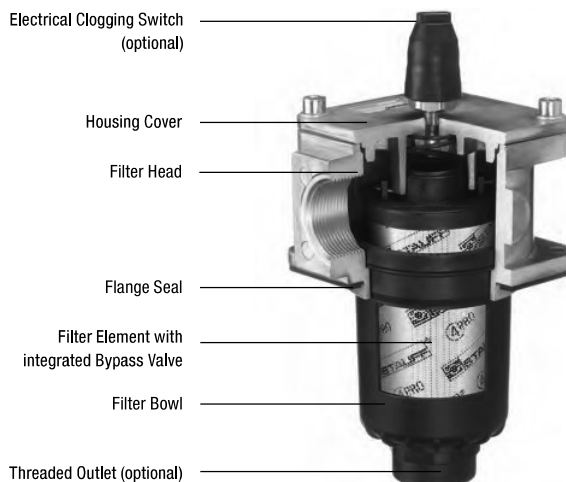


Return Line Filters ■ Type RF


Product Description

STAUFF RF 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 is designed to return the oil beneath the surface thus preventing the entrainment of air by the returning oil. A high efficiency of contaminant removal is assured by using STAUFF RE Replacement Filter Elements. The high dirt-hold capacity of STAUFF Elements ensures a long service life and as a result reduced maintenance costs.

Technical Data
Construction

- Tank Top flange mounting

Materials

- Filter head: Aluminium
- Filter bowl: Glass Fibre reinforced Polyamide
- Sealings: NBR (Buna-N®)
FPM (Viton®)
EPDM (Ethylene-Propylene-Diene-Monomer-Rubber)
Other sealing materials on request

Port Connection

- BSP
- NPT
- SAE O-ring thread
- SAE flange 3000 PSI

Operating Pressure

- Max. 16 bar / 232 PSI

Temperature Range

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

Filter Elements

- Specifications see page C74

Media Compatibility

- Mineral oils, other fluids on request

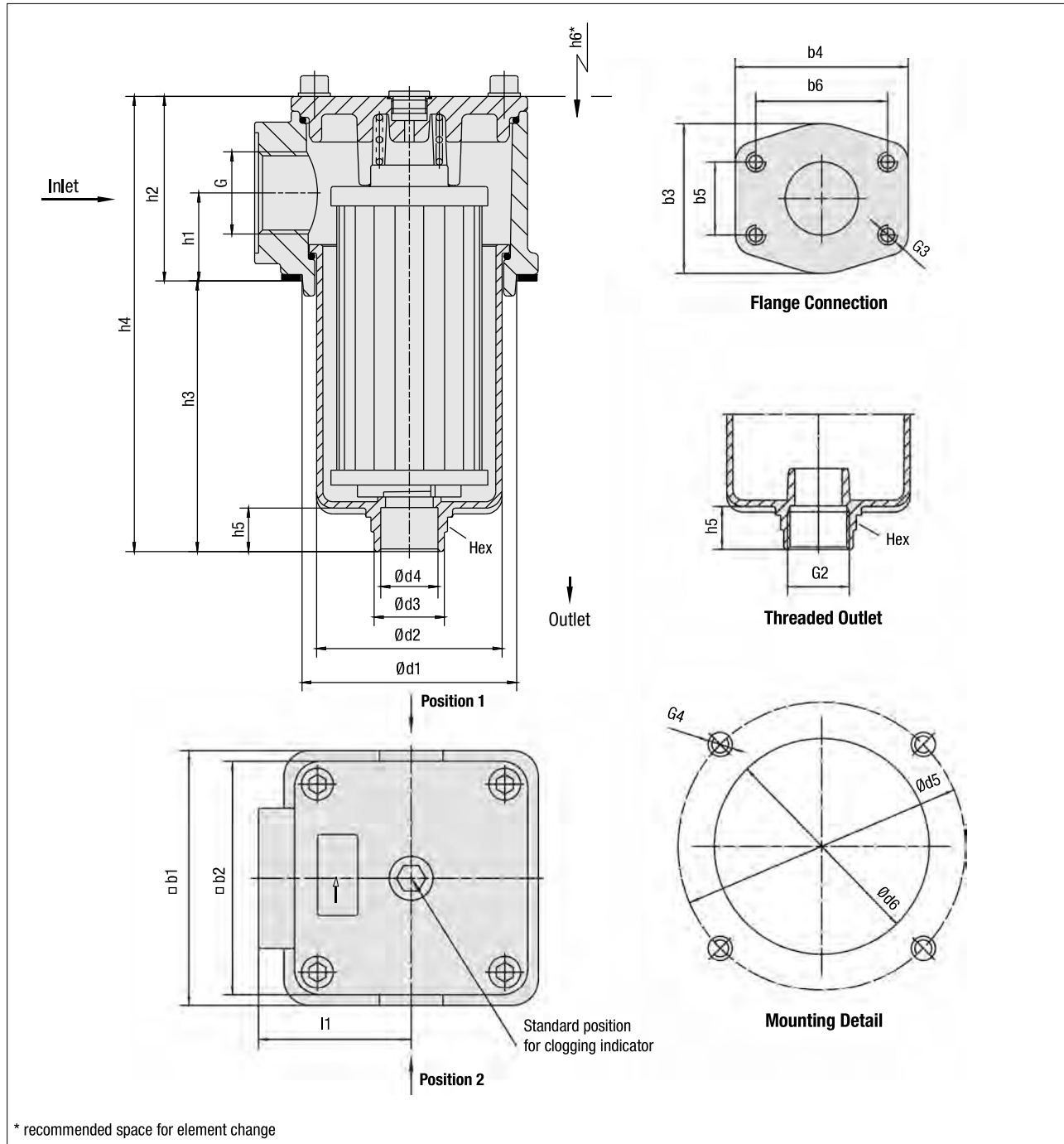
Options and Accessories
Valve

- Bypass valve (integrated in the filter element) Opening pressure 3 bar ± 0,3 bar / 43,5 PSI ± 4,35 PSI
Other settings available on request

Clogging Indicators

- Visual clogging indicator 0 ... 4 bar / 0 ... 58 PSI coloured segments
- Electrical clogging switch, setting 2,5 bar / 36,25 PSI
Other clogging indicators available on request

Return Line Filters ■ Type RF



Return Line Filters ■ Type RF

Thread Connection G	Filter Size RF					
	014	030	045	070	090	130
BSP	3/4	1	1-1/4	1-1/2	2	2
NPT	3/4	1	1-1/4	1-1/2	2	2
SAE O-ring Thread	1-1/16-12	1-5/16-12	1-5/8-12	1-7/8-12	1-7/8-12	1-7/8-12
SAE Flange 3000 PSI	-	-	-	-	2	2

Dimensions (mm/in)	Filter Size RF					
	014	030	045	070	090	130
b1	89	89	120	120	150	150
	3.50	3.50	4.72	4.72	5.91	5.91
b2	80	80	110	110	135	135
	3.15	3.15	4.33	4.33	5.31	5.31
b3	-	-	-	-	88	88
					3.47	3.47
b4	-	-	-	-	102	102
					4.02	4.02
b5	-	-	-	-	42,9	42,9
					1.69	1.69
b6	-	-	-	-	77,8	77,8
					3.06	3.06
d1	73	73	100	100	126	126
	2.87	2.87	3.94	3.94	4.96	4.96
d2	57,5	57,5	84	84	112,5	112,5
	2.26	2.26	3.31	3.31	4.43	4.43
d3	36	36	48	48	54,5	54,5
	1.42	1.42	1.89	1.89	2.15	2.15
d4	17	17	28	28	37,5	37,5
	.67	.67	1.1	1.1	1.48	1.48
d5	100	100	135	135	170	170
	3.94	3.94	5.31	5.31	6.69	6.69
d6	78	78	105	105	131	131
	3.07	3.07	4.13	4.13	5.16	5.16
h1	33	33	41	41	47	47
	1.30	1.30	1.61	1.61	1.85	1.85
h2	66	66	86	86	98	98
	2.60	2.60	3.39	3.39	3.86	3.86
h3	91,5	159,5	119	180	172,5	252,5
	3.60	6.28	4.69	7.09	6.79	9.94
h4	157,5	225,5	206	267	273,5	353,5
	6.20	8.88	8.11	10.51	10.77	13.91
h5	23,5	23,5	24	24	27	27
	.93	.93	.95	.95	1.06	1.06
h6	140	210	180	240	235	315
	5.51	8.27	7.09	9.45	9.25	12.40
l1	48	48	66	66	85	85
	1.89	1.89	2.60	2.60	3.35	3.35
G2	G1 or 1 NPT	G1 or 1 NPT	G1-1/4 or 1-1/4 NPT	G1-1/4 or 1-1/4 NPT	G1-1/2 or 1-1/2 NPT	G1-1/2 or 1-1/2 NPT
G3	-	-	-	-	1/2 UNC x 15 1/2 UNC x .59	1/2 UNC x 15 1/2 UNC x .59
G4	M6 or 1/4-20 UNC	M6 or 1/4-20 UNC	M8 or 5/16-18 UNC	M8 or 5/16-18 UNC	M10 or 3/8-16 UNC	M10 or 3/8-16 UNC
Hex	36	36	50	50	55	55
	1.42	1.42	1.97	1.97	2.16	2.16

Return Line Filter Housings / Complete Filters ■ Type RF

RF	070	B	/	B	/	G42NC	/	D	/	G	/	L1	/	X
1	2	3	4	5	6	7	8	9	10	11						

1 Type

Return Line Filter **RF**

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
500 l/min / 130 US GPM	130

Note: Exact flow will depend on filter element selected.
Consult technical data on pages C76 / C77.

3 Filter Material

Material	max. Δp^* collapse	Micron ratings available	Code
Without filter element	-	-	...
Inorg. glass fibre	25 bar / 363 PSI	3, 5, 10, 20	G
Stainless fibre	30 bar / 435 PSI		A
Filter paper	10 bar / 145 PSI	10, 20	N
Stainless mesh	30 bar / 435 PSI	25, 50, 100, 200	S

Note: *Collapse/burst resistance as per ISO 2941. Other materials on request.

4 Micron Rating

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

Note: Other micron ratings on request.

5 Sealing Materials

NBR (Buna®)	B
FPM (Viton®)	V
EPDM	E

Note: Other sealing materials on request

6 Connection Style

Connection Style	Group						Thread Style	Code
	014	030	045	070	090	130		
BSP	3/4	1	1-1/4	1-1/2	2	2	-	B
BSP	1/2	1/2	1-1/2	1-1/4	1-1/4	1-1/4	-	B1
BSP	1	3/4	-	-	1-1/2	1-1/2	-	B2
NPT	3/4	1	1-1/4	1-1/2	2	2	-	N
NPT	1	3/4	1-1/2	1-1/4	1-1/2	1-1/2	-	N1
SAE O-ring Thread	1-1/16	1-5/16	1-5/8	1-7/8	1-7/8	1-7/8	-	U
SAE O-ring Thread	1-5/16	1-1/16	1-7/8	1-5/8	1-5/8	1-5/8	-	U1
SAE Flange 3000 PSI	-	-	-	-	2	2	metric	FM
SAE Flange 3000 PSI	-	-	-	-	2	2	UNC	FU

Note: Bold types identify preferred connection styles.

7 Clogging Indicator

	Position*		
Without Clogging Indicator	-		0
Visual Clogging Indicator			M
Electrical Clogging Switch 42 V, NO	1	2	G42NO
Electrical Clogging Switch 42 V, NC			G42NC
Electrical Clogging Switch 110 V, two-way contact			G110
Electrical Clogging Switch 230 V, two-way contact			G230

Note: *Position of clogging indicator see page C72.

Without any code: assembly in the middle of the filter cover.

8 Option Clogging Indicator

G42NO and G42NC	
Plug connector and rubber cap	none
Deutsch plug	D
AMP plug	A
M12 x 1,5	M12

9 Outlet Style

Standard outlet (without thread)	0
Filter bowl with threaded outlet	G

10 Additional Features

	Position*		
Without leakage oil connection	-		none
Leakage oil connection	1	2	L

Note: *Position of the leakage oil connection see page C72.

Without any code: assembly in the middle of the filter cover.

11 Design Code

Only for information **X**

Filter Elements ■ Type RE

RE	-	014	G	10	B	/	X
1	2	3	4	5	6		

1 Type

Filter Element Series **RE**

2 Group

According to filter housing

3 Filter Material

Material	Max. Δp^* collapse	Micron ratings available	Code
Inorg. glass fibre	25 bar / 363 PSI	3, 5, 10, 20	G
Stainless fibre	30 bar / 435 PSI		A
Filter paper	10 bar / 145 PSI	10, 20	N
Stainless mesh	30 bar / 435 PSI	25, 50, 100, 200	S

Note: *Collapse/burst resistance as per ISO 2941. Other materials on request.

4 Micron Rating

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

Note: Other micron ratings on request.

5 Sealing Materials

NBR (Buna®)	B
FPM (Viton®)	V
EPDM	E

Note: Other sealing materials on request.

6 Design Code

Only for information **X**

Return Line Filters ■ Type RF

Visual Clogging Indicator

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

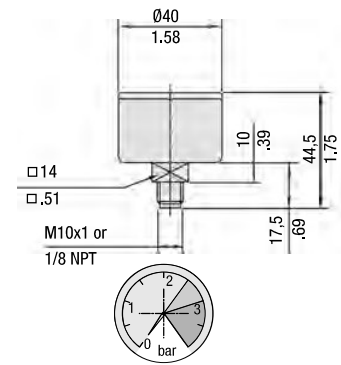
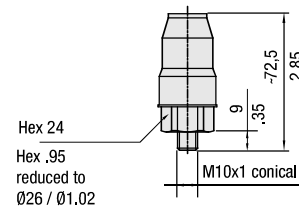
green	0 ... 2,5 bar / 0 ... 36.25 PSI	Element has service life left
yellow	2,5 ... 3,0 bar / 36.25 ... 43.5 PSI	Element is contaminated and should be changed
red	>3,0 bar / >43.5 PSI	Bypass valve open, unfiltered oil passing to tank

Electrical Clogging Switch

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 bypass setting of 3 bar / 43.5 PSI is reached.

Standard type with plug connector and rubber cap. Available with DEUTSCH DT04-2P plug (industrial standard), AMP Junior Timer plug (industrial standard) and five-pin circular connector M12, A-coded, according to IEC 61076-2-101.

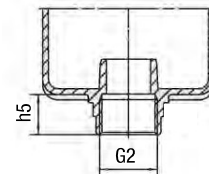
Maximum Voltage	Switch Type	Note: The customer / user carries the responsibility for the electrical connection.
42 V (normally open)	G42NO	
42 V (normally closed)	G42NC	
110 V (two-way contact)	G110	
230 V (two-way contact)	G230	

Visual Clogging Indicator

Electrical Clogging Switch


Dimensions in mm/in

Filter Bowl with Threaded Connection

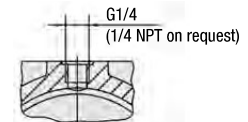
Under some circumstances such as a tall reservoir or one with oil levels which vary greatly during operation, it is necessary to extend the filter bowl so that the returning oil returns beneath the surface and does not entrain air in the process. The optional bowl with a female thread allows an extension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

Threaded Outlet


Dimensions see table page C73

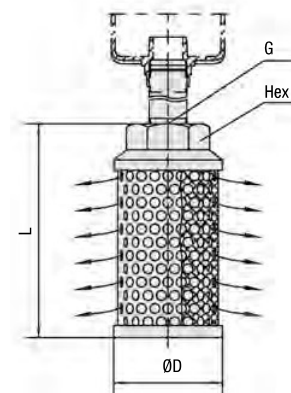
Leakage Oil Connection

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 unfiltered oil can return to the reservoir.

Leakage Oil Connection

Filter Bowl with Threaded Connection and Diffuser

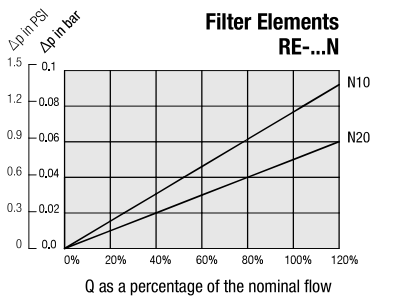
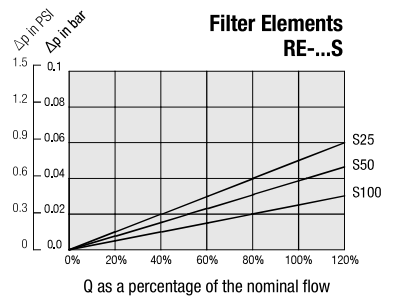
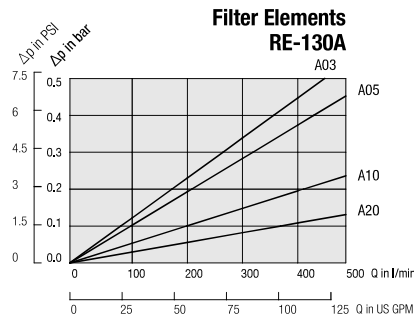
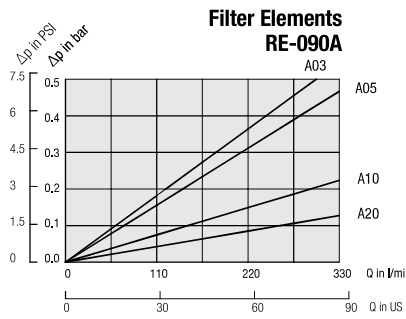
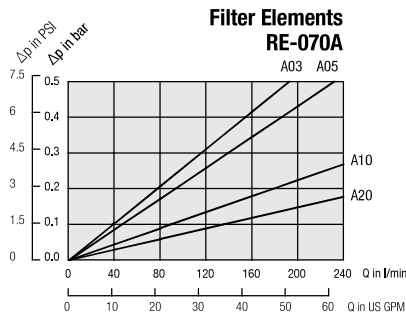
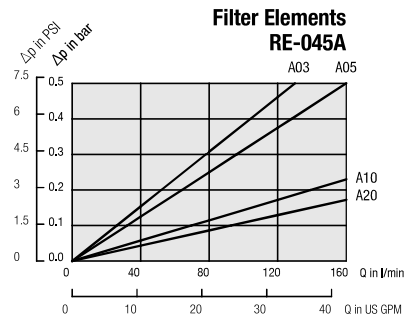
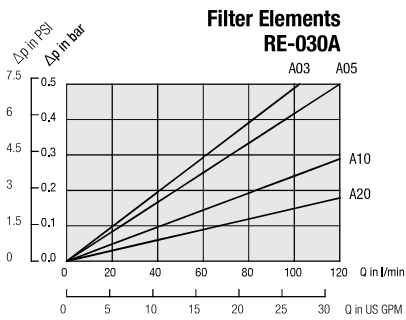
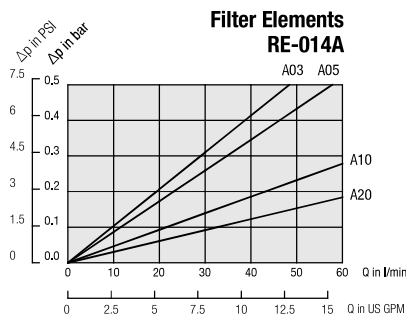
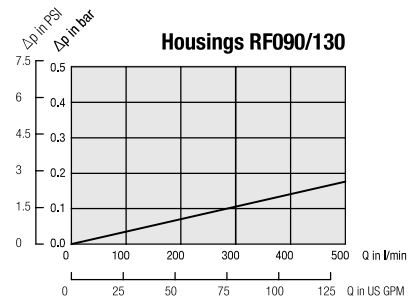
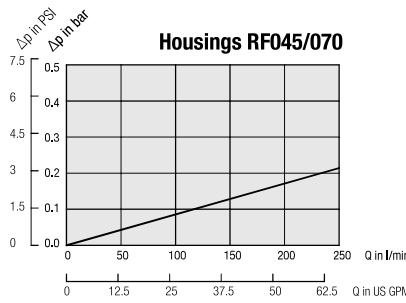
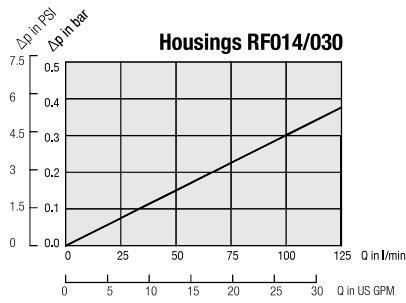
Diffusers mounted to the filter bowl minimise foaming and reduce noise of high return line flows. For further details on STAUFF Diffusers please refer to the "Hydraulic Accessories" section on page E36.
Attention: Connection pipe not included in scope of delivery!

Size SRV	for Return Line Filter Size	Dimensions (mm/in)			
		øD	L	Thread G	Hex
SRV-114-B16	RF 014/030	60	139	G1	46
SRV-114-N16		2.36	5.47	1 NPT	1.81
SRV-200-B20	RF 045/070	82	139	G1-1/4	60
SRV-200-N20		3.23	5.47	1-1/4 NPT	2.36
SRV-227-B24	RF 090/130	82	200	G1-1/2	60
SRV-227-N24		3.23	7.87	1-1/2 NPT	2.36

Threaded Outlet with SRV


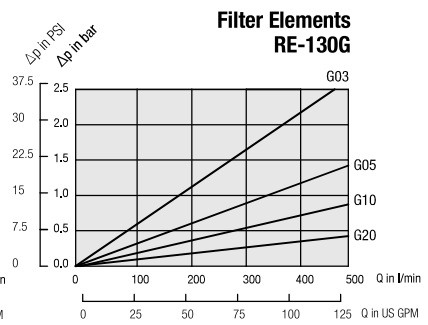
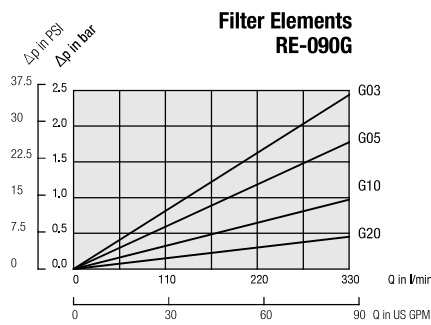
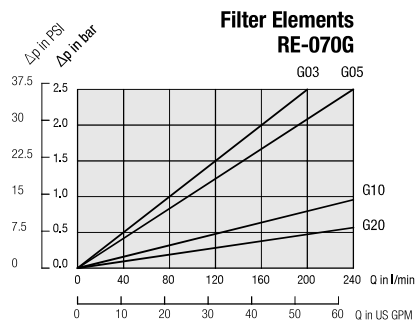
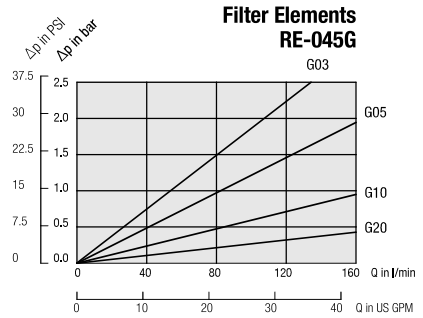
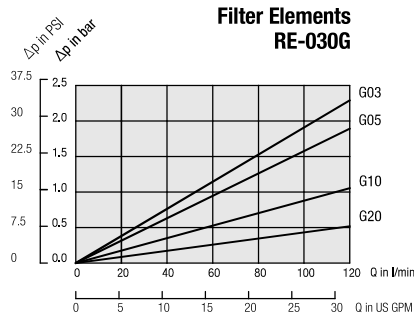
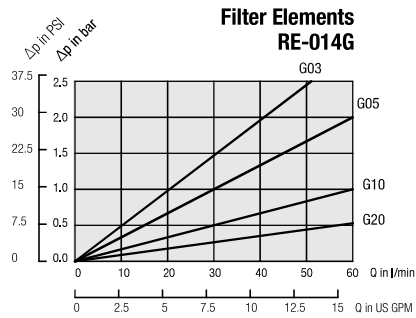
Return Line Filters ■ Type RF Flow Characteristics

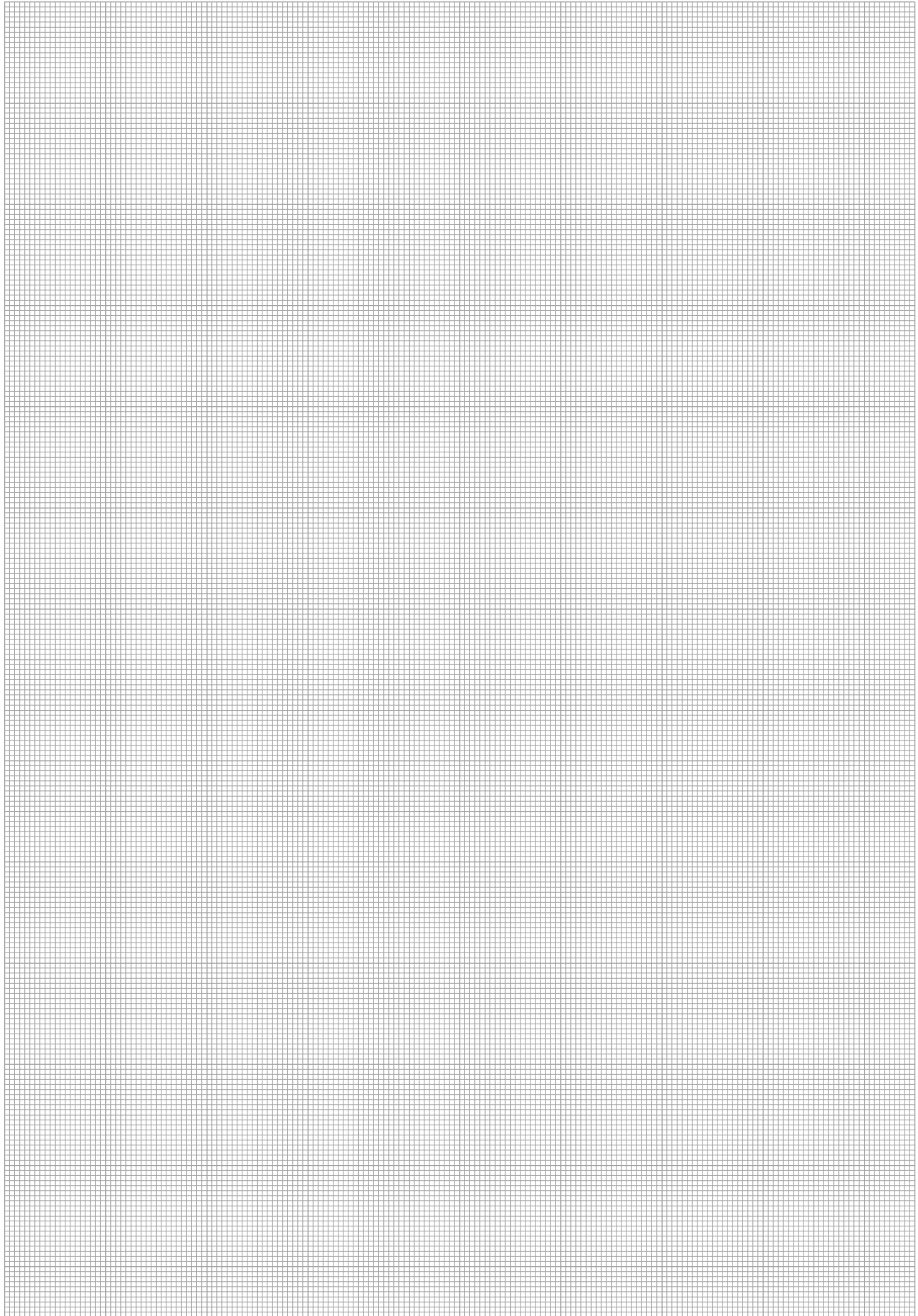
The following characteristics are valid for mineral oils with a density of 0,85 kg/dm³ and the kinematic viscosity of 30 mm²/s (30cSt). The characteristics have been determined in accordance to ISO 3968. Multipass filter ratings have been obtained in accordance to ISO 16889. The housing pressure drop is directly proportional to the oil density. Consult STAUFF for details.



Return Line Filters ■ Type RF Flow Characteristics

The following characteristics are valid for mineral oils with a density of 0,85 kg/dm³ and the kinematic viscosity of 30 mm²/s (30cSt). The characteristics have been determined in accordance to ISO 3968. Multipass filter ratings have been obtained in accordance to ISO 16889. The housing pressure drop is directly proportional to the oil density. Consult STAUFF for details.





Return Line Filters ■ Type RFA


Product Description

STAUFF RFA Return Line Filters are a one piece design and can be used as a tank top or an in-line filter. They are mounted in the return line and if 100% of the system oil is filtered, provide the optimum removal of contaminant for the systems. This provides the pump with clean oil, thus reducing contaminant generated wear. A high efficiency of contaminant removal is assured by using STAUFF RE Replacement Filter Elements. The high dirt-hold capacity of STAUFF Elements ensures a long service life and as a result reduced maintenance costs.

Technical Data
Construction

- Tank Top or in-line mounting

Materials

- Filter housing: Aluminium
- Sealings: NBR (Buna-N®)
FPM (Viton®)
EPDM (Ethylene Propylene Diene Monomer Rubber)
Other sealing materials on request

Port Connection

- SAE O-ring thread
- BSP

Operating Pressure

- Max. 25 bar / 365 PSI

Temperature Range

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

Filter Elements

- Specifications see page C82

Media Compatibility

- Mineral oils, other fluids on request

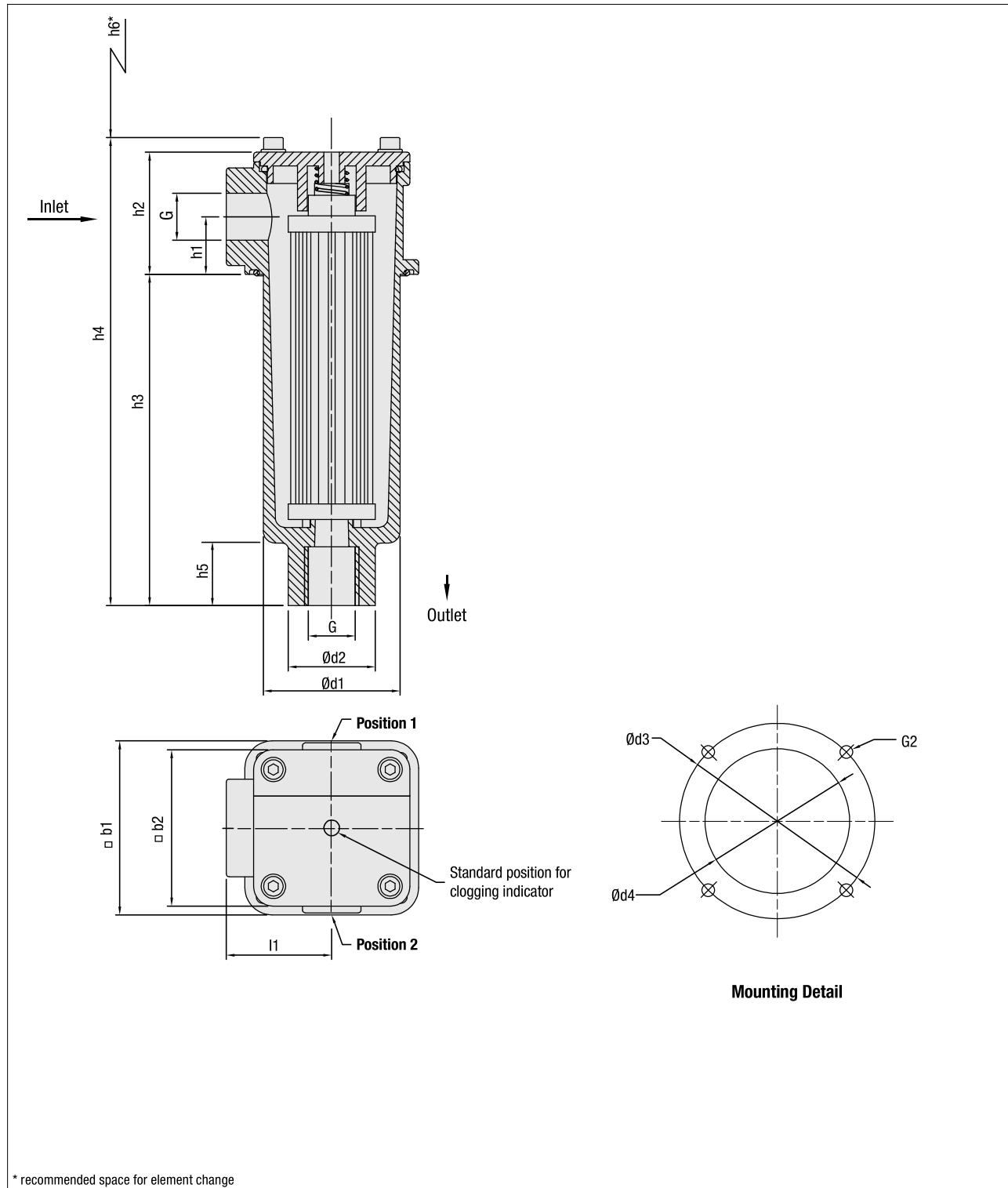
Options and Accessories
Valve

- Bypass valve Opening pressure 3 bar ± 0,3 bar / 43.5 PSI ± 4.35 PSI
(integrated in the filter element) Other settings available on request

Clogging Indicators

- Visual clogging indicator 0 ... 4 bar / 0 ... 58 PSI coloured segments
- Electrical clogging switch, setting 2,5 bar / 36.25 PSI
Other clogging indicators available on request

Return Line Filters ■ Type RFA



Return Line Filters ■ Type RFA

Thread Connection G	Filter Size RFA030
SAE O-ring Thread U	1-1/16-12
SAE O-ring Thread U1	3/4-16
BSP B	1/2
BSP B1	3/4

Dimensions (mm/in)	Filter Size RFA030
h1	25,5
	1.16
h2	62,5
	2.46
h3	169,5
	6.67
h4	239,5
	9.43
h5	32
	1.26
h6	210
	8.27
b1	89
	3.50
b2	80
	3.15
d1	70
	2.76
d2	44,5
	1.75
d3	100
	3.94
d4	74
	2.91
l1	54
	2.16
G2	M6 or 1/4 UNC

Return Line Filter Housings / Complete Filters ■ Type RFA

RFA	030	B	/	U	/	G42NC	/	D	/	G	/	L1	/	X
1	2	3	4	5	6	7	8	9	10	11						

1 Type

Return Line Filter **RFA**

2 Group

Flow **Size**
110 l/min / 30 US GPM **030**Note: Exact flow will depend on filter element selected.
Consult technical data on pages C84.

3 Filter Material

Material	Max. Δp^* collapse	Micron ratings available	Code
Without filter element	-	-	...
Inorg. glass fibre	25 bar / 363 PSI	3, 5, 10, 20	G
Stainless fibre	30 bar / 435 PSI		A
Filter paper	10 bar / 145 PSI	10, 20	N
Stainless mesh	30 bar / 435 PSI	25, 50, 100, 200	S

Note: *Collapse/burst resistance as per ISO 2941.
Other materials on request.

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®) **B**
FPM (Viton®) **V**
EPDM **E**

Note: Other sealing materials on request

6 Connection Style

Connection Style	Thread	Code
SAE-O-ring Thread	1-1/16-12	U
SAE-O-ring Thread	3/4-16	U1
BSP	1/2	B
BSP	3/4	B1

7 Clogging Indicator

	Position*	Code
Without Clogging Indicator	-	0
Visual Clogging Indicator		M
Electrical Clogging Switch 42 V, NO		G42NO
Electrical Clogging Switch 42 V, NC		G42NC
Electrical Clogging Switch 110 V, two-way contact	1 2	G110
Electrical Clogging Switch 230 V, two-way contact		G230

Note: *Position of clogging indicator see page C80.
Without any code: assembly in the middle of the filter cover.

8 Option Clogging Indicator G42NO and G42NC

Plug connector and rubber cap **none**
Deutsch plug **D**
AMP plug **A**
M12 x 1,5 **M12**

9 Outlet Style

Standard outlet (without thread) **0**
Filter bowl with threaded outlet **G**

10 Additional Features

	Position*	
Without leakage oil connection	-	none
Leakage oil connection	1 2	L1

Note: *Position of the leakage oil connection see page C80.
Without any code: assembly in the middle of the filter cover.

11 Design Code

Only for information **X**

Filter Elements ■ Type RE

RE	-	030	G	10	B	/	X
1	2	3	4	5	6		

1 Type

Filter Element Series **RE**

2 Group

According to filter housing

3 Filter Material

Material	Max. Δp^* collapse	Micron ratings available	Code
Inorg. glass fibre	25 bar / 363 PSI	3, 5, 10, 20	G
Stainless fibre	30 bar / 435 PSI		A
Filter paper	10 bar / 145 PSI	10, 20	N
Stainless mesh	30 bar / 435 PSI	25, 50, 100, 200	B, S

Note: *Collapse/burst resistance as per ISO 2941.
Bold types identify preferred material.
Other materials on request.

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®) **B**
FPM (Viton®) **V**
EPDM **E**

Note: Other sealing materials on request.

6 Design Code

Only for information **X**

Return Line Filters ■ Type RFA

Visual Clogging Indicator

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

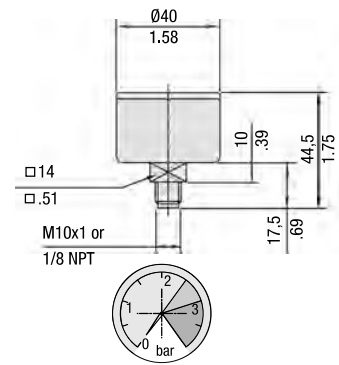
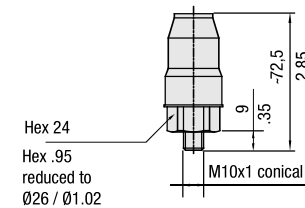
green	0 ... 2,5 bar / 0 ... 36.25 PSI	Element has service life left
yellow	2,5 ... 3,0 bar / 36.25 ... 43.5 PSI	Element is contaminated and should be changed
red	>3,0 bar / >43.5 PSI	Bypass valve open, unfiltered oil passing to tank

Electrical Clogging Switch

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 bypass setting of 3 bar / 43.5 PSI is reached.

Standard type with plug connector and rubber cap. Available with DEUTSCH DT04-2P plug (industrial standard), AMP Junior Timer plug (industrial standard) and five-pin circular connector M12, A-coded, according to IEC 61076-2-101.

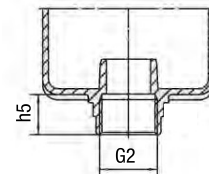
Maximum Voltage	Switch Type	
42 V (normally open)	G42NO	
42 V (normally closed)	G42NC	Note: The customer / user carries the
110 V (two-way contact)	G110	responsibility for the electrical
230 V (two-way contact)	G230	connection.

Visual Clogging Indicator

Electrical Clogging Switch


Dimensions in mm/in

Filter Bowl with Threaded Connection

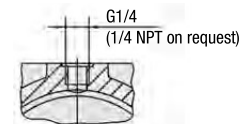
Under some circumstances such as a tall reservoir or one with oil levels which vary greatly during operation, it is necessary to extend the filter bowl so that the returning oil returns beneath the surface and does not entrain air in the process. The optional bowl with a female thread allows an extension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

Threaded Outlet


Dimensions see table page C81

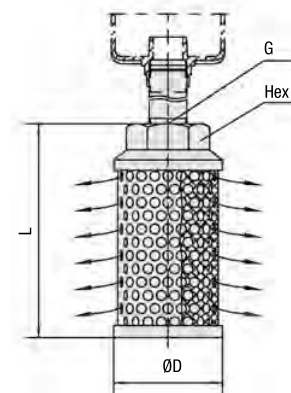
Leakage Oil Connection

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 unfiltered oil can return to the reservoir.

Leakage Oil Connection

Filter Bowl with Threaded Connection and Diffuser

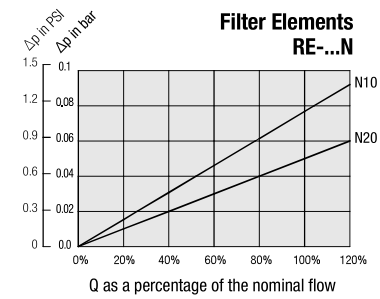
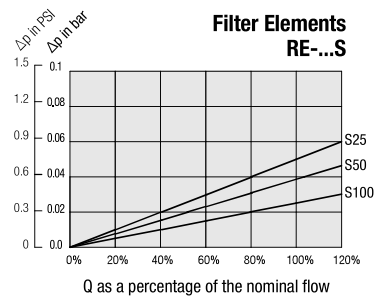
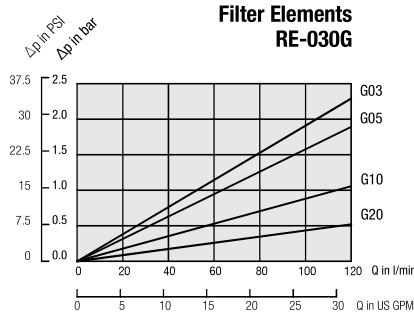
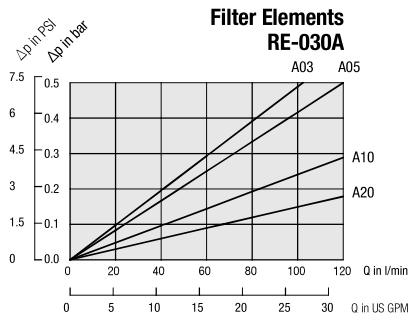
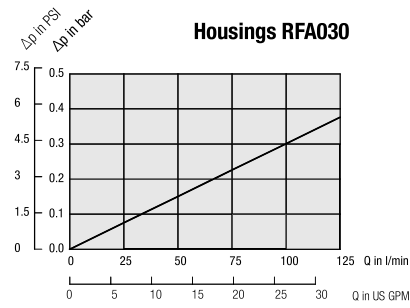
Diffusers mounted to the filter bowl minimise foaming and reduce noise of high return line flows. For further details on STAUFF Diffusers please refer to the "Hydraulic Accessories" section on page E36.
Attention: Connection pipe not included in scope of delivery!

Size SRV	for Return Line Filter Size	Dimensions (mm/in)			
		øD	L	Thread G	Hex
SRV-114-B16	RFA030	60	139	G1	46
SRV-114-N16		2.36	5.47	1 NPT	1.81

Threaded Outlet with SRV


Return Line Filters ■ Type RFA Flow Characteristics

The following characteristics are valid for mineral oils with a density of 0,85 kg/dm³ and the kinematic viscosity of 30 mm²/s (30cSt). The characteristics have been determined in accordance to ISO 3968. Multipass filter ratings have been obtained in accordance to ISO 16889. The housing pressure drop is directly proportional to the oil density. Consult STAUFF for details.



Return Line Filters ■ Type RFB


Product Description

STAUFF RFB Return Line Filters are designed as tank top filters. They are mounted directly on the tank top and if 100% of the system 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. Because of its low weight and compact design, the STAUFF RFB Filters are ideally suited for mobile hydraulic applications. A high efficiency of contaminant removal is assured by using STAUFF RE Replacement Filter Elements. The high dirt-hold capacity of STAUFF Elements ensures a long service life and as a result reduced maintenance costs.

Technical Data
Construction

- Tank Top flange mounting

Materials

- Filter head: Aluminium
- Filter bowl & cap: Glass Fibre Reinforced Polyamide
- Sealings: NBR (Buna-N®)
FPM (Viton®)
EPDM (Ethylene Propylene Diene Monomer Rubber)
Other sealing materials on request

Port Connection

- BSP
- NPT
- SAE O-ring thread

Operating Pressure

- Max. 10 bar / 145 PSI

Temperature Range

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

Filter Elements

- Specifications see page C88

Media Compatibility

- Mineral oils, other fluids on request

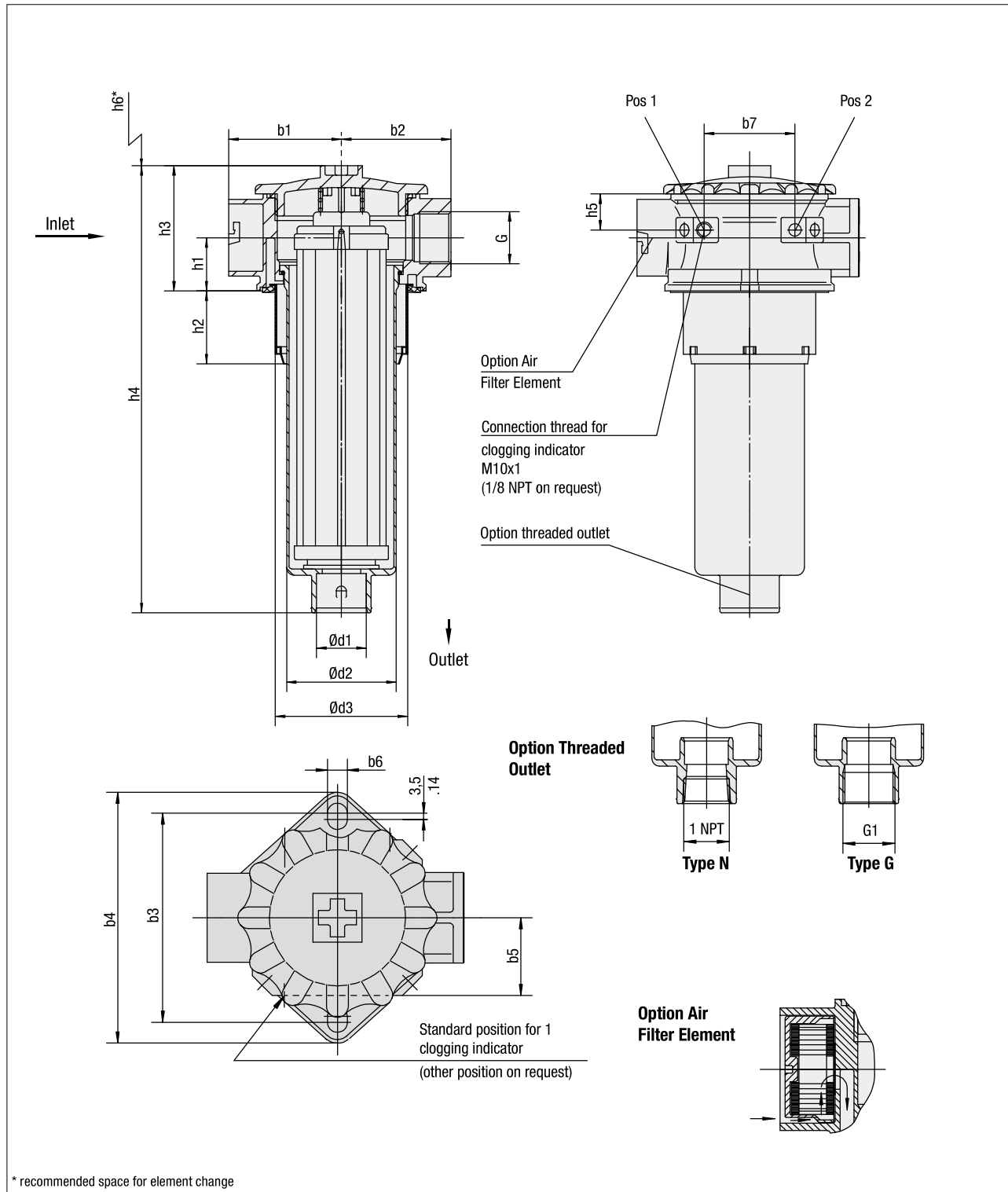
Options and Accessories
Valve

- Bypass valve Opening pressure 3 bar ± 0,3 bar / 43.5 PSI ± 4.35 PSI
(integrated in the filter element) Other settings available on request

Clogging Indicators

- Visual clogging indicator 0 ... 4 bar / 0 ... 58 PSI coloured segments
- Electrical clogging switch, setting 2,5 bar / 36.25 PSI
Other clogging indicators available on request

Return Line Filters ■ Type RFB



Return Line Filters ■ Type RFB

Thread Connection G	Filter Size RFB					
	022		046		052	
BSP	3/4	1	3/4	1	3/4	1
NPT	3/4	1	3/4	1	3/4	1
SAE O-ring Thread	1-5/16-12					

Dimensions (mm/in)	Filter Size RFB					
	022		046		052	
h1	34		34		34	
	1.34		1.34		1.34	
h2	46,5		46,5		46,5	
	1.83		1.83		1.83	
h3	80		80		80	
	3.15		3.15		3.15	
h4	205,5		285,5		351,5	
	8.09		11.24		13.84	
h5	23		23		23	
	.91		.91		.91	
h6	154		239		305	
	6.26		9.41		12.01	
d1	32		32		32	
	1.26		1.26		1.26	
d2	70		70		70	
	2.76		2.76		2.76	
d3	84,5		84,5		84,5	
	3.33		3.33		3.33	
b1	72		72		72	
	2.84		2.84		2.84	
b2	70		70		70	
	2.76		2.76		2.76	
b3	115,5		115,5		115,5	
	4.55		4.55		4.55	
b4	138,5		138,5		138,5	
	5.45		5.45		5.45	
b5	43		43		43	
	1.69		1.69		1.69	
b6	11		11		11	
	.43		.43		.43	
b7	58		58		58	
	2.28		2.28		2.28	

Return Line Filter Housings / Complete Filters ■ Type RFB

RFB	022	B	/	B	/	G42NC	/	D	/	G	/	L10	/	X
1	2	3	4	5	6	7	8	9	10	11						

- Type**
Return Line Filter **RFB**
- Group**
Flow **Size**
75 l/min / 22 US GPM **022**
165 l/min / 46 US GPM **046**
185 l/min / 52 US GPM **052**
Note: Exact flow will depend on filter element selected.
Consult technical data on pages C90.
- Filter Material**

Material	Max. Δp^* collapse	Micron ratings available	Code
Without filter element	-	-	...
Inorg. glass fibre	25 bar / 363 PSI	3, 5, 10, 20	G
Stainless fibre	30 bar / 435 PSI		A
Filter paper	10 bar / 145 PSI	10, 20	N
Stainless mesh	30 bar / 435 PSI	10, 25, 50, 100, 200	S

Note: *Collapse/burst resistance as per ISO 2941.
Other materials on request.
- 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.
- Sealing Material**

NBR (Buna®)	B
FPM (Viton®)	V
EPDM	E

Note: Other sealing materials on request.
- Connection Style**

Connection Style	Group			Code
	022	046	052	
BSP	1			B
BSP	3/4			B1
NPT	1			N
NPT	3/4			N1
SAE-O-ring Thread	1-5/16-12			U

Note: Bold types identify preferred connection style.
- Clogging Indicator**

	Position*		Code
Without Clogging Indicator	-		0
Visual Clogging Indicator			M
Electrical Clogging Switch 42 V, NO			G42NO
Electrical Clogging Switch 42 V, NC			G42NC
Electrical Clogging Switch 110 V, two-way contact	1	2	G110
Electrical Clogging Switch 230 V, two-way contact			G230

Note: *Position of clogging indicator see page C86.
Without any code: assembly in the middle of the filter cover.
- Option Clogging Indicator G42NO and G42NC**

Plug connector and rubber cap	none
Deutsch plug	D
AMP plug	A
M12 x 1,5	M12
- Outlet Style**

With thread G1 (Standard option)	G
With thread 1 NPT	N
- Air Filter Element**

Without Air Filter Element	0
Filter paper 10 micron	L10

Note: Other materials and micron ratings on request.
- Design Code**
Only for information **X**

Filter Elements ■ Type RE

RE	-	022	G	10	B	/	X
1	2	3	4	5	6		

- Type**
Filter Element Series **RE**
- Group**
According to filter housing
- Filter Material**

Material	Max. Δp^* collapse	Micron ratings available	Code
Inorg. glass fibre	25 bar / 363 PSI	3, 5, 10, 20	G
Stainless fibre	30 bar / 435 PSI		A
Filter paper	10 bar / 145 PSI	10, 20	N
Stainless mesh	30 bar / 435 PSI	25, 50, 100, 200	S

Note: *Collapse/burst resistance as per ISO 2941.
Other materials on request.
- 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.
- Sealing Material**

NBR (Buna®)	B
FPM (Viton®)	V
EPDM	E

Note: Other sealing material on request.
- Design Code**
Only for information **X**

Air Filter Elements ■ Type REA

REA	-	046	L	10	B	/	X
1	2	3	4	5	6		

- Type**
Air Filter Element **REA**
- Group**
Air filter for RFB 022/046/052 **046**
- Filter Material**
Filter Paper **L**
Note: Other materials on request.
- Micron Rating**
10 μ m **10**
Note: Other micron ratings on request.
- Sealing Material**
NBR (Buna®) **B**
Note: Other sealing materials on request.
- Design Code**
Only for information **X**

Return Line Filters ■ Type RFB

Visual Clogging Indicator

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	Bypass valve open, unfiltered oil passing to tank

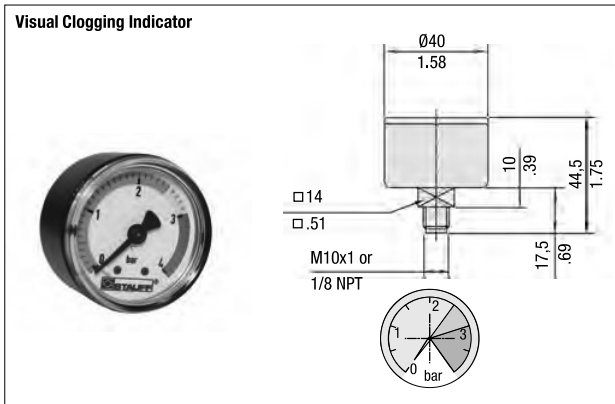
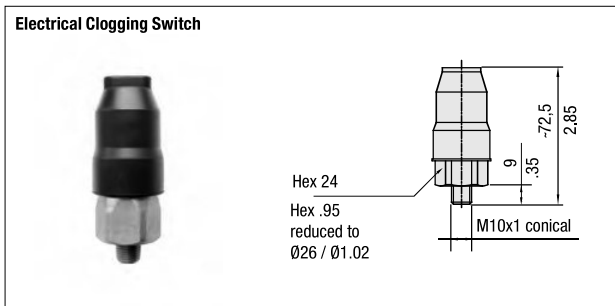
Electrical Clogging Switch

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 bypass setting of 3 bar / 43.5 PSI is reached.

Standard type with plug connector and rubber cap. Available with DEUTSCH DT04-2P plug (industrial standard), AMP Junior Timer plug (industrial standard) and five-pin circular connector M12, A-coded, according to IEC 61076-2-101.

Maximum Voltage	Switch Type
42 V (normally open)	G42NO
42 V (normally closed)	G42NC
110 V (two-way contact)	G110
230 V (two-way contact)	G230

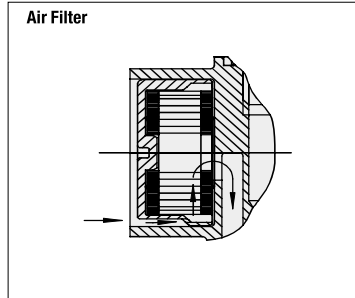
Note: The customer / user carries the responsibility for the electrical connection.

Visual Clogging Indicator

Electrical Clogging Switch


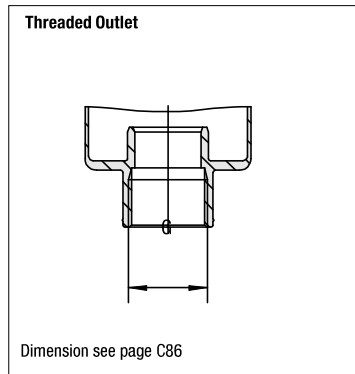
Dimensions in mm/in

Air Filter Element

Allows an effective filtration of the incoming air which avoids the infiltration of dirt particles into the hydraulic system. The standard air filter element is a 10 micron cellulose; other materials and micron ratings on request.


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.



Dimension see page C86

Return Line Filters ■ Type RFB Flow Characteristics

The following characteristics are valid for mineral oils with a density of 0,85 kg/dm³ and the kinematic viscosity of 30 mm²/s (30cSt). The characteristics have been determined in accordance to ISO 3968. Multipass filter ratings have been obtained in accordance to ISO 16889. The housing pressure drop is directly proportional to the oil density. Consult STAUFF for details.

