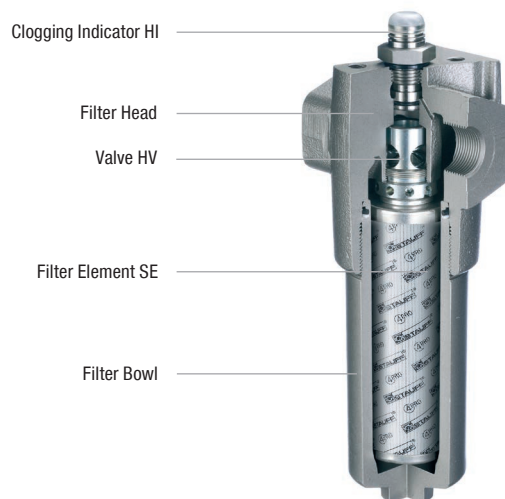


High Pressure Filters ■ Type SF



Product Description

STAUFF SF series High Pressure Filters are designed for in-line hydraulic applications, with a maximum operating pressure of 420 bar / 6000 PSI. Used together with STAUFF SE series Filter Elements, a high efficiency of contaminant removal is assured. The high dirt-hold capacity of the elements ensures long service life and, as a result, reduced maintenance costs.

Technical Data

Construction

- Designed for in-line assembly, with threaded mounting holes on top of the head.

Materials

- Filter head: Spheroidal Graphite Cast Iron
- Filter bowl: Cold Drawn Steel
- O-rings: NBR (Buna-N®)
FKM/FPM (Viton®)
EPDM (Ethylene-Propylene-Diene-Monomer-Rubber)
- Support ring: PTFE (Polytetrafluoroethylene)

Port Connections

- BSP
- NPT
- SAE O-ring thread
- SAE 3000 PSI (Code 61) flange
- SAE 6000 PSI (Code 62) flange

Other port connections available on request.

Operating Pressure

- Max. 420 bar / 6000 PSI

Burst Pressure

- Min. 1260 bar / 18275 PSI

Temperature Range

- 10 °C ... +100 °C / +14 °F ... +212 °F

Filter Elements

- Specifications see page 40

Media Compatibility

- Mineral oils, other fluids on request

Options and Accessories

Valves

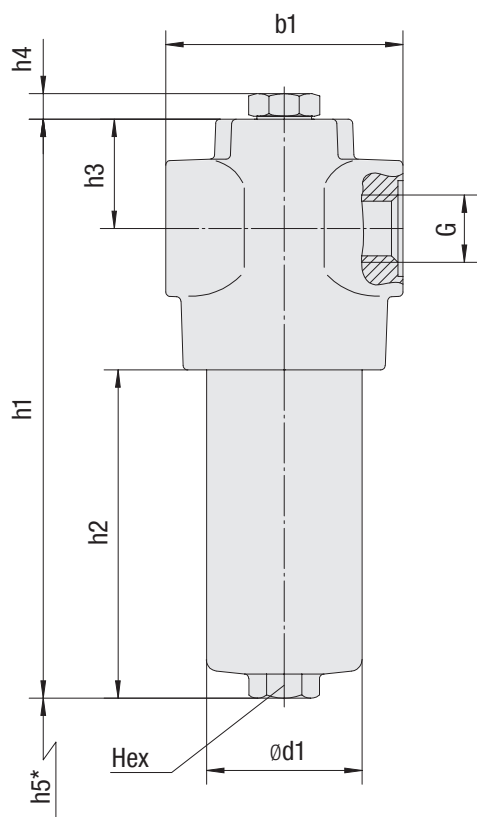
- Bypass valve: Allows unfiltered oil to bypass the contaminated element once the opening pressure has been reached, a differential pressure of $6^{+0.5}$ bar / $87^{+7.25}$ PSI Δp is the standard setting. Other settings available upon request.
- Reverse flow valve: Allows reverse flow through the filter head without backflushing the element.
- Non-return valve: Prevents draining of the delivery line during element change.
- Multi-function valve: Opening pressure $6^{+0.5}$ bar / $87^{+7.25}$ PSI
Bypass, reverse flow capability and non-return valve combined in one valve.

Clogging Indicators

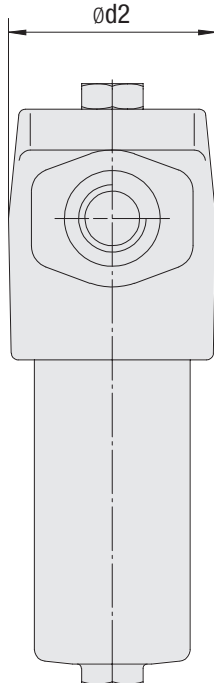
- Standard actuating pressure: $5_{-0.5}$ bar / $72.5_{-7.25}$ PSI Δp
Other actuating pressure settings are available upon request.
- Available indicators: Visual
Electrical
Visual-electrical (24 V DC, 110 V AC, 230 V AC versions)
Double Visual-electrical (24 V DC)



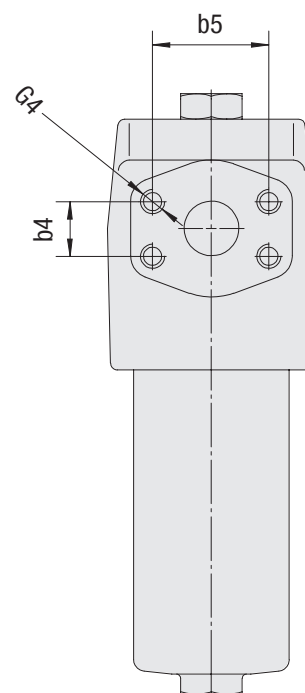
High Pressure Filters ■ Type SF



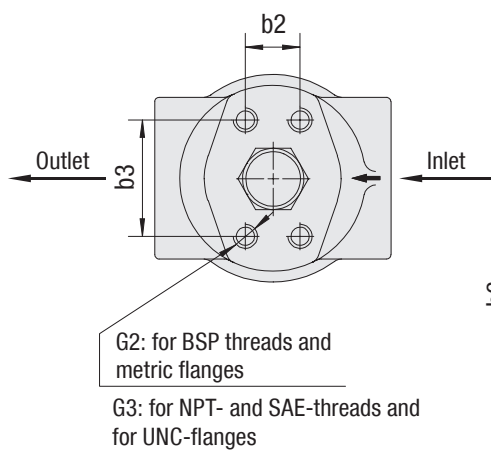
SF-014...160



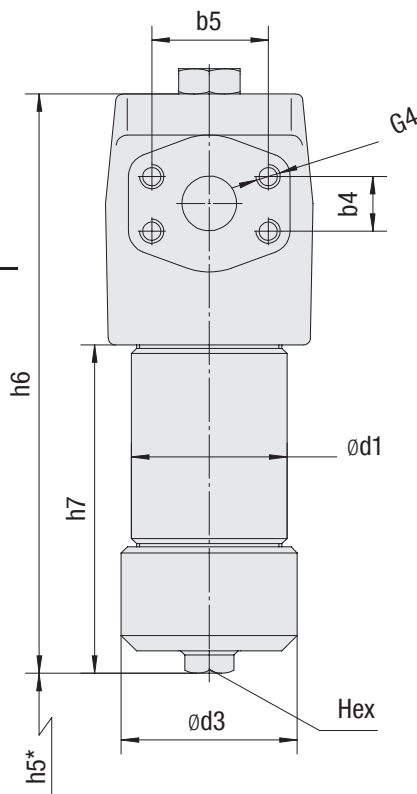
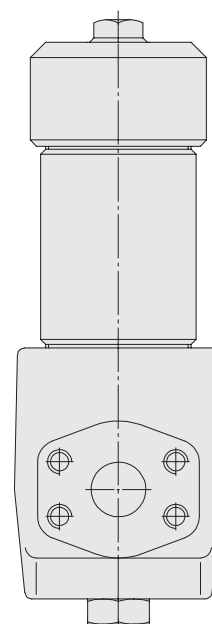
Threaded connection



Flange connection



SF-250...300

Toploader
SF-014...300..TL

Filter with filterbowl in two-part style for element change from the top

* recommended space for element change



High Pressure Filters ■ Type SF

Thread Connection G	Filter Size SF								
	014	030	045	070	125	090	160	250	300
BSP	3/4	3/4	1-1/4	1-1/4	1-1/4	1-1/2	1-1/2	1-1/2	1-1/2
NPT	3/4	3/4	1-1/4	1-1/4	1-1/4	1-1/2	1-1/2	1-1/2	1-1/2
SAE O-ring Thread	1-1/16-12	1-1/16-12	1-5/8-12	1-5/8-12	1-5/8-12	1-7/8-12	1-7/8-12	1-7/8-12	1-7/8-12
SAE Flange 3000 PSI	3/4	3/4	1-1/4	1-1/4	1-1/4	1-1/2	1-1/2	1-1/2	1-1/2
SAE Flange 6000 PSI	3/4	3/4	1-1/4	1-1/4	1-1/4	1-1/2	1-1/2	1-1/2	1-1/2
Weight (kg/lbs) incl. Elements with Filter Bowl in One-Part Style	5,3	6,2	10,3	12	16,3	27	35,5	-	-
	11,7	13,7	22,7	26,5	35,9	59,9	78,3	-	-
Weight (kg/lbs) incl. Elements with Filter Bowl in Two-Part Style	5,9	6,9	12,2	13,7	20	32	39,3	49	57,3
	13	15,2	26,9	30,2	44,1	70,5	86,5	108	126,3

Dimensions (mm/in)		Filter Size SF								
		014	030	045	070	125	090	160	250	300
b1		104	104	128	128	128	178	178	178	178
		4.10	4.10	5.04	5.04	5.04	7.01	7.01	7.01	7.01
d2		91	91	116	116	116	159	159	159	159
		3.58	3.58	4.57	4.57	4.57	6.26	6.26	6.26	6.26
h3		48	48	49,5	49,5	49,5	72	72	72	72
		1.89	1.89	1.95	1.95	1.95	2.84	2.84	2.84	2.84
h4		12,5	12,5	12,5	12,5	12,5	12,5	12,5	12,5	12,5
		.49	.49	.49	.49	.49	.49	.49	.49	.49
with Filter Bowl in One-Part Style Type SF	d1	68	68	95	95	95	130	130	130	130
		2.68	2.68	3.74	3.74	3.74	5.12	5.12	5.12	5.12
	h1	188	254	239	298	483	323	494	-	-
		7.40	10.00	9.41	11.73	19.11	12.72	19.45	-	-
	h2	78	144	103	161	343	148	319	-	-
		3.07	5.67	4.06	6.34	13.5	5.83	12.56	-	-
	h5	100	170	140	200	380	190	360	-	-
		3.94	6.69	5.51	7.87	14.96	7.48	14.17	-	-
		85	85	120	120	120	150	150	-	-
		3.35	3.35	4.72	4.72	4.72	5.91	5.91	-	-
	Hex	27	27	32	32	32	36	36	36	36
		1.06	1.06	1.26	1.26	1.26	1.42	1.42	1.42	1.42
with Filter Bowl in Two-Part Style Type SF...TL	d1	70	70	101,6	101,6	101,6	133	133	133	133
		2.76	2.76	4	4	4	5.24	5.24	5.24	5.24
	d3	84	84	115	115	115	155	155	155	155
		3.31	3.31	4.53	4.53	4.53	6.10	6.10	6.10	6.10
	h5	65	130	100	160	340	120	290	425	590
		2.56	5.12	3.94	6.30	13.39	4.72	11.42	16.73	23.23
	h6	190	256	241	300	485	329,5	500,5	656,5	821,5
		7.48	10.08	9.49	11.81	19.10	12.97	19.71	25.85	32.34
	h7	80	146	103	163	344	154,5	325,5	481,5	646,5
		3.15	5.75	4.06	6.42	13.54	6.08	12.82	18.96	25.45
	Hex	27	27	32	32	32	36	36	36	36
		1.06	1.06	1.26	1.26	1.26	1.42	1.42	1.42	1.42
Dimensions SAE Flange 3000 PSI	b4	22,3	22,3	30,2	30,2	30,2	35,7	35,7	35,7	35,7
		.88	.88	1.87	1.87	1.87	1.41	1.41	1.41	1.41
	b5	47,6	47,6	58,7	58,7	58,7	69,9	69,9	69,9	69,9
		1.19	1.19	2.32	2.32	2.32	2.75	2.75	2.75	2.75
Dimensions SAE Flange 6000 PSI	G4	M10 x 15	M10 x 15	M10 x 18			M12 x 20			
		3/8-16 UNC	3/8-16 UNC	7/16-14 UNC			1/2-13 UNC			
	b4	23,8	23,8	31,8	31,8	31,8	36,5	36,7	36,7	36,7
		.94	.94	1.25	1.25	1.25	1.44	1.45	1.45	1.45
	b5	50,8	50,8	66,6	66,6	66,6	79,3	79,4	79,4	79,4
		2.00	2.00	2.62	2.62	2.62	3.12	3.13	3.13	3.13
	G4	M10 x 15		M14 x 17			M16 x 20			
		3/8-16 UNC		1/2-13 UNC			5/8-11 UNC			

Reference: rec.*: Recommended | min.*: Minimum

Dimensions (mm/in)		Filter Size SF								
		014	030	045	070	125	090	160	250	300
T	b2	23,8	23,8	31,6	31,6	31,6	36,7	36,7	36,7	36,7
		.94	.94	1.24	1.24	1.24	1.45	1.45	1.45	1.45
	b3	50,8	50,8	66,7	66,7	66,7	79,4	79,4	79,4	79,4
		2.00	2.00	2.63	2.63	2.63	3.13	3.13	3.13	3.13
	G2	M10 x 15			M14 x 17		M16 x 20			
TH (optional)	G3	3/8-16 UNC x .59			1/2-13 UNC x .79		5/8-11 UNC x .79			
	b2	32	32	35	35	35	60	60	60	60
		1.26	1.26	1.38	1.38	1.38	2.36	2.36	2.36	2.36
	b3	56	56	85	85	85	115	115	115	115
		2.20	2.20	3.35	3.35	3.35	4.53	4.53	4.53	4.53
	G2	M6 x 9			M10 x 15		M12 x 20			
	G3	1/2-28 UNF x .35			3/8-24 UNF x .59		1/2-20 UNF x .79			



High Pressure Filter Housings / Complete Filters ■ Type SF

SF - 014 - G - 10 - B - T - G12 - B - P T 230 - TL / X

① ② ③ ④ ⑤ ⑥ ⑦ ⑧ ⑨ ⑩ ⑪ ⑫ ⑬

① Type

High Pressure Filter **SF**

② Group

Flow	Size
60 l/min / 14 US GPM	014
110 l/min / 30 US GPM	030
160 l/min / 45 US GPM	045
240 l/min / 70 US GPM	070
330 l/min / 90 US GPM	090
475 l/min / 125 US GPM	125
660 l/min / 160 US GPM	160
990 l/min / 250 US GPM	250
1135 l/min / 300 US GPM	300

Note: Exact flow will depend on the selected filter element.
For technical data please see pages 57 / 58.

③ Filter Material

Material	max. Δp^* collapse	Micron ratings available	Code
Without filter element	-	-	O
Inorg. glass fibre	25 bar / 363 PSI	3, 5, 10, 20	G
Inorg. glass fibre	210 bar / 3045 PSI		H
Stainless fibre	210 bar / 3045 PSI		A
Stainless mesh	30 bar / 435 PSI	25, 50, 100, 200	S

Note: * Collapse/burst resistance as per ISO 2941.

④ Micron Rating

3 μ m	03
5 μ m	05
10 μ m	10
20 μ m	20
25 μ m	25
50 μ m	50
100 μ m	100
200 μ m	200

Note: Other micron ratings on request.

⑤ Sealing Material

NBR (Buna-N®)	B
FKM/FPM (Viton®)	V
EPDM	E

Note: Other sealing materials on request.

⑥ Connecting Flange

Type T	T
Type TH (optional)	TH

⑦ Connection Style

Connection Style	Thread Style	Group	Code	Group	Code	Group	Code
		014 030		045 070 125		090 160 250 300	
BSP	metric	3/4	G12	1-1/4	G20	1-1/2	G24
BSP	metric	1	G16	1-1/2	G24	-	-
NPT	UNC	3/4	N12	1-1/4	N20	1-1/2	N24
SAE O-ring Thread	UNC	1-1/16-12	U12	1-5/8-12	U20	1-7/8-12	U24
SAE Flange 6000 PSI	metric	3/4	C612M	1-1/4	C620M	1-1/2	C624M
SAE Flange 6000 PSI	UNC	3/4	C612U	1-1/4	C620U	1-1/2	C624U
SAE Flange 3000 PSI	metric	3/4	C312M	1-1/4	C320M	1-1/2	C324M
SAE Flange 3000 PSI	UNC	3/4	C312U	1-1/4	C320U	1-1/2	C324U
SAE Flange 3000 PSI	metric	1	C316M	-	-	2	C332M
SAE Flange 3000 PSI	UNC	1	C316U	-	-	2	C332U

Note: Other port connections on request. Bold types identify preferred connection styles.

⑧ Valve

Without valve	O
Bypass valve	B
Reverse flow valve	R
Non-return valve	N
Multi-function valve	M

⑨ Clogging Indicator

Without clogging indicator	O
Visual, with automatic reset	A
Visual, with manual reset	V
Electrical	E
Electrical, Deutsch plug	ED
Visual-electrical	P
Double Visual-electrical	D024

⑩ Thermostop

Without thermostop	none
With thermostop	T

⑪ Voltage (only for Code P)

24 V DC	024
110 V AC	110
230 V AC	230

⑫ Style Filter Bowl

With bowl in one-part style	none
Toploader, with bowl in two-part style	TL

Note: Group size SF-250 and SF-300 only available in TL-version.
With drain plug available on request.

⑬ Design Code

Only for information	X
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Filter Elements ■ Type SE

SE - 014 - G - 10 - B / X

① ② ③ ④ ⑤ ⑥

① Type

Filter Element Series **SE**

② Group

According to filter housing

③ Filter Material

Material	max. Δp^* collapse	Micron ratings available	Code
Inorganic glass fibre	25 bar / 363 PSI	3, 5, 10, 20	G
Inorganic glass fibre	210 bar / 3045 PSI		H
Stainless fibre	210 bar / 3045 PSI		M
Stainless mesh	30 bar / 435 PSI	25, 50, 100, 200	S

Note: * Collapse/burst resistance as per ISO 2941.

④ Micron Rating

3 μ m	03
5 μ m	05
10 μ m	10
20 μ m	20
25 μ m	25
50 μ m	50
100 μ m	100
200 μ m	200

Note: Other micron ratings on request.

⑤ Sealing Material

NBR (Buna-N®)	B
FKM/FPM (Viton®)	V
EPDM	E

Note: Other sealing materials on request.

⑥ Design Code

Only for information	X
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