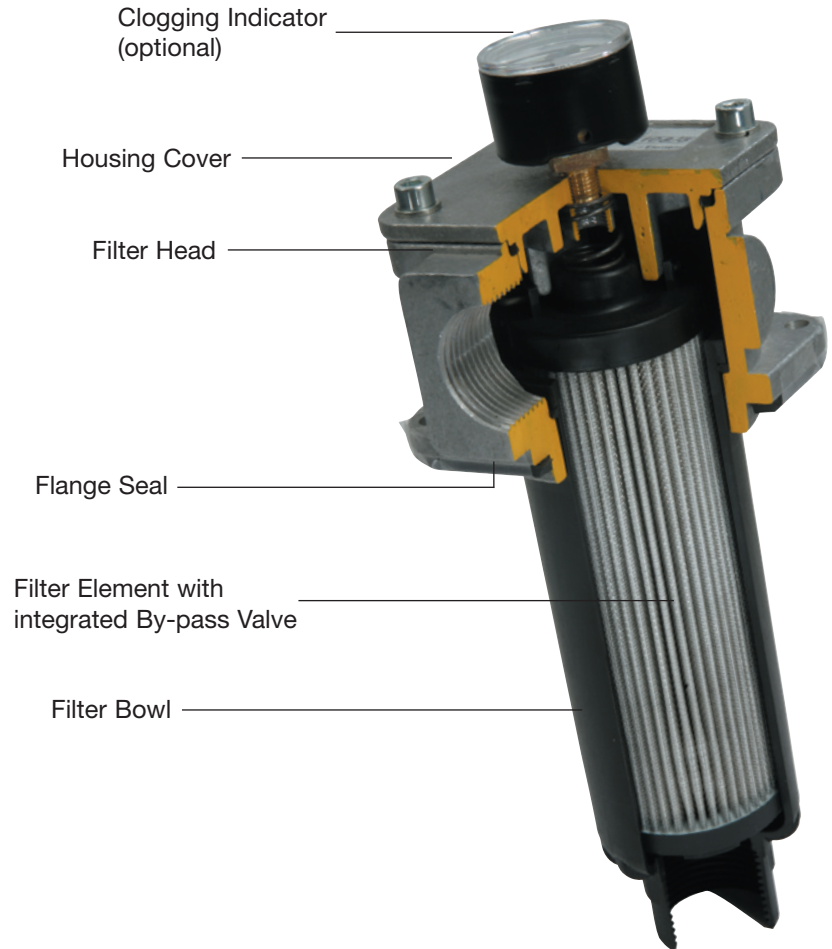


Technical Data

STAUFF RF 014-130 return line filters are designed as tank top filters. They are mounted directly on the tank top and when 100% of the system's oil is filtered, they provide the optimum removal of contaminant from the system. This provides the pump with clean oil thus reducing contaminant generated wear. The filter bowl or funnel is designed to return the oil beneath the surface thus preventing the entrainment of air by the returning oil.



Technical Specification

Construction	Tank Top flange mounting
Filter head	Aluminium
Filter bowl	Glass fiber reinforced polyamide
Seals	NBR (Buna-N®), FPM (Viton®) or EPDM (Ethylene-Propylene)
Threaded connection	BSP, NPT- and SAE-“O“-Ring thread as well as SAE-flange 3000 PSI
Operating pressure	max 16 bar (232 PSI)
Proof pressure	24 bar (350 PSI)
Temperature Range	-10 to +100°C (14° to 212°F)

By-pass valve (integrated in the filter element)

Opening pressure
3 bar ± 0,3 bar
(43.5 PSI ± 4.35 PSI)
other pressures on request

Clogging indicator

Gauge type indicator 0...4 bar (0...58 PSI) colored segments; Electrical switch, setting 2.5 bar (36.25 PSI)

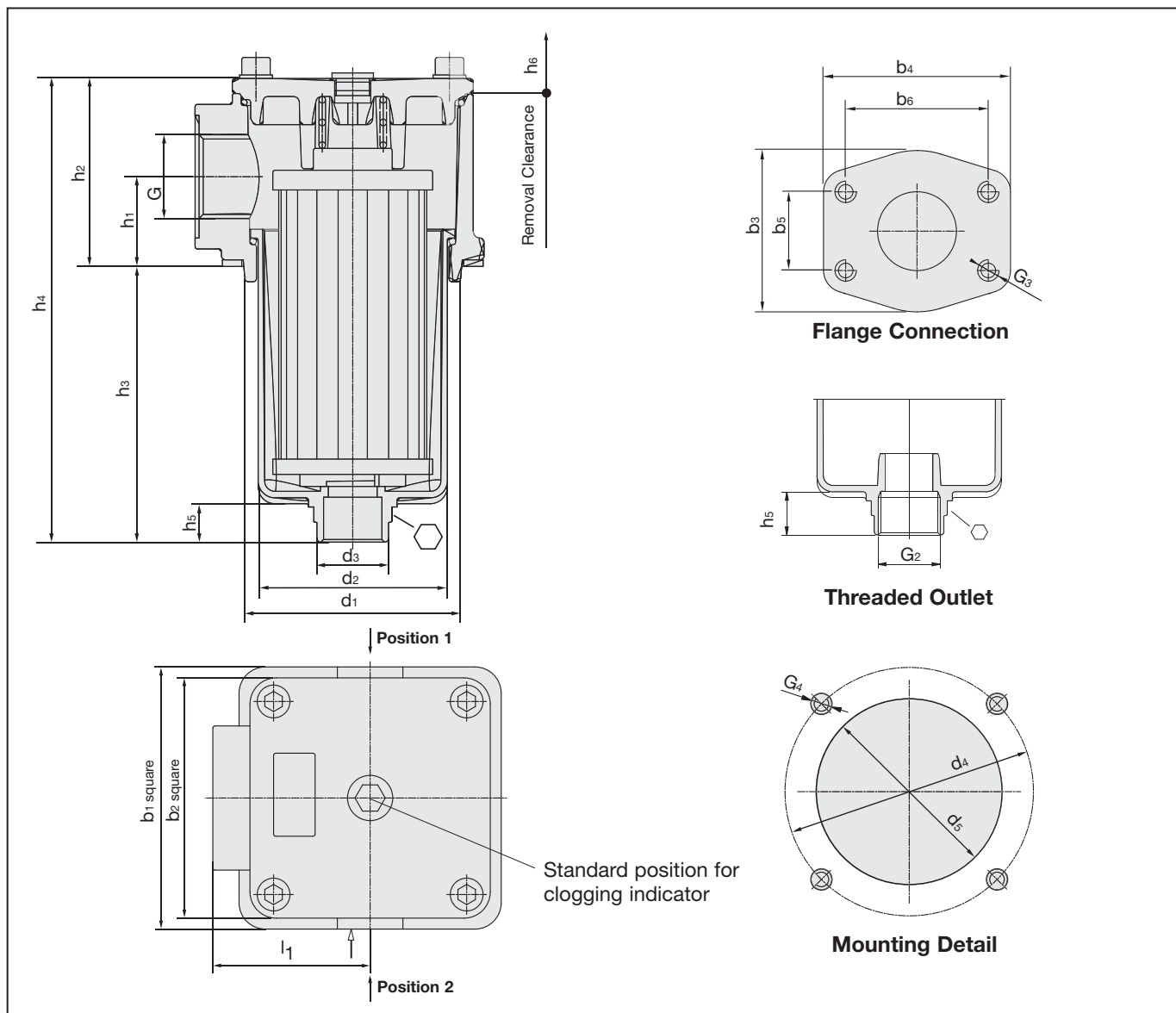
Filter elements

Specification see page F52

Media

Mineral oils, other fluids on request

Dimensions RF 014-130



Dimensions Return Line Filters

Dimensions in mm (inch)

Filter Size	Thread Connection G				Dimensions																				
	BSP	NPT	SAE- "O" Ring Thread	SAE Flange 3000 PSI	b ₁	b ₂	b ₃	b ₄	b ₅	b ₆	d ₁	d ₂	d ₃	d ₄	d ₅	h ₁	h ₂	h ₃	h ₄	h ₅	h ₆	l ₁	G ₂	G ₃	G ₄
RF014	G 3/4	3/4"	1 1/16-12 UN	-	89	80					73	57,5	36	100	78	33	66	91,5	157,5	140		48	G1		M6
					(3.5)	(3.15)					(2.87)	(2.26)	(1.42)	(3.94)	(3.07)	(1.3)	(2.6)	(3.6)	(6.2)	(5.51)		(1.89)	or 1 NPT		or 1/4" UNC
RF030	G 1	1"	1 5/16-12 UN	-														159,5	225,5	210					
																		(6.3)	(8.88)	(8.27)					
RF045	G 1 1/4	1 1/4"	1 5/8-12 UN	-	120	110					100	84	48	135	105	41	86	119	206	180		66	G1 1/4		M8
					(4.72)	(4.33)					(3.94)	(3.31)	(1.89)	(5.14)	(4.13)	(1.61)	(3.39)	(4.69)	(8.11)	(7.09)		(2.6)	or 1 1/4" NPT		or 5/16" UNC
RF070	G 1 1/2	1 1/2"	1 7/8-12 UN	-														180	267	240					
																		(7.09)	(10.51)	(9.45)					
RF090	G 2	2"	1 7/8-12 UN	2"	150	135	88	102	42,9	77,8	126	112,5	54,5	170	131	47	98	172,5	273,5	235		85	G1 1/2	1/2 UNC	M10
					(5.91)	(5.14)	(3.47)	(4.02)	(1.69)	(3.06)	(4.96)	(4.43)	(2.15)	(6.69)	(5.16)	(1.85)	(3.86)	(6.79)	(10.77)	(9.25)		(3.35)	or 1 1/2" NPT	x15 (x0.59)	or 3/4" UNC
RF130	G 2	2"	1 7/8-12 UN	2"														252,5	353,5	315					
																		(9.49)	(13.92)	(12.4)					

Options RF 014-130

1. Visual clogging indicator HI-M

The gauge visually displays the degree of contamination of the element. The colored segments allow quick visual checking.

green	0...2.5	bar (0...36.25 PSI)	Element has service life left
yellow	2.5...3.0	bar (36,25 ...43.5 PSI)	Element is contaminated and should be changed
red	>3.0	bar (>43.5 PSI)	By-pass valve open, unfiltered oil passing to tank

2. Electrical clogging switch HI-G

The switch is used where an electrical signal is needed to indicate when the element needs changing. The switch can turn on a light, or shut the machine down, or any further function controlled by an electric signal. The switching pressure is 2,5 bar (36,25 PSI) and this allows the element to be changed before the by-pass setting of 3 bar (43,5 PSI) is reached.

Maximum Voltage	Switch Type
42 V	HI-G 42
110 V	HI-G 110
220 V	HI-G 220

3. Leakage oil connection

Seal or case drain lines can be connected to the filter through either of the clogging indicator ports providing that the leakage oil can accept a pressure of 3 bar (43.5 PSI). It ensures that no un-filtered oil can return to the reservoir. It may save the cost of a manifold.

4. Filter bowl with threaded connection

Under some circumstances such as a tall reservoir or one with oil levels which vary greatly during operation, it is necessary to extend the filter bowl so that the returning oil returns beneath the surface and does not entrain air in the process. The optional bowl with a female thread allows an extension to be fitted quite simply.

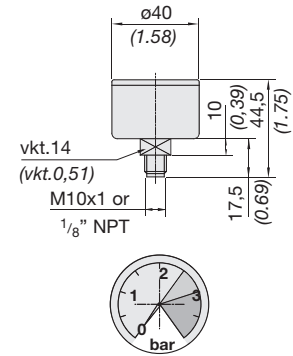
5. Filter bowl with threaded connection and diffuser

Diffusers mounted to the filter bowl minimize foaming and reduce noise of high return line flows. For further details on STAUFF diffusers please refer to the "Hydraulic Accessories" section of this catalog.

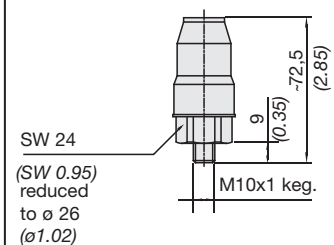
Dimensions in mm (inch)

Size SRV	for Return Line Filter Size	Dimensions			
		ø D	L	Thread G	SW
SRV-114-B16	RF 014/030	60 (2.36)	139 (5.47)	G 1 or 1" NPT	46 (1.81)
SRV-200-B20	RF 045/070	82 (3.23)	139 (5.47)	G 1 1/4 or 1 1/4" NPT	60 (2.36)
SRV-227-B24	RF 090/130	82 (3.23)	200 (7.87)	G 1 1/2 or 1 1/4" NPT	60 (2.36)

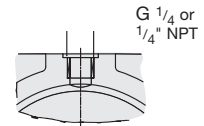
Visual clogging indicator



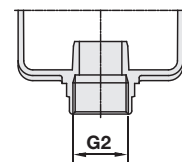
Electrical Clogging Switch



Leakage oil connection

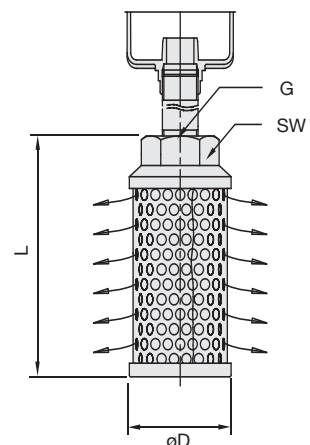


Threaded outlet



Dimension G2 see table page F48

Threaded outlet with SRV



Ordering Code Filter Housings

Filter Type RF

Group

Size	Flow	
	l/min	GPM
014	60	14
030	110	30
045	160	45
070	240	70
090	330	90
130	500	130

* Note Exact flow will depend on filter element selected. Consult technical data on page F51 & F52

For Complete Filters:

identification filter material + micron rating code (see ordering code filter elements below)

Seal Material

B	NBR (Buna-N®)
V	FPM (Viton®)
E	EPDM

other seal material on request

Design Code

only for information

Additional Features

	Pos.*
L Leakage oil connection	1 2

* Position of leakage oil connection see page F48 without any code: assembly in the middle of the filter cover

Outlet Style

O	Standard outlet (without thread)
G	Filter bowl with threaded outlet

Clogging indicator (see page F49)

	Pos.*
M Pressure gauge	1 2
G42 Electrical switch 42 V	
G110 Electrical switch 110 V	
G220 Electrical switch 220 V	

* Position of clogging indicator see page F48 without any code: assembly in the middle of the filter cover

Connection style

Code	Connection style	014	030	045	070	090	130
B	BSP	G ³ / ₄	G1	G1 ¹ / ₄	G1 ¹ / ₂	G2	G2
B 1	BSP	G ¹ / ₂	G ¹ / ₂	G1 ¹ / ₂	G1 ¹ / ₄	G1 ¹ / ₄	G1 ¹ / ₄
B 2	BSP	G1	G ³ / ₄	—	—	G1 ¹ / ₂	G1 ¹ / ₂
N	NPT	3/4"	1"	1 1/4"	1 1/2"	2"	2"
N 1	NPT	1"	3/4"	1 1/2"	1 1/4"	1 1/2"	1 1/2"
U	SAE-"O"-Ring thread	1 1/16	1 5/16	1 5/8	1 7/8	1 7/8	1 7/8
U 1	SAE-"O"-Ring thread	1 5/16	1 1/16	1 7/8	1 5/8	1 5/8	1 5/8
F	SAE-flange (3000 PSI)	—	—	—	—	2"	2"

Flanges are not supplied.

Ordering Code Filter Elements

Series RE

Group

according to filter housing

Filter Material

Code	Material	max Δp* collapse	Micron ratings available
A	Stainless fiber	30 bar (435 PSI)	03, 05, 10, 20
N	Filter paper	16 bar (232 PSI)	
G	Inorganic glass fiber	30 bar (435 PSI)	
S, B	Stainless mesh	30 bar (435 PSI)	25, 50, 100, 200

*collapse / burst resistance as per ISO 2941

Bold type identifies preferred material, other filter materials or micron ratings on request

Design Code

only for information

Seal Material

B	NBR (Buna-N®)
V	FPM (Viton®)
E	EPDM

other seal materials on request

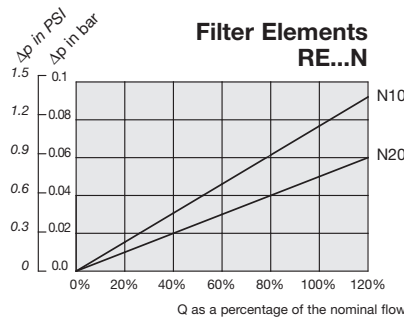
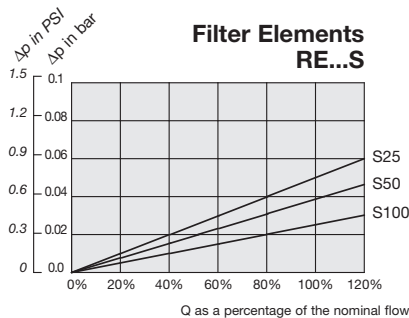
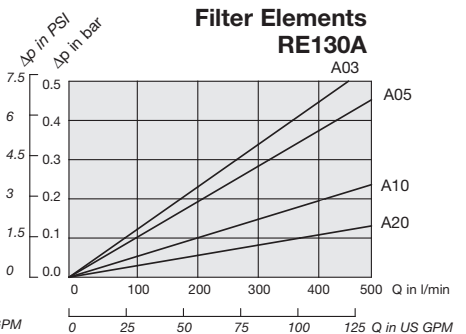
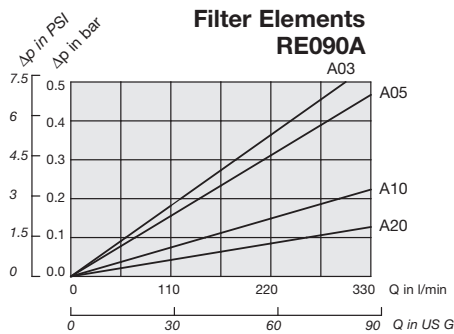
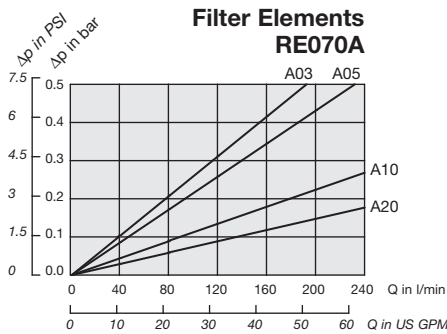
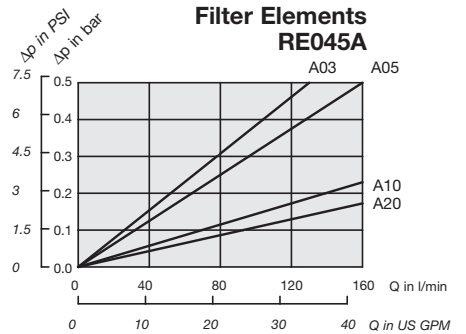
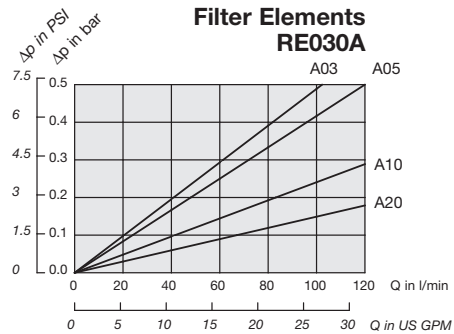
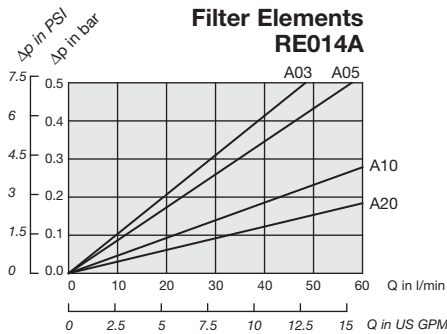
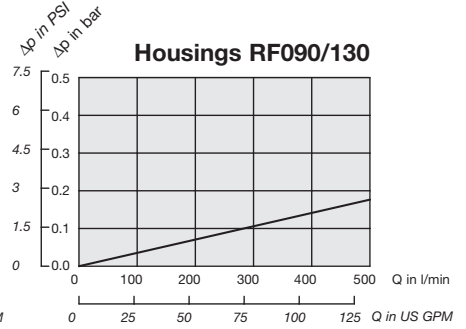
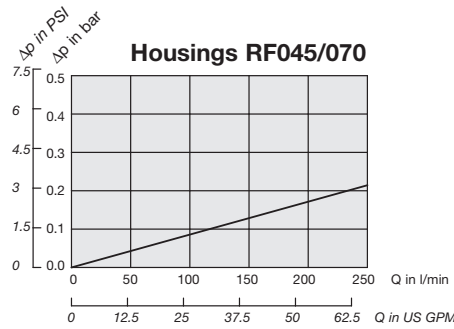
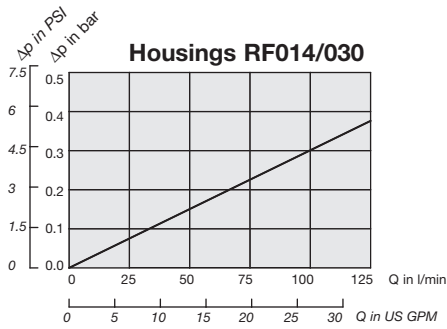
Micron Rating

03	3 μm
05	5 μm
10	10 μm
20	20 μm
25	25 μm
50	50 μm
100	100 μm
200	200 μm

other micron ratings on request

Flow Characteristics of Return Line Filters RF 014-130

The following characteristics are valid for mineral oils with a density of 0,85 kg/dm³ and the kinematic viscosity of 30 mm²/s. The characteristics have been determined in accordance to ISO 3968. Multipass filter ratings have been obtained in accordance to ISO 16889. Consult factory for details.



Flow Characteristics of Return Line Filters RF014-130

The following characteristics are valid for mineral oils with a density of 0,85 kg/dm³ and the kinematic viscosity of 30mm²/s. The characteristics have been determined in accordance to ISO 3968. Multipass filter ratings have been obtained in accordance to ISO 16889. Consult factory for details.

