24,8	9,6	18,5	13,9	4,8	1,4	8,7	1210	
SF 175	38,8	12000	16380	3	2	5075	600	4576	43,3	21,7	0,8	37,0	12,0	22,8	15,7	6,4	1,6	12,2	2640	
SF 200	49,6	-	28000	-	2	4350	600	6270	47,2	25,0	0,8	45,3	14,2	26,8	17,5	6,9	1,8	12,6	3696	
SF 250	77,5	-	32000	-	2	3625	600	8954	51,2	27,2	0,8	46,1	15,7	27,0	21,5	4,9	2,0	14,6	5060	

- (1)= High pressure versions available as an option.
- (2)= Up to 750°F possible as an option.
- (3)= Based on: MFI 2-5, filtration fineness 200 µm and differential pressure 725psi.
- (4)= The dimension "I" can be freely chosen, the values given are minimum values.



For more information on the control system see "controls"!