STAUFF®

FILTRATION TECHNOLOGY

Response & Flexibility

Competitive Service

Prompt Delivery

STAUFF Filtration Technology

STAUFF Filtration Technology offers a complete range of filtration products and services that will provide the system designer or user with the highest level of contamination control demanded by today's most sophisticated applications. Products include pressure filters, return line filters, elements, spin on filters, suction strainers, and filler breathers for various hydraulic, lubrication and fuel oils.

STAUFF has the technical expertise to provide superior filter element designs for the STAUFF original filter housings and also for the interchange element market. STAUFF manufactures more than 10,000 different elements. Many of these are designed to fit into filter housings produced by other companies while maintaining or surpassing the original performance.

The "STAUFF Contamination Control Program" includes the diagnostic services including fluid sampling and laser particle counting products needed to monitor the system contamination level.

STAUFF, through its global network of wholly owned companies and technically qualified distributors, is ideally placed to assist its customers in the total contamination control process providing a well balanced filtration solution.

Service Capabilities

- 24 hour turn around on all standard stock element orders
- 48 hour turn around on all assembled filter assembly orders
- Rush orders placed by 4:00PM will ship the same day
- Private Label Element Printing
- Spin On Filter silk screening
- Special Packaging

Products

- Wider range of interchange elements:
  - ARGO
  - DONALDSON
  - EPPENSTEINER
  - FAIREY ARLON
  - HYDAC/HYCON
  - HY-PRO
  - INTERNORMEN
  - LHA
  - MAHLE-PUROLATOR
  - MOOG
  - MP FILTRI
  - PALL
  - PARKER
  - SEPARATION TECHNOLOGIES
  - VICKERS
  - ZINGA
- STAUFF Laser Particle Counter
- Oil Analysis Service, STFC-10
- Desiccant Breathers, SDB Series
- Custom Element Manufacturing
- Custom Flitration Systems
- Filter Carts

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Ordering Code #: SFT - 2006 - CPA - UK

STAUFF

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FILTRATION TECHNOLOGY

Complete Program

Local solutions for individual customers worldwide

Pressure Filters SF

STAUFF high pressure filters are designed for the most demanding applications. They come in a variety of sizes, configurations and with numerous porting options.

- pressures to 420 bar *(6000 PSI)*
- flows to 1320 l/min *(350 US GPM)*
- BSP, NPT, SAE “O”-ring or SAE Code 61 & 62 flange ports
- head spheroidal graphite cast iron, bowl cold drawn steel
- wide range of valve options
- various element types and media available
- standard bowls or top-loading bowls available
- visual, electrical and visual-electrical indicators

Medium Pressure Filters SMPF

Designed for applications in the machine tool industry. Their aluminum light weight compact design allows easy installation. As with all STAUFF filters a wide range of options are available.

- pressure up to 110 bar *(1600 PSI)*
- flows up to 90 l/min *(25 US GPM)*
- BSP, SAE “O”-ring ports
- head and bowl aluminum alloy
- visual and visual-electrical indicators

Return-line Filters RF - RTF

STAUFF return-line filters are designed as tank top filters. Their practical design allows easy element replacement and quick installation. A wide range of media is available for the RF-RTF element series.

- pressure up to 16 bar *(232 PSI)*
- flows up to 500 l/min *(130 US GPM)*
- BSP, NPT, SAE “O”-ring and SAE Code 61 flange ports
- head aluminum alloy, bowl glass fiber reinforced PA
- visual and electrical indicators

Spin-on Filters

STAUFF manufacturers a wide range of high and low pressure spin-on filters. A variety of filter head, element and indicator options are available. Both North American as well as European spin-on elements are available from stock.

- pressure to 14 bar *(200 PSI)*
- flows to 460 l/min *(120 US GPM)*
- BSP, NPT, SAE “O”-ring or SAE Code 61 flange ports
- heads die-cast aluminum
- visual and electrical indicators
- a wide range of media types and seal options
- European and North American elements in stock

Return-Line Filters SRFL-S/D

The SRFL series of return-line filters are designed to handle large flows in any industrial hydraulic or lubrication system. Special configurations are also available for process applications.

- simplex and duplex housings available
- pressures up to 14 bar *(206 PSI)*
- flows up to 7000 l/min *(1850 US GPM)*
- on request also available for larger flows
- ANSI, SAE and DIN flanged ports
- housing carbon steel, stainless steel available
- visual and electrical indicators

Offline and Bypass Filters OLS/BPS

STAUFF offline and bypass filters OLS/BPS are designed for the filtration of hydraulic and lubrication systems. Available as a bypass unit BPS or with an integrated motor/pump unit as an offline filter OLS, STAUFF OLS/BPS aggregates remove not only contamination, but also water from your hydraulic system.

- bypass and offline units
- pressure up to 420 bar *(6000 PSI)*
- flows from 2.1 l/min *(0.55 US GPM)* up to 18 l/min *(4.75 US GPM)*
- various housings and lengths
- several motor/pump units (for offline filter aggregates)
- water absorbing filter elements with 0.5 micron filterpaper

STAUFF Mobile Filter System SMFS

STAUFF manufacturers a complete range of mobile filtration systems. Compact in design and easy to operate on the one hand, but also made for permanent use with high flow rates on the other hand, STAUFF Mobile Filter Systems are essential tools for the preventive maintenance either to transfer new oil or to purify hydraulic and lubrication oil systems.

- compact and handy in design
- flows up to 110 l/min (30 US GPM)
- variety of mikron ratings available for return-line filter elements
- high-quality gear pump
- CE certified motor unit
- also available with STAUFF Laser Particle Monitor LPM and Visual Clogging Indicator

STAUFF Replacement Elements

The STAUFF replacement element program includes replacement elements for over 10,000 part numbers covering more than 50 different brands of filter elements. The majority of these are avaliable from stock.

- state-of-the-art laboratories and production facilities for element manufacturing
- stringent quality and production control
- high quality media (4-pro)
- all major brands available in STAUFF replacements
- large stock availability

Fluid Monitoring Systems

STAUFF manufacturers a comprehensive line of fluid monitoring systems from pressure analysis to particle counting. From simple analog diagnostic systems to complex sophisticated digital diagnostic systems, STAUFF is your first choice.

- pressure gauge kits (analog)
- diagnostic test points and hoses (STAUFF-Test)
- digital pressure gauges (SPG-DIGI)
- STAUFF Pressure Transmitters (SPT)
- Digital monitoring units (PPC series) for flow, pressure, RPM and temperature – from simple (PPC04) to sophisticated (PPC12)
- laser particle counting units for laboratory and field use (LasPaCI) and in-line particle monitors for high-tech in-line and on-line particle monitoring (LPM1)
- STAUFF–Check web based reporting for complete laboratory analysis of hydraulic and lubrication fluids. Unique trend-monitoring service available

STAUFF Hydraulic Accessories

STAUFF manufacturers one of the largest lines of hydraulic accessories in the world. We are the number one choice for any manufacturer in need of hydraulic accessories. Our line includes:

- STAUFF Clamps – hydraulic tube and hose supports for secure installation of tubing for diameters from 3mm *(1/8”)* up to 1000mm *(40”)*
- STAUFF Test – diagnostic test points and hoses for a wide range of applications in fluids and gases.
- STAUFF Diagtronics – diagnostic test equipment for pressure, flow, temperature, RPM’s and particle counting
- STAUFF Hydraulic Accessories – a complete range of filler breathers, suction strainers, level gauges, flanges, and reservoir accessories

STAUFF Tools

STAUFF has a wide range of training tools and software to support the proper applcation of filtration systems and products.

Software includes filter sizing programs as well as training presentations. Contact your local STAUFF representative for more information.

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Return Line Filters RF & RFB

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Return Line Filter RF 014-130 — Page

Technical Data 3
Dimensions 4
Options 5
Ordering Code 6
Flow Characteristics 7

Return Line Filter RFB 022-052

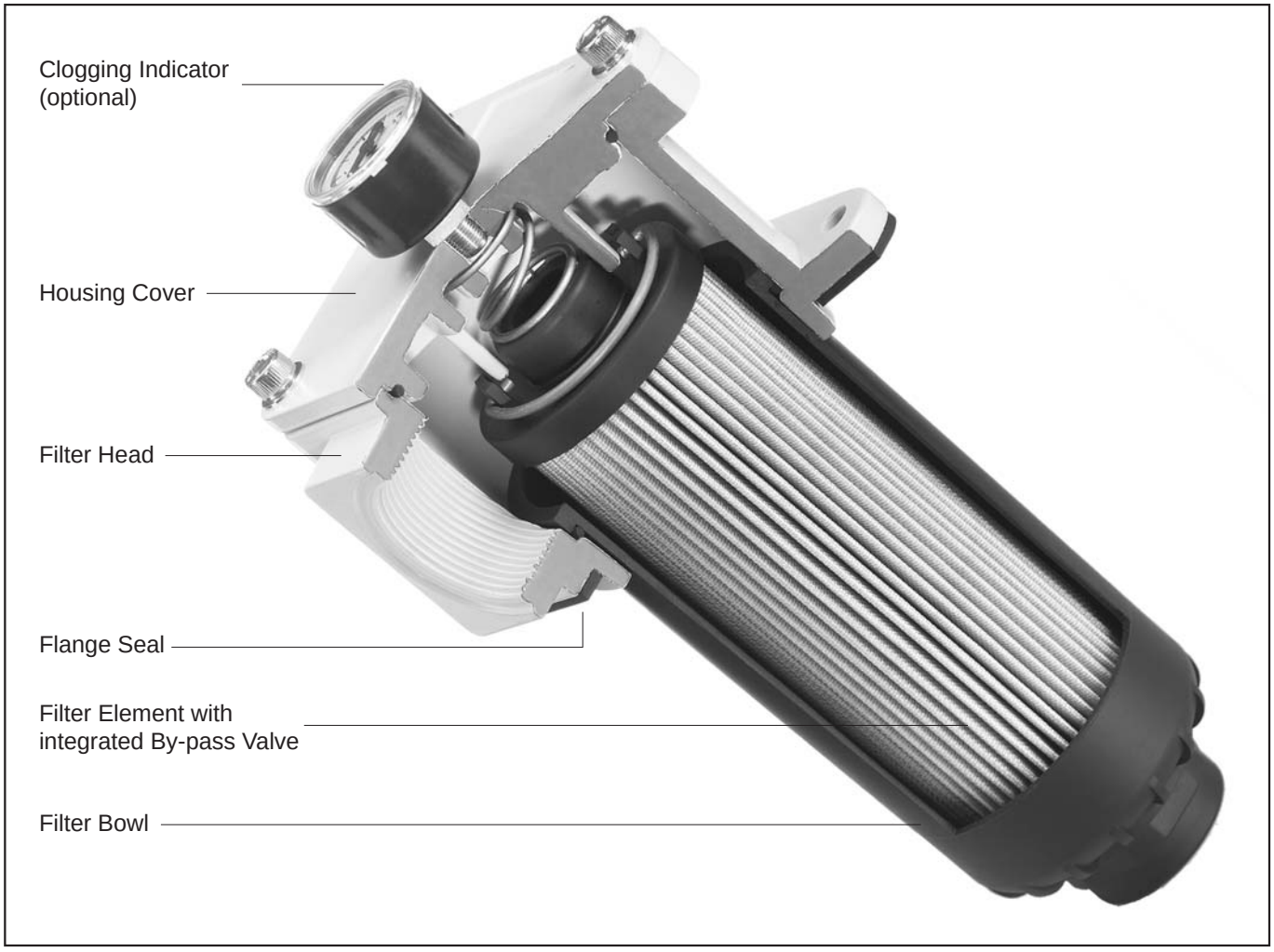
Technical Data 9
Dimensions 10
Options 11
Ordering Code 12
Flow Characteristics 13

Return Line Filter RF & RFB Filter Elements RE 14

Return Line Filter RF 014-130 Technical Data

Technical Data

STAUFF RF 014-130 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. The filter bowl or funnel is designed to return the oil beneath the surface thus preventing the entraiment of air by the returning oil.



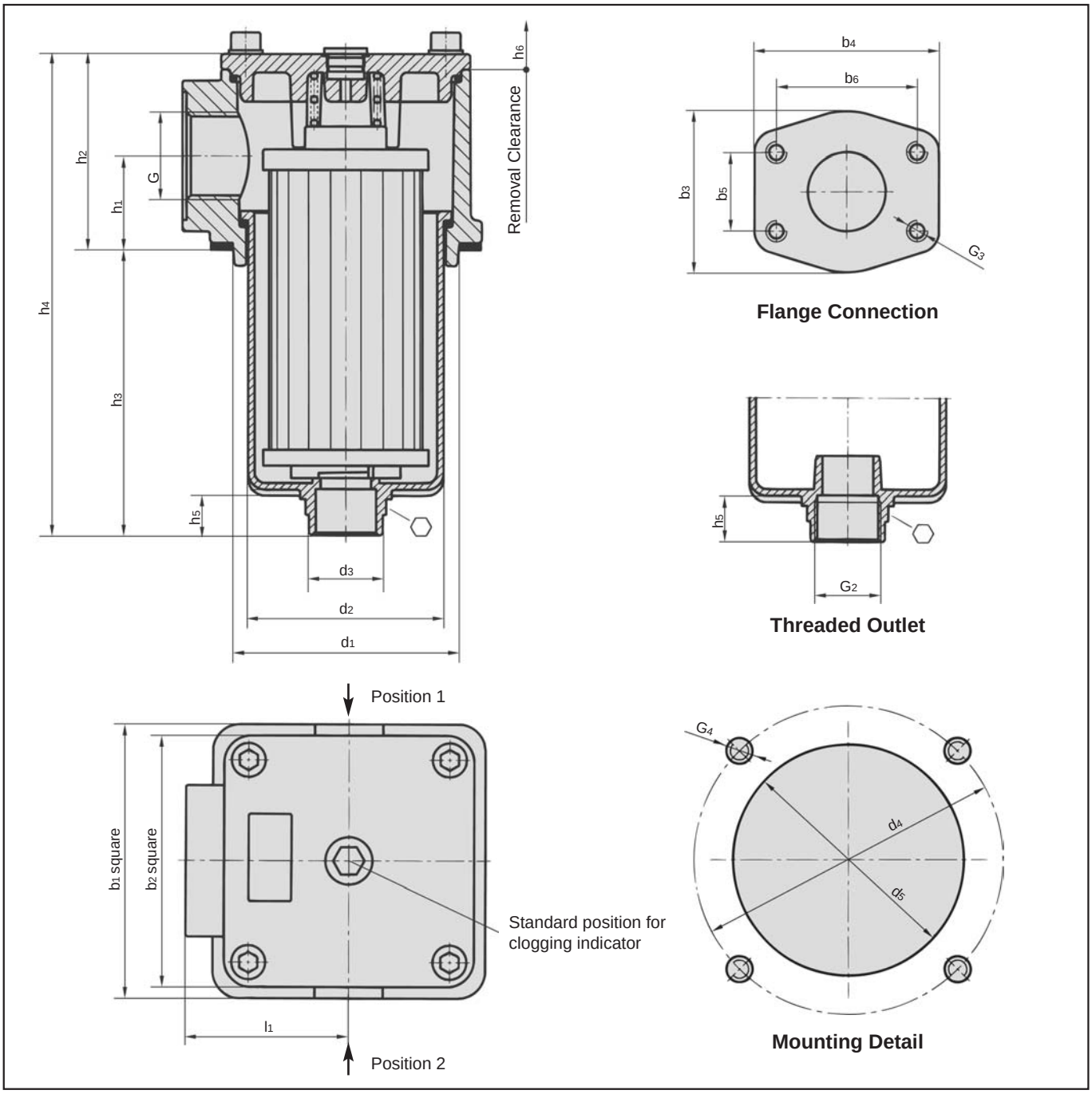
Technical Specification

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)* coloured segments; Electrical switch, setting 2,5 bar *(36,25 PSI)*
Filter elements	Specification see page 14
Media	Mineral oils, other fluids on request

Return Line Filters RF 014-130 Dimensions

Dimensions RF 014-130



Dimensions Return Line Filters

All 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
RF 014	G 3/4	3/4"	1 1/16-12 UN	-	89 (3,5)	80 (3,15)					73 (2,87)	57,5 (2,26)	36 (1,42)	100 (3,94)	78 (3,07)	33 (1,3)	66 (2,6)	91,5 (3,6)	157,5 (6,2)	23,5 (0,93)	140 (5,51)	48 (1,89)	G1		M6 or 1/4" UNC
RF 030	G 1	1"	1 5/16-12 UN															159,5 (6,3)	225,5 (8,88)		210 (8,27)				
RF 045	G 1 1/4	1 1/4"	1 5/8-12 UN	-	120 (4,72)	110 (4,33)					100 (3,94)	84 (3,31)	48 (1,89)	135 (5,14)	105 (4,13)	41 (1,61)	86 (3,39)	119 (4,69)	206 (8,11)	24 (0,95)	180 (7,09)	66 (2,6)	G1 1/4		M8 or 5/16" UNC
RF 070	G 1 1/2	1 1/2"	1 7/8-12 UN															180 (7,09)	267 (10,51)		240 (9,45)				
RF 090	G 2	2"	1 7/8-12 UN	2"	150 (5,91)	135 (5,14)	88 (3,47)	102 (4,02)	42,9 (1,69)	77,8 (3,06)	126 (4,96)	112,5 (4,43)	54,5 (2,15)	170 (6,69)	131 (5,16)	47 (1,85)	98 (3,86)	172,5 (6,79)	273,5 (10,77)	27 (1,06)	235 (9,25)	85 (3,35)	G1 1/2	1/2 UNC x15 (x0,59)	M10 or 3/8" UNC
RF 130	G 2	2"	1 7/8-12 UN															252,5 (9,49)	353,5 (13,92)		315 (12,4)				

Return Line Filter RF 014-130 Options

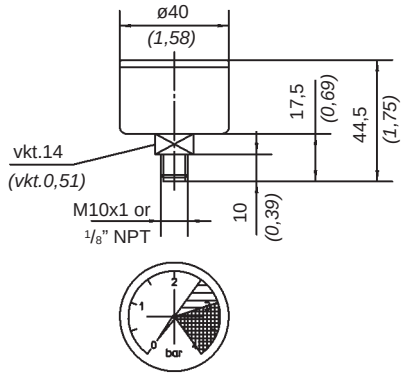
Options RF 014-130

1. Visual clogging indicator

The gauge visually displays the degree of contamination of the element. The coloured 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

Visual clogging indicator

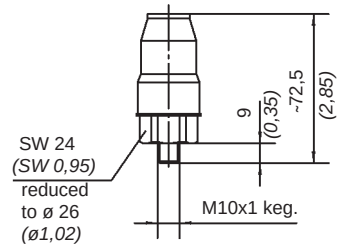


2. Electrical clogging switch

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 by-pass setting of 3 bar *(43,5 PSI)* is reached.

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

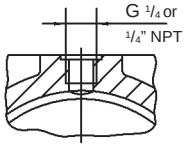
Electrical Clogging Switch



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.

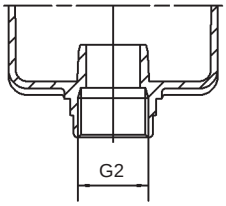
Leakage oil connection



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.

Threaded outlet

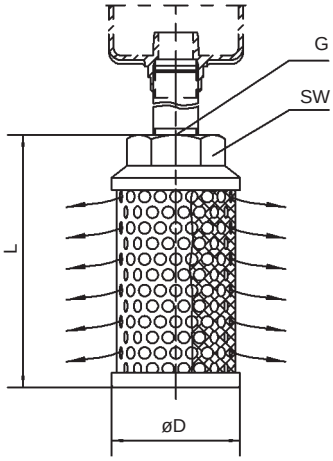


Dimension G2 see table page 4

5. Filter bowl with threaded connection and diffusor

Diffusers mounted to the filter bowl minimize foaming and reduce noise of backstreaming fluids. For further details on STAUFF diffusers please refer to our catalogue “Hydraulic Accessories”.

Threaded outlet with SRV



All 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	46 *(1,81)*
SRV-200-B20	RF 045/070	82 *(3,23)*	139 *(5,47)*	G 1 1/4	60 *(2,36)*
SRV-227-B24	RF 090/130	82 *(3,23)*	200 *(7,87)*	G 1 1/2	60 *(2,36)*

Return Line Filter RF 014-130 Ordering Code

Ordering Code Filter Housings

RF 070 ... B / B / M / G / L1 /X

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 7 & 8

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 4
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 5)		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 4
without any code: assembly in the middle of the filter cover

Connection style		**Group**					
Code	Connection style	014	030	045	070	090	130
B	BSP	G3/4	G1	G1 1/4	G1 1/2	G2	G2
B 1	BSP	G1/2	G1/2	G1 1/2	G1 1/4	G1 1/4	G1 1/4
B 2	BSP	G1	G3/4	–	–	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

RE-014 G 10 V /X

Series	RE

Group

according to filter housing

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

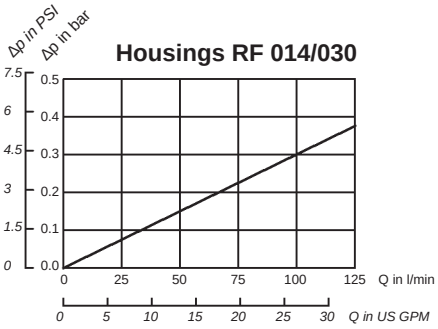
Filter material			Micron ratings available
Code	Material	max Δp*collapse	
A	Stainless fiber	30 bar *(435 PSI)*	03, 05, 10, 20
N	Filter paper	16 bar *(232 PSI)*	
G	Inorganic glass fiber	30 bar *(435 PSI)*	
S, B	Stainless mesh	30 bar *(435 PSI)*	25, 50, 100, 200

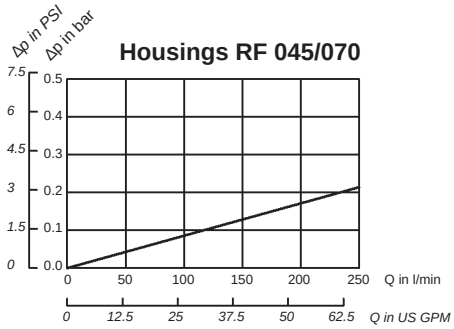
*collapse / burst resistance as per ISO 2941

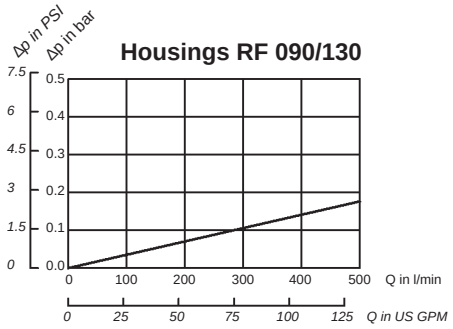
Bold type identifies preferred material, other filter materials or micron ratings on request

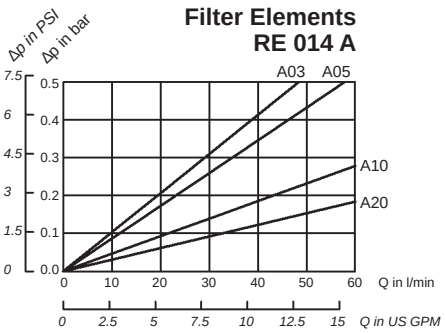
Flow Characteristics of Return Line Filters RF 014-130

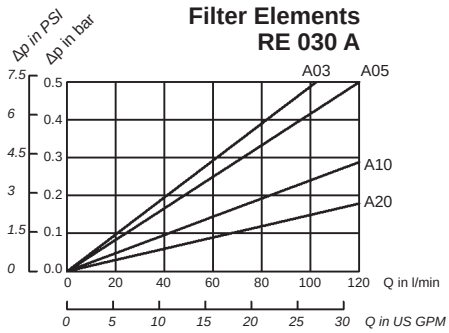
The following characteristics are valid for mineral oils with a density of 0,85 kg/dm³ and the kinematic viscosity of 30 mm²/s. The characteristics have been determined in accordance to ISO 3968.

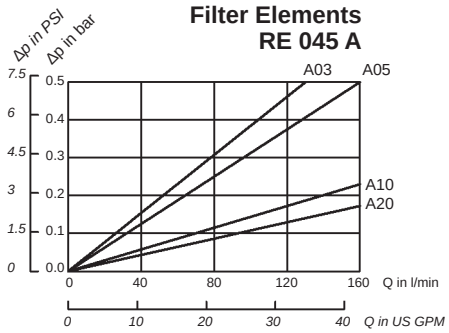


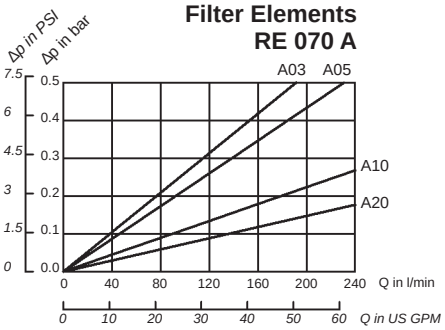


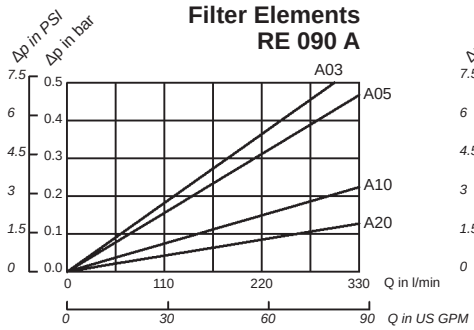


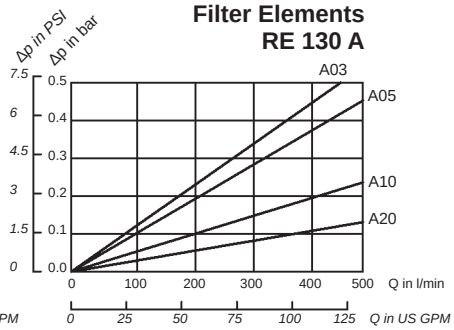


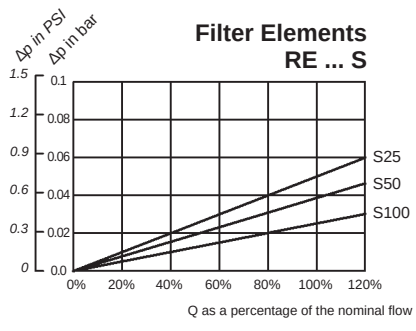


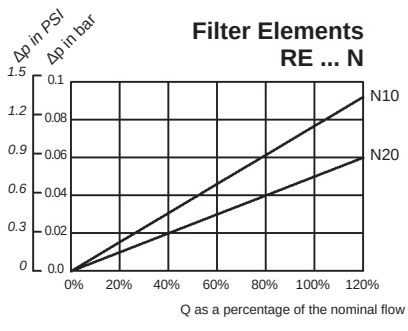








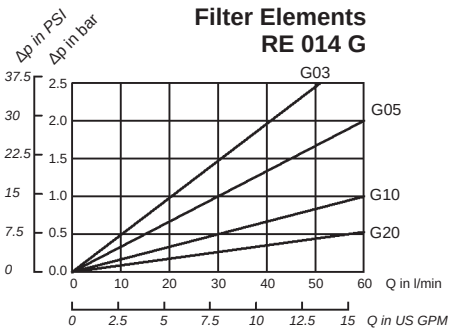


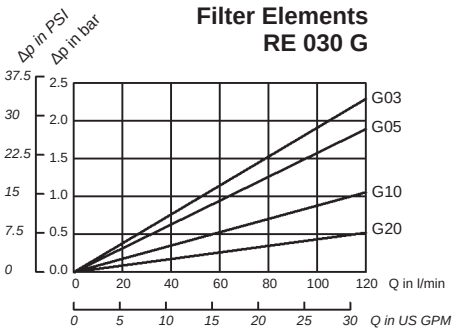


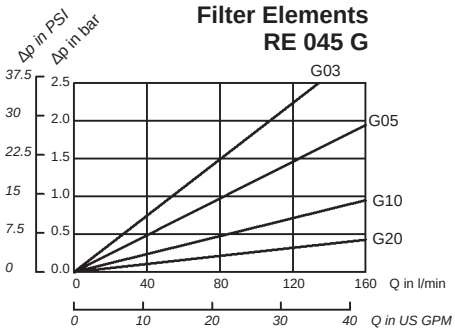
Return Line Filter RF 014-130 Flow Characteristics

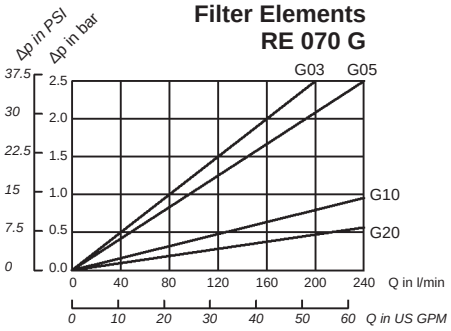
Flow Characteristics of Return Line Filters RF 014-130

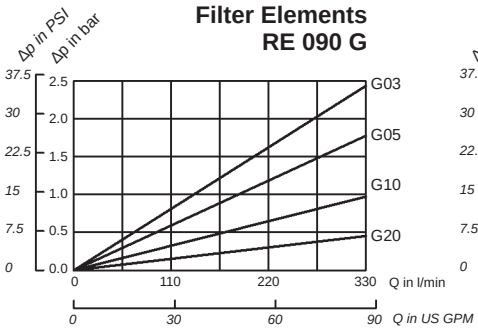
The following characteristics are valid for mineral oils with a density of 0,85 kg/dm³ and the kinematic viscosity of 30 mm²/s. The characteristics have been determined in accordance to ISO 3968.

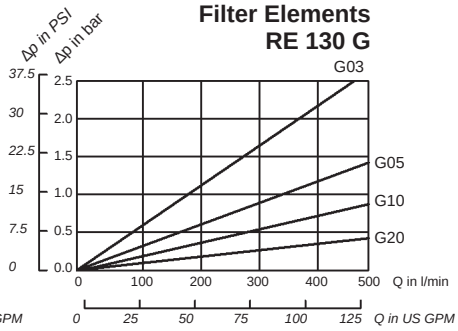












Return Line Filter RFB 022-052 Technical Data

Technical Data

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 it's low weight and compact design the STAUFF filters RFB are optimally suitable in mobile hydraulic applications.

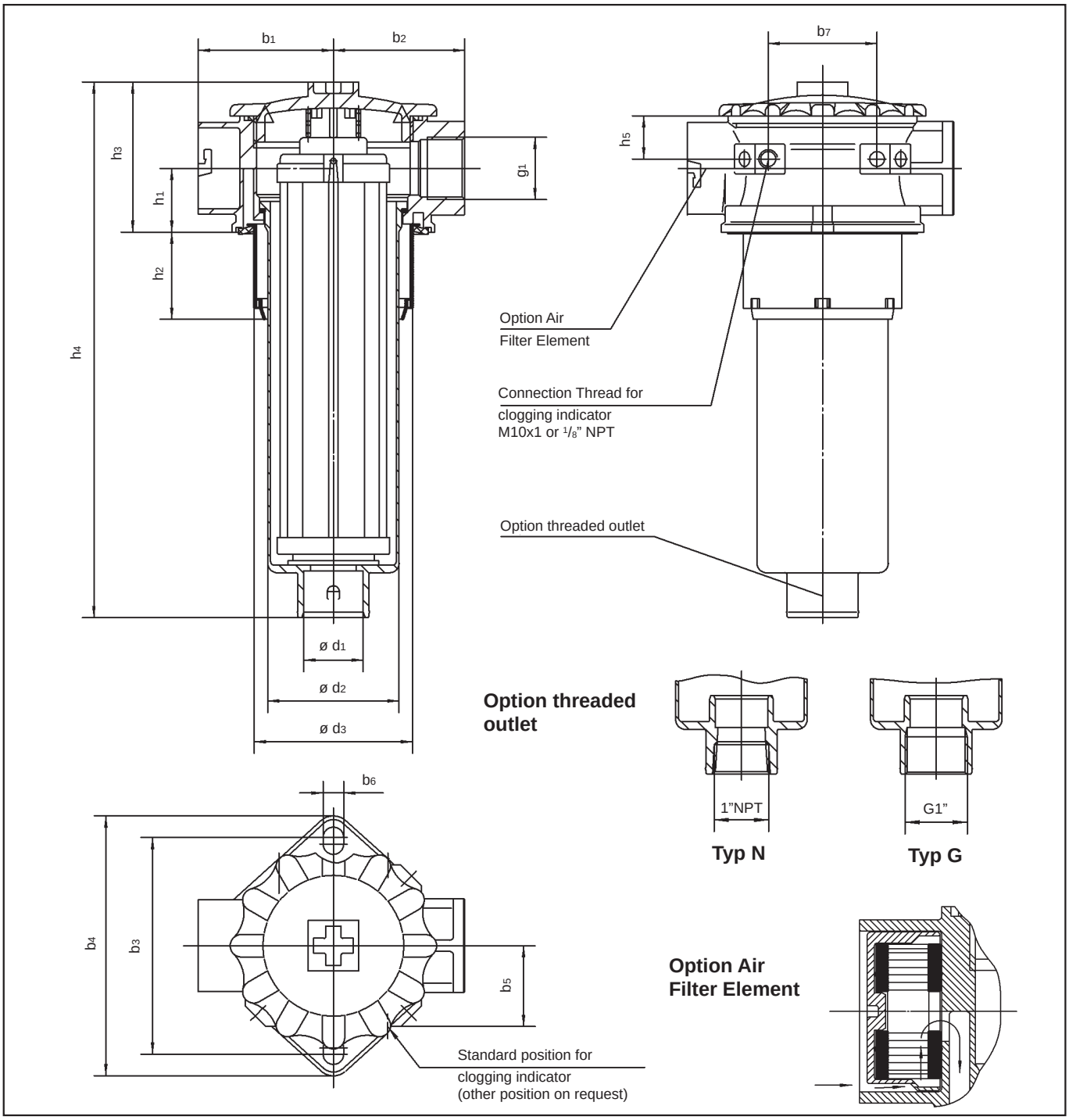
Technical Specification

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
Operating pressure	max 10 bar *(145 PSI)*
Proof pressure	24 bar *(350 PSI)*
Temperature range	-10° up to +100°C *(14° up 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)* coloured segments; Electrical switch, setting 2,5 bar *(36,25 PSI)*
Filter elements	Specification see page 14
Media	Mineral oils, other fluids on request

Return Line Filter RFB 022-052 Dimensions

Dimensions RFB 022-052



Dimensions Return Line Filter RFB 022/046/052

All dimensions in mm *(inch)*

Filter Size	Thread connection G			h_1	h_2	h_3	h_4	h_5	d_1	d_2	d_3	b_1	b_2	b_3	b_4	b_5	b_6	b_7
	BSP	NPT	SAE-"O"-Ring thread															
RFB 022	G 3/4	3/4"	1-5/16-12 UN	34 *(1,34)*	46,5 *(1,83)*	80 *(3,15)*	205,5 *(8,09)*	23 *(0,91)*	32 *(1,26)*	70 *(2,76)*	84,5 *(3,33)*	72 *(2,84)*	70 *(2,76)*	115,5 *(4,55)*	138,5 *(5,45)*	43 *(1,69)*	11 *(0,43)*	58 *(2,28)*
	G 1	1"																
RFB 046	G 3/4	3/4"					285,5 *(11,24)*											
	G 1	1"																
RFB 052	G 3/4	3/4"					351,5 *(13,84)*											
	G 1	1"																

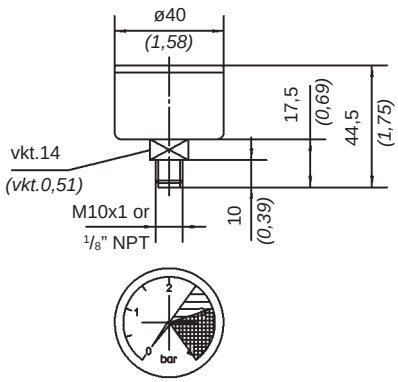
Options

1. Visual clogging indicator

The gauge visually displays the degree of contamination of the element. The coloured 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

Visual clogging indicator

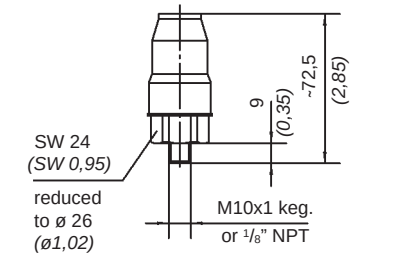


2. Electrical clogging switch

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 by-pass setting of 3 bar *(43,5 PSI)* is reached.

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

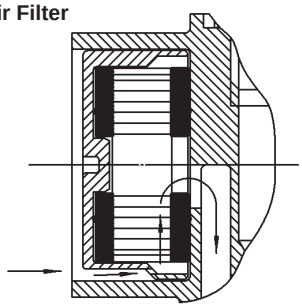
Electrical Clogging Switch



3. 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 micron filter paper, other materials and micron ratings on request.

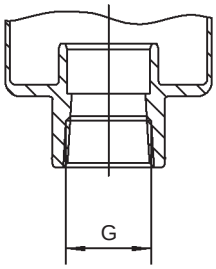
Air Filter



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.

Threaded Outlet



Dimension see page 10

Return Line Filter RFB 022-052 Ordering Code

Ordering Code Filter Housings

RFB 022 ... B / B / M / G / L10 /X

Filter type	RFB

Group

Size	Flow	
	l/min	GPM
022	75	22
046	165	46
052	185	52

*Exact flow will depend on filter element selected, consult technical data on page 13

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

Air filter element

	without air filter element
L 10	10 micron filter paper

other materials and micron ratings on request

Outlet

O	without thread (standard)
N	with thread 1" NPT
G	with thread 1" BSP

Clogging indicator

M	Pressure gauge
G42	Electrical switch 42 V
G110	Electrical switch 110 V
G220	Electrical switch 220 V

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

Ordering Code Filter Elements

RE-046 G 10 V /X

Series	RE

Group

according to filter housing

Filter material			Micron ratings available
Code	Material	max Δp*collapse	
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	Stainless mesh	30 bar *(435 PSI)*	25, 50, 100, 200

*collapse / burst resistance as per ISO 2941

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

Ordering Code Air Filter Element

REA-046 L 10 B /X

Series	RE

Group

air filter for RFB 022/046/052

Filter material

L	Filter paper

other filter material on request

Design Code

only for information

Micron rating

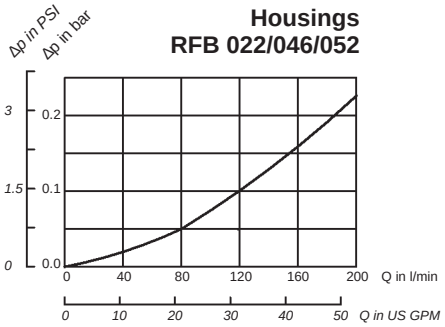
10	10 µm

other micron ratings on request

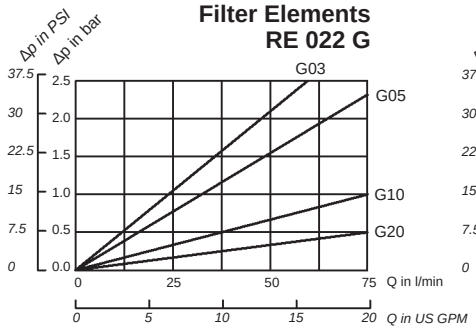
Flow Characteristics of Return Line Filters RFB 022-052

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.

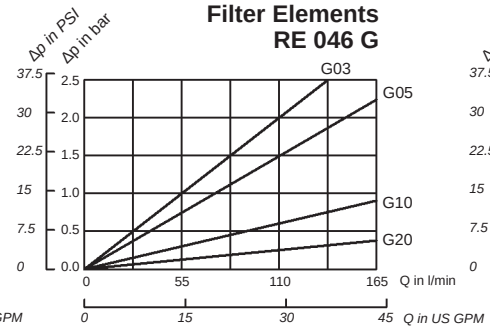
Housings RFB 022/046/052



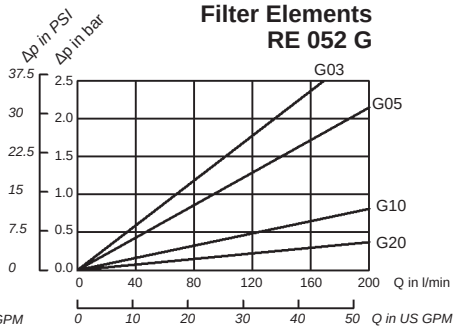
Filter Elements RE 022 G



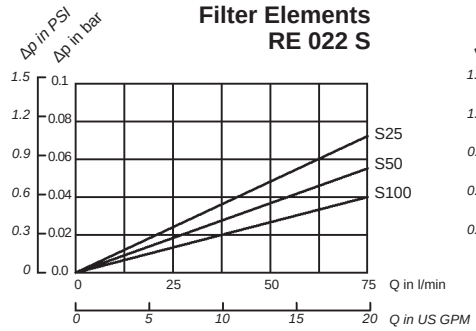
Filter Elements RE 046 G



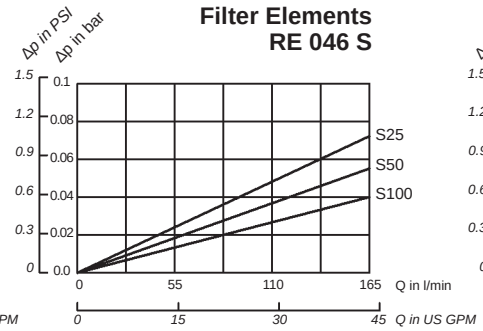
Filter Elements RE 052 G



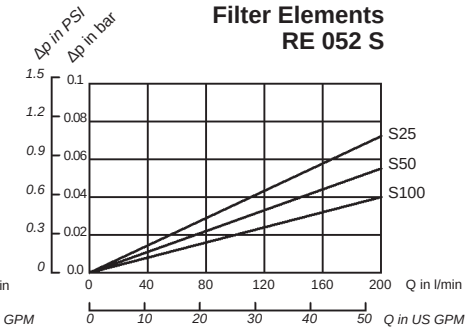
Filter Elements RE 022 S



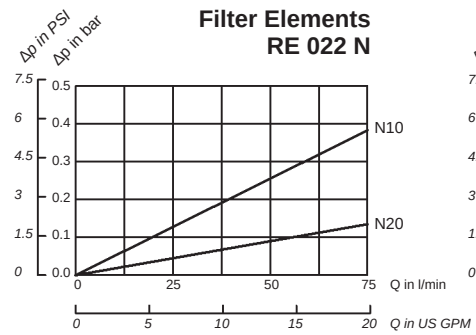
Filter Elements RE 046 S



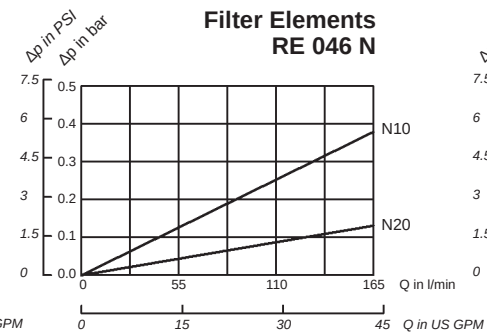
Filter Elements RE 052 S



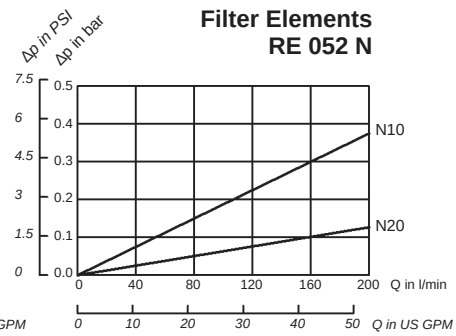
Filter Elements RE 022 N



Filter Elements RE 046 N



Filter Elements RE 052 N



Replacement Filter Elements for RF and RFB series

STAUFF replacement filter elements for RF and RFB series filters are manufactured in the common filter materials such as stainless fiber, stainless mesh, paper and inorganic glass fiber. As standard all replacement elements series RF and RFB have tin plated steel parts for use with aggressive media such as water glycol, other materials available upon request. All STAUFF replacement elements comply with quality specifications in accordance with international standards.

RE-014 G 10 V /X

Series	RE

Group
according to filter housing

Filter material			Micron ratings available
Code	Material	max Δp*collapse	
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 (type B not for RE-022/046/065)	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	

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Stauff Filtration Technology

Stauff Filtration Technology offers a complete range of filtration products and services that will provide the system designer or user with the highest level of contamination control demanded by today's most sophisticated applications. Products include pressure filters, return line filters, elements, spin on filters suction strainers and filler breathers for various hydraulic, lubrication and fuel oils.

Stauff has the technical expertise to provide superior filter element designs for the Stauff original filter housings and also for the interchange element market. Stauff manufactures more than 10,000 different elements. Many of these are designed to fit into filter housings produced by other companies while maintaining or surpassing the original performance.

The "Stauff Contamination Control Program" includes the diagnostic services including fluid sampling and laser particle counting products needed to monitor the system contamination level.

Stauff, through its global network of wholly owned companies and technically qualified distributors, is ideally placed to assist its customers in the total contamination process providing a well balanced filtration solution.

Return Line Filter RTF 10/25	**Page**
Technical Data	3
Dimensions	4
Ordering Code & Flow Characteristics	5
Return Line Filter RTF 40 Series	
Technical Data	6
Dimensions	7
Ordering Code	8
Flow Characteristics	9
Return Line Filter RTF 20 Series	
Technical Data	10
Dimensions	11
Ordering Code	12
Flow Characteristics	13
Return Line Filter RTF 30 Series	
Technical Data	14
Dimensions	15
Ordering Code	16
Flow Characteristics	17
Clogging Indicators	18

Technical Data

STAUFF RTF 10/25 series return line filters are designed for in-line hydraulic applications with a maximum operating pressure of 3.4 bar *(50 PSI)*.

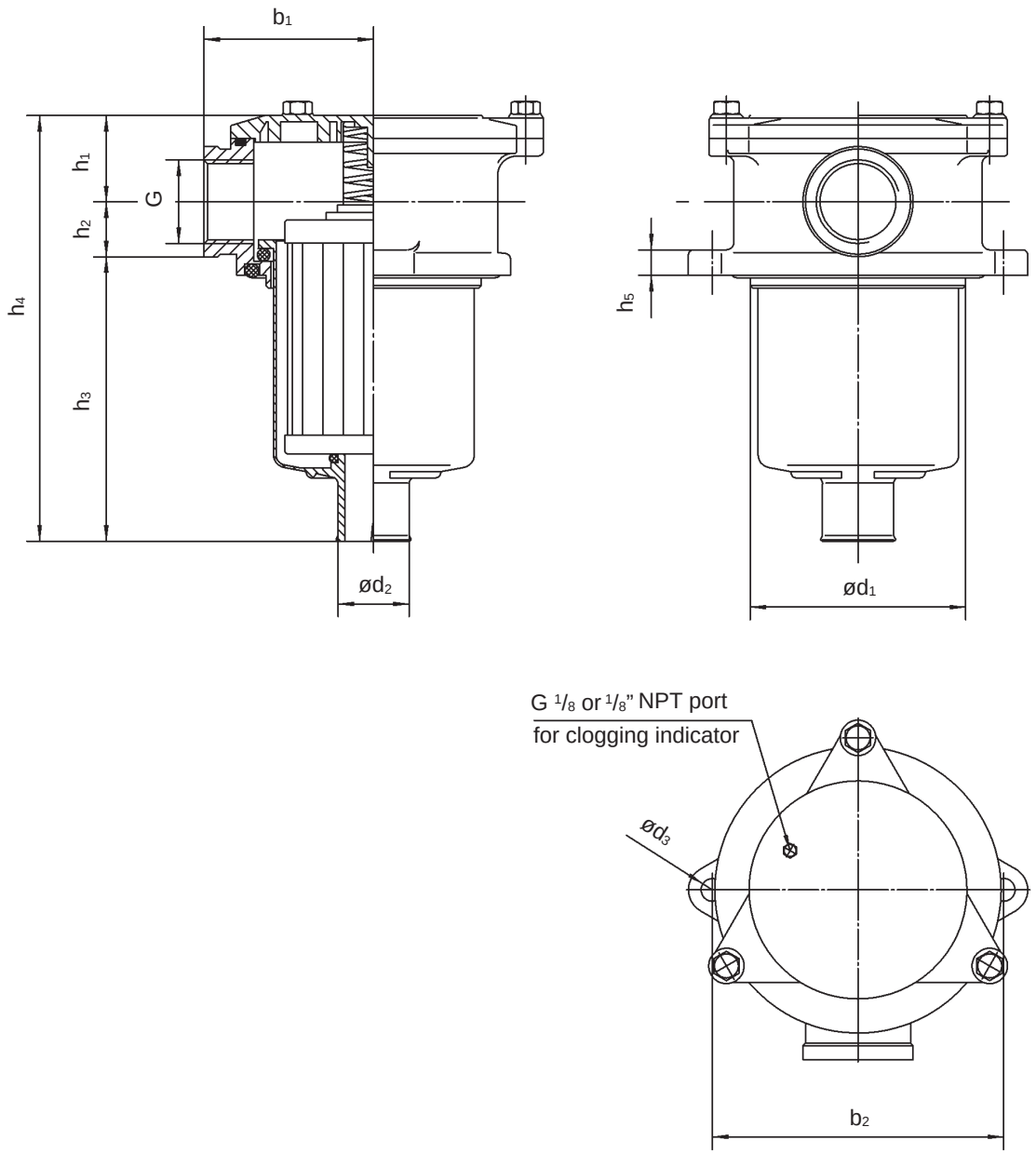
Technical Specification

Construction	Tank top flange mounting
Filter head	Die cast aluminum
Element bowl	Polyamide
Seals	"O"-Rings NBR (Buna-N®), FPM (Viton®)
Port connections	BSP, NPT, SAE-"O"-Ring thread
Flow rating	up to 95 l/min *(25 US GPM)* for 32 cSt *(150 SUS)* fluids
Operating Pressure	max 3.4 bar *(50 PSI)*
Test pressure	min 6.8 bar *(100 PSI)*
Temperature range	-25ºC to +100ºC *(-13°F to +212ºF)*

By-pass valve (integrated in the filter element)	Allows unfiltered oil to by-pass the contaminated element once the opening pressure has been reached Opening pressure: 1.7 bar *(25 PSI)*
Clogging indicators	Gauge indicator 0-6.9 bar *(0-100 PSI)* with coloured segments; Electrical, 0.35-2.5 bar *(5-35 PSI)* adjustable
Elements	Flow characteristics see page 5
Media	Mineral oils, other fluids on request

Return Line Filter RTF 10/25 Dimensions

Dimensions



Dimensions RTF 10/25 Filters

All dimensions in mm *(inch)*

Filter Size	Thread connection G				h_1	h_2	h_3	h_4	h_5	b_1	b_2	d_1	d_2	d_3	Weight	
	BSP	NPT	SAE-"O" Ring	Bowl length											kg	lbs
RTF 10	G 1/2	1/2	N/A	S1	26 *(1,02)*	21 *(0,83)*	87 *(3,43)*	133 *(5,24)*	8 *(0,32)*	50 *(1,97)*	90 *(3,54)*	66 *(2,60)*	24 *(0,94)*	7 *(0,28)*	0,45	1
RTF 25	G 1	1	1 5/16-12 UNF	S1	34 *(1,34)*	29 *(1,14)*	105 *(4,13)*	170 *(6,69)*	10 *(0,39)*	67 *(2,64)*	115 *(4,65)*	86 *(3,39)*	28 *(1,10)*	9 *(0,35)*	0,9	2
RTF 25	G 1	1	1 5/16-12 UNF	S2	34 *(1,34)*	29 *(1,14)*	150 *(5,91)*	215 *(8,46)*	10 *(0,39)*	67 *(2,64)*	115 *(4,65)*	86 *(3,39)*	28 *(1,10)*	9 *(0,35)*	1	2,2

RTF 25 N ... B S2 V /X

Filter type	RTF

Group

Size	Flow*	
	l/min	GPM
10	38	10
25	90	25

* Note Exact flow will depend on filter element selected. Consult technical information below.

Connection style		Group	
Code	Connection style	10	25
B	BSP	G1/2	G1
N	NPT	1/2	1
S	SAE “O”-Ring thread	N/A	15/16 - 12UN

For complete filters:

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

Design Code

only for information

Clogging Indicator

N	No Indicator
V	Visual
E	Electrical

See page 18 for more details on the indicator options.

Length

S1	Bowl length 1
S2	Bowl length 2

RTF 10 size available in bowl length 1 only

Seal material

B	NBR (Buna-N®)

RTE-25 D 10 B / S2 /X

Series	RTE

Group

according to filter housing

Filter material		Micron ratings available
Code	**Material**	
D	Filterpaper	10, 20, 25,
G	Inorganic glass fiber	10, 25

Design Code

only for information

Length

S1	for bowl length 1
S2	for bowl length 2

RTF 10 size available in bowl length 1 only

Seal material

B	NBR (Buna-N®)

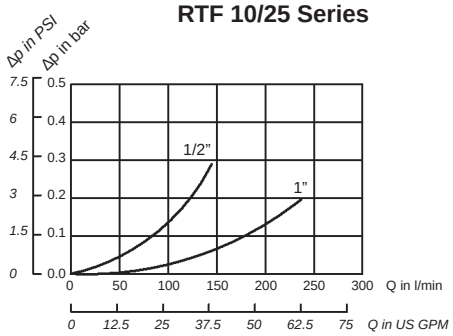
Micron rating

Code	Rating
10	10 µm
20	20 µm
25	25 µm

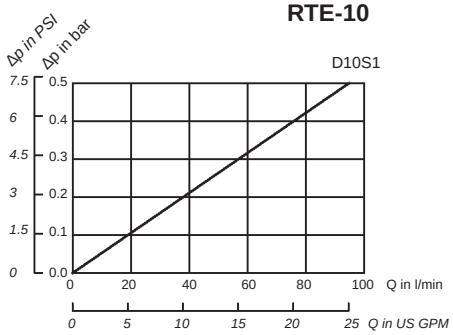
Flow characteristics of return Line Filters RTF 10/25

The following characteristics ar 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.

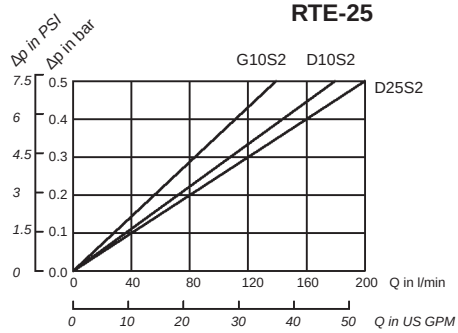
Filter Housing RTF 10/25 Series



Filter Elements RTE-10



Filter Elements RTE-25



Return Line Filter RTF 40 Technical Data

Technical Data

STAUFF RTF 40 series return filters are designed as tank tank top filters with a maximum operating pressure of 6.9 bar *(100 PSI)*. The filter bowl is designed to return the oil beneath the surface thus preventing entrainment of air. The RTF48 elements interchange with the popular Schröder-“K”- series and the RTF49 elements interchange with the Zinga- “RTE-409”- series elements.

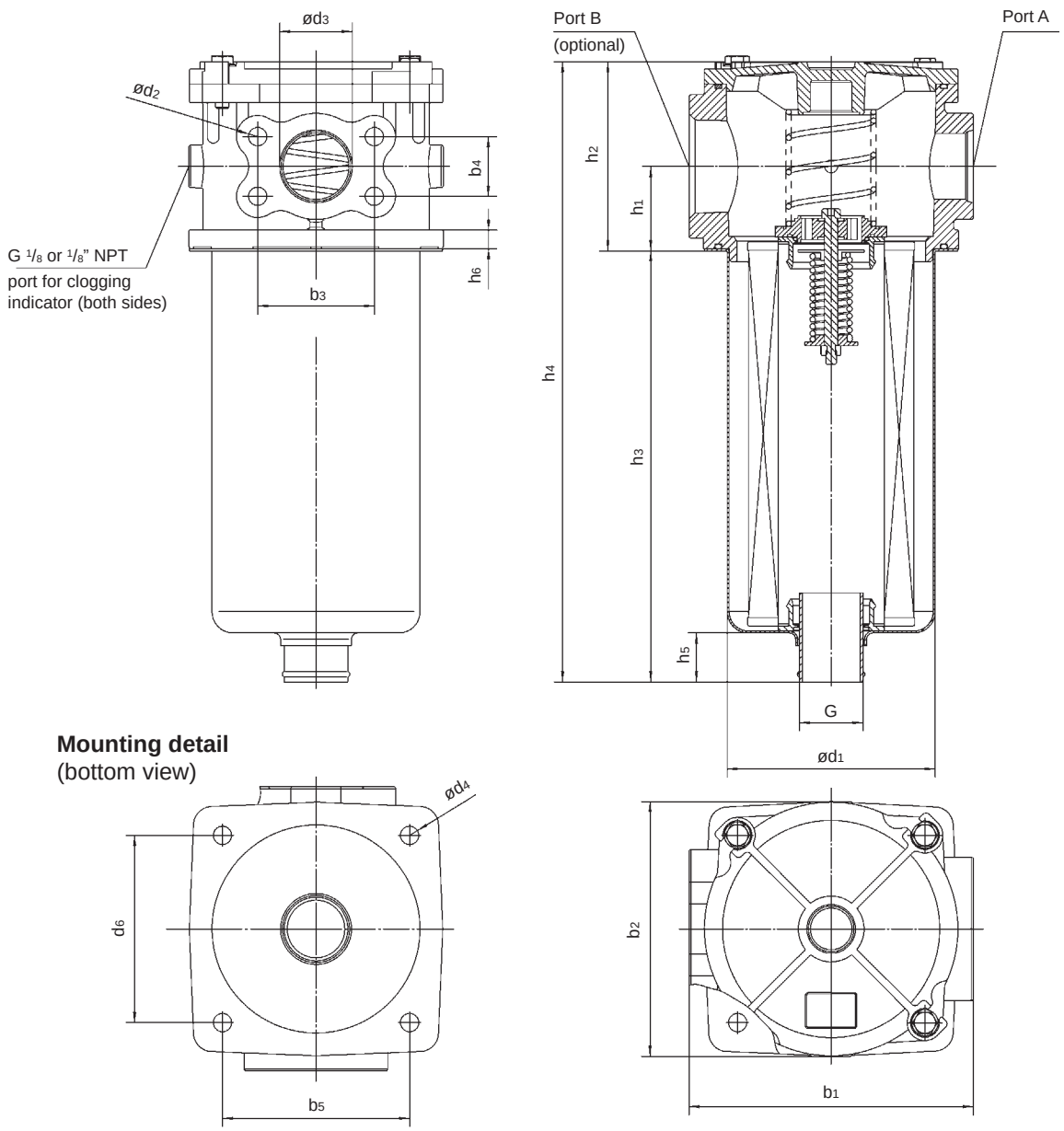
Technical Specification

Construction	Tank top flange mounting
Filter head	Die cast aluminum
Element bowl	Bowl length 1, Polyamide Bowl length 2, Steel
Seals	“O”-Rings NBR (Buna-N®)
Port connections	BSP, NPT, SAE-“O“-Ring thread, SAE flange
Flow rating	up to 379 l/min *(100 US GPM)* for 32 cSt *(150 SUS)* fluids
Operating Pressure	max 6.9 bar *(100 PSI)*
Temperature range	-25ºC to +95ºC *(-13°F to +212ºF)*

By-pass valve	Allows unfiltered oil to by-pass the contaminated element once the opening pressure has been reached
By-pass setting	1.7 bar *(25 PSI)* (by-pass in element for RTF47, by-pass in head for RTF48 and RTF49)
Clogging indicators	Gauge indicator 0-6.9 bar *(0-100 PSI)* with coloured segments; electrical, 0.35-2.5 bar *(5-35 PSI)* adjustable
Elements	Flow characteristics see page 9
Media	Mineral oils, other fluids on request

Return Line Filter RTF 40 Dimensions

Dimensions



Dimensions RTF 40 Filters

All dimensions in mm *(inch)*

Bowl Length	h_1	h_2	h_3	h_4	h_5	h_6	b_1	b_2	b_3	b_4	b_5	b_6	d_1	d_2 BSP	d_2 NPT & SAE	d_3	d_4	G
S1	53 *(2,09)*	122 *(4,80)*	263 *(10,35)*	385 *(15,16)*	21 *(0,83)*	11 *(0,43)*	152 *(5,98)*	152 *(5,98)*	69,9 *(2,75)*	35,6 *(1,40)*	112 *(4,41)*	112 *(4,41)*	122 *(4,80)*	M12	1/2-13 UN 2B	38,1 *(1,50)*	11 *(0,43)*	G1-1/2" or 1-1/2 NPT
S2			475 *(18,70)*	597 *(23,50)*	38 *(1,50)*													

Return Line Filter RTF 40 Ordering Code

RTF 48 N 25 ... B / S2 / V /X

Filter type	RTF47 RTF48 RTF49

Connection style		Group	
Code	Connection style	Port A	Port B
B	BSP	G1-1/4 & 1-1/2 SAE flange	None
BB	BSP	G1-1/4 & 1-1/2 SAE flange	G1-1/4
N	NPT	1-1/4 NPT & 1-1/2 SAE flange	None
NN	NPT	1-1/4 NPT & 1-1/2 SAE flange	1-1/4 NPT
M	NPT	1-1/2 NPT	None
MN	NPT	1-1/2 NPT	1-1/4 NPT
MM	NPT	1-1/2 NPT	1-1/2NPT
S	SAE	1-5/8 -12 UN	None
SS	SAE	1-5/8 -12 UN	1-5/8 -12 UN
ST	SAE	1-5/8 -12 UN	1-7/8 -12 UN
SU	SAE	1-5/8 -12 UN	2-1/2 -12 UN
SO	Combination	1-5/8 -12 UN	2 NPT

Design Code

only for information

Clogging indicator

N	None
V	Visual
E	Electrical

See page 18 for more details on the indicator options.

Length

S1	for bowl length 1 (1 element)
S2	for bowl length 2 (2 elements)

Note: RTF 47 available in S1 bowl length only

Seal material

B	NBR (Buna-N®)

other seal material on request

For complete filters:

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

By-pass valve

Code	By-pass setting
00	No by-pass
15	1 bar *(15 PSI)*
25	1.7 bar *(25 PSI)*

RTE-48 D 10 B /X

Group

according to filter housing

Filter material		Micron ratings available
Code	Material	
D	Filterpaper	03, 10, 20, 25
G	Inorganic glass fiber	03, 10, 25

Design Code

only for information

Seal material

B	NBR (Buna-N®)

other seal material on request

Micron rating

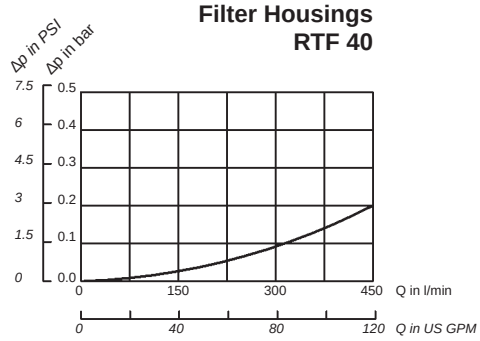
Code	Rating
03	03 µm
10	10 µm
20	20 µm
25	25 µm

Return Line Filter RTF 40 Flow Characteristics

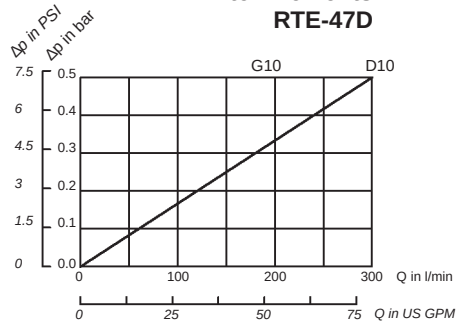
Flow Characteristics of Return Line Filters RTF 40

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.

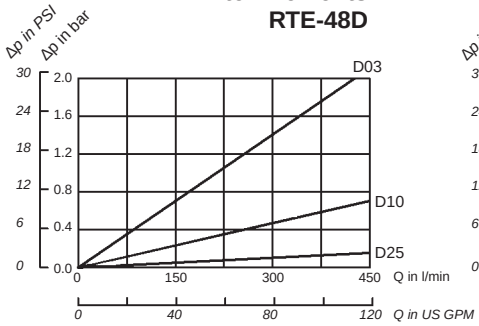
Filter Housings RTF 40



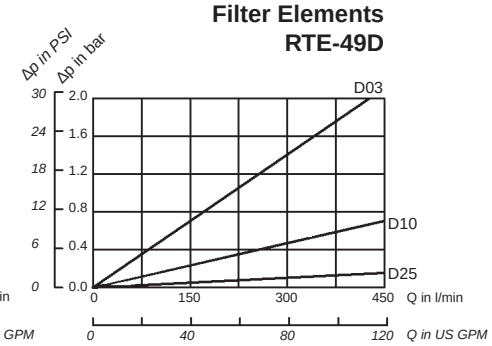
Filter Elements RTE-47D



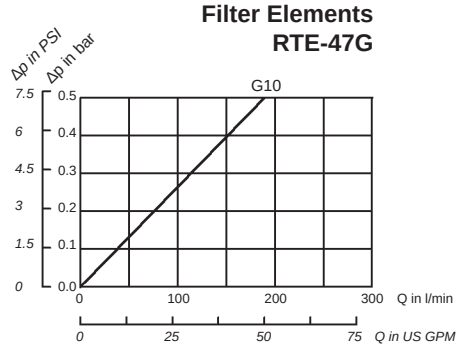
Filter Elements RTE-48D



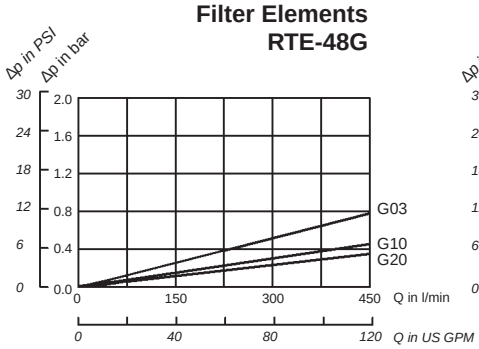
Filter Elements RTE-49D



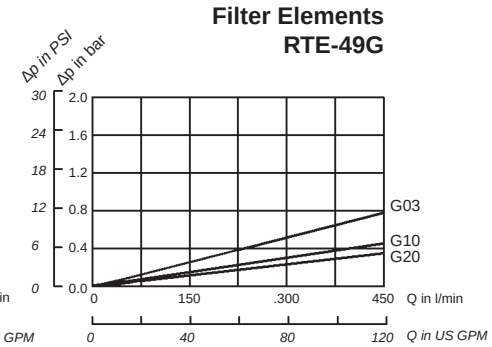
Filter Elements RTE-47G



Filter Elements RTE-48G



Filter Elements RTE-49G



Return Line Filter RTF20 Technical Data

Technical Data

STAUFF RTF20 series return filters are designed as tank top filters with a maximum operating pressure of 10 bar *(145 PSI)* and flows up to 115 l/min *(30 US GPM)*. The filter bowl is designed to return the oil beneath the surface thus preventing entrainment of air. RTF20 series compact design and integral breather make them ideal for mobile hydraulic applications.

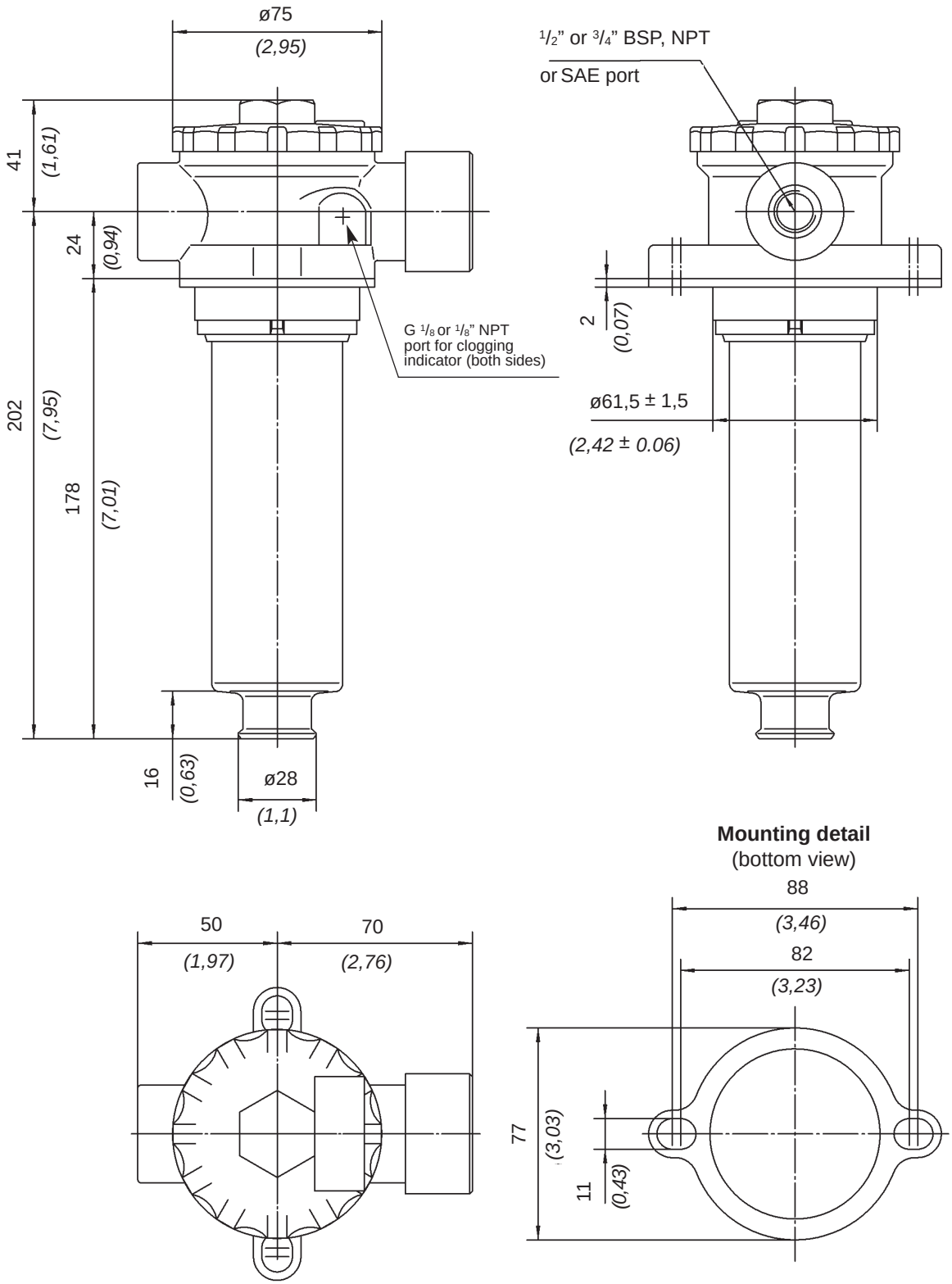
Technical Specification

Construction	Tank top flange mounting
Filter head	Die cast aluminium
Element bowl and screw cap	Polyamide
Seals	“O”-Rings NBR (Buna-N®), FPM (Viton®)
Port connections	BSP, NPT, SAE “O”-Ring thread
Flow rating	up to 115 l/min *(30 US GPM)* for 32 cSt *(150 SUS)* fluids
Operating pressure	max 10 bar *(145 PSI)*
Test pressure	min 24 bar *(350 PSI)*
Temperature range	-25°C to +100°C *(-13°F to +212°F)*

Integrated Breather	Filterpaper 10 or 40 µm
By-pass valve (integrated in the filter element)	Allows unfiltered oil to by-pass the contaminated element once the opening pressure has been reached Opening pressure 1.7 bar *(25 PSI)*
Clogging indicators	Gauge indicator 0-6.9 bar *(0-100 PSI)* with coloured segments Electrical, 0.35 - 2.5 bar *(5-35 PSI)* adjustable
Filter elements	Flow characteristics see page 13
Media	Mineral oils, other fluids on request

Return Line Filter RTF20 Dimensions

Dimensions



Dimensions in mm *(inch)*

Return Line Filter RTF20 Ordering Code

Ordering Code Filter Housings

RTF 20 N1 ... B V B10 D /X

Filter type	RTF20

Connection Style

Code	Connection Style	
B1	BSP	G 1/2
B2	BSP	G 3/4
N1	NPT	1/2
N2	NPT	3/4
S1	SAE- "O"- Ring Thread	3/4 -16 UN
S2	SAE- "O"- Ring Thread	1 1/16 -12 UN

For complete filters:
identification filter material
+ micron rating code
(see ordering code filter elements below)

Design Code
only for information

Dipstick

-	without dipstick
D	dipstick

Breather

B10	10 µm Filterpaper
B40	40 µm Filterpaper

Clogging indicator

N	without clogging indicator
V	visual
E	electrical

See page 18 for more details on the indicator options.

Seal material

B	NBR (Buna-N®)
V	FPM (Viton®)

Ordering Code Filter Elements

RTE-20 D 10 B /X

Series	RTE-20

Filter material		Micron ratings available
Code	Material	
D	Filterpaper	10
G	Inorganic glass fiber	6, 10, 20

Design Code
only for information

Seal material

B	NBR (Buna-N®)
V	FPM (Viton®)

Micron rating

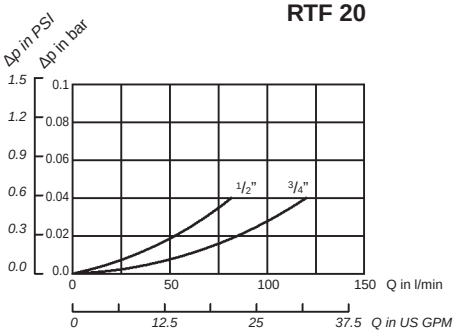
Code	Rating
06	6 µm
10	10 µm
20	20 µm

Return Line Filter RTF20 Flow Characteristics

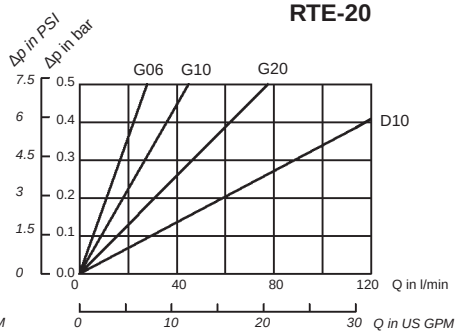
Flow Characteristics

The following characteristics are valid for mineral based fluids 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.

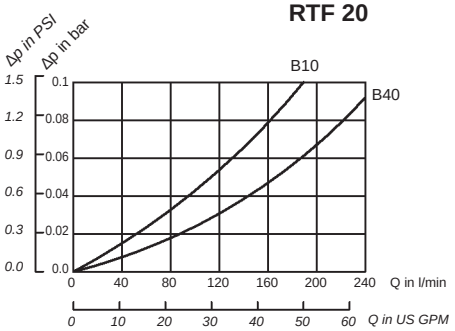
Filter Housing RTF 20



Filter Elements RTE-20



Filter Breather RTF 20



Return Line Filter RTF30 Technical Data

Technical Data

STAUFF RTF30 series return filters are designed as tank top filters with a maximum operating pressure of 10 bar *(145 PSI)* and flows up to 152 l/min *(40 US GPM)*. The filter bowl is designed to return the oil beneath the surface thus preventing entrainment of air. RTF30 series compact design and integral breather makes them ideal for mobile hydraulic applications.

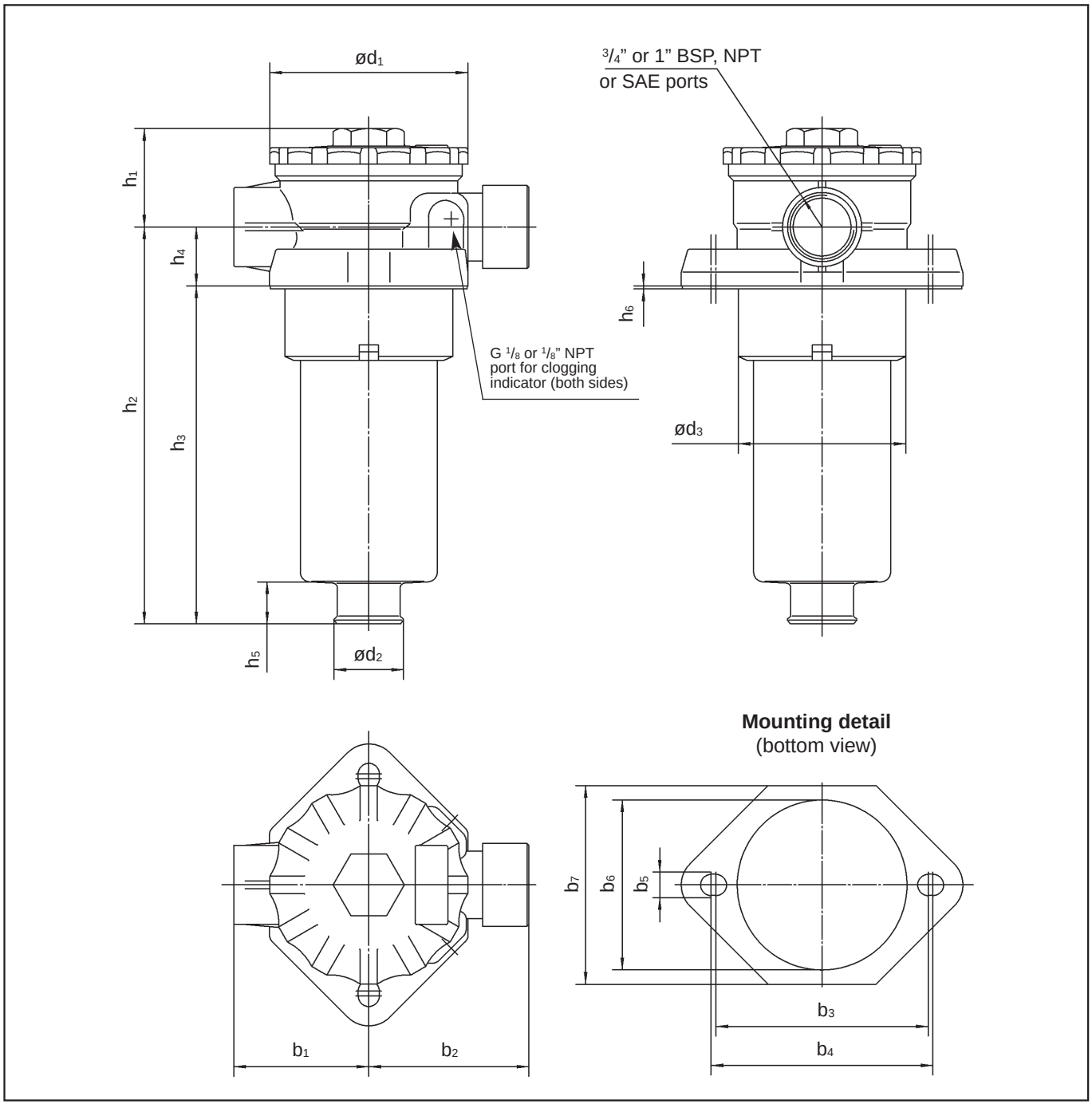
Technical Specification

Construction	Tank top flange mounting
Filter head	Die cast aluminium
Element bowl and screw cap	Polyamide
Seals	“O”-Rings NBR (Buna-N®), FPM (Viton®)
Port connections	BSP, NPT, SAE “O”-Ring thread
Flow rating	up to 152 l/min *(40 US GPM)* for 32 cSt *(150 SUS)* fluids
Operating pressure	max 10 bar *(145 PSI)*
Test pressure	min 24 bar *(350 PSI)*
Temperature range	-25°C to +100°C *(-13°F to +212°F)*

Integrated Breather	Filterpaper 10 or 40 µm
By-pass valve (integrated in the filter element)	Allows unfiltered oil to by-pass the contaminated element once the opening pressure has been reached Opening pressure 1.7 bar *(25 PSI)*
Clogging indicators	Gauge indicator 0-6.9 bar *(0-100 PSI)* with coloured segments; Electrical, 0.35 - 2.5 bar *(5-35 PSI)* adjustable
Filter elements	Flow characteristics see page 17
Media	Mineral oils, other fluids on request

Return Line Filter RTF30 Dimensions

Dimensions



Dimensions RTF 30 Filters

Dimensions in mm *(inch)*

Filter Size	Dimensions															
	h_1	h_2	h_3	h_4	h_5	h_6	d_1	d_2	d_3	b_1	b_2	b_3	b_4	b_5	b_6	b_7
RTF30	60 *(2,36)*	140 *(5,51)*	110 *(4,33)*	30 *(1,18)*	22 *(0,87)*	1,5 *(0,06)*	104 *(4,09)*	36 *(1,42)*	min 87 max 91 *(min 3,43) (max 3,58)*	70 *(2,76)*	83 *(3,27)*	110 *(4,33)*	115 *(4,53)*	11 *(0,43)*	min 87 max 91 *(min 3,43) (max 3,58)*	103 *(4,06)*
RTF31		205 *(8,07)*	175 *(6,89)*													
RTF32		305 *(12,01)*	275 *(10,83)*													

Return Line Filter RTF30 Ordering Code

Ordering Code Filter Housings

RTF 31 N1 ... B V B10 D /X

Filter Type	
RTF30	110mm *(4,33 in)* bowl length
RTF31	175mm *(6,89 in)* bowl length
RTF32	275mm *(10,83 in)* bowl length

Connection Style		
Code	**Connection Style**	
B1	BSP	3/4"
B2	BSP	1"
N1	NPT	3/4"
N2	NPT	1"
S1	SAE O-Ring Thread	1-1/16 -12 UN
S2	SAE O-Ring Thread	1-5/16 -12 UN

For complete filters:
identification filter material
+ micron rating code
(see ordering code filter elements below)

Design Code
only for information

Dipstick	
-	without dipstick
D	dipstick

Breather	
B10	10 µm Filterpaper
B40	40 µm Filterpaper

Clogging indicator	
N	without clogging indicator
V	visual
E	electrical

See page 18 for more details on the indicator options.

Seal material	
B	NBR (Buna-N®)
V	FPM (Viton®)

Ordering Code Filter Elements

RTE-31 D 10 B /X

Series	RTE

Group
according to filter housing

Filter material		Micron ratings available
Code	Material	
D	Filterpaper	10
G	Inorganic glass fiber	6, 10, 20

Design Code
only for information

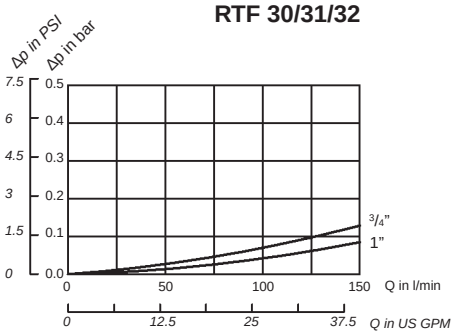
Seal material	
B	NBR (Buna-N®)
V	FPM (Viton®)

Micron rating	
Code	**Rating**
06	6 µm
10	10 µm
20	20 µm

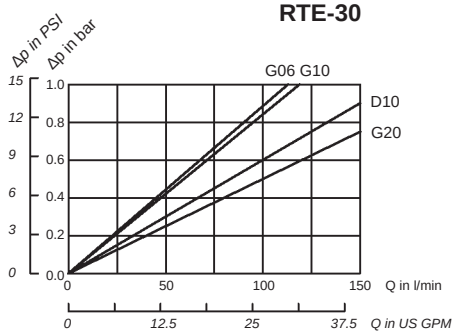
Flow Characteristics

The following characteristics are valid for mineral based fluids 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.

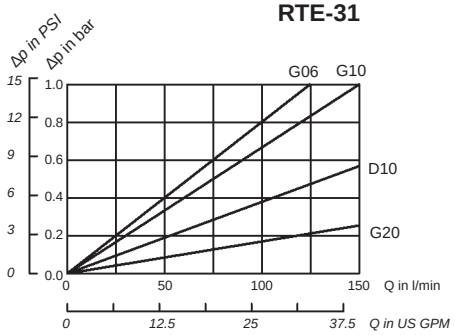
Filter Housings RTF 30/31/32



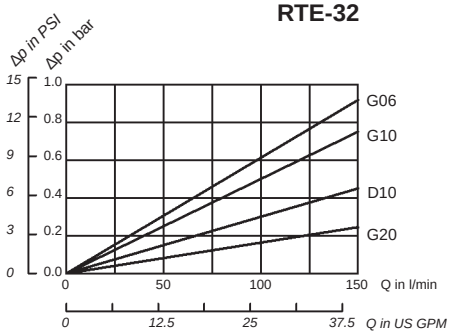
Filter Elements RTE-30



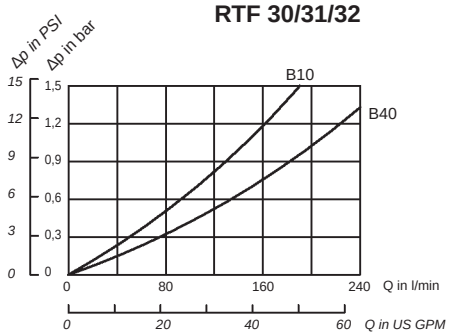
Filter Elements RTE-31



Filter Elements RTE-32

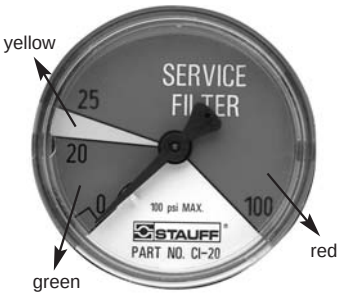


Filter Breather RTF 30/31/32

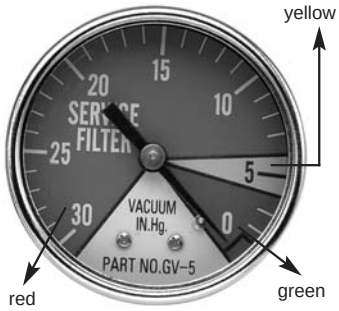


Clogging Indicator

Visual Indicators



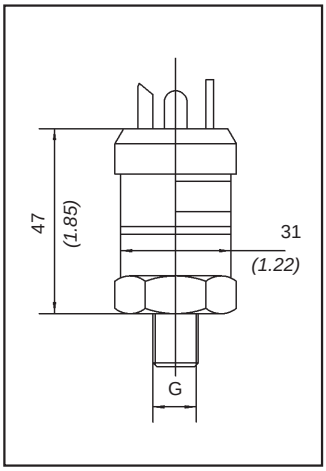
Vacuum Gauges (for suction line applications)						
Type	Scale	Coloured Segments			Actuating pressure for filter with By-pass valve	Connection thread G
		green	yellow	red		
GV-020B	0...-1.0 bar	0...-0.15 bar	-0.15...-0.20 bar	-0.20...-1.0 bar	0.20 bar	G 1/8”
GV-035B	0...-1.0 bar	0...-0.25 bar	-0.25...-0.35 bar	-0.35...-1.0 bar	0.35 bar	G 1/8”
GV-5	0...30 in Hg	0...4 in Hg	4...6 in Hg	6...30 in Hg	*3 PSI*	1/8” NPT
GV-10	0...30 in Hg	0...9 in Hg	9...11 in Hg	11...30 in Hg	*5 PSI*	1/8” NPT
SIS	0...76 in Hg	0...13 in Hg	13...18 in Hg	18...76 in Hg	*5 PSI*	G 1/8”



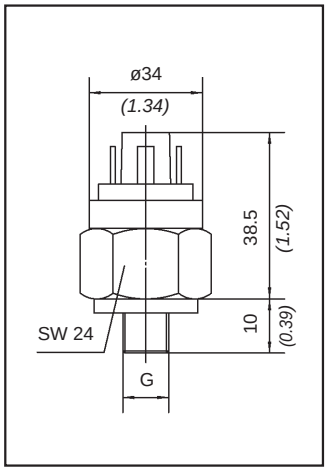
Pressure Gauges (for return line applications)						
Type	Scale	Coloured Segments			Actuating pressure for filter with By-pass valve	Connection thread G
		green	yellow	red		
CI-100B	0...2.5 bar	0...0.8 bar	0.8...1.0 bar	1.0...2.5 bar	1.0 bar	G 1/8”
CI-170B	0...2.5 bar	0...1.5 bar	1.5...1.7 bar	1.7...2.5 bar	1.7 bar	G 1/8”
CI-12	*0...100 PSI*	*0...13 PSI*	*13...15 PSI*	*15...100 PSI*	*15 PSI*	1/8” NPT
CI-20	*0...100 PSI*	*0...21 PSI*	*21...25 PSI*	*25...100 PSI*	*25 PSI*	1/8” NPT
SIM-12	0...12 bar	without coloured segments			1.7 bar	G 1/8”
SIM-04	0...4 bar	0...2.5 bar	2.5...3 bar	3...4 bar	1.7 bar	G 1/8”
SIM-02	0...2.5 bar	0...1.2 bar	1.2...1.5 bar	1.5...2.5 bar	1.7 bar	G 1/8”

Electrical Indicators					
Type	Used as	Adjustable range / actuating pressure	Maximum over pressure	for Filter Type	Connection thread G
EPS-1B	Pressure Gauge	0.35...2.5 bar	25 bar	Return Line Filter	G 1/8”
EPS-1	Pressure Gauge	*5...35 PSI*	*350 PSI*	Return Line Filter	G 1/8”
SIE-NO	Electrical Switch	1.3 bar (make contact)	80 bar	Return Line Filter	G 1/8”
SIE-NC	Electrical Switch	1.3 bar (break contact)	80 bar	Return Line Filter	G 1/8”
EVS-1B	Vacuum Gauge	150...1000 mbar	25 bar	Suction Line Filter	1/8” NPT
EVS-1	Vacuum Gauge	*5...30 in Hg*	*350 PSI*	Suction Line Filter	1/8” NPT

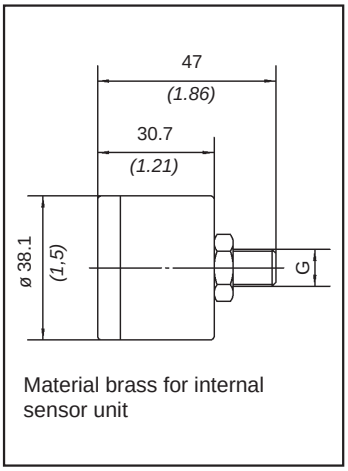
Type EPS / EVS



Type SIE

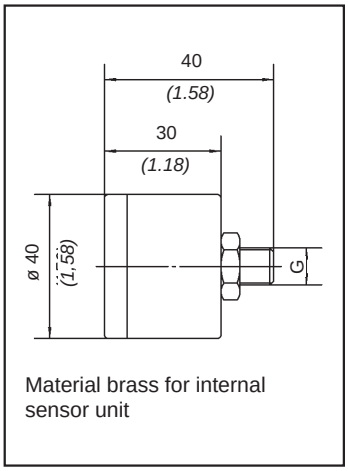


Type GV / CI



Material brass for internal sensor unit

Type SIM / SIS



Material brass for internal sensor unit

Can be field installed

All dimensions in mm *(inch)*

Technical Data

	Type EPS-1 (pressure gauge)	Type EVS-1 (vacuum gauge)
Electrical data	7Amp 125/250 VAC	
Protection	DIN 43650 IP65	
Temperature Range	-40˚C to ... +80˚C *(-40˚F ... +180˚F)* Ambient & Media	
Diaphragm Material	Epichlorohydrin	
Housing Material	Steel, Zinc Plated (Standard)	Aluminum
Adjustable range	0.35...2.5 Bar *(5...35 PSI)*	150...1000mbar *(5...30 in Hg)*
Dead Band	20% FS	25% FS
Weight	0.11 Kg *(0.23 lb)*	0.25 Kg *(0.5 lb)*
Repeatability	±2% at 20˚C *(70˚F)* Ambient Temperature	
Hirschmann Connector With Strain Relief		

	Type SIE (Electrical switch)
Electrical	48 V
Protection	DIN 43650 IP 54
Temperature Range	-5˚C to ... +60˚C *(23˚F ... +140˚F)* Ambient & Media
Diaphragm Material	NBR
Housing Material	Brass
Actuating pressure	1,3 bar *(19 PSI)*
Max current (res.)	0,5 A
Max current (ind.)	0,2 A
available as “make contact” (closes contact at actuating pressure) and as “break contact” (opens contact at actuating pressure)	

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Return Line Filters RIF48

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Mobile Filtration System SMFS-U

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STAUFF Filtration Technology

STAUFF Filtration Technology offers a complete range of filtration products and services that will provide the system designer or user with the highest level of contamination control demanded by today's most sophisticated applications. Products include pressure filters, return line filters, elements, spin-on filters, suction strainers and filler breathers for various hydraulic, lubrication and fuel oils.

STAUFF has the technical expertise to provide superior filter element designs for the STAUFF original filter housings and also for the interchange element market. STAUFF manufactures more than 10,000 different elements. Many of these are designed to fit into filter housings produced by other companies while maintaining or surpassing the original performance.

The "STAUFF Contamination Control Program" includes the diagnostic services including fluid sampling and laser particle counting products needed to monitor system contamination levels.

STAUFF, through its global network of wholly owned companies and technically qualified distributors, is ideally placed to assist its customers in the total contamination process providing a well balanced filtration solution.

STAUFF Mobile Filtration System SMFS-U **Page**

Product Description & Technical Data 3
Dimensions & Drawings 4
Ordering Code - SMFS-U-060/-110 4
Accessories - Replacement Filter Element NR-630 5
Accessories - Visual Clogging Indicator HI 5
Accessories - Laser Particle Monitor LPM 5

STAUFF Mobile Filtration System SMFS-U

Product Description

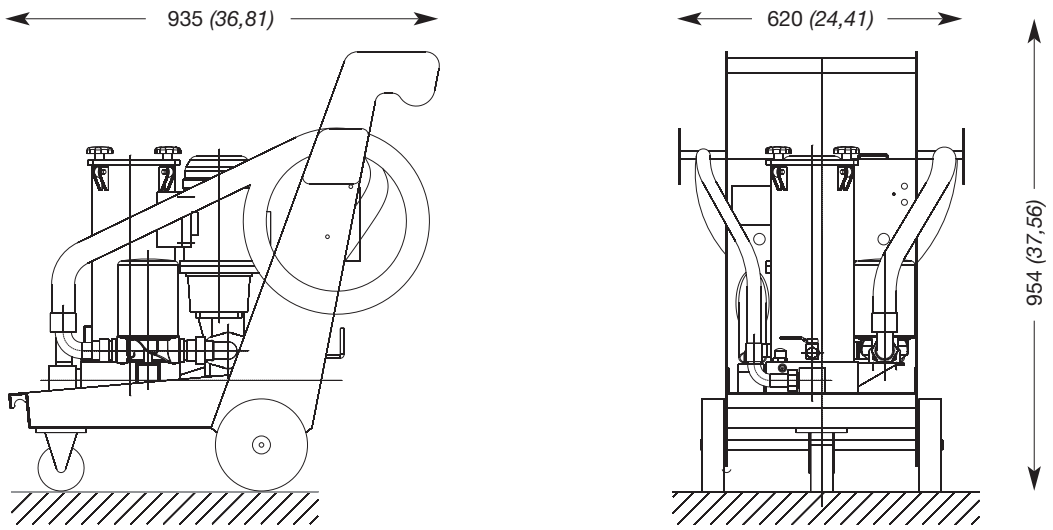
STAUFF manufacturers a complete range of mobile filtration systems. Compact in design and easy to operate on the one hand, but also made for permanent use with high flow rates on the other hand, STAUFF mobile filtration systems are essential tools for the preventive maintenance either to transfer new oil or to purify hydraulic and lubrication oil systems.

left: SMFS-U-110
right: SMFS-U-060

Media	suitable for:	mineral oil	
Flow		SMFS-U-060: 60 l/min *(15 GPM)*	SMFS-U-110: 110 l/min *(30 GPM)*
Temperature	media:	-20° C ... +60° C *(-4° F ... +140° F)*	
	environment:	-20° C ... +40° C *(-4° F ... +104° F)*	
Viscosity	admissible:	12 ... 800 mm²/sec	
	recommended:	20 ... 100 mm²/sec (continuous exposure)	
Pressure	suction pressure:	SMFS-U-060: - 0,4 bar *(- 6 PSI)* max.	SMFS-U-110: - 0,4 bar *(- 6 PSI)* max.
	operating pressure:	SMFS-U-060: + 4,0 bar *(+ 58 PSI)* max.	SMFS-U-110: + 4,0 bar *(+ 58 PSI)* max.
	bypass opening pressure		
	◦ via pressure relief valve:	SMFS-U-060: + 5,0 bar *(+ 73 PSI)*	SMFS-U-110: + 10,0 bar *(+ 145 PSI)*
	burst pressure		
	◦ on the suction side:	SMFS-U-060: + 11,0 bar *(+ 160 PSI)*	SMFS-U-110: + 11,0 bar *(+ 160 PSI)*
	◦ on the pressure side:	SMFS-U-060: + 15,0 bar *(+ 218 PSI)*	SMFS-U-110: + 15,0 bar *(+ 218 PSI)*
	housing proof pressure:	SMFS-U-060: + 24,0 bar *(+ 348 PSI)*	SMFS-U-110: + 24,0 bar *(+ 348 PSI)*
Framework	weight:	SMFS-U-060: 87 kg *(192 lbs)*	SMFS-U-110: 130 kg *(287 lbs)*
	material:	phosphated and epoxy coated steel	
Hose	material:	PVC, reinforced with internal spiral	
	length:	3m *(10ft)* on the pressure and suction side	
	dimensions		
	◦ on the suction side:	SMFS-U-060: DN 35	SMFS-U-110: DN 38
	◦ on the pressure side:	SMFS-U-060: DN 25	SMFS-U-110: DN 25
Pump / Motor	gear pump CE certified motor unit (400 VAC @ 50 Hz - 3 phases) protection class IP 55 plug CEE 16A 3P+N+G		
Options	Can also be delivered with a **Laser Particle Monitor LPM**, which is a laser based 4-channel in-line particle monitor designed for the continuous monitoring of contamination. **Visual Clogging Indicators HI** are also available on request.		

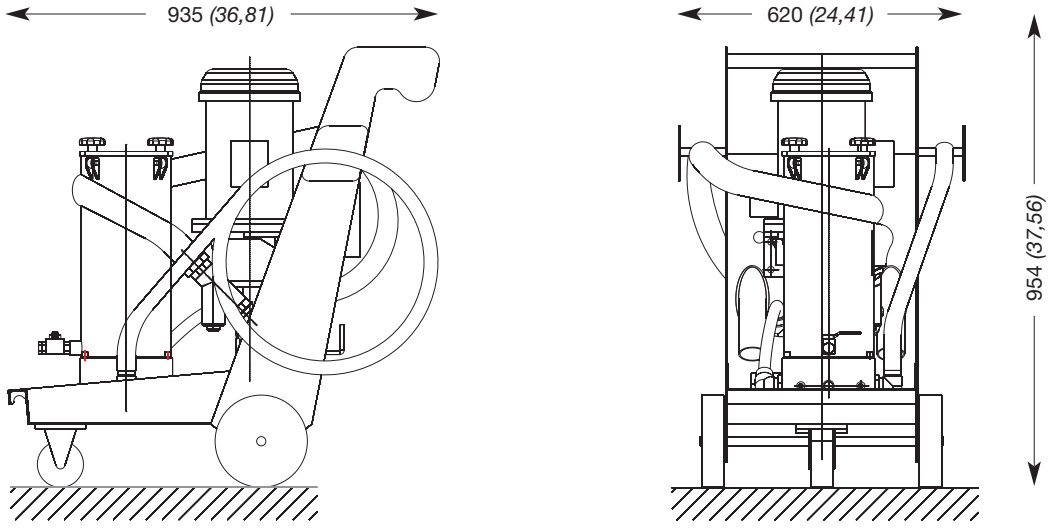
Dimensions & Drawings

SMFS-U-060



Dimensions in mm *(inch)*.

SMFS-U-110



Dimensions in mm *(inch)*.

Ordering Code

SMFS - U - 060 - G - E10 - B - VT - F - L

STAUFF Mobile Filtration System	

Type	
U	Mobile Unit

Flow	
060	60l/min *(15 GPM)*
110	110l/min *(30 GPM)*

Pump	
G	Gear Pump

Filter Element NR-630-...	
000	without filter element
E03	Inorganic glass fiber 3 µm
E06	Inorganic glass fiber 6 µm
E10	Inorganic glass fiber 10 µm
E16	Inorganic glass fiber 16 µm
E25	Inorganic glass fiber 25 µm

Special Configuration	
	standard
L	Laser Particle Monitor LPM

Motor Configuration			
	V	**HZ**	**Phases**
F	400	50	3
Note: Other motor configurations on request.			

Clogging Indicator	
O	without clogging indicator
A	visual, with autom. reset
V	visual, with manual reset
AT	visual, with autom. reset and Thermostop
VT	visual, with manual reset and Thermostop

Sealing Material	
B	NBR (Buna-N®)
Note: Other sealing materials on request.	

Accessories

STAUFF Replacement Filter Element NR-630

NR - 630 E 10 B

STAUFF Replacement Filter Element NR

Group	
630	630l/min *(160 GPM)*

Filter Material		
Code	Material	max. △p *collapse
E	Inorganic Glass Fibre	10 bar *(145 PSI)*
* collapse / burst resistance as per ISO 2941		

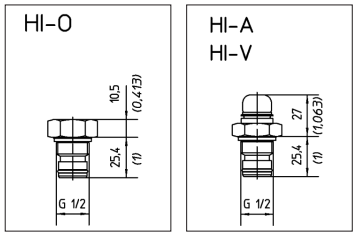
Sealing Material	
B	NBR (Buna-N®)
V	FKM (Viton®)
E	EPDM
Note: Other sealing materials on request.	

Micron Rating	
03	3µm
06	6µm
10	10µm
16	16µm
25	25µm

All STAUFF inorganic glass fibre filter elements are designed to achieve ß≥200 at their rated micron rating.

STAUFF Visual Clogging Indicator HI

Clogging indicators are available for STAUFF Mobile Filtration Systems. If no indicator is specified, the port is sealed by a plug (HI-O). The clogging indicators are actuated by the differential pressure across the element. The special piston design minimizes the effects of peak pressures in the system. An optional thermostatic lockout (thermo-stop) is available to prevent false indication under cold start conditions. Fluid temperature must be at least 20° C *(68° F)* for the indicator to function.



Technical Specifications

Body	Stainless steel
Seals	NBR (Buna-N®), FKM (Viton®), EPDM Seal 18,5x23,9x2 *(0,73x0,94x0,08)* O-Ring 15,5x1,5 *(0,61x0,06)*
Thread	1/2” BSP
Differential pressure setting	3,0 -0,5 bar *(43,5 -7,25 PSI)* (other settings on request)

Configurations

Manual reset	The indicator continues to indicate the clogged signal even through the △p may have fallen. Pressing the soft cover down will reset the indicator.
Automatic reset	The clogged signal will disappear when the △p drops below the setting for the indicator.

Dimensions in mm *(inch)*. Please see STAUFF catalogue “Pressure Filters SF” for further information.

STAUFF Laser Particle Monitor LPM (Laser Particle Transducer LPT-0)

The LPT Particle transducer contains the sensing device and electronics for detecting the level of contamination.

The laser based sensor uses light blocking technology for particle detection whereby particles passing through an optical flow cell block an amount of laser light proportional to the particle size.

The resultant particle concentration data from the LPT are sent to the LIM interface module via a fiber optic cable.

The LPT Particle transducers have a flow inhibitor downstream of the sensor that restricts and controls fluid flow from variable pressure sources.

The pressure is reduced to near atmospheric for return to the hydraulic reservoir. The inlet pressure ranges from 1.4 to 13.8 bar *(20 to 200 PSI)*.

Please see STAUFF catalogue “Laser Particle Monitor LPM 1” for further information.

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Stauff Filtration Technology

Stauff Filtration Technology offers a complete range of filtration products and services that will provide the system designer or user with the highest level of contamination control demanded by today's most sophisticated applications. Products include pressure filters, return line filters, elements, spin-on filters suction strainers and filler breathers for various hydraulic, lubrication and fuel oils.

Stauff has the technical expertise to provide superior filter element designs for the Stauff original filter housings and also for the interchange element market. Stauff manufactures more than 10,000 different elements. Many of these are designed to fit into filter housings produced by other companies while maintaining or surpassing the original performance.

The "Stauff Contamination Control Program" includes the diagnostic services including fluid sampling and laser particle counting products needed to monitor the system contamination level.

Stauff, through its global network of wholly owned companies and technically qualified distributors, is ideally placed to assist its customers in the total contamination process providing a well balanced filtration solution.

Spin-On Filters — Page

Spin-On Heads
SLF-Series 3
SAF-Series 4
SSF-Series 6
SSFT-Series 10

Spin-On Elements
SF 6300-Series 12
SF 6500-Series 13
SF 6700-Series 15
SFC/SFCT 35/36-Series 19
SFC/SFCT 57/58-Series 20

Filter Indicators
Clogging Indicators 22

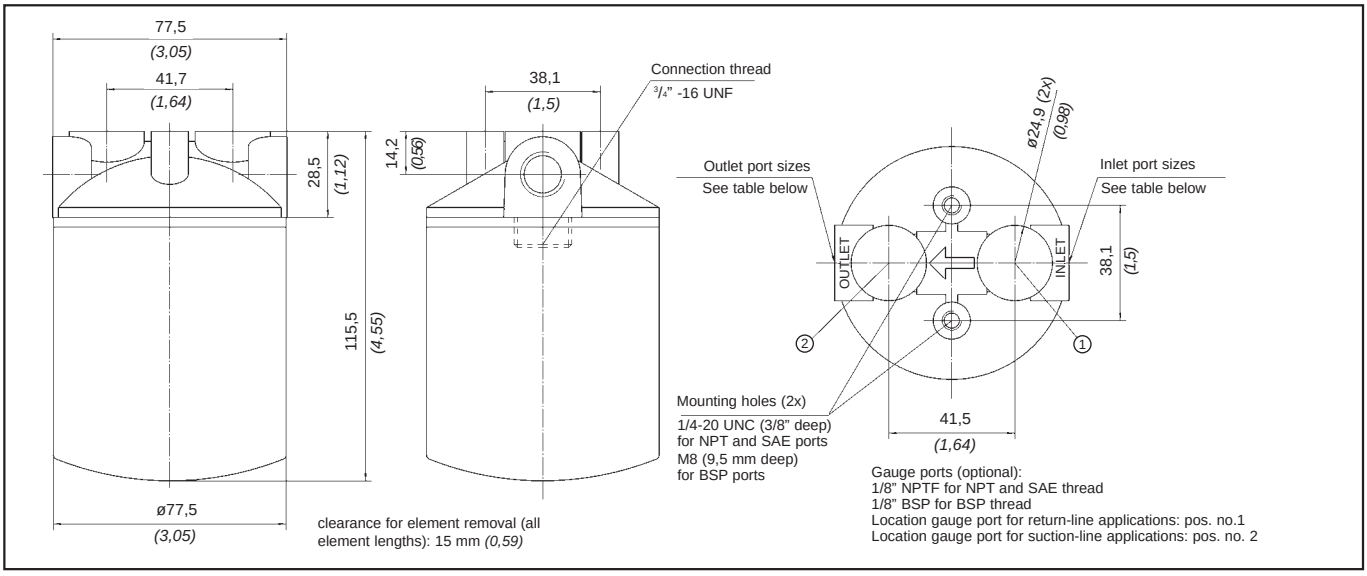
Appendix
Quick Reference Guide 23

Spin-On Filters SLF- 02 / 03 / 04

Technical Specification

Construction	Die cast aluminium head
Seals	NBR (Buna-N®)
Seal contour	Contour type A (see page 23)
Port connections	BSP, NPT or SAE “O”-Ring thread
Flow rate	26 l/min *(7 US GPM)* for return line, 7 l/min *(2 US GPM)* for suction line applications
Working pressure	max 14 bar *(200 PSI)*, maximum pressure differential of 5,5 bar *(80 PSI)* for any application with no by-pass valve
Operating temperature	-32°C to +100°C *(-25°F to 212°F)*
By-pass valve	integrated in the filter element
Clogging indicators	Pressure gauge with colored segments, Electrical 0.35...2.5 bar *(5...35 PSI)* adjustable see page 22
Elements	For use with SF6300 series elements, For element types and flow characteristics see page 12
Media	Mineral oils, other fluids on request

Dimensions



Dimensions in mm *(inch)*

Ordering Code

SLF - 02 - 0

Filter type	SLF

Port options		
Code	**Connection Style**	
02B	BSP	G 1/4
02	NPT	1/4 NPT
03B	BSP	G 3/8
03	NPT	3/8 NPT
04	SAE	9/16 -18 UN

Indicator port options	
Code	**Description**
0	No indicator port
1	Gauge port drilled-return
2	Gauge port drilled-suction
4	All gauge ports drilled
9	Special

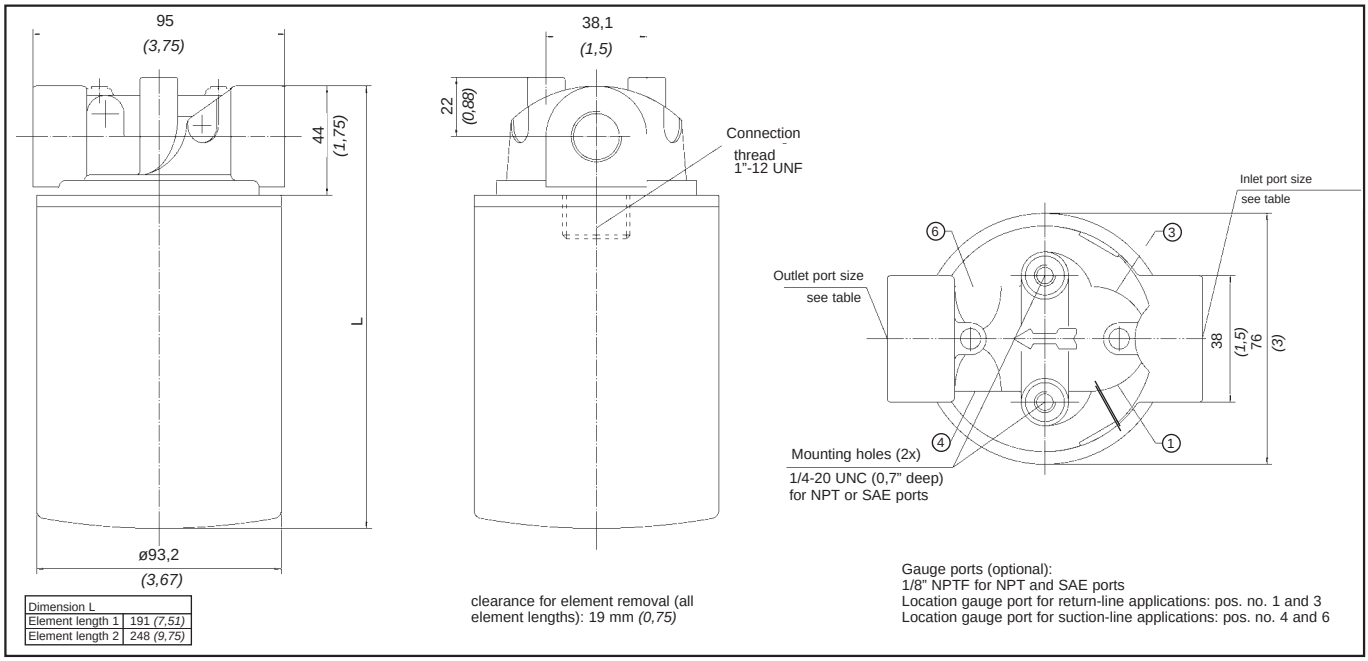
Note: Standard gauge port for BSP connection port is G 1/8”. Standard gauge port for NPT and SAE connection port is 1/8” NPTF.

Spin-On Filters SAF - 05 / 06 / 07 / 11

Technical Specification

Construction	Die cast aluminium head
Seals	NBR (Buna-N®)
Seal contour	Contour type A (see page 23)
Port connections	NPT or SAE “O”-Ring thread
Flow rate	90 l/min *(25 US GPM)* for return line, 23 l/min *(6 US GPM)* for suction line applications
Working pressure	max 14 bar *(200 PSI)*, maximum pressure differential of 5,5 bar *(80 PSI)* for any application with no by-pass valve
Operating temperature	-32°C to +100°C *(-25°F to 212°F)*
By-pass valve	integrated in the filter element
Clogging indicators	Pressure gauge with colored segments, Electrical 0.35...2.5 bar *(5...35 PSI)* adjustable see page 22
Elements	For use with SF6500 series elements, For element types and flow characteristics see pages 13...14
Media	Mineral oils, other fluids on request

Dimensions



Dimension L	
Element length 1	191 *(7,51)*
Element length 2	248 *(9,75)*

clearance for element removal (all element lengths): 19 mm *(0,75)*

Gauge ports (optional):
1/8" NPTF for NPT and SAE ports
Location gauge port for return-line applications: pos. no. 1 and 3
Location gauge port for suction-line applications: pos. no. 4 and 6

Dimensions in mm *(inch)*

Ordering Code

SAF - 07 - 25 - 0

Filter type	SAF

Port options		
Code	**Connection Style**	
05	NPT	1/2 NPT
06	SAE	3/4-16 UN
07	NPT	3/4 NPT
11	SAE	1 1/16-12 UN

By-pass options	
Code	**Description**
00	No by-pass
03	0,2 bar *(3 PSI)*
05	0,35 bar *(5 PSI)*
15	1 bar *(15 PSI)*
25	1,7 bar *(25 PSI)*

Indicator port options	
Code	**Description**
0	No indicator port
1	Gauge pot drilled-return
2	Gauge port drilled-suction
4	All gauge ports drilled
9	Special

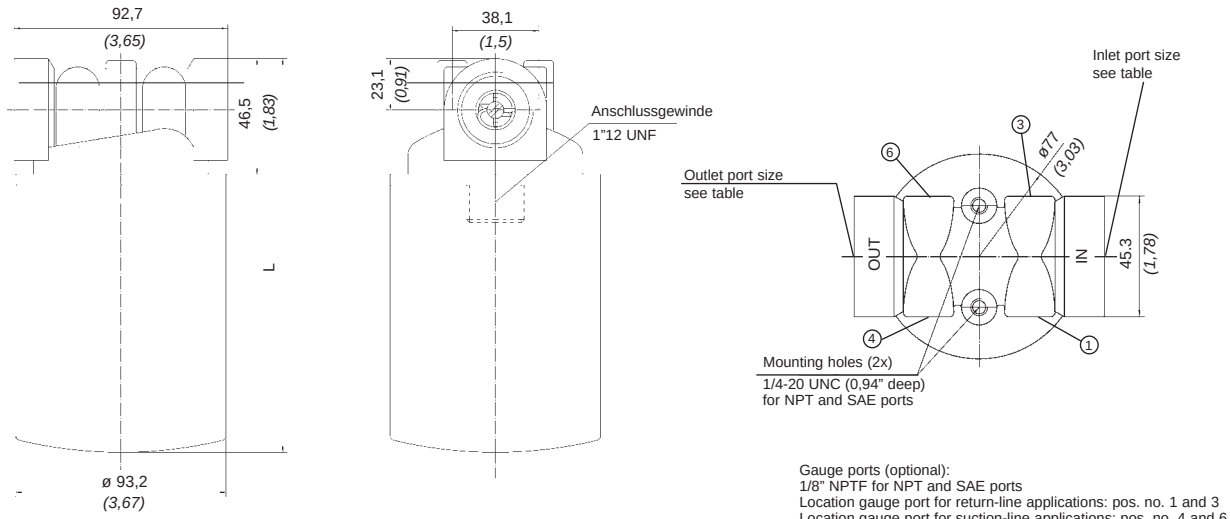
Note: Standard gauge port 1/8” NPTF.

Spin-On Filters SAF - 10 / 13

Technical Specification

Construction	Die cast aluminium head
Seals	NBR (Buna-N®)
Seal contour	Contour type A (see page 23)
Port connections	NPT or SAE “O”-Ring thread
Flow rate	128 l/min *(34 US GPM)* for return line, 30 l/min *(8 US GPM)* for suction line applications
Working pressure	max 14 bar *(200 PSI)*, maximum pressure differential of 5,5 bar *(80 PSI)* for any application with no by-pass valve
Operating temperature	-32°C to +100°C *(-25°F to 212°F)*
By-pass valve	Integrated in the filter head (optional)
Clogging indicators	Pressure gauge with colored segments, Electrical 0.35...2.5 bar *(5...35 PSI)* adjustable see page 22
Elements	For use with SF6500 series elements, For element types and flow characteristics see pages 13...14
Media	Mineral oils, other fluids on request

Dimensions



Dimension L	
Element length 1	193 *(7,6)*
Element length 2	249 *(9,8)*

clearance for element removal
(all element lengths): 19 mm *(0,75)*

Gauge ports (optional):
1/8" NPTF for NPT and SAE ports
Location gauge port for return-line applications: pos. no. 1 and 3
Location gauge port for suction-line applications: pos. no. 4 and 6

Dimensions in mm *(inch)*

Ordering Code

SAF - 10 - 25 - 0

Filter type	SAF

Port options		
Code	**Connection Style**	
10	NPT	1 NPT
13	SAE	$1^{5}/_{16}$-12 UN

By-pass options	
Code	**Description**
00	No by-pass
03	0,2 bar *(3 PSI)*
05	0,35 bar *(5 PSI)*
15	1 bar *(15 PSI)*
25	1,7 bar *(25 PSI)*

Indicator port options	
Code	**Description**
0	No indicator port
1	Gauge port drilled-return
2	Gauge port drilled-suction
4	All gauge ports drilled
9	Special

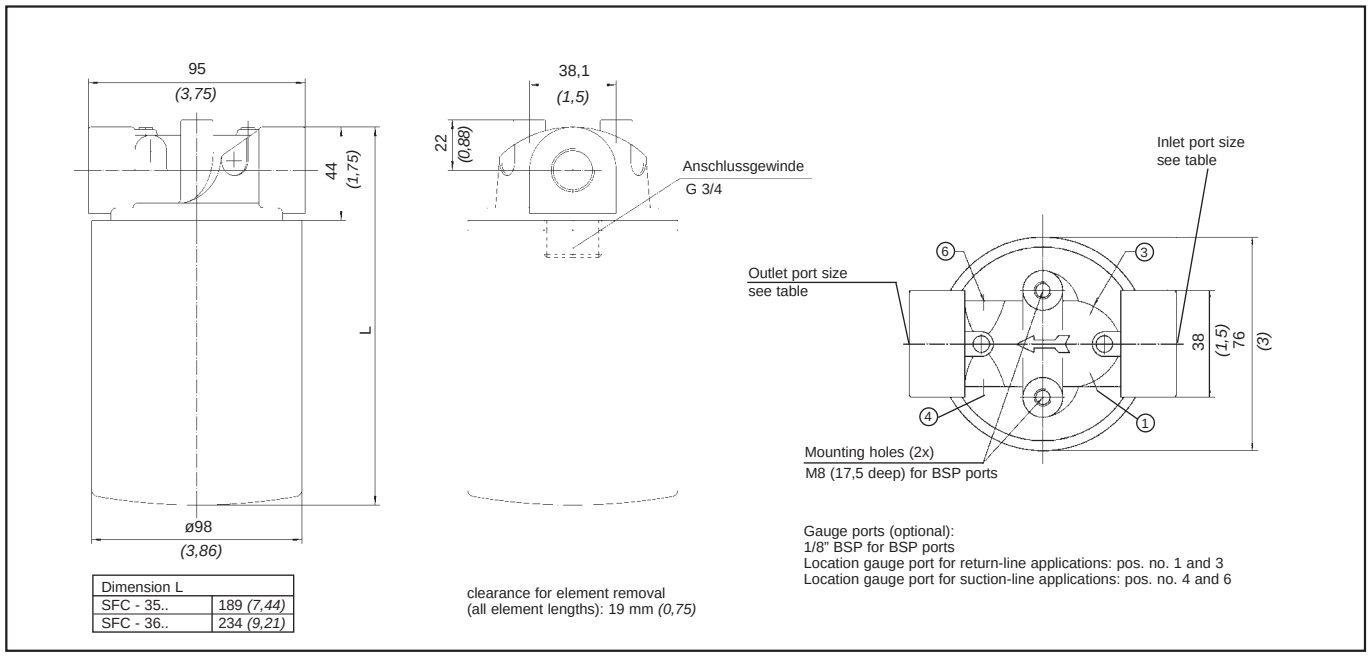
Note: Standard gauge port is 1/8" NPTF thread.

Spin-On Filters SSF - 12

Technical Specification

Construction	Die cast aluminium head
Seals	NBR (Buna-N®) seals
Seal contour	Contour type A (see page 23)
Port connections	BSP thread
Flow rate	90 l/min *(25 US GPM)* for return line, 23 l/min *(6 US GPM)* for suction line applications
Working pressure	max 12 bar *(174 PSI)*, maximum pressure differential of 5,5 bar *(80 PSI)* for any application with no by-pass valve
Operating temperature	-32°C to +100°C *(-25°F to 212°F)*
By-pass valve	integrated in the filter head (optional)
Clogging indicators	Pressure gauge with colored segments, Electrical 0.35...2.5 bar *(5...35 PSI)* adjustable see page 22
Elements	For use with SFC35/36 series elements, For element types and flow characteristics see pages 19...21
Media	Mineral oils, other fluids on request

Dimensions



Dimension L	
SFC - 35..	189 *(7,44)*
SFC - 36..	234 *(9,21)*

Dimensions in mm *(inch)*

Ordering Code

SSF - 12 - 25 - 0

Filter type	SSF

Port options		
Code	Connection Style	
12	BSP	G 3/4

By-pass options	
Code	Description
00	No by-pass
03	0,2 bar *(3 PSI)*
05	0,35 bar *(5 PSI)*
15	1 bar *(15 PSI)*
25	1,7 bar *(25 PSI)*

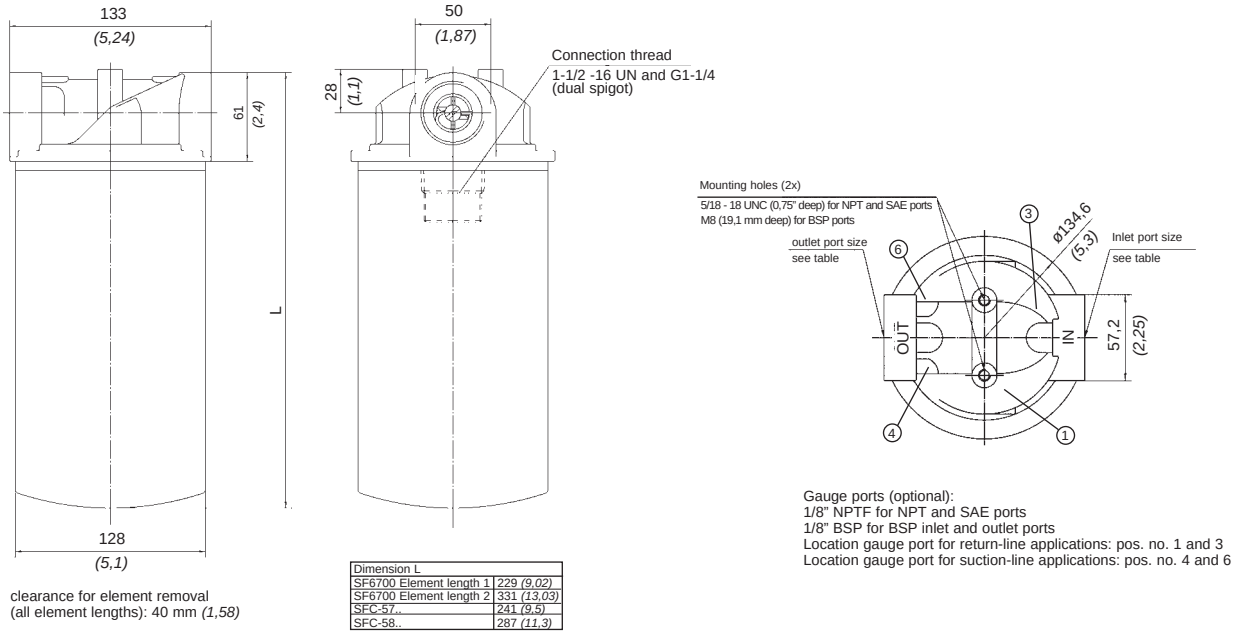
Indicator port options	
Code	Description
0	No indicator port
1	Gauge port drilled-return
2	Gauge port drilled-suction
4	All gauge ports drilled
9	Special
Note: Standard gauge port is 1/8" BSP thread.	

Spin-On Filters SSF - 20 / 100 / 120 / 130 / 160

Technical Specification

Construction	Die cast aluminium head
Seals	NBR (Buna-N®)
Seal contour	Contour type A and B (see page 23)
Port connections	BSP, NPT or SAE “O”-Ring thread
Flow rate	225 l/min *(60 US GPM)* for return line, 46 l/min *(12 US GPM)* for suction line applications
Working pressure	max 14 bar *(200 PSI)*, maximum pressure differential of 5,5 bar *(80 PSI)* for any application with no by-pass valve
Operating temperature	-32°C to +100°C *(-25°F to 212°F)*
By-pass valve	integrated in the filter head (optional)
Clogging indicators	Pressure Gauge with colored segments, Electrical 0.35...2.5 bar *(5...35 PSI)* adjustable see page 22
Elements	For use with SF6700 and SFC-57/58 series elements, for element types and flow characteristics see pages 15...18 for SF6700 see pages 20...21 for SFC57/58
Media	Mineral oils, other fluids on request

Dimensions



Dimension L	
SF6700 Element length 1	229 *(9,02)*
SF6700 Element length 2	331 *(13,03)*
SFC-57..	241 *(9,5)*
SFC-58..	287 *(11,3)*

Dimensions in mm *(inch)*

Ordering Code

SSF - 120 - 25 - 0

Filter type	SSF

Port options		
Code	**Connection Style**	
100	NPT	1 NPT
20L	BSP	G1 1/4
120L	NPT	1 1/4 NPT
120	NPT	1 1/4 NPT
130	SAE	1 5/16 -12 UN
160	SAE	1 5/8 -12 UN

Note: SSF-20L and SSF-120L filters use a wide cut or “L” shaped element seal. All others use a thin cut element seal

By-pass options	
Code	**Description**
00	No by-pass
03	0,2 bar *(3 PSI)*
05	0,35 bar *(5 PSI)*
15	1 bar *(15 PSI)*
25	1,7 bar *(25 PSI)*

Indicator port options	
Code	**Description**
0	No indicator port
1	Gauge port drilled-return
2	Gauge port drilled-suction
4	All gauge ports drilled
9	Special

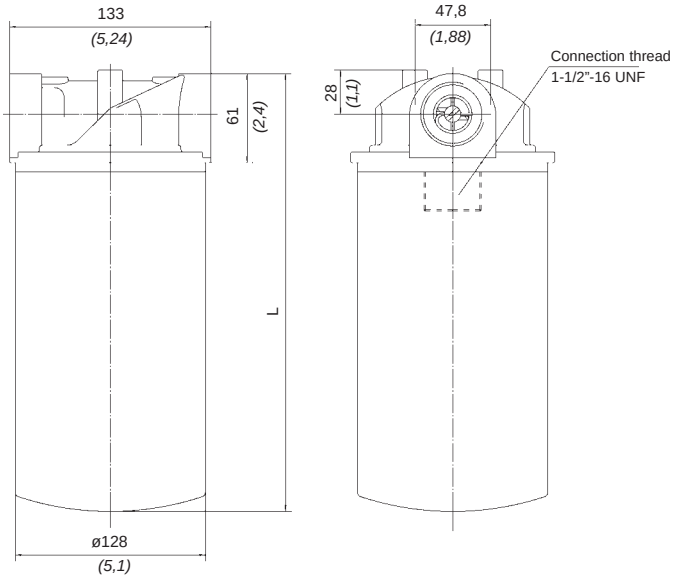
Note: Standard gauge port for BSP connection port is G 1/8”. Standard gauge port for NPT and SAE connection port is 1/8” NPTF

Spin-On Filters SSF- 150 / 180

Technical Specification

Construction	Die cast aluminium head
Seals	NBR (Buna-N®)
Seal contour	Contour type B (see page 23)
Port connections	BSP, NPT or SAE “O”-Ring thread
Flow rate	300 l/min *(80 US GPM)* for return line, 113 l/min *(30 US GPM)* for suction line applications
Working pressure	max 14 bar *(200 PSI)*, maximum pressure differential of 5,5 bar *(80 PSI)* for any application with no by-pass valve
Operating temperature	-32°C to +100°C *(-25°F to 212°F)*
By-pass valve	integrated in the filter head (optional)
Clogging indicators	Pressure gauge with colored segments, Electrical 0.35...2.5 bar *(5...35 PSI)* adjustable see page 22
Elements	For use with SF6700 series elements, For element types and flow characteristics see pages 15...18
Media	Mineral oils, other fluids on request

Dimensions



Dimension L	
Element length 1	229 *(9,02)*
Element length 2	331 *(13,03)*

Dimensions in mm *(inch)*

Ordering Code

SSF - 150 - 25 - 0

Filter type	SSF

Port options		
Code	**Connection Style**	
150	NPT	1 1/2 NPT
150B	BSP	G1 1/2
180	SAE	1 7/8-12 UN

By-pass options	
Code	**Description**
00	No by-pass
03	0,2 bar *(3 PSI)*
05	0,35 bar *(5 PSI)*
15	1 bar *(15 PSI)*
25	1,7 bar *(25 PSI)*

Indicator port options	
Code	**Description**
0	No indicator port
1	Gauge port drilled-return
2	Gauge port drilled-suction
4	All gauge ports drilled
9	Special

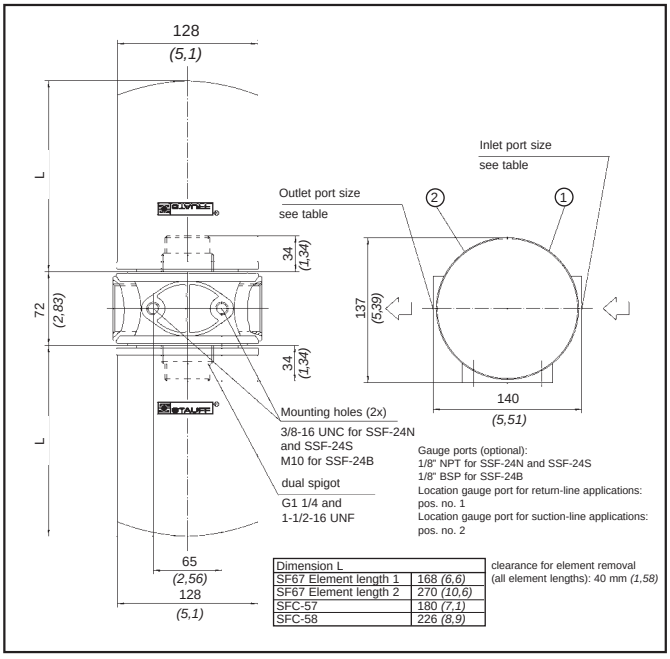
Note: Standard gauge port for BSP connection port is G 1/8”. Standard gauge port for NPT and SAE connection port is 1/8” NPTF.

Spin-On Filters SSF - 24 / 25

Technical Specification

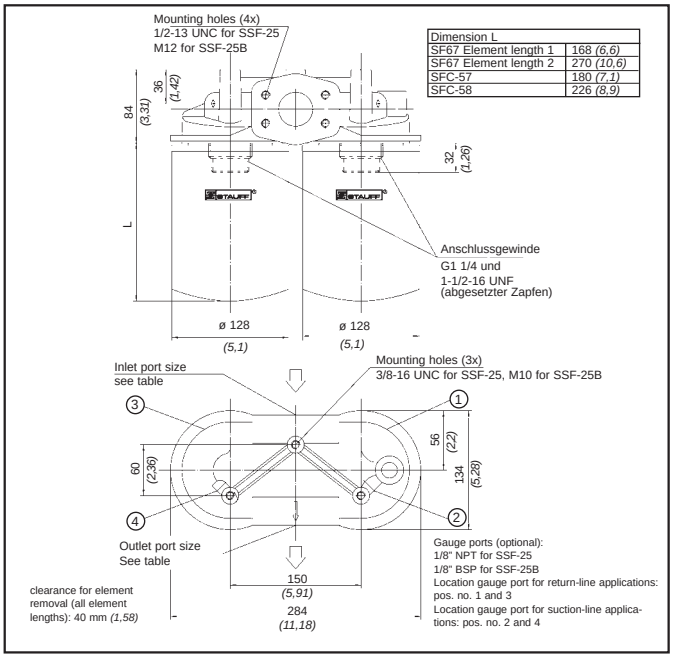
Construction	Die cast aluminium head
Seals	NBR (Buna-N®)
Seal contour	Contour type A and B (see page 23)
Port connections	BSP, NPT, SAE flange or SAE-"O"-Ring thread
Flow rate	454 l/min *(120 US GPM)* for return line, 132 l/min *(35 US GPM)* for suction line applications
Working pressure	max 12 bar *(174 PSI)*, maximum pressure differential of 5,5 bar *(80 PSI)* for any application with no by-pass valve
Operating temperature	-30°C to +100°C *(-22°F to 212°F)*
By-pass valve	integrated in the filter head (optional)
Clogging indicators	Pressure gauge with colored segments, Electrical 0.35...2.5 bar *(5...35 PSI)* adjustable See page 22
Elements	For use with SF6700 and SFC-57/58 series elements, for element types and flow characteristics see pages 15..18 for SF6700 see pages 20...21 for SFC-57/58
Media	Mineral oils, other fluids on request

Dimensions SSF 24



Dimension L	
SF67 Element length 1	168 *(6,6)*
SF67 Element length 2	270 *(10,6)*
SFC-57	180 *(7,1)*
SFC-58	226 *(8,9)*

Dimensions SSF 25



Dimension L	
SF67 Element length 1	168 *(6,6)*
SF67 Element length 2	270 *(10,6)*
SFC-57	180 *(7,1)*
SFC-58	226 *(8,9)*

Dimensions in mm *(inch)*

Ordering Code

SSF - 24N - 25 - 0

Filter type	SSF

Port options		
Code	**Connection Style**	
24B	BSP	G 1 1/2
24N	NPT	1 1/2 NPT
24S	SAE	1 7/8-12 UN
25	SAE-flanges & NPT thread	
25B	SAE-flanges & BSP thread	

By-pass options	
Code	**Description**
00	No by-pass
03	0,2 bar *(3 PSI)*
05	0,35 bar *(5 PSI)*
15	1 bar *(15 PSI)*
25	1,7 bar *(25 PSI)*

Indicator port options	
Code	**Description**
0	No indicator port
1	Gauge port drilled-return
2	Gauge port drilled-suction
4	All gauge ports drilled
9	Special

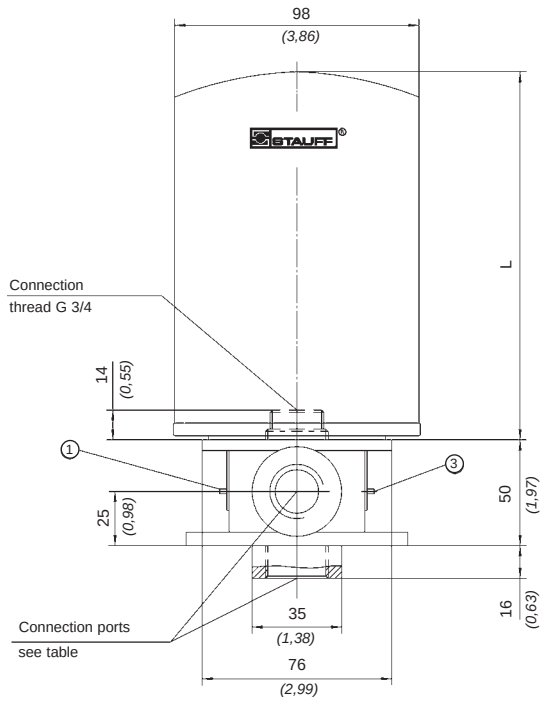
Note: Standard gauge port for SSF-24B and SSF-25B is G 1/8". For all other types standard gauge port is 1/8" NPTF.

Tank Top Spin-On Filters SSFT - 12

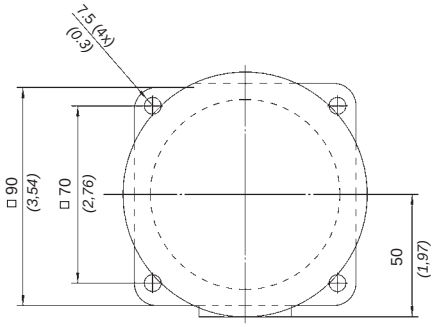
Technical Specification

Construction	Die cast aluminium head
Seals	NBR (Buna-N®)
Seal contour	Contour type A and B (see page 23)
Port connections	BSP and NPT
Flow rate	75 l/min *(20 US GPM)*
Working pressure	max 7 bar *(100 PSI)*
Operating temperature	-30°C to +100°C *(-22°F to 212°F)*
By-pass valve	1 bar *(15 PSI)* by-pass integrated in the filter element
Clogging indicators	Pressure gauge with colored segments, Electrical 0.35...2.5 bar *(5...35 PSI)* adjustable see page 22
Elements	For use with SFT-35/36 series elements, for element types and flow characteristics see pages 19...21
Media	Mineral oils, other fluids on request

Dimensions



Dimension L	
SFCT-35	145 *(5,71)*
SFCT-35	190 *(7,48)*



Gauge ports (optional):
1/8" NPT for SSFT-12
1/8" BSP for SSFT-12B
Location gauge port for return-line applications: pos. no. 1 and 3

Clearance for element removal (all element lengths): 20 mm *(0,8)*

Dimensions in mm *(inch)*

Ordering Code

SSFT - 12 - 1

Filter type	SSFT

Port options		
Code	**Connection Style**	
12B	BSP	G ³/₄
12	NPT	³/₄ NPT

Indicator port options	
Code	**Description**
0	No indicator port
1	Gauge port drilled-return
9	Special

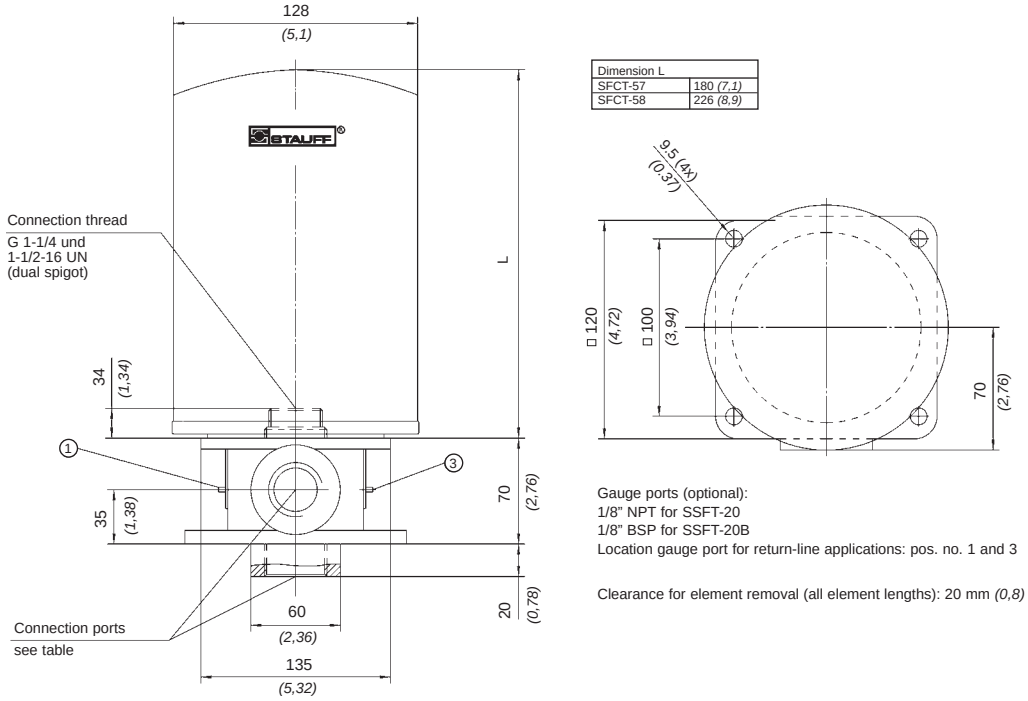
Note: Standard gauge port for SSFT-12B is G1/8". Standard gauge port for SSFT-12 is 1/8" NPTF.

Tank Top Spin-On Filters SSFT - 20

Technical Specification

Construction	Die cast aluminium head
Seals	NBR (Buna-N®)
Seal contour	Contour type A (see page 23)
Port connections	BSP and NPT
Flow rate	200 l/min *(53 US GPM)*
Working pressure	max 7 bar *(100 PSI)*
Operating temperature	-30°C to +100°C *(-22°F to 212°F)*
By-pass valve	1 bar *(15 PSI)* by-pass integrated in the filter element
Clogging indicators	Pressure gauge with colored segments, Electrical 0.35...2.5 bar *(5...35 PSI)* adjustable see page 22
Elements	For use with SFCT-57/58 series elements, For element types and flow characteristics see pages 20...21
Media	Mineral oils, other fluids on request

Dimensions



Dimensions in mm *(inch)*

Ordering Code

SSFT - 20 - 1

Filter type	SSFT

Port options		
Code	**Connection Style**	
20B	BSP	G 1 ½
20	NPT	1 ½ NPT

Indicator port options	
Code	**Description**
0	No indicator port
1	Gauge port drilled-return
9	Special

Note: Standard gauge port for SSFT-20B is G 1/8". Standard gauge port for SSFT-20 is 1/8" NPTF.

Spin-On Elements SF6300-Series

Technical Specification

Stauff SF6300-series spin-on elements are used with the Stauff SLF spin-on filters.

Seals	NBR (Buna-N®)
Seal contour	SF6300-Series elements have a inner seal for use with contour type A filterheads (see page 23)
Working pressure	max14 bar *(200 PSI)*, maximum pressure differential of 5,5 bar *(80 PSI)* for any application with no by-pass valve
Temperature range	-32°C to +100°C *(-25°F to 212°F)*
By-pass valve	integrated in the filter element
Media	Mineral oils, other fluids on request

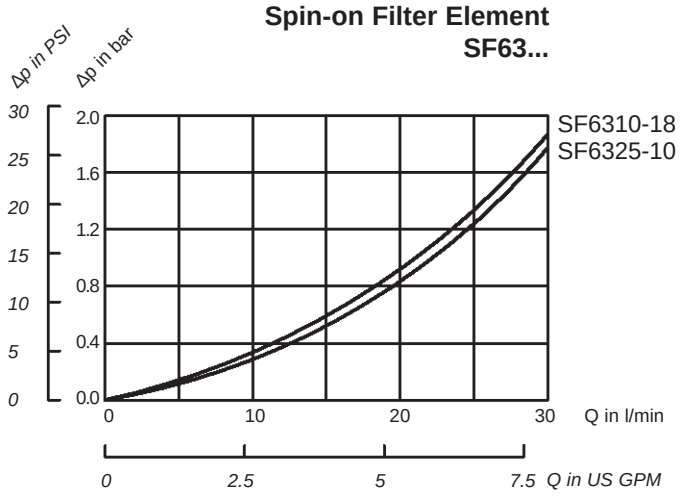
Dimensions and Ordering Code

	Filterpaper	
	SF 6310-18	SF 6325-10
	10µm	25µm
Diameter	77,5 *(3,05)*	77,5 *(3,05)*
Length	87 *(3,43)*	87 *(3,43)*
Element Thread	3/4-16 UNF	3/4-16 UNF
Beta Ratio	ß10 ≥ 2	ß25 ≥ 2
Dirt Holding Capacity (g)	6	6
Filtration Area	825,2 cm² *(127,9 in²)*	825,2 cm² *(127,9 in²)*
By-pass setting	1,24 bar *(18 PSI)*	0,7 bar *(10 PSI)*
Maximum Working Pressure	14 bar *(200 PSI)*	14 bar *(200 PSI)*
Carton Quantity	12	12
Carton Weight	3,6 kg *(8 lb)*	3,6 kg *(8 lb)*

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. The characteristics have been determined in accordance to ISO 3968.

Average pressure drop through a clean filter assembly.



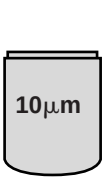
Spin-On Elements SF6500-Series

Stauff SF6500-series spin-on elements are used with the Stauff SAF series spin-on filters.

Technical Specification

Seals	NBR (Buna-N®) seals
Seal contour	SF6500-Series elements have a inner seal for use with contour type A filterheads (see page 23)
Working pressure	max 14 bar *(200 PSI)*, maximum pressure differential of 5.5 bar *(80 PSI)* for any applicationwith no bypass valve
Temperature range	-32°C to 100°C *(-25°F to 212°F)*
Media	Mineral oils, other fluids on request

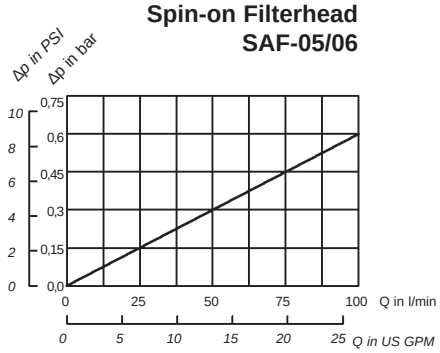
Dimensions and Ordering Code

	Filterpaper				Microglass			Water Absorbing
	SF6520	**SF6521**	**SF6510**	**SF6511**	**SF6549**	**SF6505**	**SF6504**	**SF6520-W**
								
Diameter	93.2 *(3.67)*	93.2 *(3.67)*	93.2 *(3.67)*	93.2 *(3.67)*	93.2 *(3.67)*	93.2 *(3.67)*	93.2 *(3.67)*	93.2 *(36.7)*
Length	147 *(5.76)*	204 *(8.00)*	147 *(5.76)*	204 *(8.00)*	147 *(5.76)*	147 *(5.76)*	147 *(5.76)*	133 *(5.25)*
Element Thread	1-12 UNF	1-12 UNF	1-12 UNF	1-12 UNF	1-12 UNF	1-12 UNF	1-12 UNF	1-12 UNF
Beta Ratio	ß10 ≥ 2	ß10 ≥ 2	ß25 ≥ 2	ß25 ≥ 2	ß3 ≥ 200	ß12 ≥ 200	ß25 ≥ 200	ß10 ≥ 2
Dirt Holding Capacity ACFTD (g)	14.4	22	20.4	31.2	19	11	26	Water holding capacity 162 ml (5.5 oz)
Filtration Area	2303 cm² *(357.5 in²)*	3881 cm² *(601.7 in²)*	2212 cm² *(342.9 in²)*	3388 cm² *(525.1 in²)*	2519 cm² *(390.4 in²)*	2405 cm² *(372.7 in²)*	2405 cm² *(372.7 in²)*	1225 cm² *(190 in²)*
Maximum Working Pressure	14 bar *(200 PSI)*	14 bar *(200 PSI)*	14 bar *(200 PSI)*	14 bar *(200 PSI)*	14 bar *(200 PSI)*	14 bar *(200 PSI)*	14 bar *(200 PSI)*	6.9 bar *(100 PSI)*
Carton Quantity	12	12	12	12	12	12	12	12
Carton Weight	6.3 kg *(13.9 lb)*	8.4 kg *(18.5 lb)*	6.4 kg *(14.2 lb)*	8.8 kg *(19.4 lb)*	8.6 kg *(19 lb)*	8.6 kg *(19 lb)*	8.6 kg *(19 lb)*	8.6 kg *(19 lb)*

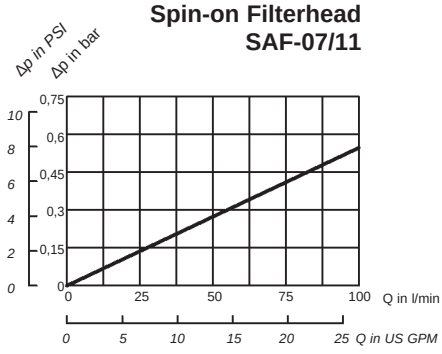
Flow Characteristics

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

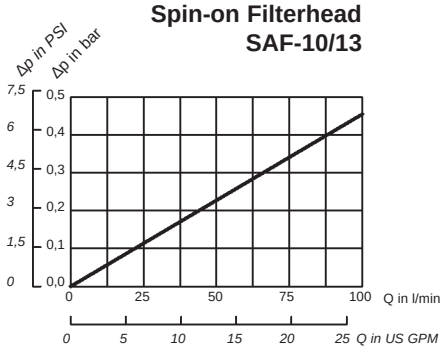
Spin-on Filterhead SAF-05/06



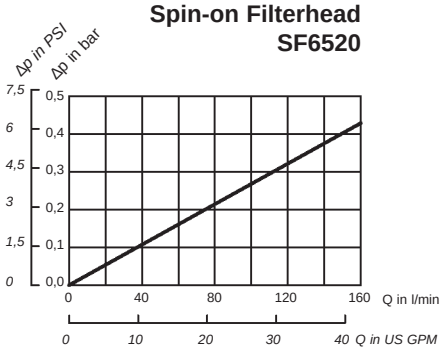
Spin-on Filterhead SAF-07/11



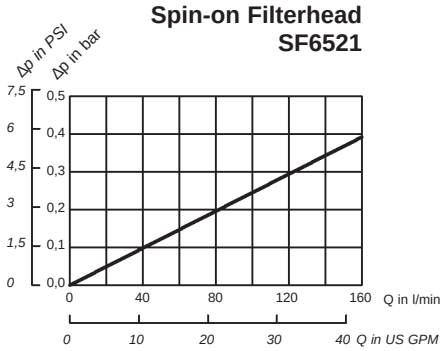
Spin-on Filterhead SAF-10/13



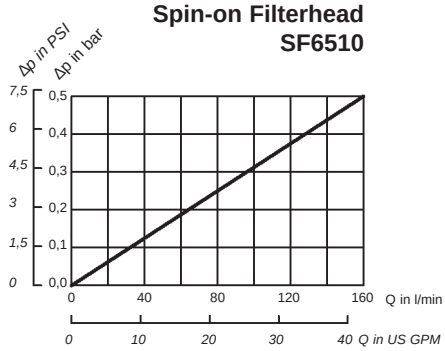
Spin-on Filterhead SF6520



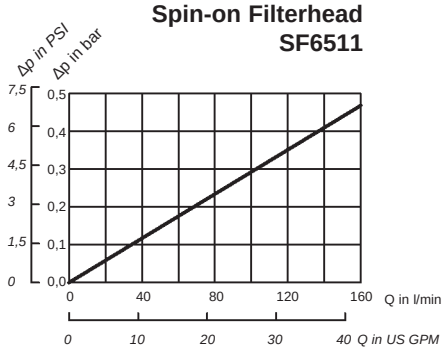
Spin-on Filterhead SF6521



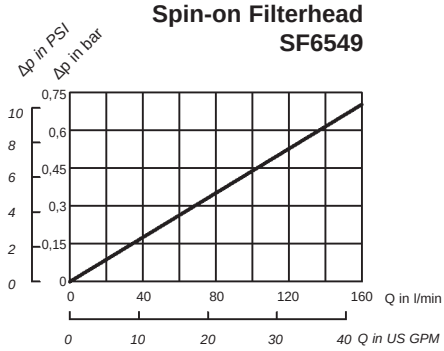
Spin-on Filterhead SF6510



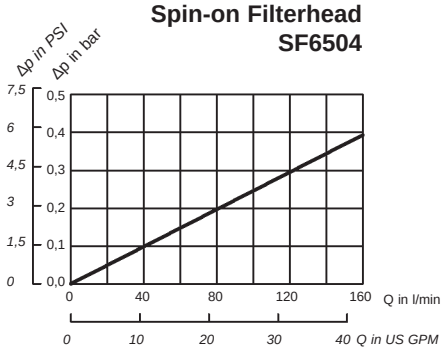
Spin-on Filterhead SF6511



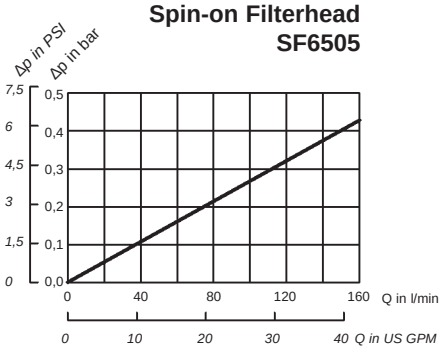
Spin-on Filterhead SF6549



Spin-on Filterhead SF6504



Spin-on Filterhead SF6505



Spin-On Elements SF6700-Series

Technical Specification

Stauff SF6700-series spin-on elements are used with the Stauff SSF-20/24/25/100/120/130/160/150 and 180 spin-on filters.

Seals	NBR (Buna-N®)
Seal contour	SF6700-series elements have a outer seal (thin and wide style, content of delivery)for use with contour type B filterheads (see page 23)
Working pressure	max 14 bar *(200 PSI)*, maximum pressure differential of 5,5 bar *(80 PSI)* for any application with no by-pass valve
Temperature range	-32°C to +100°C *(-25°F to 212°F)*
Media	Mineral oils, other fluids on request

Dimensions and Ordering Code

	Microglass								
	SF6702-MG	**SF6703-MG**	**SF6704-MG**	**SF6706-MG**	**SF66707-MG**	**SF6730-MG**	**SF6731-MG**	**SF6728-MG**	**SF6726-MG**
	1µm	3µm	3µm	6µm	6µm	12µm	12µm	25µm	25µm
Diameter	128 *(5,1)*	128 *(5,1)*	128 *(5,1)*	128 *(5,1)*	128 *(5,1)*	128 *(5,1)*	128 *(5,1)*	128 *(5,1)*	128 *(5,1)*
Length	270 *(10,6)*	168 *(6,6)*	270 *(10,6)*	168 *(6,6)*	270 *(10,6)*	168 *(6,6)*	270 *(10,6)*	168 *(6,6)*	270 *(10,6)*
Element Thread	1 1/2-16 UNF	1 1/2-16 UNF	1 1/2-16 UNF	1 1/2-16 UNF	1 1/2-16 UNF	1 1/2-16 UNF	1 1/2-16 UNF	1 1/2-16 UNF	1 1/2-16 UNF
Beta Ratio	ß1 ≥ 200	ß3 ≥ 200	ß3 ≥ 200	ß6 ≥ 200	ß6 ≥ 200	ß12 ≥ 200	ß12 ≥ 200	ß25 ≥ 200	ß25 ≥ 200
Dirt Holding Capacity ACFTD (g)	30	31	47	35	54	38	59	50	76
Filtration Area	8167 cm² *(1266 in²)*	4051 cm² *(628 in²)*	8167 cm² *(1266 in²)*	4051 cm² *(628 in²)*	7200 cm² *(1116 in²)*	4051 cm² *(628 in²)*	7522 cm² *(1166 in²)*	4051 cm² *(628 in²)*	8167 cm² *(1266 in²)*
Maximum Working Pressure	14 bar *(200 PSI)*	14 bar *(200 PSI)*	14 bar *(200 PSI)*	14 bar *(200 PSI)*	14 bar *(200 PSI)*	14 bar *(200 PSI)*	14 bar *(200 PSI)*	14 bar *(200 PSI)*	14 bar *(200 PSI)*
Carton Quantity	6	6	6	6	6	6	6	6	6
Carton Weight	11,8 kg *(26,1 lb)*	8,2 kg *(18 lb)*	11,8 kg *(26,1 lb)*	8,2 kg *(18 lb)*	11,8 kg *(26,1 lb)*	8,2 kg *(18 lb)*	11,8 kg *(26,1 lb)*	8,2 kg *(18 lb)*	11,8 kg *(26,1 lb)*

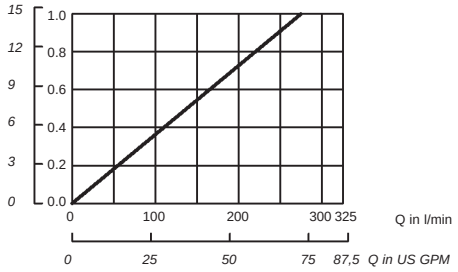
Spin-On Elements SF6700-Series

	Filterpaper				Stainless Wire Mesh		Water Absorbing
	SF6720	**SF6721**	**SF6710**	**SF6711**	**SF6790**	**SF6791**	**SF6721-W**
							
Diameter	128 *(5,1)*	128 *(5,1)*	128 *(5,1)*	128 *(5,1)*	128 *(5,1)*	128 *(5,1)*	128 *(5,1)*
Length	168 *(6,6)*	270 *(10,6)*	168 *(6,6)*	270 *(10,6)*	168 *(6,6)*	270 *(10,6)*	270 *(10,6)*
Element Thread	1 1/2 -16 UNF	1 1/2 -16 UNF	1 1/2 -16 UNF	1 1/2 -16 UNF	1 1/2 -16 UNF	1 1/2 -16 UNF	1 1/2 -16 UNF
Beta Ratio	ß10 ≥ 2	ß10 ≥ 2	ß25 ≥ 2	ß25 ≥ 2	n/a	n/a	ß10 ≥ 2
Dirt Holding Capacity ACFTD (g)	34	62	34	62	n/a	n/a	Water holding capacity 444 ml *(15 oz)*
Filtration Area	3677 cm^2 *(570 in^2)*	6813 cm^2 *(1056 in^2)*	3677 cm^2 *(570 in^2)*	6813 cm^2 *(1056 in^2)*	1290 cm^2 *(200 in^2)*	2032 cm^2 *(315 in^2)*	4440 cm^2 *(688 in^2)*
Maximum Working Pressure	14 bar *(200 PSI)*	14 bar *(200 PSI)*	14 bar *(200 PSI)*	14 bar *(200 PSI)*	14 bar *(200 PSI)*	14 bar *(200 PSI)*	14 bar *(200 PSI)*
Carton Quantity	6	6	6	6	6	6	6
Carton Weight	6,6 kg *(14,6 lb)*	7,9 kg *(17.5 lb)*	6,7 kg *(14.9 lb)*	9,3 kg *(20,6 lb)*	8,2 kg *(18 lb)*	11,8 kg *(26,1 lb)*	11,8 kg *(26,1 lb)*

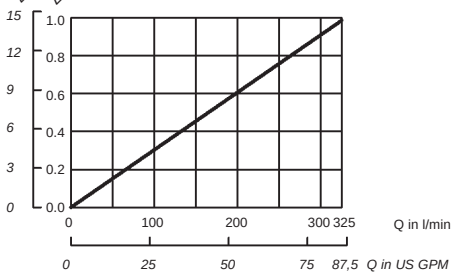
Flow Characteristics

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

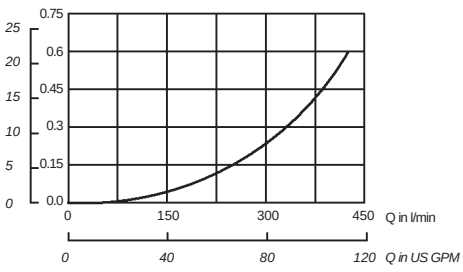
Spin-on Filter Head SSF-20/100/120/130/160



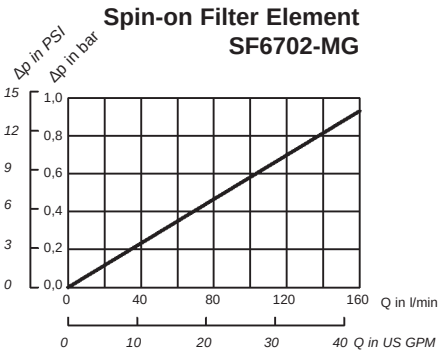
Spin-on Filter Head SSF-150/180



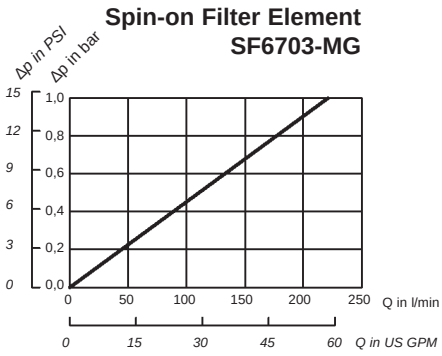
Spin-on Filter Head SSF-24/25



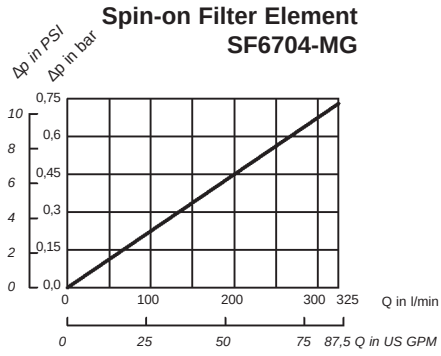
Spin-on Filter Element SF6702-MG



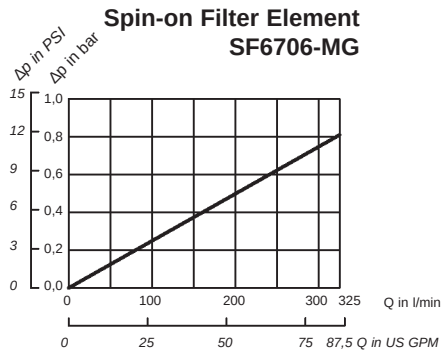
Spin-on Filter Element SF6703-MG



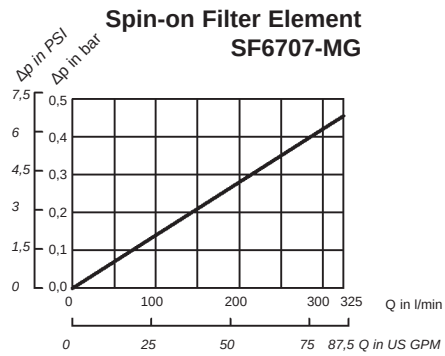
Spin-on Filter Element SF6704-MG



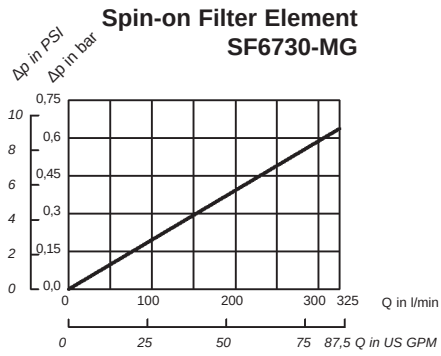
Spin-on Filter Element SF6706-MG



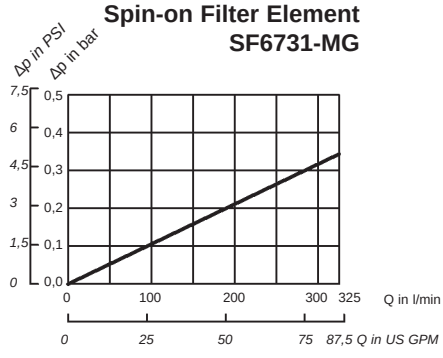
Spin-on Filter Element SF6707-MG



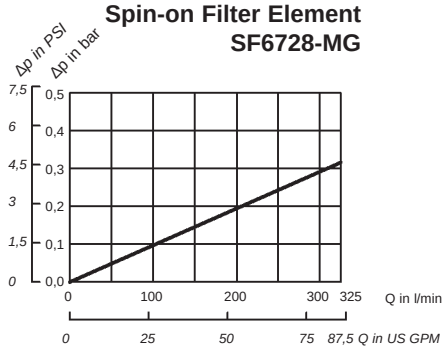
Spin-on Filter Element SF6730-MG



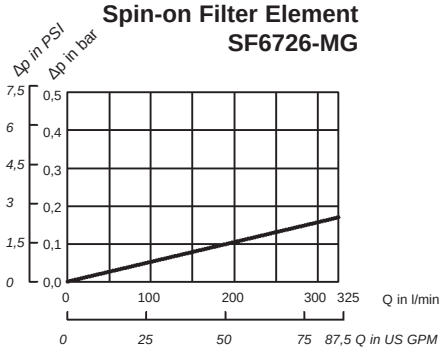
Spin-on Filter Element SF6731-MG



Spin-on Filter Element SF6728-MG



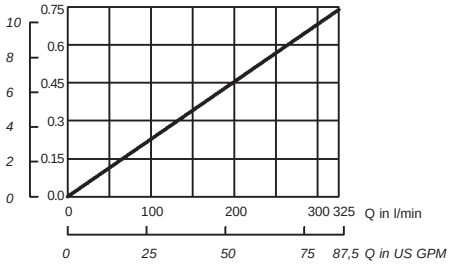
Spin-on Filter Element SF6726-MG



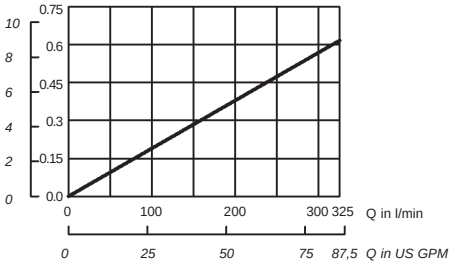
Flow Characteristics

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

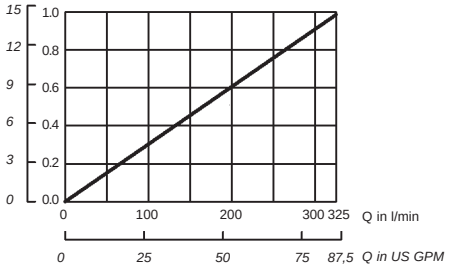
Spin-On Filter Element SF6720



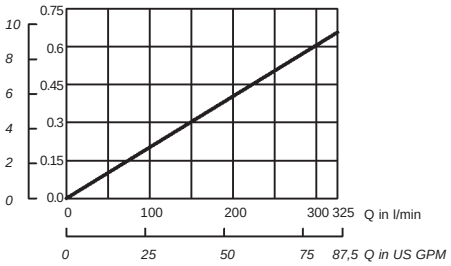
Spin-On Filter Element SF6721



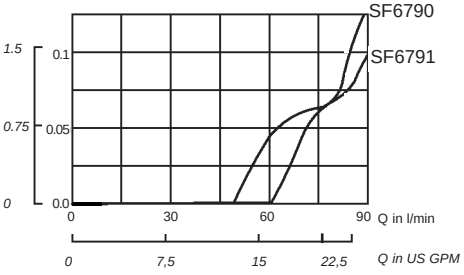
Spin-On Filter Element SF6710



Spin-On Filter Element SF6711



Spin-On Filter Element SF6790/91



Spin-On Elements SFC- 35/36, SFCT- 35/36 Series

Stauff SFC-35/36-series spin-on elements are used with the Stauff SSF-12 spin-on filters with G 3/4 threaded posts.

Stauff SFCT-35/36-series spin-on elements have an internal 1 bar *(15 PSI)* by-pass and anti-drain back diaphragm for use with Stauff SSFT-12 tank top spin-on filters.

Technical Specification

Seals	NBR (Buna-N®)
Seal contour	SFC-35/36 and SFCT-35/36-series elements have a inner seal for use with contour type A filterheads (see page 23)
Working pressure	max 12 bar *(174 PSI)*, maximum pressure differential of 5,5 bar *(80 PSI)* for any application with no by-pass valve
Temperature range	-32°C to +100°C *(-25°F to 212°F)*
Media	Mineral oils, other fluids on request

Dimensions and Ordering Code

	Filterpaper				Microglass		Wire Mesh		Brass Mesh	
	SFC & SFCT 3510E	SFC & SFCT 3610E	SFC & SFCT 3525E	SFC & SFCT 3625E	SFC & SFCT 3510AE	SFC & SFCT 3610AE	SFC & SFCT 3560E	SFC & SFCT 3660E	SFC & SFCT 35125E	SFC & SFCT 36125E
	10µm	10µm	25µm	25µm	10µm	10µm	60µm	60µm	125µm	125µm
Diameter	98 *(3,86)*	98 *(3,86)*	98 *(3,86)*	98 *(3,86)*	98 *(3,86)*	98 *(3,86)*	98 *(3,86)*	98 *(3,86)*	98 *(3,86)*	98 *(3,86)*
Length	145 *(5,7)*	190 *(7,5)*	145 *(5,7)*	190 *(7,5)*	145 *(5,7)*	190 *(7,5)*	145 *(5,7)*	190 *(7,5)*	145 *(5,7)*	190 *(7,5)*
Element Thread	G¾	G¾	G¾	G¾	G¾	G¾	G¾	G¾	G¾	G¾
Beta Ratio	ß10 ≥ 2	ß10 ≥ 2	ß25 ≥ 2	ß25 ≥ 2	ß10 ≥ 200	ß10 ≥ 200	n/a	n/a	n/a	n/a
By-pass Setting (SFCT-series only)	1 bar *(15 PSI)*	1 bar *(15 PSI)*	1 bar *(15 PSI)*	1 bar *(15 PSI)*	1 bar *(15 PSI)*	1 bar *(15 PSI)*	1 bar *(15 PSI)*	1 bar *(15 PSI)*	1 bar *(15 PSI)*	1 bar *(15 PSI)*
Maximum Working Pressure	12 bar *(174 PSI)*	12 bar *(174 PSI)*	12 bar *(174 PSI)*	12 bar *(174 PSI)*	12 bar *(174 PSI)*	12 bar *(174 PSI)*	12 bar *(174 PSI)*	12 bar *(174 PSI)*	12 bar *(174 PSI)*	12 bar *(174 PSI)*
Carton Quantity	1	1	1	1	1	1	1	1	1	1
Carton Weight	0,9 kg *(2 lb)*	1,3 kg *(2,6 lb)*	0,9 kg *(2 lb)*	1,3 kg *(2,6 lb)*	0,9 kg *(2 lb)*	1,3 kg *(2,6 lb)*	0,9 kg *(2 lb)*	1,3 kg *(2,6 lb)*	0,9 kg *(2 lb)*	1,3 kg *(2,6 lb)*

Spin-On Elements SFC-57/58 and SFCT-57/58-Series

Stauff SFC-57 and SFC-58-series spin-on elements are used with the Stauff SSF-20/24/25/100/120/130/160/150 and 180 series spin-on filters with G 1 1/4 threaded posts.

Stauff SFCT-57/58-series spin-on elements have an internal 1 bar *(15 PSI)* by-pass and anti-drain back diaphragm for use with Stauff SSFT-20 tank top spin-on filters.

Technical Specification

Seals	NBR (Buna-N®)
Seal contour	SFC-57/58 and SFCT-57/58-series elements have a inner seal for use with contour type A filterheads (see page 23)
Working pressure	max 12 bar *(174 PSI)*, maximum pressure differential of 5,5 bar *(80 PSI)* for any application with no by-pass valve
Temperature range	-32°C to +100°C *(-25°F to 212°F)*
Media	Mineral oils, other fluids on request

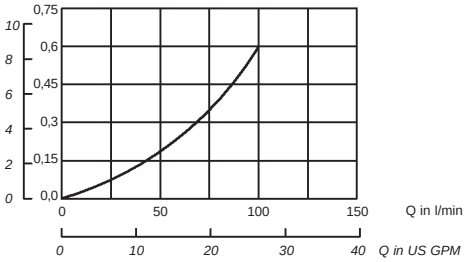
Dimensions and Ordering Code

	Filterpaper				Microglass		Wire Mesh		Brass Mesh	
	SFC & SFCT 5710E	SFC & SFCT 5810E	SFC & SFCT 5725E	SFC & SFCT 5825E	SFC & SFCT 5710AE	SFC & SFCT 5810AE	SFC & SFCT 5760E	SFC & SFCT 5860E	SFC & SFCT 57125E	SFC & SFCT 58125E
	10µm	10µm	25µm	25µm	10µm	10µm	60µm	60µm	125µm	125µm
Diameter	132 *(5,2)*	132 *(5,2)*	132 *(5,2)*	132 *(5,2)*	132 *(5,2)*	132 *(5,2)*	132 *(5,2)*	132 *(5,2)*	132 *(5,2)*	132 *(5,2)*
Length	180 *(7,1)*	226 *(8,9)*	180 *(7,1)*	226 *(8,9)*	180 *(7,1)*	226 *(8,9)*	180 *(7,1)*	226 *(8,9)*	180 *(7,1)*	226 *(8,9)*
Element Thread	G 1 1/4	G 1 1/4	G 1 1/4	G 1 1/4	G 1 1/4	G 1 1/4	G 1 1/4	G 1 1/4	G 1 1/4	G 1 1/4
Beta Ratio	ß10 ≥ 2	ß10 ≥ 2	ß25 ≥ 2	ß25 ≥ 2	ß10 ≥ 200	ß10 ≥ 200	n/a	n/a	n/a	n/a
By-pass Setting (SFCT-series only)	1 bar *(15 PSI)*	1 bar *(15 PSI)*	1 bar *(15 PSI)*	1 bar *(15 PSI)*	1 bar *(15 PSI)*	1 bar *(15 PSI)*	1 bar *(15 PSI)*	1 bar *(15 PSI)*	1 bar *(15 PSI)*	1 bar *(15 PSI)*
Maximum Working Pressure	12 bar *(174 PSI)*	12 bar *(174 PSI)*	12 bar *(174 PSI)*	12 bar *(174 PSI)*	12 bar *(174 PSI)*	12 bar *(174 PSI)*	12 bar *(174 PSI)*	12 bar *(174 PSI)*	12 bar *(174 PSI)*	12 bar *(174 PSI)*
Carton Quantity	1	1	1	1	1	1	1	1	1	1
Carton Weight	1,4 kg *(3 lb)*	1,85 kg *(4 lb)*	1,4 kg *(3 lb)*	1,85 kg *(4 lb)*	1,4 kg *(3 lb)*	1,85 kg *(4 lb)*	0,9 kg *(2 lb)*	1,3 kg *(2,6 lb)*	0,9 kg *(2 lb)*	1,3 kg *(2,6 lb)*

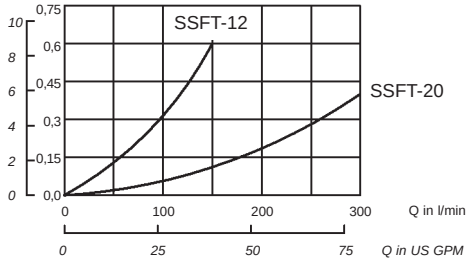
Flow Characteristics

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

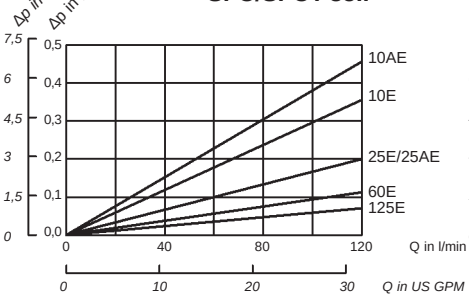
Spin-on Filter Head SSF-12



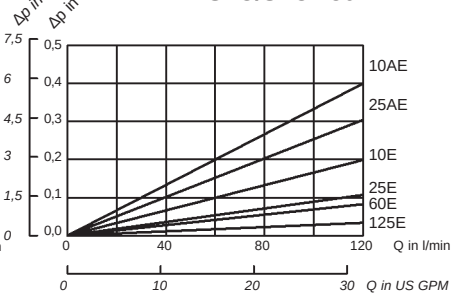
Spin-on Filter Head SSFT-12/20



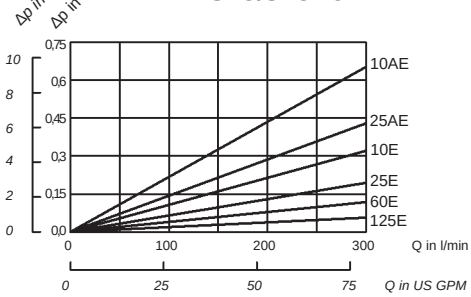
Spin-on Filter Elements SFC/SFCT-35..



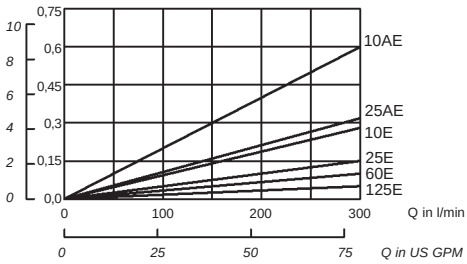
Spin-on Filter Elements SFC/SFCT-36..



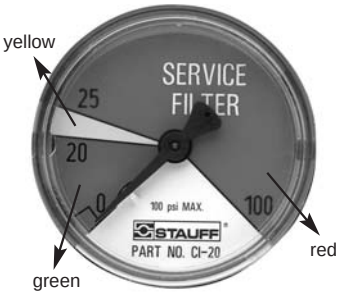
Spin-on Filter Elements SFC/SFCT-57..

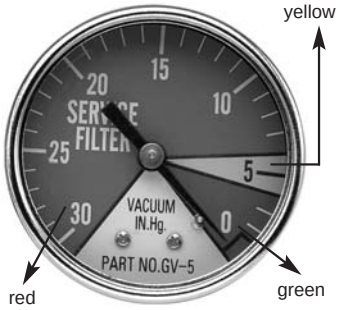


Spin-on Filter Elements SFC/SFCT-58..



Visual Indicators



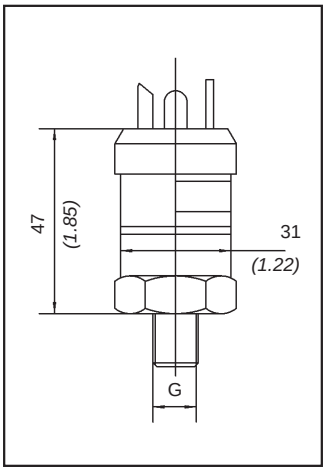


Vacuum Gauges (for suction line applications)						
Type	Scale	Coloured Segments			Actuating pressure for filter with By-pass valve	Connection thread G
		green	yellow	red		
GV-020B	0...-1.0 bar	0...-0.15 bar	-0.15...-0.20 bar	-0.20...-1.0 bar	0.20 bar	G 1/8”
GV-035B	0...-1.0 bar	0...-0.25 bar	-0.25...-0.35 bar	-0.35...-1.0 bar	0.35 bar	G 1/8”
GV-5	0...30 in Hg	0...4 in Hg	4...6 in Hg	6...30 in Hg	*3 PSI*	1/8” NPT
GV-10	0...30 in Hg	0...9 in Hg	9...11 in Hg	11...30 in Hg	*5 PSI*	1/8” NPT
SIS	0...76 in Hg	0...13 in Hg	13...18 in Hg	18...76 in Hg	*5 PSI*	G 1/8”

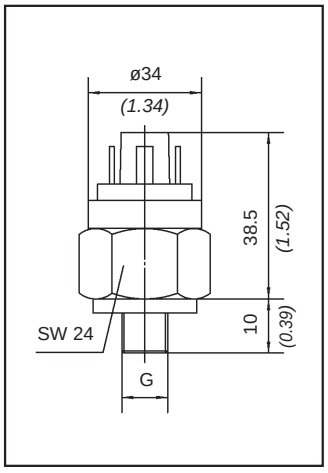
Pressure Gauges (for return line applications)						
Type	Scale	Coloured Segments			Actuating pressure for filter with By-pass valve	Connection thread G
		green	yellow	red		
CI-100B	0...2.5 bar	0...0.8 bar	0.8...1.0 bar	1.0...2.5 bar	1.0 bar	G 1/8”
CI-170B	0...2.5 bar	0...1.5 bar	1.5...1.7 bar	1.7...2.5 bar	1.7 bar	G 1/8”
CI-12	*0...100 PSI*	*0...13 PSI*	*13...15 PSI*	*15...100 PSI*	*15 PSI*	1/8” NPT
CI-20	*0...100 PSI*	*0...21 PSI*	*21...25 PSI*	*25...100 PSI*	*25 PSI*	1/8” NPT
SIM-12	0...12 bar	without coloured segments			1.7 bar	G 1/8”
SIM-04	0...4 bar	0...2.5 bar	2.5...3 bar	3...4 bar	1.7 bar	G 1/8”
SIM-02	0...2.5 bar	0...1.2 bar	1.2...1.5 bar	1.5...2.5 bar	1.7 bar	G 1/8”

Electrical Indicators					
Type	Used as	Adjustable range / actuating pressure	Maximum over pressure	for Filter Type	Connection thread G
EPS-1B	Pressure Gauge	0.35...2.5 bar	25 bar	Return Line Filter	G 1/8”
EPS-1	Pressure Gauge	*5...35 PSI*	*350 PSI*	Return Line Filter	G 1/8”
SIE-NO	Electrical Switch	1.3 bar (make contact)	80 bar	Return Line Filter	G 1/8”
SIE-NC	Electrical Switch	1.3 bar (break contact)	80 bar	Return Line Filter	G 1/8”
EVS-1B	Vacuum Gauge	150...1000 mbar	25 bar	Suction Line Filter	1/8” NPT
EVS-1	Vacuum Gauge	*5...30 in Hg*	*350 PSI*	Suction Line Filter	1/8” NPT

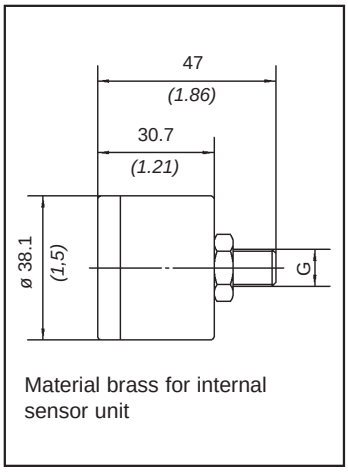
Type EPS / EVS



Type SIE

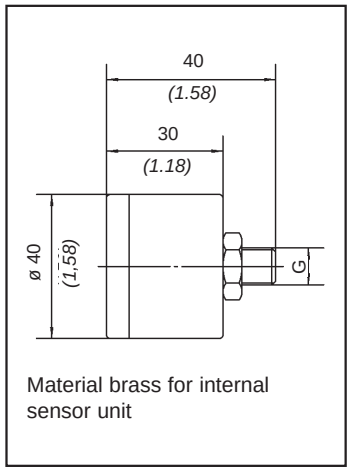


Type GV / CI



Material brass for internal sensor unit

Type SIM / SIS



Material brass for internal sensor unit

Can be field installed

All dimensions in mm *(inch)*

Technical Data

	Type EPS-1 (pressure gauge)	Type EVS-1 (vacuum gauge)
Electrical data	7Amp 125/250 VAC	
Protection	DIN 43650 IP65	
Temperature Range	-40˚C to ... +80˚C *(-40˚F ... +180˚F)* Ambient & Media	
Diaphragm Material	Epichlorohydrin	
Housing Material	Steel, Zinc Plated (Standard)	Aluminum
Adjustable range	0.35...2.5 Bar *(5...35 PSI)*	150...1000mbar *(5...30 in Hg)*
Dead Band	20% FS	25% FS
Weight	0.11 Kg *(0.23 lb)*	0.25 Kg *(0.5 lb)*
Repeatability	±2% at 20˚C *(70˚F)* Ambient Temperature	
Hirschmann Connector With Strain Relief		

	Type SIE (Electrical switch)
Electrical	48 V
Protection	DIN 43650 IP 54
Temperature Range	-5˚C to ... +60˚C *(23˚F ... +140˚F)* Ambient & Media
Diaphragm Material	NBR
Housing Material	Brass
Actuating pressure	1,3 bar *(19 PSI)*
Max current (res.)	0,5 A
Max current (ind.)	0,2 A
available as “make contact” (closes contact at actuating pressure) and as “break contact” (opens contact at actuating pressure)	

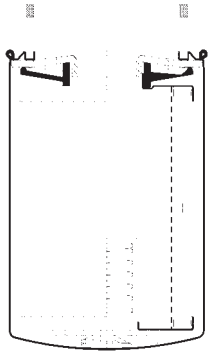
Spin-On Filters Quick Reference Guide

Spin-On Filter Heads									Spin-On Filter Elements						
Series	Size	Port	Element Thread	Max. Flow Rate*		Seal Contour		Catalog Page	SF63XX	SF65XX	SF67XX	SFC-35XX SFC-36XX	SFC-57XX SFC-58XX	SFCT-35XX SFCT-36XX	SFCT-57 SFCT-58XX
				l/min	US GPM	Type A	Type B								
SLF	02B	G1/4	3/4 -16 UNF	19	5	X		3	12						
SLF	02	1/4 NPT	3/4 -16 UNF	19	5	X		3	12						
SLF	03B	G 3/8	3/4 -16 UNF	19	7	X		3	12						
SLF	03	3/8 NPT	3/4 -16 UNF	26	7	X		3	12						
SLF	04	9/16-18UNF , #6 SAE	3/4 -16 UNF	26	7	X		3	12						
SAF	05	1/2 NPT	1 - 12 UNF	60	15	X		4		13-14					
SAF	06	3/4 -16 UN , #8 SAE	1 - 12 UNF	60	15	X		4		13-14					
SAF	07	3/4 NPT	1 - 12 UNF	90	25	X		4		13-14					
SAF	11	1 1/16 -12 UN , #12 SAE	1 - 12 UNF	90	25	X		4		13-14					
SAF	10	1 NPT	1 - 12 UNF	128	34	X		5		13-14					
SAF	13	1 5/16 -12 UN , #16 SAE	1 - 12 UNF	128	34	X		5		13-14					
SSF	12	G 3/4	G 3/4	90	25	X		6				19-21			
SSF	100	1 NPT	G 1 1/4 + 1 1/2 - 16 UNF	170	45	X	X	7			15-18		20-21		
SSF	20L	G 1 1/4	G 1 1/4 + 1 1/2 - 16 UNF	225	60	X	X	7			15-18		20-21		
SSF	120	1 1/4 NPT	G 1 1/4 + 1 1/2 - 16 UNF	225	60	X	X	7			15-18		20-21		
SSF	120L	1 1/4 NPT	G 1 1/4 + 1 1/2 - 16 UNF	225	60	X	X	7			15-18		20-21		
SSF	130	1 5/16 -12 SAE , #16 SAE	G 1 1/4 + 1 1/2 - 16 UNF	225	60	X	X	7			15-18		20-21		
SSF	160	1 5/8 -12 SAE , #20 SAE	G 1 1/4 + 1 1/2 - 16 UNF	225	60	X	X	7			15-18		20-21		
SSF	150B	G1-1/2	1 1/2 - 16 UNF	300	80		X	8			15-18				
SSF	150	1 1/2 - NPT	1 1/2 - 16 UNF	300	80		X	8			15-18				
SSF	180	1 7/8 - 12 SAE , #24 SAE	1 1/2 - 16 UNF	300	80		X	8			15-18				
SSF	24B	G1-1/2	G 1 1/4 + 1 1/2 - 16 UNF	454	120	X	X	9			15-18		20-21		
SSF	24N	1 1/2 NPT	G 1 1/4 + 1 1/2 - 16 UNF	454	120	X	X	9			15-18		20-21		
SSF	24S	1 7/8 - 12 UN, SAE # 24	G 1 1/4 + 1 1/2 - 16 UNF	454	120	X	X	9			15-18		20-21		
SSF	25B	G1-1/4 und 1-1/2 SAE Flansch	G 1 1/4 + 1 1/2 - 16 UNF	454	120	X	X	9			15-18		20-21		
SSF	25	1 1/2 -NPT und 2 SAE Flansch	G 1 1/4 + 1 1/2 - 16 UNF	454	120	X	X	9			15-18		20-21		
SSFT	12B	G 3/4	G 3/4	75	20	X		10						19-21	
SSFT	12	3/4 NPT	G 3/4	75	20	X		10						19-21	
SSFT	20B	G 1 1/2	G 1 1/4 + 1 1/2 - 16 UNF	200	53	X		11							20-21
SSFT	20	1 1/2 NPT	G 1 1/4 + 1 1/2 - 16 UNF	200	53	X		11							20-21

* Note : Reflects nominal flow rate for return line application. Actual flow rate will depend on element selected.

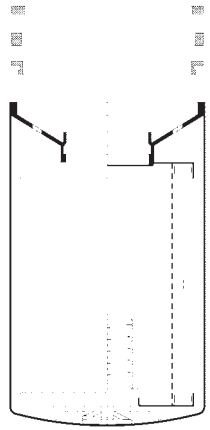
The numbers above reference the page in the catalog

Spin-On Filter
with seal contour A
for filter elements
with inner seal



Spin-On Filter
with seal contour B
for filter elements
with outer seal

allowed seal types
for spin-on elements
(from top to bottom):
thin seal,
wide seal,
L-shape seal



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Stauff Filtration Technology

Stauff Filtration Technology offers a complete range of filtration products and services that will provide the system designer or user with the highest level of contamination control demanded by today's most sophisticated applications. Products include pressure filters, return line filters, elements, spin-on filters, suction strainers and filler breathers for various hydraulic, lubrication and fuel oils.

Stauff has the technical expertise to provide superior filter element designs for the Stauff original filter housings and also for the interchange element market. Stauff manufactures more than 10,000 different elements. Many of these are designed to fit into filter housings produced by other companies while maintaining or surpassing the original performance.

The "Stauff Contamination Control Program" includes the diagnostic services such as, fluid sampling and laser particle counting products needed to monitor system contamination levels.

Stauff, through its global network of wholly owned companies and technically qualified distributors, is ideally placed to assist its customers in the total contamination process providing a well balanced filtration solution.

OFF-LINE & BY-PASS Filters OLS / BPS

	Page
Description and Technical Data	3
OFF-LINE Filter System OLS	5
Water Absorbing OFF-LINE Filters OLSW	12
BY-PASS Filter System BPS	16
BY-PASS Filters BPS Mounting Brackets	19
Hydraulic Symbols and Flow Characteristics	20
Advantages	21
Filter Elements SRM-30HB	22
BY-PASS Lube-Oil Filter BPLS	24

Description

Stauff Off-line and By-pass Filter Systems, OLS / BPS, are designed to keep hydraulic and lubrication systems free of particle and water contamination. Stauff OLS and BPS units utilize the Radial Micro Filtration Systems concept for the removal of contamination from hydraulic and lubrication systems. Desiccant Air Breathers, which clean and dry the air entering the reservoir, are also part of this contamination removal system.

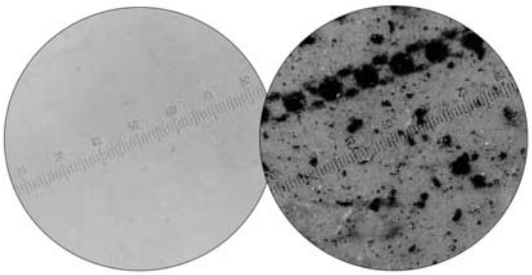
Stauff Filtration Systems will provide optimal system cleanliness for today's sophisticated hydraulic and lubrication systems.

Technical Specifications

Construction	OLS (off-line filter system with integrated motor / pump unit), BPS (by-pass filter system)
Housing	Anodized aluminium
Seals	NBR (Buna-N®)
Connection	1/4" and 1/2" BSP (for BPS) 3/8", 1/2", 3/4" BSP and 18L (for OLS)
Differential pressure	max 6,2 bar *(90 PSI)* across element
Nominal flow	between 2,1 l/min *(0.55 US GPM)* and 17 l/min *(4.5 US GPM)*
Temperature range	max 80°C *(176°F)* media temperature (at a viscosity between 20 and 160 cSt)
Max system volume	up to 10.800 liter *(2853 gal)*
Bypass valve (integrated in filter head)	6.2 bar *(90 PSI)* for all types
Clogging indicator	Pressure gauge, filled with glycerin
Media	Mineral- or lubrication oil, others on request
Motor types (for OLS)	Several motor types available, for more information please see page 11 (Ordering Codes)

System Contamination

In today's hydraulic market it is an accepted fact that contamination causes 80% of all mechanical failures. This contamination results from the presence of solid particles such as metal, sand and rubber.



Changes in temperature cause water vapour to condense, resulting in unwanted water in the oil, the presence of this free water helps to accelerate the deterioration of the oil.

Mainstream filters are incapable of removing particles, smaller than 2 micron (better known as silt). Fluctuations in pressure and flow result in changing conditions preventing these filters from carrying out fine filtration; most of the silt remains in the system affecting the chemical compostition of the oil.

All these problems lead to reduced oil life and increased component wear, maintenance costs and machine down time.

Removing silt and preventing the formation of free water will combat these problems.

OLS / BPS Filter element

Micro Filtration and Air Conditioning

At the heart of the Stauff Off-line and By-pass filter unit is the unique microfilter element. This filter is designed with a radial flowpath.

The element is constructed with 0.5 micron media, and is therefore able to remove the smallest of contamination particles (silt), from the oil.

The filter material is composed primarily of cellulose, which is applied by a special wrapping method.

This material is capable of retaining solid particles and absorbing water. This helps to prevent chemical deterioraton of the oil and the formation of various acids and sludge.

Hydraulic cylinder extension for example, can draw air, solid contamination particles and water vapour into the oil reservoir.

The water vapour condenses due to temperature changes and causes not only oxidation of the oil, but can also lead to serious mechanical wear in the system.

Standard air filters remove a certain amount of solid particle contamination from the air but allow water vapour, to pass through.

The Stauff “Air conditioners” type SDB and SDBL ensure that incoming air is first dried and then filtered. The SDB/SDBL units should be used in conjunction with the OLS / BPS systems in order to provide a more complete filtering system.

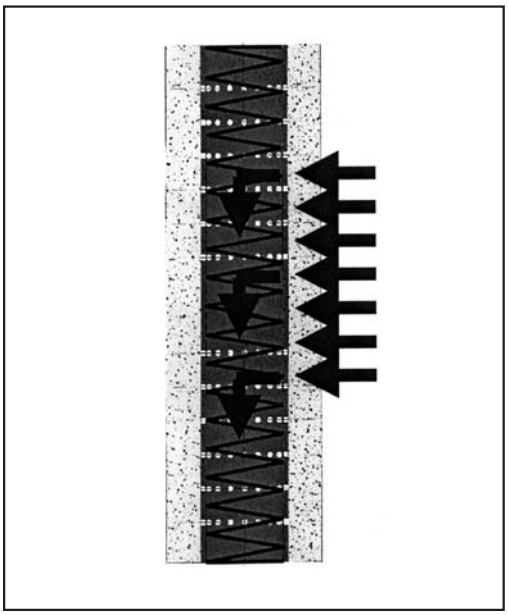
SDB Air conditioner

Technical Data

Stauff Radial Micro Filtration Systems distinguish themselves by their high efficiency filter elements which are capable of filtering silt particles down to 0.5 microns.

Two types of Radial Micro Filtration Systems are available. The OLS Series uses an integral pump/motor combination to draw the hydraulic or lubrication fluid from the reservoir, filters it, and returns it to the reservoir. The other type of Radial Micro Filtration System is the BPS Series which uses system pressure to draw a small oil flow from the system which is then filtered and returned to the reservoir.

The success of the Stauff Off-line filtration System is due to the design of the element & housing. The element is constructed of 0.5 micron cellulose media applied with a special wrapping method, providing several hundred layers of filter media. The cellulose fibers also absorb and retain water, which slows down the oxidation process of the fluid. The construction of the housing allows only radial flow through the filter element, this design feature prevents channel forming and subsequent shortcircuiting of the media. The Off-line design maintains a constant flow and pressure through the filter, which does not allow any particle unloading.



Filter Element Design

These design characteristics enable the Stauff Filtration System to maintain a rated filtration efficiency of Beta 2 > 2330. This allows the user to maintain fluid cleanliness levels which cannot be reached with conventional full flow filtration methods.

Stauff Filtration Systems also provides a range of Desiccant Air Breathers with air flows up to 1500 l/min *(395 US GPM)* and water holding capacity of up to 576 g *(1.27 lb)*.

OLS Off-Line Filter System

Stauff Off-line filter units can be applied to every imaginable industrial application where hydraulic or lubrication systems are present. An integrated motor/pump unit draws out of the tank, filters it and pumps clean oil back into the system. Off-line filter units can continue to work even when the main system is not in use. The standard range offers filter units for reservoirs with a capacity of up to 10.800 liter *(2853 gal)*.

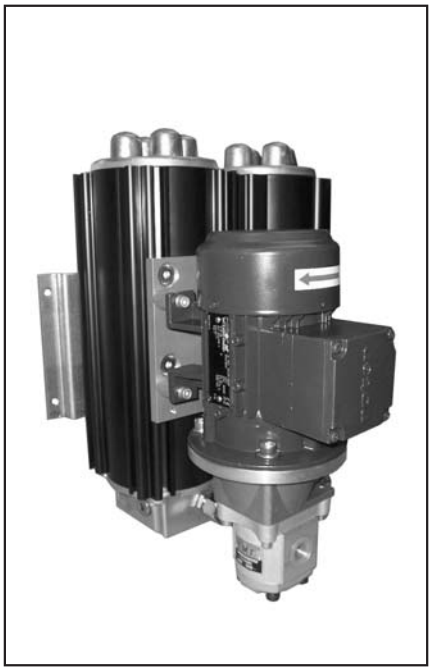
Over the years, Stauff Systems have developed considerable experience in the hydraulic and lubrication market cleaning systems to levels not previously possible with conventional methods. The following are a few of the industries that have benefitted.

- steel
- plastic injection moulding
- marine
- petrochemical
- pulp & paper
- flight simulator

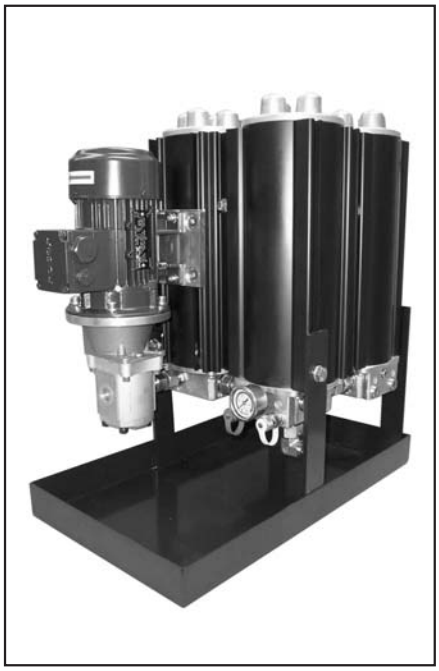
With its integrated motor / pump unit STAUFF OLS filter systems are specially designed for off-line filtration of a hydraulic main system. This allows continuous filtration of the fluid even when the main system has been shut down.

The OLS is available with one, two or four filter housings and in two different lengths. The maximum flow for the off-line unit goes from 2.1 l/min *(0.55 US GPM)* up to 17 l/min *(4.5 US GPM)* at a viscosity between 20 and 160 cSt. For the OLS you can choose several different motor/pump units, for more information please see page 11 (Ordering system).

OLS - 1A - 30 - H - B



OLS - 2A - 30 - H - B



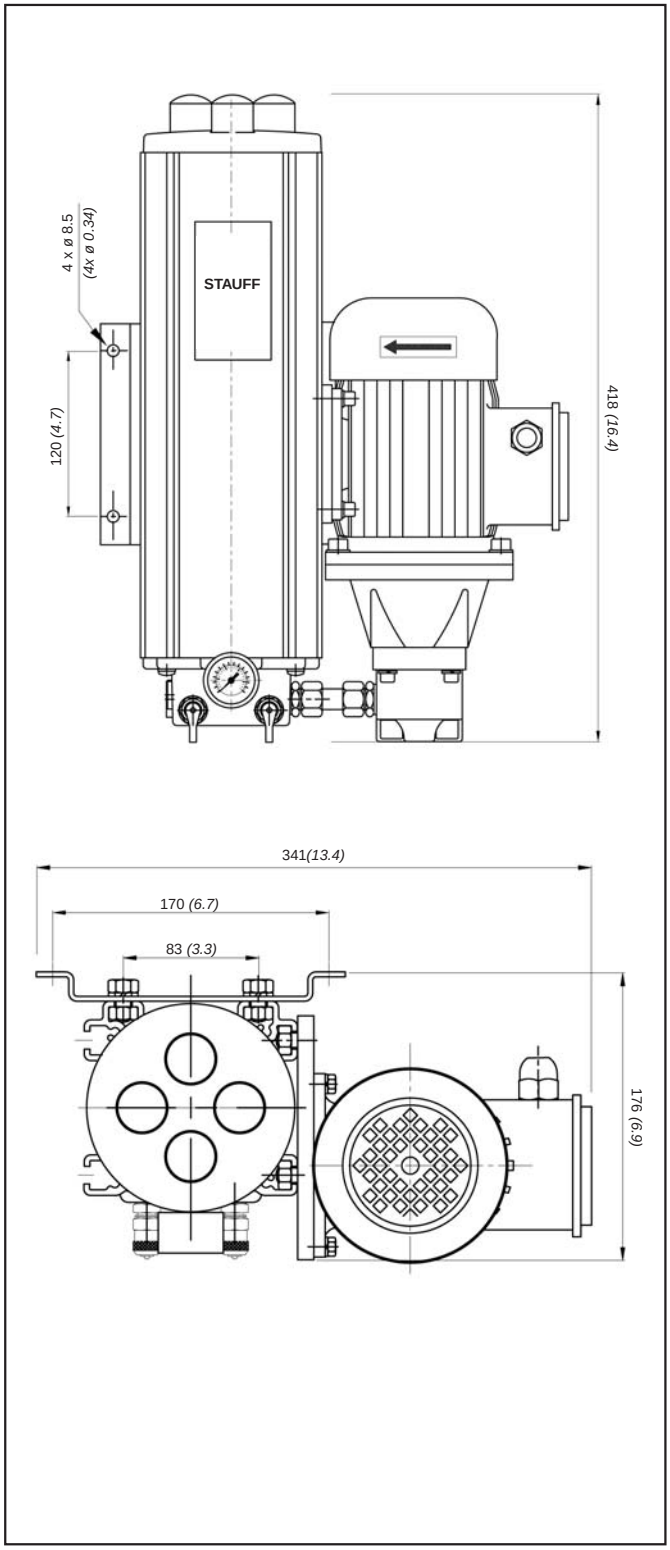
OLS - 4A - 30 - H - B

OLS - 1B - 30 - H - B

OLS - 2B - 30 - H - B

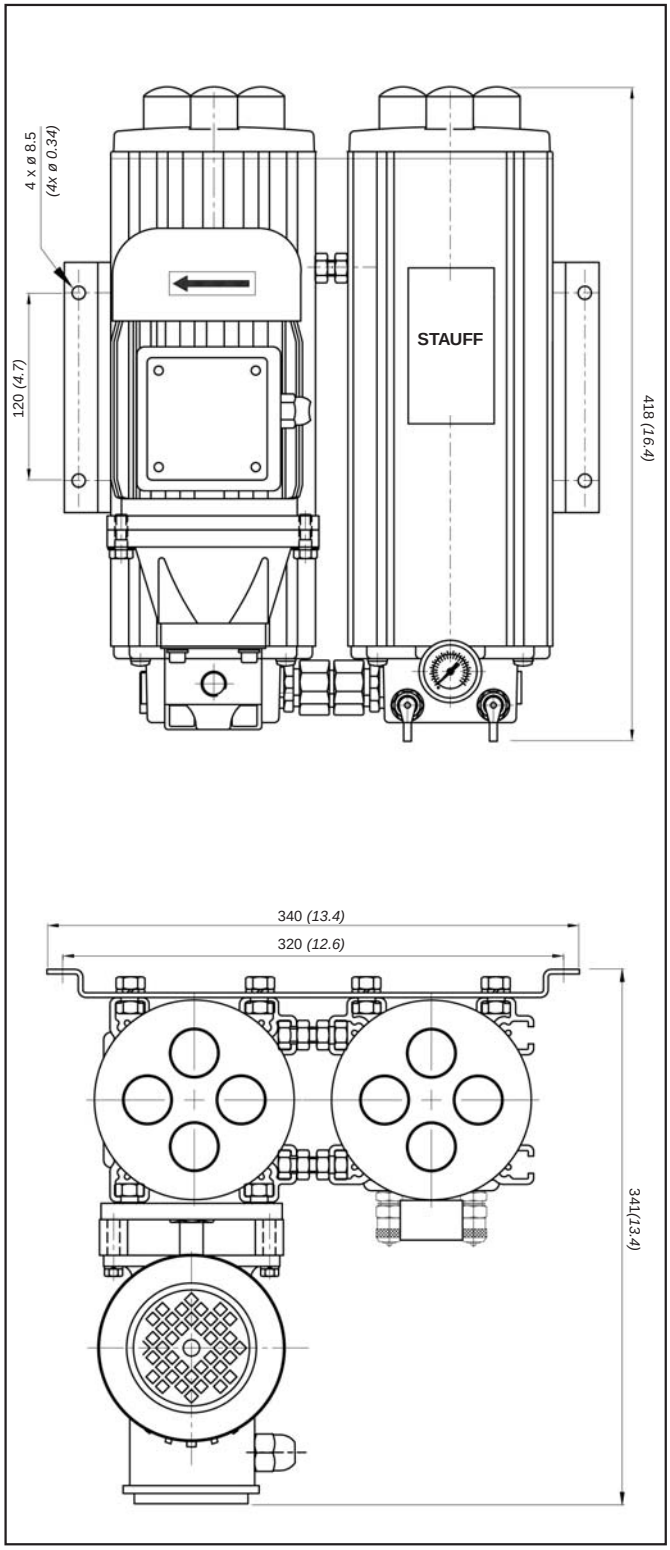
OLS - 4B - 30 - H - B

Dimensions OLS - 1A - 30 - H - B



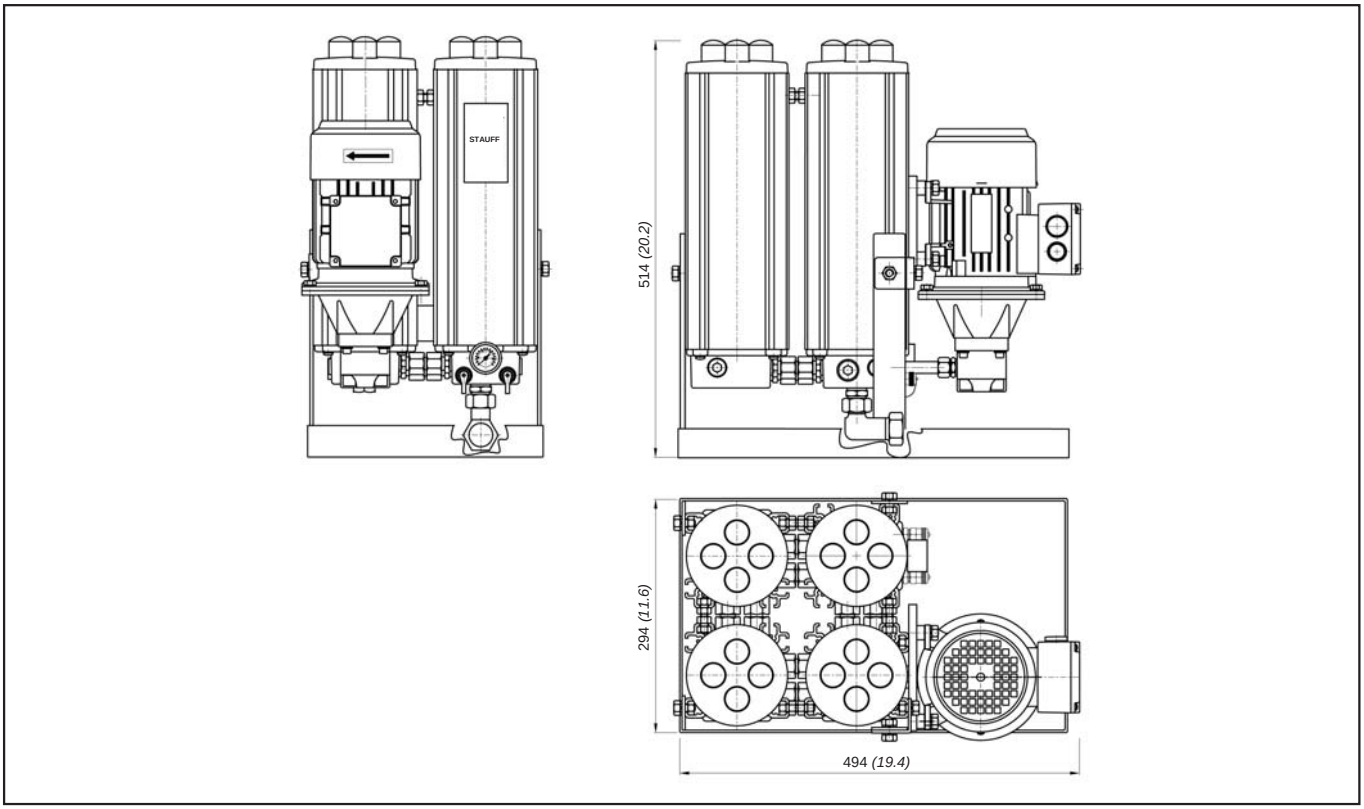
All dimensions in mm *(inch)*

Dimensions OLS - 2A - 30 - H - B



All dimensions in mm *(inch)*

Dimensions OLS - 4A - 30 - H - B

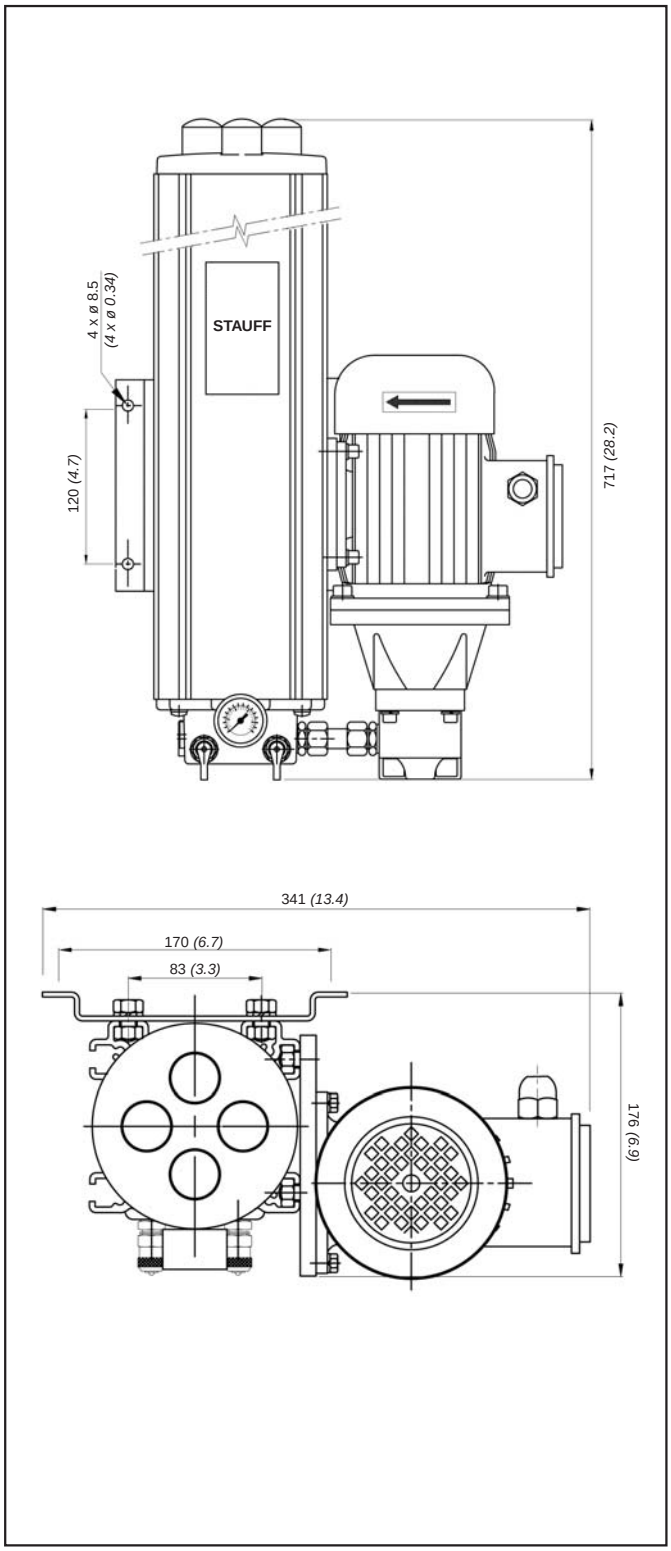


All dimensions in mm *(inch)*

Technical Data

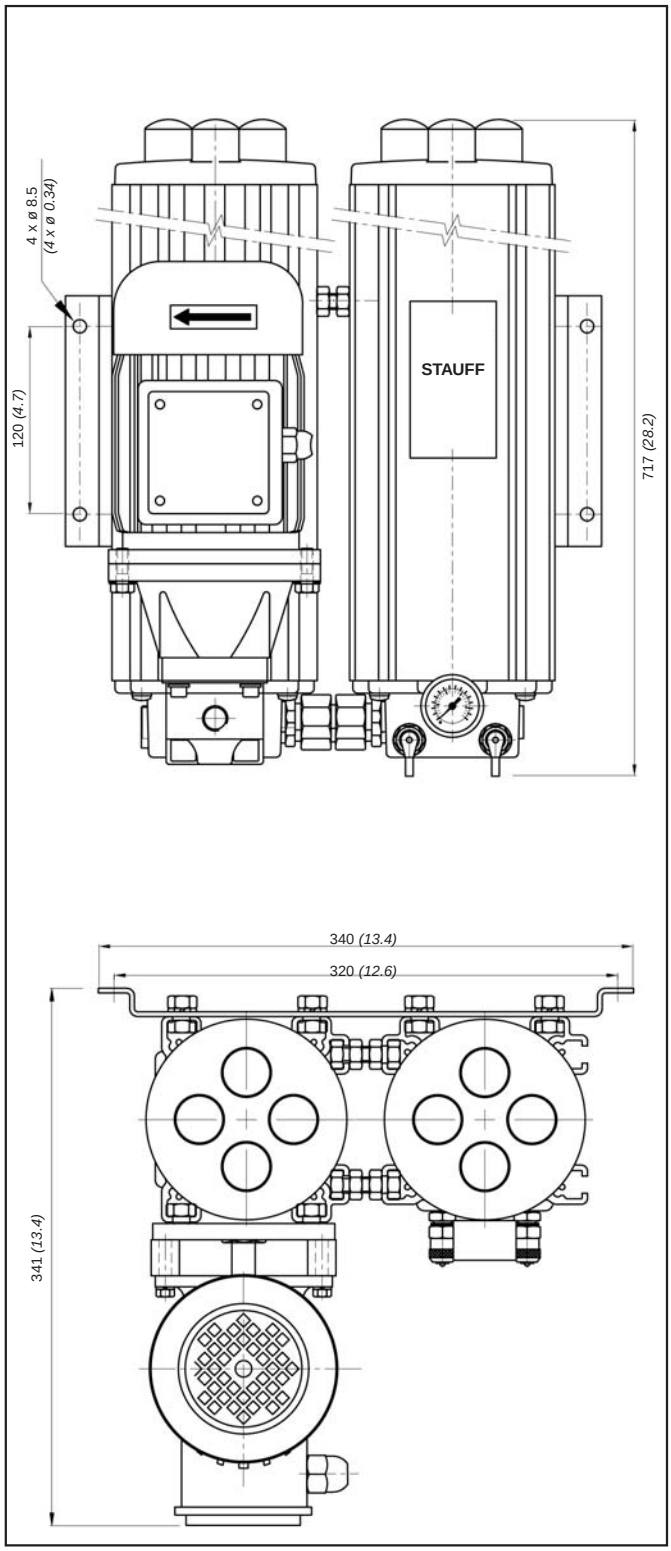
	OLS - 1A - 30 - H - B	OLS - 2A - 30 - H - B	OLS - 4A - 30 - H - B
Number of filter housings	1	2	4
Nominal Flow	2,1 l/min *(0,6 US GPM)*	4,2 l/min *(1,1 US GPM)*	8,5 l/min *(2,25 US GPM)*
Max differential pressure	max 6,2 bar *(90 PSI)* over the filter element without backpressure		
Max fluid temperature	80˚C *(176˚F)*		
Max housing pressure	20 bar *(290 PSI)*		
Viscosity Range	20-160 cSt		
Connection suction side	3/8” BSP-P		1/2” BSP
Connection return line side	1/4” BSP-P		18L
Hose Diameter	3/8” - 1/2” (inner diameter) flexible hose		1/2” - 3/4” (inner diameter) flexible hose
Weight (Including element)	13.4 kg *(29.5 lbs)*	19.8 Kg *(43.5 lbs)*	40 kg *(88 lbs)*
Max system volume	1350 l *(356 gal)*	2700 l *(713 gal)*	5400 l *(1426 gal)*
Dimensions (HxWxD)	418 x 341 x 176 mm *(16.4 x 13.4 x 6.9”)*	418 x 340 x 341 mm *(16.4 x 13.4 x 13.4”)*	514 x 494 x 294 mm *(20.2 x 19.4 x 11.6”)*
Connection for online-particle counter	STAUFF TEST (M16 x 2)		
Pump	Gear pump		
Motor	See page 11 for electric motor details		

Dimensions OLS - 1B - 30 - H - B



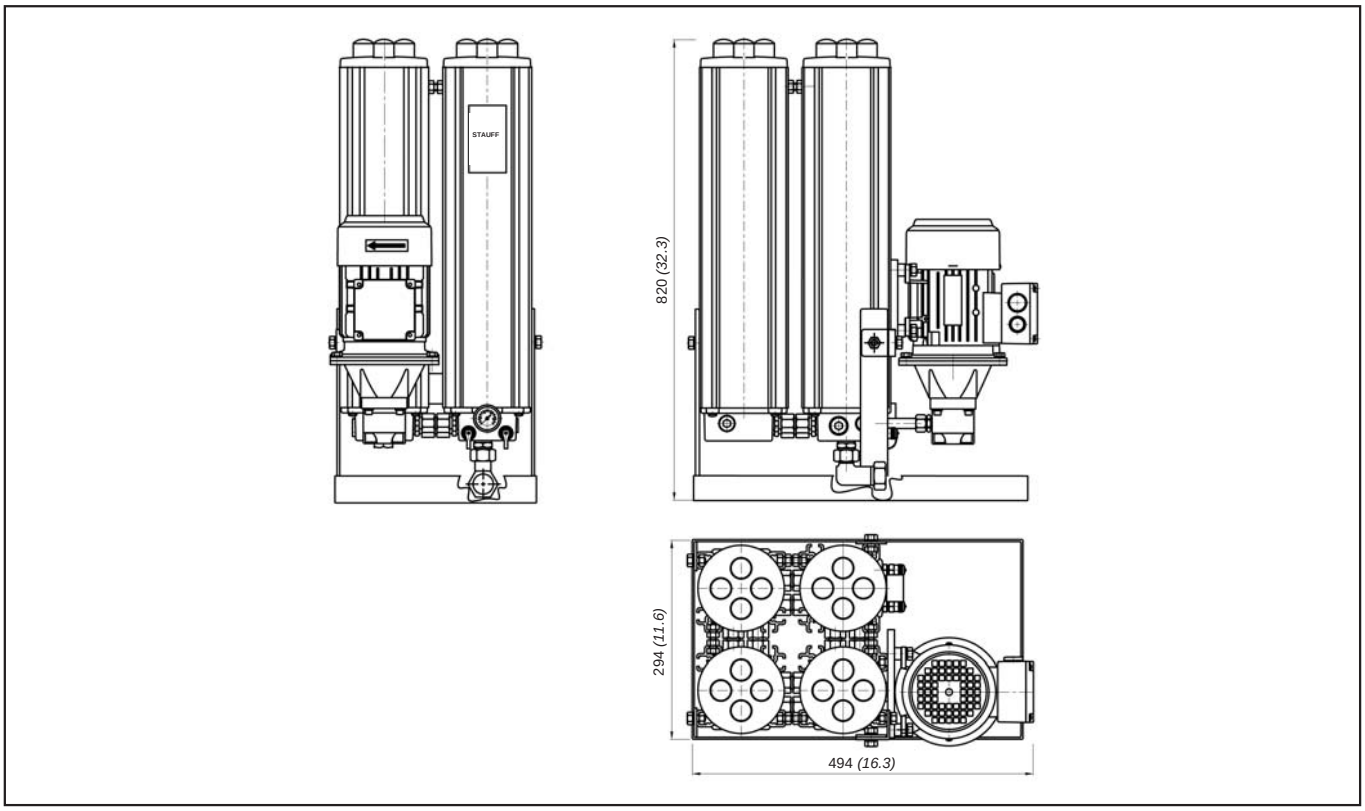
All dimensions in mm *(inch)*

Dimensions OLS - 2B - 30 - H - B



All dimensions in mm *(inch)*

Dimensions OLS - 4B - 30 - H - B



All dimensions in mm *(inch)*

Technical Data

	OLS - 1B - 30 - H - B	OLS - 2B - 30 - H - B	OLS - 4B - 30 - H - B
Number of filter housings	1	2	4
Nominal Flow	4,2 l/min *(1,1 US GPM)*	8,5 l/min *(2,25 US GPM)*	17 l/min *(4,5 US GPM)*
Max differential pressure	max 6,2 bar *(90 PSI)* over the filter element without backpressure		
Max fluid temperature	80˚C *(176˚F)*		
Max housing pressure	20 bar *(290 PSI)*		
Viscosity Range	20-160 cSt *(100-750 SUS)*		
Connection suction side	3/8” BSP	1/2” BSP	
Connection return line side	1/2” BSP-P		18L
Hose Diameter	3/8” - 1/2” (inner diameter) flexible hose		1/2” - 3/4” (inner diameter) flexible hose
Weight (Including Element)	16,7 kg *(36.7 lbs)*	28 Kg *(61.6 lbs)*	62 kg *(136.4 lbs)*
Max system volume	2700 l *(713 gal)*	5400 l *(1426 gal)*	10800 l *(2853 gal)*
Dimensions (HxWxD)	717 x 341 x 176 mm *(28.2 x 13.4 x 6.7”)*	717 x 340 x 341 mm *(28.2 x 13.4 x 13.4”)*	820 x 494 x 294 mm *(32.3 x 16.3 x 11.6”)*
Connection for online-particle counter	STAUFF TEST (M16 x 2)		
Pump	Gear pump		
Motor	See page 11 for electric motor details		

Ordering Code

OLS - 1A - 30 - H - B - 0 - 01 - 0 - 0

Basic Configuration	
OLS	Off-Line Filter (for industrial applications)

Housing Configuration			
Code	**Single length**	**suitable for reservoir size**	**N° of elements**
1A	Single Housing	1350 l *(357 gal)*	1x1 pcs
2A	Twin Housing	2700 l *(713 gal)*	2x1 pcs
4A	Quadruple Housing	5400 l *(1427 gal)*	4x1 pcs
Code	**Double length**	**suitable for reservoir size**	**N° of elements**
1B	Single Housing	2700 l *(713 gal)*	1x2 pcs
2B	Twin Housing	5400 l *(1427 gal)*	2x2 pcs
4B	Quadruple Housing	10800 l *(2853 gal)*	4x2 pcs

Filter Element Length	
30	300 mm (standard)

Filter Material	
H	Cellulose 0,5µm (standard)

Seal Material	
B	NBR (Buna-N®) (standard)
V	FPM (Viton)

Mounting Options	
0	No options (standard)
1	Motor / pump right side mounted
2	Motor / pump left side mounted
3	Motor / pump horizontal front

Clogging Indicator	
0	Pressure gauge 1 - 16 bar (standard)

Pump Options		
Code	**50 Hz motor**	**Standard in**
00	10C1,6X053G / **1,6 cc/rev.**	OLS 1A
10	10C3,6X053G / **3,15 cc/rev.**	OLS 2A/1B
20	10C6,1X053G / **6,1 cc/rev.**	OLS 4A/2B
30	20C8,2X016G / **8,2 cc/rev.**	
40	20C11X016G / **11,3 cc/rev.**	OLS 4B
50	MLPD/G 108C / **0,8 cc/rev.**	
Code	**60 Hz motor**	**Standard in**
01	10C1,25X053G / **1,25 cc/rev.**	OLS 1A
11	10C2,5X053G / **2,5 cc/rev.**	OLS 2A/1B
21	10C5X053G / **5,0 cc/rev.**	OLS 4A/2B
31	20C6,3X016G / **6,3 cc/rev.**	
41	20C10X016G / **10 cc/rev.**	OLS 4B

E-motor options	
Code	**50Hz motor**
0	230/400 VAC-50 Hz / 1360 r/min; 254/440 VAC-60 Hz / 1630 r/min (standard)
A	230 VAC-50 Hz / single phase 1360 r/min
B	24 VDC
C	110 VAC-50 Hz / single phase
D	110 VAC-60 Hz / single phase
F	230 VAC-60 Hz / single phase 1630 r/min
Special motors upon request.	

Ordering Code Filter Elements

SRM - 30HB - 1

Filter Element	
SRM-30HB	Replacement filter element for OLS series length 300 mm, cellulose 0.5 micron (for more details see page 22 & 23)

Quantity	
1	1 pcs. filter element
15	box with 15 pcs. filter element

Technical Data on Electric Motors used for OLS Filters

E-motor Code	Standard Configuration	Description	Power in kW	Power in HP	Voltage 50Hz	Amp 50Hz	RPM 50Hz	Voltage 60Hz	Amp 60Hz	RPM 60Hz
C, D	OLS1A OLS2A OLS1B	M63 B3/B5 4P 110V MULTIVOLT	0.18	0.24	110 VAC	3.3		110 VAC	2.7	
A, F	OLS1A OLS2A OLS1B	M63 B3/B5 4P 230 MULTIVOLT	0.18	0.24	230 VAC	1.57		230 VAC	1.34	
0	OLS1A OLS2A OLS1B	M63 B3/B5 4P 3PH MULTIVOLT	0.18	0.24	230/400 VAC	1,03 / 0,6		254/440 VAC	0,9 / 0,52	
0	OLS2B OLS4A	M63 B3/B5 4P 3PH MULTIVOLT	0.29	0.39	230/400 VAC	1,65 / 0,95	1460	254/440 VAC	1,47 / 0,85	1740
C, D	OLS2B OLS4A OLS4B	M71 B3/B5 4P 110V MULTIVOLT	0.37	0.5	110 VAC	6.1		110 VAC	5.2	
A, F	OLS2B OLS4A OLS4B	M71 B3/B5 4P 230V MULTIVOLT	0.37	0.5	230 VAC	3		230 VAC	2.65	
0	OLS4B	M71 B3/B5 4P 3PH MULTIVOLT	0.37	0.5	230/400 VAC	1,9 / 1,1		254/440 VAC	1,6 / 0,93	

Stauff Systems

Stauff Systems radial micro filter units are characterised by their extremely efficient filter elements with a fineness of 0.5 micron.

Specially designed for industrial hydraulic installations the Stauff Off-line filters are available in single or multiple housing configurations. The Off-line filter units can easily be mounted to new and existing hydraulic installations.

By means of an integrated motor/pump unit and an Off-line filter, the oil is pumped from the reservoir through the filter unit and after filtering the oil is then returned to the tank.

Economical

The hydraulic market accepts that 80% of mechanical failures are caused by contamination in the system. The Stauff Water Absorbing Off-line filters attack this contamination at source and in addition to solid particles, these filters are also capable of removing large quantities of water from the oil. This prevents the catalytic reaction of water and solid particle contamination, resulting in extended useable oil life.

The application of Stauff filters results in lower component failure rates, less down time and less system maintenance.

Water Absorbing

Stauff Water absorbing filters are Off-line units that use special water absorbing spin-on filter elements as a pre-filter. The fluid is pumped through the pre-filter which removes most water and larger solid contamination, in the second stage the fluid passes through the RMF micro filter where final water removal takes place as well as solid removal down to 0.5 micron.

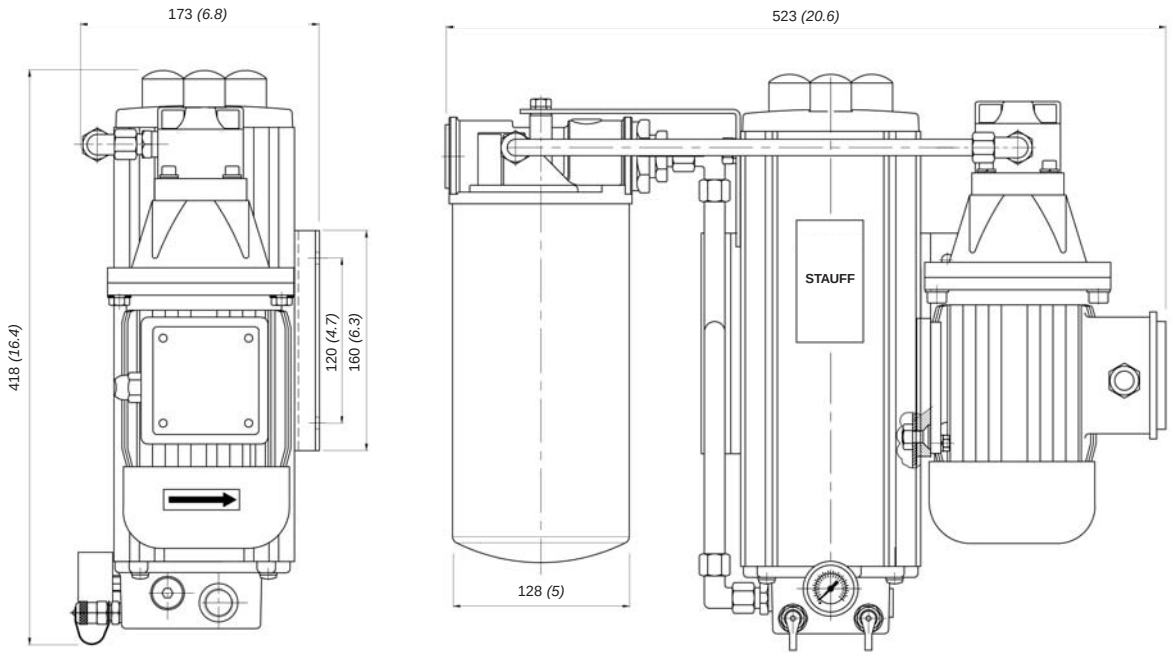
In recent years Stauff Systems have developed a great deal of experience in cleaning and drying hydraulic and lubrication systems in the following markets:

- steel industry
- maritime industry
- petrochemical industry
- paper industry

Advantages

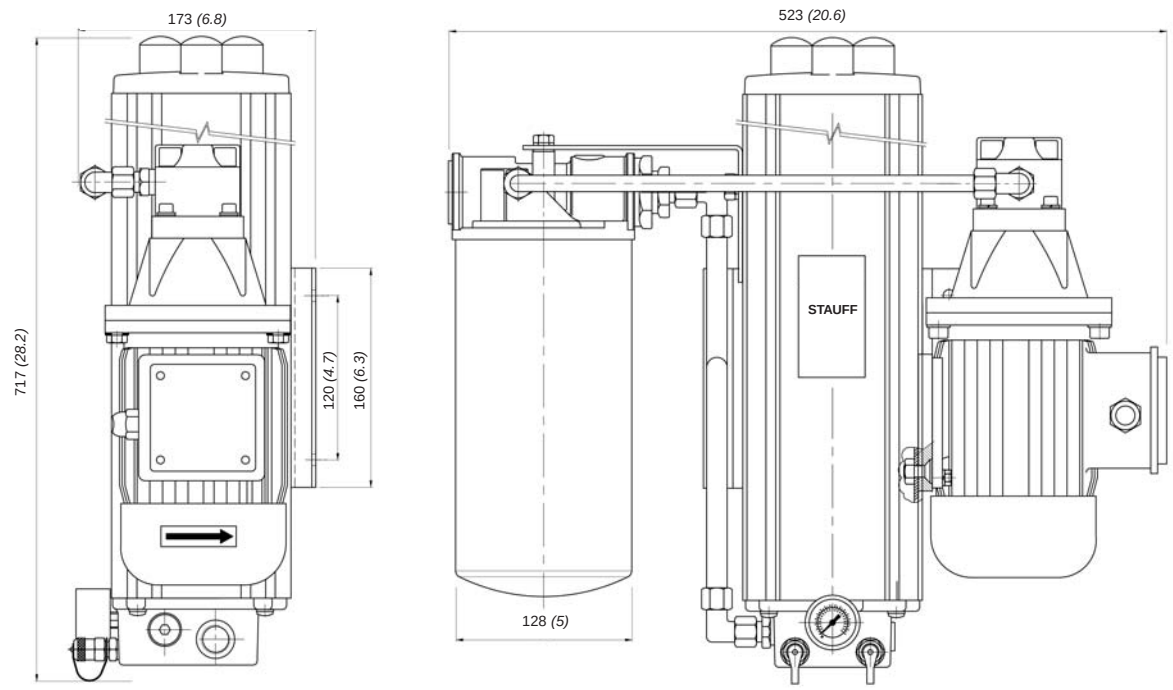
- Extremely clean oil due to the high filtration efficiency ß2 ≥ 2,330
- Prevention of channel forming by radial filtration direction
- Increased flow capacity
- Increased dirt holding capacity
- Large water holding capacity
- Compact and easy-maintenance design
- Longer usage life for oil and components

Dimensions OLSW-1A-30



All dimensions in mm *(inch)*

Dimensions OLSW-1B-30

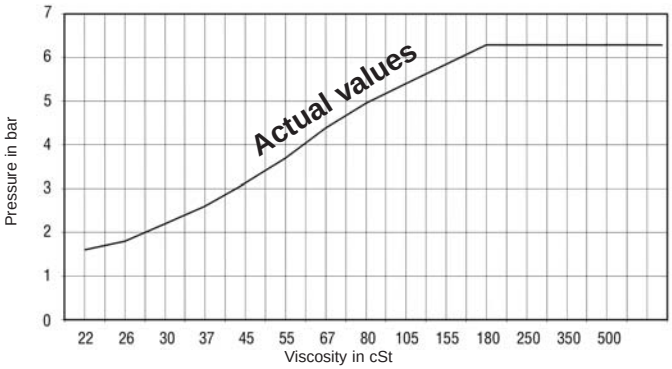


All dimensions in mm *(inch)*

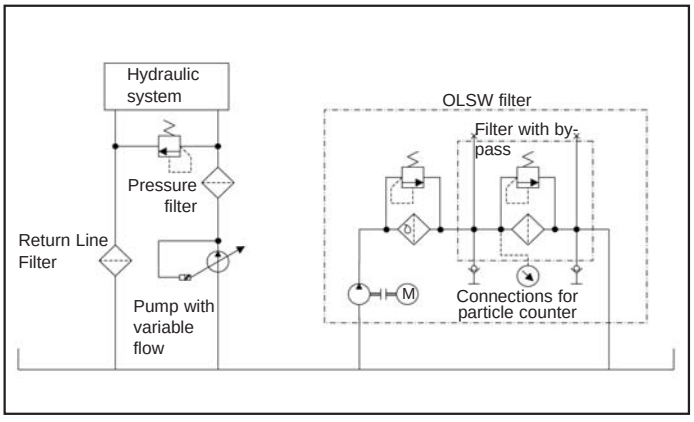
Technical Data OLSW

Type Filter	OLSW - 1A - 30 - H - B	OLSW - 1B - 30 - H - B
No. of filter housings	1	1
Material filter housings	Anodised Aluminum	
Seal material	Buna-N Standard	
Nominal Flow	2,1 l/min *(0,6 US GPM)*	4,2 l/min *(1,1 US GPM)*
By-pass opening pressure	6,2 bar *(90 PSI at 0 PSI back pressure)*	6,2 bar *(90 PSI at 0 PSI back pressure)*
Number of standard filter elements	1 pcs.	2 pcs.
Number of Pre-filter elements	1 pcs.	1 pcs.
Water absorbing capacity	650 ml *(22 oz.)*	800 ml *(27 oz.)*
Max pressure filter housing	20 bar *(290 PSI)*	
Max oil temperature	80˚C *(176˚F)*	
Max viscosity	160 cSt	
Indicator type	Gauge glycerine filled	
Connection pump suction	3/8" BSP female	1/2" BSP female
Diameter hose suction side	1/2"	
Filter return connection	1/2" BSP female	
Diameter hose return side	1/2"	
Dimensions (HxWxD)	418 x 523 x 173 mm *(16.5 x 20.6 x 6.8")*	717 x 523 x 173 mm *(28.2 x 20.6 x 6.8")*
Pump type	Gear pump	
Power supply E-motor	Various electrical power supplies possible	
Max system volume	1,350 liter *(356 gal)*	2,700 liter *(713 gal)*
Standard units for larger system volumes are also available		
Connection oil-analisys: P1 filter inlet side P2 filter outlet side	Test connector (M16x2) Red Test connector (M16x2)	

Δp / Viscosity for OLSW-Filter



System example
Schematic Off-line filtration incl. water absorbtion



Water absorbing spin-on filter element

Water Absorbing OFF-LINE Filters OLSW Ordering Code

Ordering Code

OLSW - 1A - 30 - H - B - 0 - 01 - 0 - 0 - A

Basic Configuration	
OLSW	Off-Line Filter incl. water absorbtion (for industrial applications)

Housing Configuration				
Code	**Single length**	**suitable for reservoir size**	**N° of elements standard**	**Pre-filter**
1A	Single Housing Single Length	1350 l *(357 gal)*	1x1 pcs	1 pcs
1B	Single Housing Double Length	2700 l *(713 gal)*	1x2 pcs	1 pcs

Filter Element Length	
30	300 mm (standard)

Filter Material	
H	Cellulose 0,5µm (standard)

Seal Material	
B	NBR (Buna-N®) (standard)
V	FPM (Viton)

E-motor options	
Code	**Type**
0	230/400 VAC-50 Hz / 1360 r/min; 254/440 VAC-60 Hz / 1630 r/min (standard)
A	230 VAC-50 Hz / single phase 1360 r/min
C	110 VAC-50Hz / single phase
D	110 VAC-60Hz / single phase

Pre-Filter Elements	
Water absorption element	
A	SF6721-W (10 micron water absorbing, capacity 540 ml water)
Pre-Filter Elements (particles)	
0	without pre-filter element
B	SF6702-MG (inorganic glass fiber, 1 micron)
C	SF6704-MG (inorganic glass fiber, 3 micron)
D	SF6707-MG (inorganic glass fiber, 6 micron)
E	SF6731-MG (inorganic glass fiber, 12 micron)
F	SF6726-MG (inorganic glass fiber, 25 micron)
G	SF6721 (filter paper, 10 micron)
H	SF6711 (filter paper, 25 micron)
J	SF6791 (wire mesh, 125 micron)

Options	
0	No options

Clogging Indicator	
0	Pressure gauge 1 - 16 bar (standard)

Pump Options		
Code	**50 Hz motor**	**Standard in**
00	10C1,6X053G / **1,6 cc/rev.**	
10	10C3,6X053G / **3,15 cc/rev.**	
50	MLPD/G 108C / **0,8 cc/rev.**	
Code	**60 Hz motor**	**Standard in**
01	10C1,25X053G / **1,25 cc/rev.**	OLSW-1A
11	10C2,5X053G / **2,5 cc/rev.**	OLSW-1B

See page 11 for Technical Motor Specifications.

Ordering Code Standard Filter Elements

SRM - 30HB - 1

Filter Element	
SRM-30HB	Replacement filter element for OLSW series length 300 mm, cellulose 0.5 micron (for more details see page 22 & 23)

Quantity	
1	1 pcs. filter element
15	box with 15 pcs. filter element

Ordering Code Pre-Filter Elements

SF6721 - W

Pre-Filter Elements	
SF6721-W	Spin-on filter element, water absorbing, 10 micron
SF6702-MG	Spin-on filter element, inorganic glass fiber, 1 micron
SF6704-MG	Spin-on filter element, inorganic glass fiber, 3 micron
SF6707-MG	Spin-on filter element, inorganic glass fiber, 6 micron
SF6731-MG	Spin-on filter element, inorganic glass fiber, 12 micron
SF6726-MG	Spin-on filter element, inorganic glass fiber, 25 micron
SF6721	Spin-on filter element, filter paper, 10 micron
SF6711	Spin-on filter element, filter paper, 25 micron
SF6791	Spin-on filter element, wire mesh, 125 micron

By-pass Filter BPS

BPS - 1A - 30 - H - B

BPS - 2A - 30 - H - B

Stauff BPS by-pass filter can be used for OEM first fit applications as well as for retro-fitting.The filtration is done in a by-pass configuration from the main hydraulic system. The Stauff BPS Filter systems are available with one filter housing (BPS-1A, maximum flow 2,1 l/min / *0.6 US GPM*) or with two filter housings (BPS-2A, maximum flow 4,2 l/min / *1.1 US GPM*) at a viscosity between 20 and 160 cSt *(100-750 SUS)*.

The Stauff By-pass filter units are especially designed for mobile applications in hydraulic and/or transmission systems.

In the absence of a pumped system, the oil is drawn from the main system by means of a specially designed and integrated flow valve. The amount of oil extracted at any one time is insignificant ensuring that it will not affect the working of the main system.

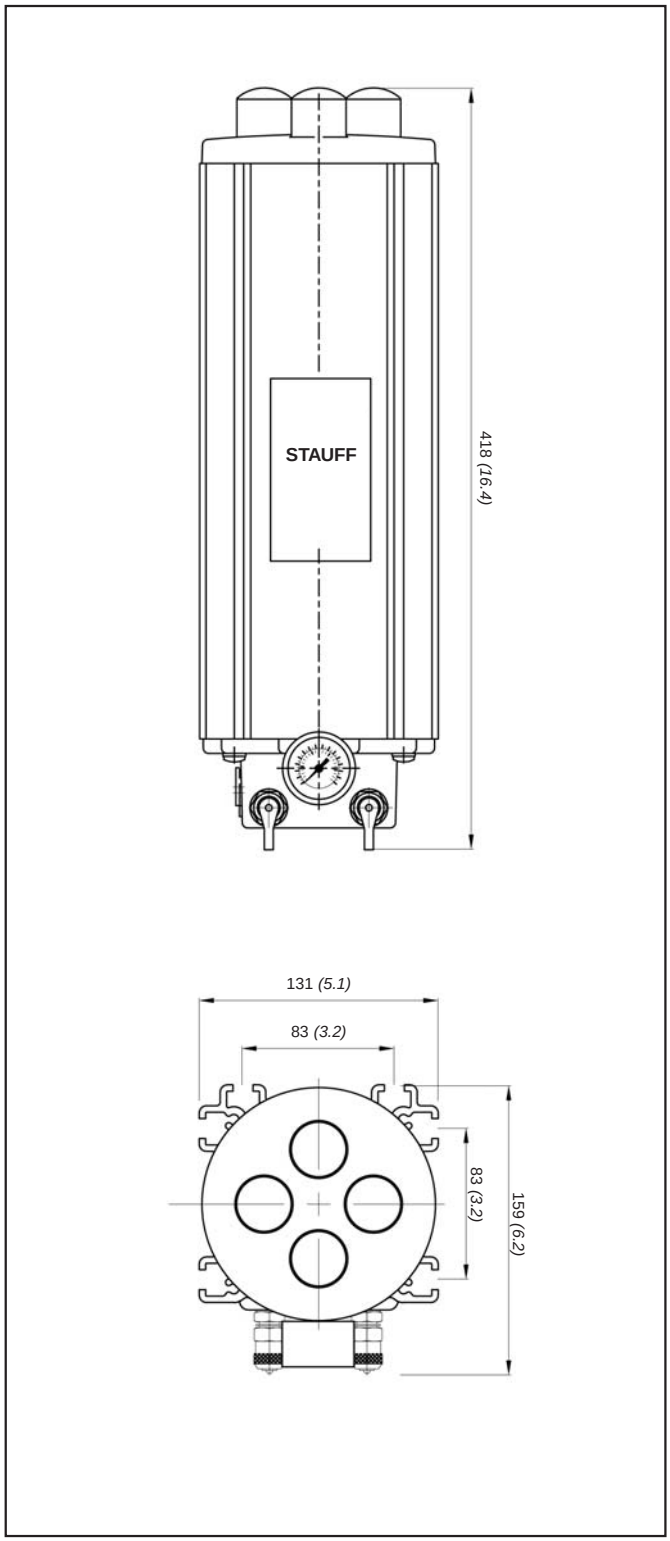
Most commonly used biodegradable oils in the mobile sector are suitable for filtration with Stauff filter elements.

Stauff Systems have been applied on a wide range of mobile hydraulic machinery, cleaning fluids to levels not previously possible with conventional filtration methods, resulting in dramatic increases in component life.

Successful applications include:

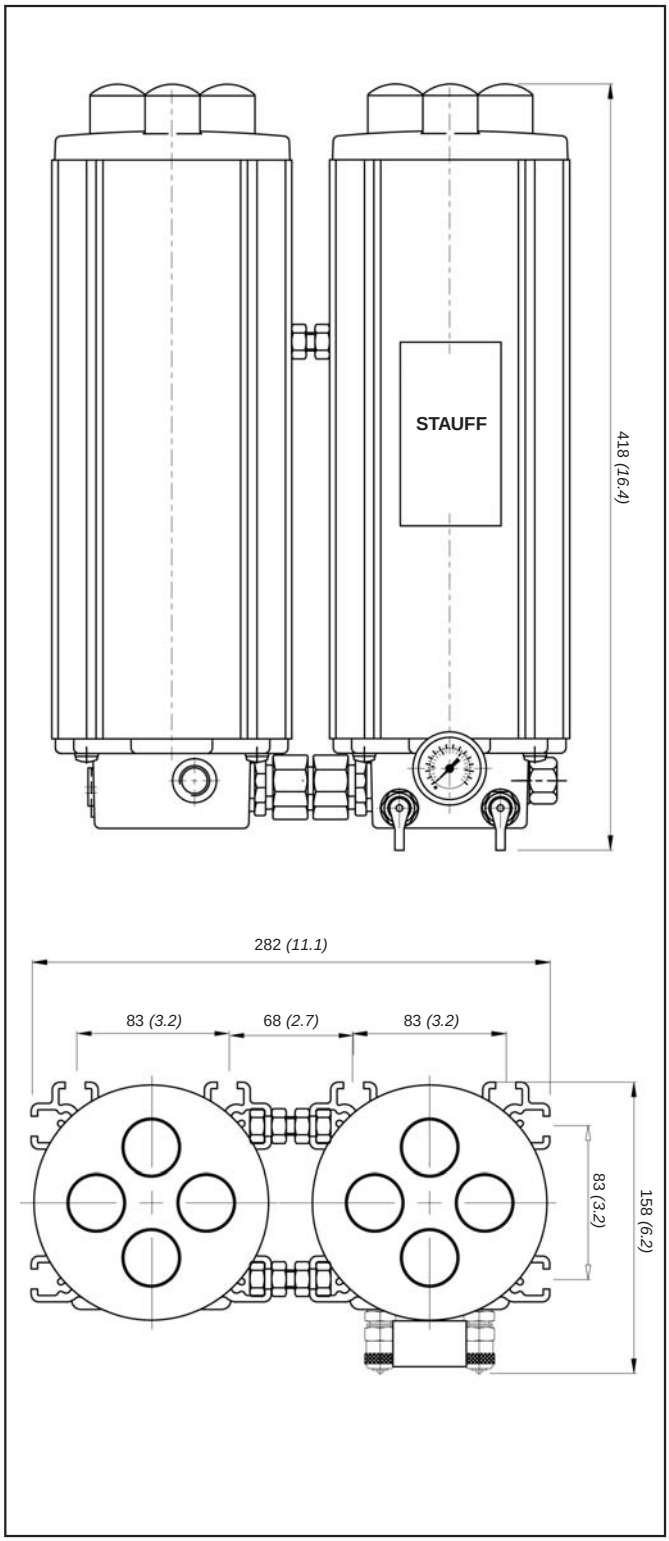
- excavators
- wheel loaders
- forestry machines
- asphalting machines
- cement mixers
- aircraft ground support machinery
- agricultural machines

Dimensions BPS - 1A - 30 - H - B



All dimensions in mm *(inch)*

Dimensions BPS - 2A - 30 - H - B



All dimensions in mm *(inch)*

Technical Data BPS

	BPS - 1A - 30 - H - B	BPS - 2A - 30 - H - B
Number of filter housings	1	2
Nominal Flow	2,1 l/min *(0.6 US GPM)*	4,2 l/min *(1.1 US GPM)*
Max differential pressure	max 6,2 bar *(90 PSI at 0 PSI back pressure)*	
Max fluid temperature	80˚C *(176˚F)*	
Max housing pressure	20 bar *(290 PSI)*	
Range of viscosity	20-160 cSt *(100-750 SUS)*	
Connection pressure side	1/4" BSP	
Connection return line side	1/2" BSP-P	
Diameter of hose	3/8" - 1/2" (inner diameter) flexible hose	
Weight	6 kg *(13.2 lbs)*	12.3 Kg *(27 lbs)*
Max volume of tank	750 l *(200 gal)*	1500 l *(400 gal)*
Dimensions (HxWxD)	418 x 131 x 159 mm *(16.4 x 5.1 x 6.2")*	418 x 282 x 158 mm *(16.4 x 11.1 x 6.2")*
Connection for online-particle counter	STAUFF TEST (M16 x 2)	
Pressure range	12 - 420 bar *(180 - 6200 PSI)*	

Ordering Code

BPS - 1A - 30 - H - B - 0 - 0 - 0

Basic Configuration	
BPS	By-Pass Filter (for mobile applications)

Housing Configuration			
Code	**Single length**	**suitable for reservoir size**	**Nº of elements**
1A	Single Housing	750 l *(198 gal)*	1x1 pcs
2A	Twin Housing	1500 l *(396 gal)*	2x1 pcs

Filter Element Length	
30	300 mm (standard)

Filter Material	
H	Cellulose 0,5µm (standard)

Mounting Options	
0	No bracket (standard)
1	With standard foot / bulk head mounting bracket
2	With "bulk head mounting only" bracket
3	With standard 'OLS' wall mounting bracket
for details see page 19	

Valve Options	
0	with flow control valve (standard)
1	without flow control valve

Clogging Indicator	
0	Pressure gauge 1 - 16 bar (standard)

Seal Material	
B	NBR (Buna-N®) (standard)
V	FPM (Viton)

Ordering Code Filter Elements

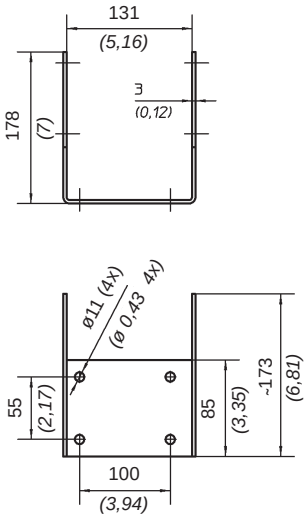
SRM - 30HB - 1

Filter Element	
SRM-30HB	Replacement filter element for BPS series length 300 mm, cellulose 0.5 micron (for more details see page 22 & 23)

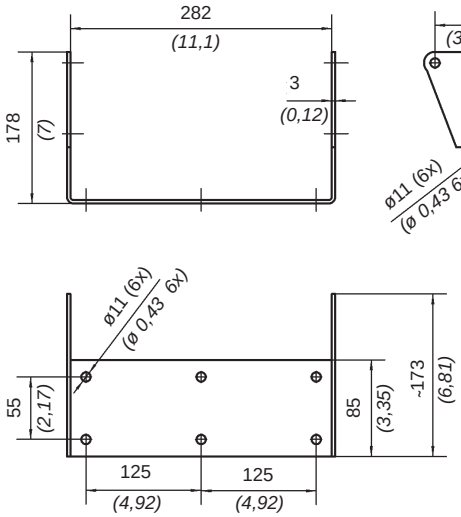
Quantity	
1	1 pcs. filter element
15	box with 15 pcs. filter element

With standard foot / bulk head mounting bracket (Code 1)

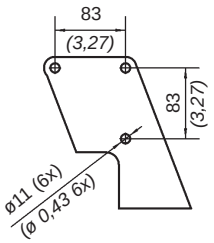
Front View (Single Housing)



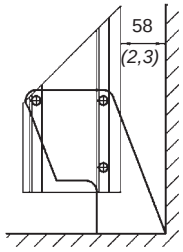
Front View (Double Housing)

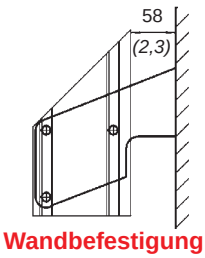


Side View



Bottom Attachment

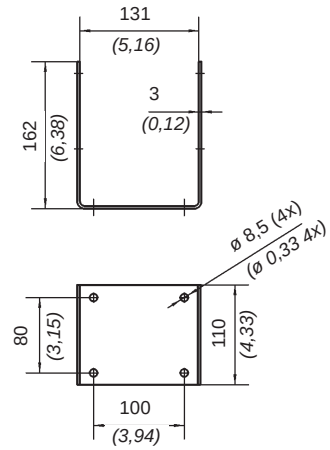




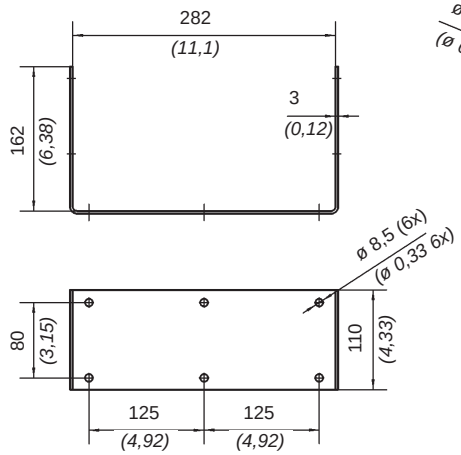
Wandbefestigung

With “bulk head mounting only” bracket (Code 2)

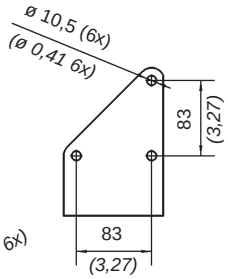
Front View (Single Housing)



Front View (Double Housing)



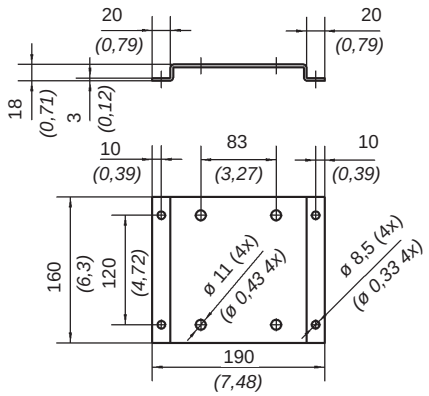
Side View



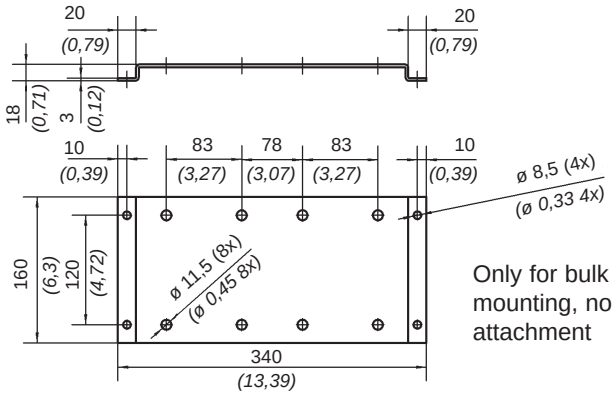
Only for bulk head mounting, no bottom attachment

With Standard “OLS” wall mounting bracket (Code 3)

Single Housing



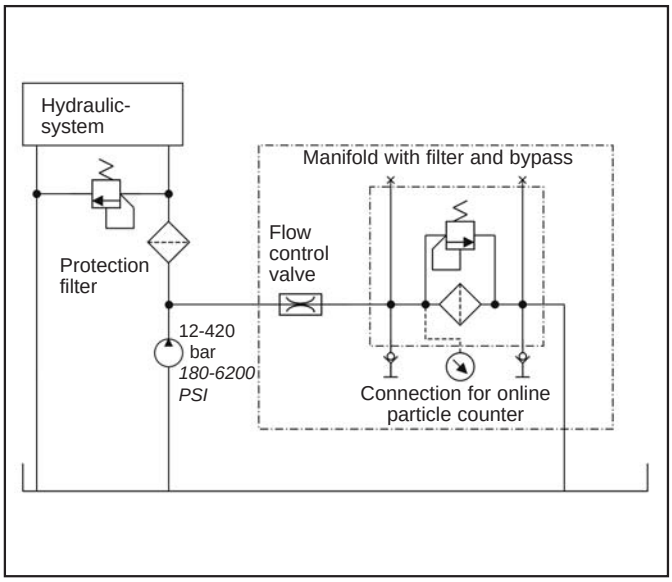
Double Housing



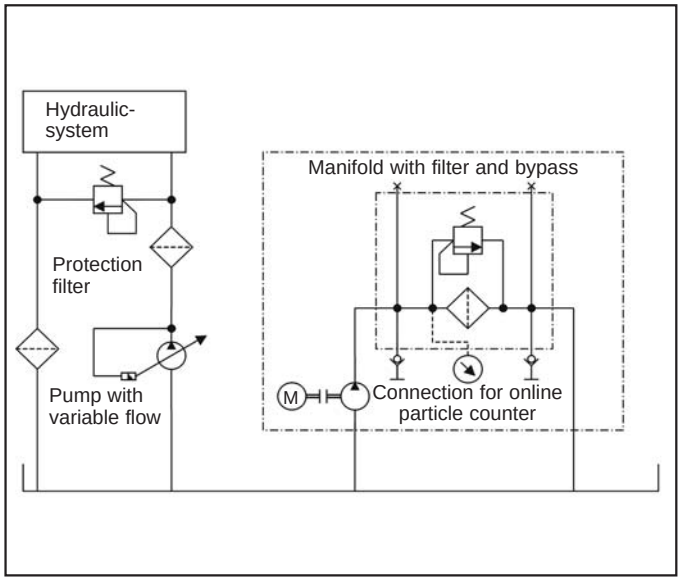
Only for bulk head mounting, no bottom attachment

All dimensions in mm *(inch)*

BY-PASS Filter BPS Hydraulic Symbol

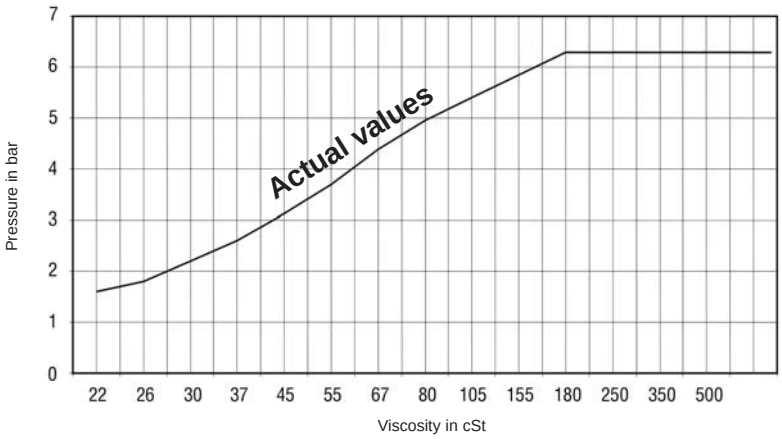


OFF-LINE Filter OLS Hydraulic Symbol

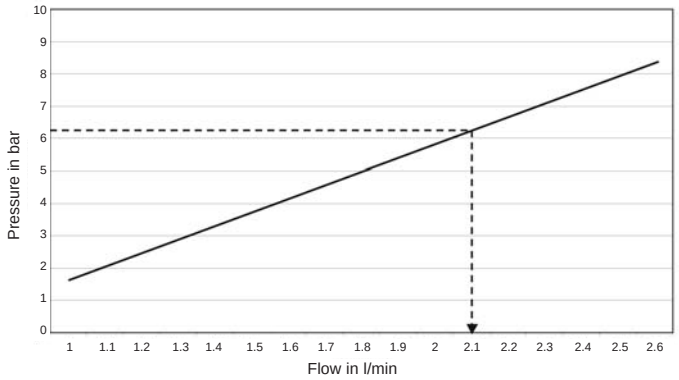


Filter element SRM-30HB Δp / viscosity - graph

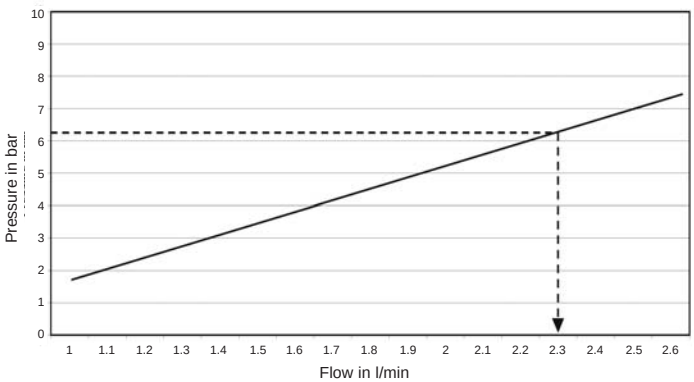
(at a flow of 2.1 l/min *(0.6 US GPM)* per element)



Flow characteristics BY-PASS Filter BPS with filter element SRM-30HB (at maximum viscosity)



Flow characteristics OFF-LINE Filter OLS with filter element SRM-30HB (at maximum viscosity)



The advantages of Stauff Systems

Less malfunctions
The tolerances between moving parts in servo valves and proportional valves are constantly reducing. The result is that even the smallest amounts of silt can cause damage to the system. Stauff filters remove this silt.

Protection of expensive main stream filters
Stauff Systems filters are applied in By-pass or Off-line configurations and constantly clean oil from the reservoir. The oil which reaches the main stream filter is therefore cleaner, and allows longer usage life of this expensive filter. The main stream filter then acts primarily as an emergency filter.

Less frequent oil changes
Increasingly strict environmental laws in the area of oil changes, oil storage and the disposal of used oil leads to corresponding cost increases.
Stauff filters lengthen fluid life, therefore cutting fluid costs.

Extended usable life of the oil
Frequent oil changes are generally the result of chemical deterioration of the oil caused by the oil oxidation process. This process is brought into action by the presence of silt. If water is also present, this acts as a catalyst and the oxidation process is accelerated. Stauff filters remove silt AND water from the oil.

Less machine down time
Reduction of defects caused by worn components and less frequent oil changes mean an increase in production time.

Stauff Characteristics in short

The oil filters have:
- a filter fineness of 0.5 micron (ß 0.5 ≥ 200, ß 2 ≥ 2,330)
- large particle collection capacity
- high filtration capacity due to depth effect
- large water adsorption capacity

Stauff Systems filters:
- do not adversely affect viscosity or additives
- do not remove additives
- reduce the oxidation process
- reduce the forming of acids
- SAVE COSTS

Measuring points
To facilitate quality control of the oil, every Stauff Systems oil filter is equipped with two quick connect measuring points to which a particle counter can be attached.This offers a convenient point in the circuit to measure the oil cleanliness level on-site and under working conditions. The measuring points also allow oil samples to be drawn for external analysis.

The solution
Stauff Systems offer the most complete and efficient filter series available today.
Stauff Systems is THE solution to your contamination problems: simple to fit, equipped with extremely efficient filters and offering the opportunity for simple control of oil cleanliness.

Stauff has a wide range of applications on which we have a substantial database with case studies and application knowledge. Please contact your nearest Stauff distributor for specific information on your desired application.

Stauff offers solutions for installations/equipment in the following segments:

Mobile Equipment:

- Mining
- Harvesting
- Forestry
- Agricultural
- Off-road
- Fishing
- Road construction
- Cranes
- Airport equipment

Industrial Equipment:

- Flight simulators
- Pulp and paper
- Food processing
- Presses
- Automotive industry
- Timber plants
- Plastic & rubber
- Metal industry
- Cement & concrete
- Material handling
- Bridges/Hydraulic locks/Water works
- Petrochemical industry
- Power stations

The unique Stauff Filter

The principle of the Stauff System is based on the unique original filter elements. With a filter fineness of 0.5 micron they have the capacity to remove even the smallest of dirt particles from the oil.

The micro filter works as a fine filter through which oil passes radially, from the outside to the inside. The filter elements are made entirely of cellulose and are specially designed for hydraulic and lubrication systems.

The use of cellulose as the filtration material has the added benefit that water can be absorbed. Water in oil creates a chemical reaction, which seriously deteriorates the oil.

Original elements

The use of original Stauff Systems filter elements will result in extreme fluid cleanliness and low water contamination levels in the fluid.

Through a carefully monitored quality control process excellent pressure drop curves, filter efficiency and dirt holding capacity are ensured.

Applications

The original filter elements are used in combination with Stauff Systems filter housings in an endless range of industries.

Some Examples are:

- plastic industry
- steel industry
- concrete and cement industry
- petrochemical industry
- maritime industry
- paper industry
- forestry industry.

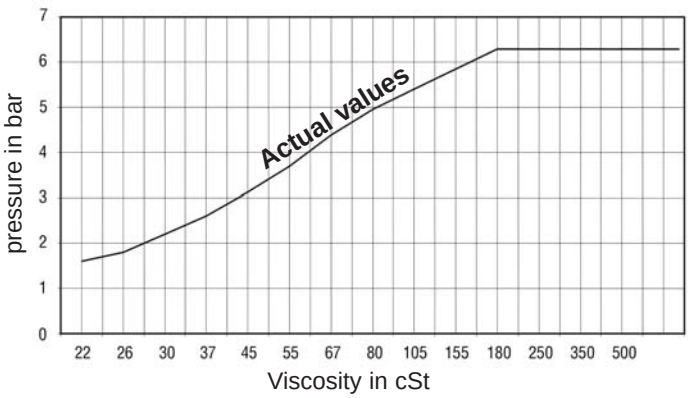
Characteristics

- Continuous quality with stable flow/Δp performance
- Extremely fine filters (0.5 micron!)
- Large filtration surface
- High water absorption capacity
- Additives are not removed
- Large dirt collection capacity
- Extends oil usage life
- Extends life cycle main stream filters

SRM-30HB filter elements must be used on the above range of OFF-LINE and BY-PASS filters

Filter element SRM-30HB Δp / viscosity - graph

(at a flow of 2.1 l/min *(0.6 US GPM)* per element)



Ordering Code for SRM-30HB Elements

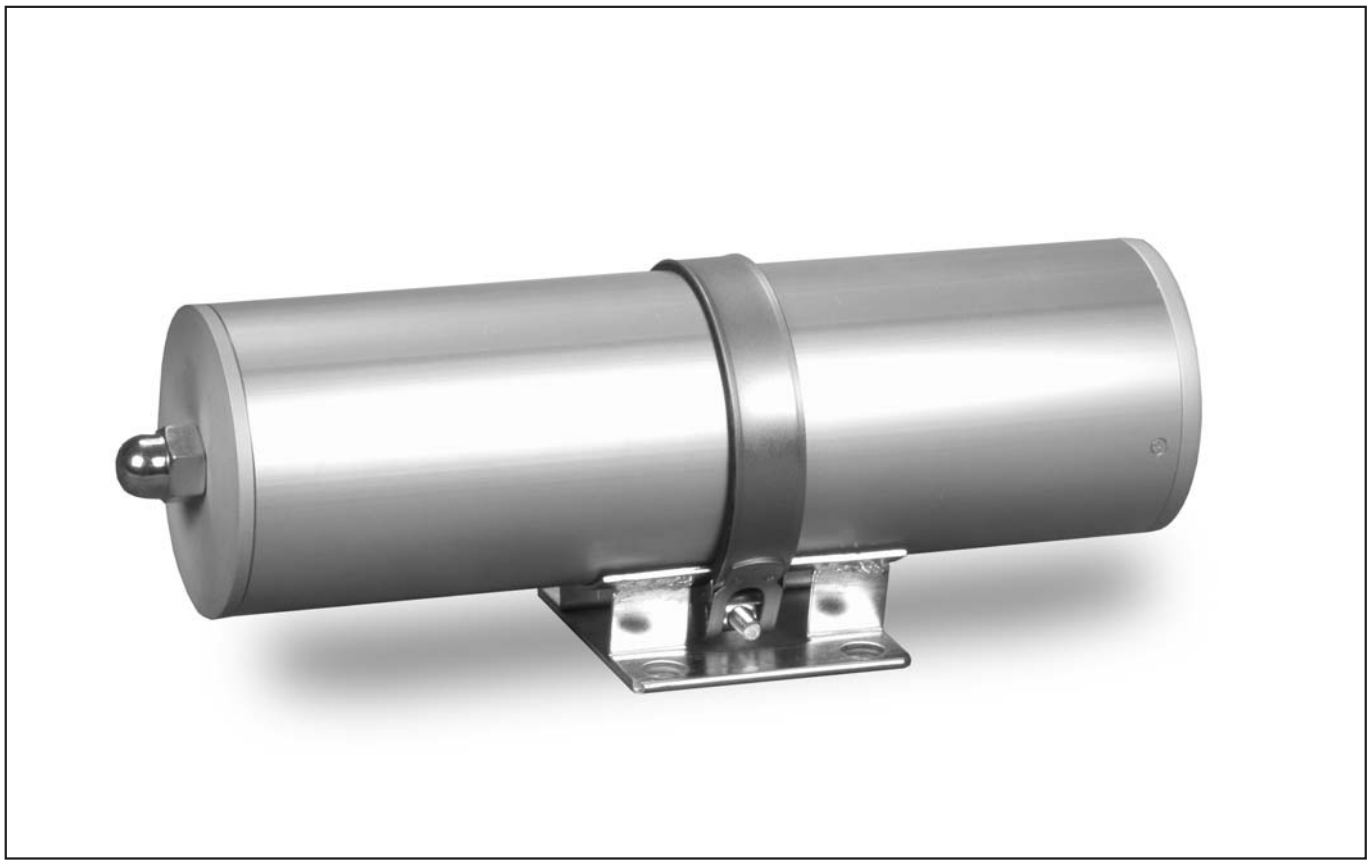
1 pcs.:	SRM-30HB - 1
box of 15 pcs.:	SRM-30HB - 15

Elements suitable for Stauff RMF Filter unit types BPS-, OLS- and OLSW-series.

Filter Element SRM-30HB Technical Data

Element specifications	
Application	By-pass and off-line filtration
Flow (average measured value)	2,1 l/min *(0,6 US GPM)*
Max. viscosity (average measured value)	160 cSt
Temperature range	-40˚C...+80 ˚C *(-40˚...+176 ˚F)*
Collapse pressure	14 bar *(203 PSI)*
Oil compatibility	Mineral oils H, HL, HLP/HEPG/HEES/HETG
For other fluids please contact Stauff	

Element Construction	
Filter material	Cellulose
Thickness filter material	19 mm
Filtration efficiency	$ß_{0,5}$ > 200
Pressure drop	2.8 bar at 2.1 l/min at 40cSt
Dirt holding capacity (average measured value)	18 gram ACFTD
Water absorption capacity	85 - 150 ml
By-pass valve	Integrated in the filterhead, not in the element
End cap material	Silicon (one side)
Seal material	Standard Buna-N, O-ring included

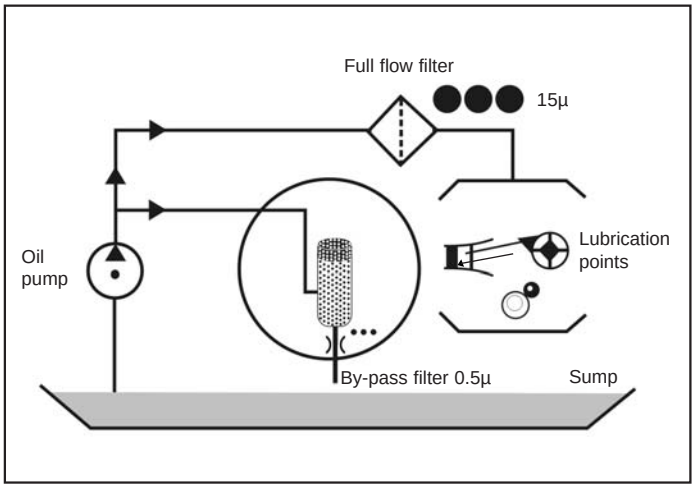


Maintenance is essential for the efficient functioning of engine equipment. However, it is always a critical decision between the quality of the maintenance and the costs involved. Optimal maintenance efficiency combines maximum achievement of the maintenance goal (protection and prolonged usage life of the object) with minimal use of means (costs). The Stauff by-pass filter is unique in that it not only achieves the goal, but saves on costs.

The Stauff by-pass filter keeps the oil clean, resulting in significant technical, environmental and financial benefits thanks to reduced wear and tear on equipment and machines and prolonged oil life time.

Stauff systems BPLS by-pass filters are used as an additional micro filter connected in by-pass to the conventional main stream filters on engines (and automatic transmissions.) Most contamination is much smaller than 15 micron in size, but full flow filters generally do not filter below this level. This results in a lot of harmful contamination passing through these filters and remaining in the system. Stauff Systems by-pass filters are capable of filtering down as low as 0,5 micron without detriment to the lubrication circuit.
(see schematic)

Whatever the application, the benefits of the Stauff Systems by-pass filters are all based on maintaining a higher quality and cleanliness level of the oil and thereby avoiding the multiple problems that can be caused by fluid contamination.



The benefits are many, and can be broken into three categories :

- Technical benefits
- Environmental benefits
- Financial benefits

Technical benefits

- Less malfunctioning
- Greater reliability of operation
- Prolonged oil usage life
- Reduced down time
- Reduced wear on cylinder linings and pistons
- Less bore polishing
- Less formation of black sludge
- Improved engine compression
- Increased equipment life time

Environmental benefits

- Less oil consumption
- Therefore less waste oil
- Increased life time of additives
- Reduction of harmful emissions

Financial benefits

- Savings in labour and materials (oil changes)
- Reduced costs for repairs and downtime
- Reduced waste processing costs

Specifications BPLS Filters

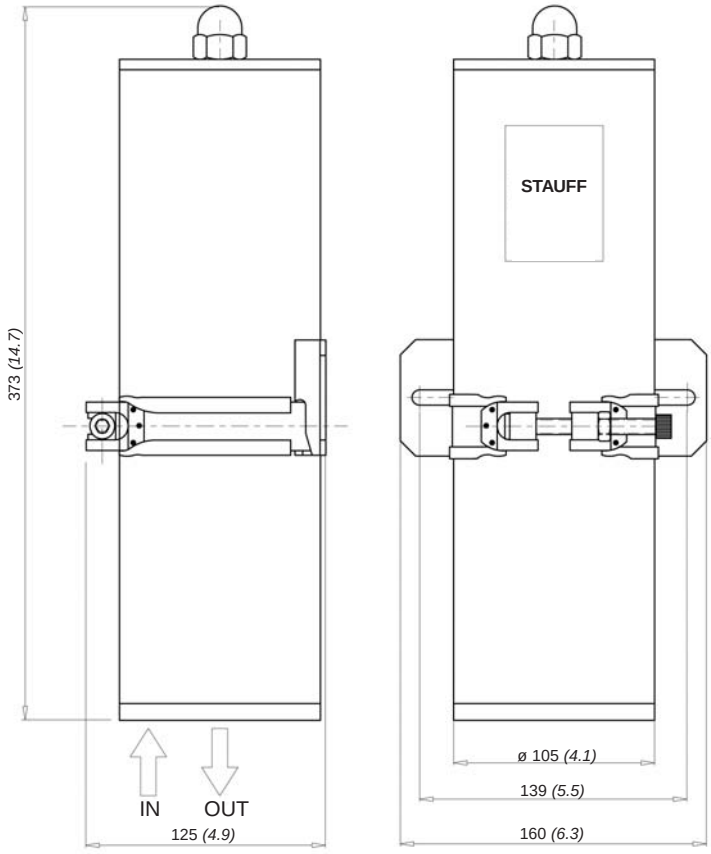
BPLS-1A-26

Maximum sump size	35 liter *(9,25 gal)*
Maximum supply pressure	6 bar *(87 PSI)*
Burst pressure housing	> 20 bar *(>290 PSI)*
Outlet orifice	1,5 mm *(0,06")*
Housing volume	2,2 liter *(0,58 gal)*
Inlet Port	1/4" BSP-P
Outlet Port	1/4" BSP-P

Applications

- Construction equipment
- Agricultural equipment
- Forestry equipment
- Diesel driven welding machines/generators
- Port equipment

BPLS-Filter Dimensions



All dimensions in mm *(inch)*

Ordering Code

BPLS - 1A - 26 - H - B - 0 - 0 - 0

Basic Configuration	
BPLS	BY-PASS Lube-Oil Filter (for engines and transmission systems

Housing Configuration		
Code	Single length	Nº of elements
1A	Single Housing	1 pcs element - (281 mm)

Filter Element Length	
26	281 mm (standard)

Filter Material	
H	Cellulose 0,5µm No bottom seal (standard)

Bracket Options	
0	No mounting bracket
1	Standard mounting bracket (bulkhead)

Options	
0	No options

Housing Material	
0	Aluminium (standard)

Seal Material	
B	NBR (Buna-N®) (standard)
V	FPM (Viton)

Ordering Code Filter Elements

SRM - 26HB - 1

Filter Element	
SRM-26HB	Replacement filter element for BPLS series length 281 mm

Quantity	
1	1 pcs. filter element
12	box with 12 pcs. filter element

STAUFF®

Notes

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KLD&DMP

www.stauff.com

Ordering Code # :SFT - 2004 - 2A - UK

2004

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FILTRATION TECHNOLOGY

Pressure Filters SIF48

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Stauff Filtration Technology

Stauff Filtration Technology offers a complete range of filtration products and services that will provide the system designer or user with the highest level of contamination control demanded by today's most sophisticated applications. Products include pressure filters, return line filters, elements, spin on filters suction strainers and filler breathers for various hydraulic, lubrication and fuel oils.

Stauff has the technical expertise to provide superior filter element designs for the Stauff original filter housings and also for the interchange element market. Stauff manufactures more than 10,000 different elements. Many of these are designed to fit into filter housings produced by other companies while maintaining or surpassing the original performance.

The "Stauff Contamination Control Program" includes the diagnostic services including fluid sampling and laser particle counting products needed to monitor the system contamination level.

Stauff, through its global network of wholly owned companies and technically qualified distributors, is ideally placed to assist its customers in the total contamination process providing a well balanced filtration solution.

Pressure Filter SIF48 — Page

Technical Data 3
Dimensions 4
Clogging Indicators 5
Ordering Code 6
Flow characteristics 7

Technical Data

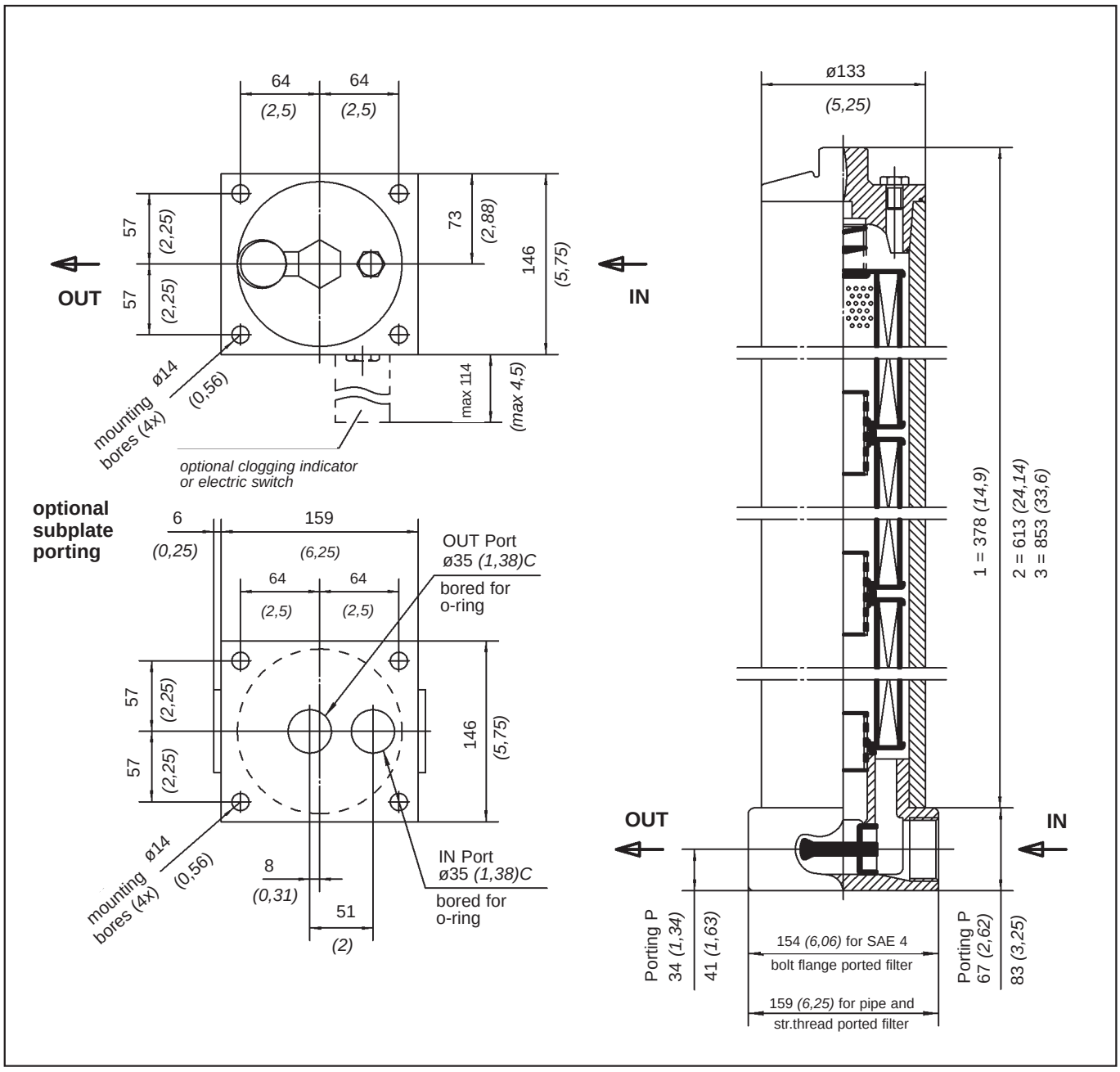
STAUFF SIF48 series pressure filters are designed for in-line hydraulic applications with a maximum operating pressure of 345 bar *(5000 PSI)*. The element is changed from the top, which minimizes oil spillage. **The SIF48 series pressure filter meets the HF4 Automotive Standard.**

Technical Specification

Construction	In-line assembly, top loading, base mounted
Filter base and cap	Ductile iron
Element case	Steel
Seals	O-Rings NBR (Buna-N®), FPM (Viton®)
Port connections	BSP, NPT, SAE “O”-Ring thread, SAE Code 61 flange or sub-plate
Flow rating	up to 380 l/min *(100 US GPM)* for 32 cSt *(150 SUS)* fluids, with 2” porting, 570 l/min *(150 US GPM)*
Operating pressure	max 345 bar *(5 000 PSI)*
Burst pressure	min 1035 bar *(15 000 PSI)*
Temperature range	-29°C to +107°C *(-20°F to +225°F)*
By-pass valve	Allows unfiltered oil to by-pass the contaminated element once the opening pressure has been reached
By-pass setting	2.8 bar *(40 PSI)*
Clogging indicators	standard actuating pressure 2.8 bar *(40 PSI)* indicator types: visual, electrical (AC and DC voltage versions)
Filter elements	Flow characteristics see page 7
Media	Mineral oils, other fluids on request

Pressure Filter SIF48 Dimensions

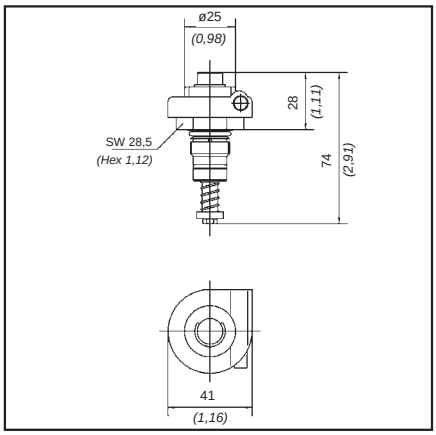
Dimensions



All dimensions in mm *(inch)*

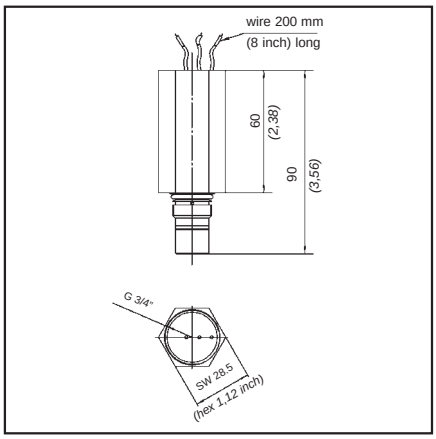
1. Visual clogging indicator

Part number HI48-V is a mechanical magnetic cartridge with a highly visible orange disk that pops up at 2.8 bar *(40 PSI)*. Once activated the orange signal continues to indicate a by-pass condition until it is manually reset.



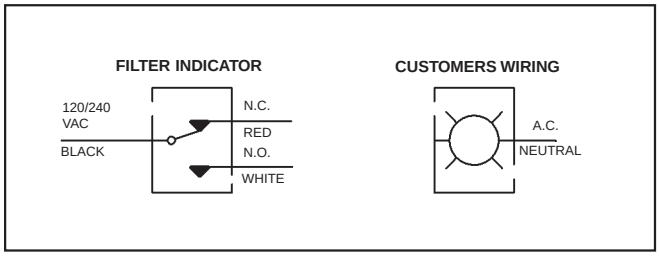
2. Electrical clogging indicator

Part number HI48-EAC and HI48-EDC are used when a electrical signal is needed to indicate when the element needs changing. The solid state switch is activated at 2.8 bar *(40 PSI)*. The indicators are supplied with a 200 mm *(8 in)* long wire leads and are NEMA 4 rated.



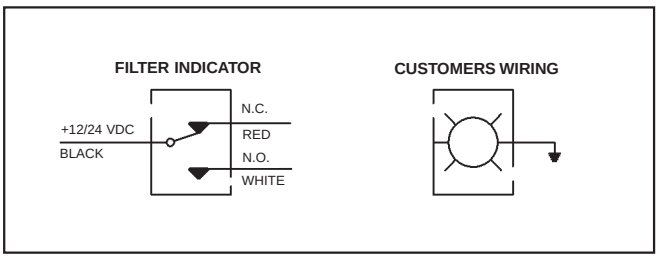
2.1 HI48-EAC Ratings

Voltage	max 240 VAC
Wattage	max 720 Watts
Current	0.10 to 6 amps
Contact type	solid state



2.2 HI48-VDC Ratings

Voltage	max 100 VDC
Wattage	max 50 Watts
Current	0.01 to 2 amps
Contact type	solid state



Ordering Code

HI 48 - E - AC /X

Clogging Indicator	
Series	**SIF48**

Code	Execution
V	visual
E	electrical

Design Code
only for information

Voltage (only for Code E)	
AC	max 240 VAC
DC	max 100 VDC

Pressure Filter SIF48 Ordering Code

Ordering Code Filter Housings

SIF48 S ... B S1 V /X

Filter type	SIF48

Port Size

Code	Connection Type
B	G 1 1/2
S	1 7/8 - 12 SAE (Standard)
N	1 1/2 NPT
P	2 NPT
F	1 1/2 SAE Code 61 Flange
O	Sub-plate

for complete filters:
identification filter material
+ micron rating code
(see ordering code filter elements below)

Design Code
only for information

Clogging indicator

N	without clogging indic.
V	visual
E	electrical

Bowl Length

S1	Single Element
S2	Double Element
S3	Triple Element

Seal material

B	NBR (Buna-N®)
V	FPM (Viton®)

Ordering Code Filter Elements

RTE48 G 10 B /X

Series	RTE48

Filter material

Code	Material	max $\Delta p^*_{collapse}$	Micron ratings available
D	Filterpaper	10 bar *(150 PSI)*	03, 10, 25
G	Inorganic glass fiber	10 bar *(150 PSI)*	03, 10, 25

*collapse / burst resistance as per ISO 2941

Design Code
only for information

Seal material

B	NBR (Buna-N®)
V	FPM (Viton®)

Micron rating

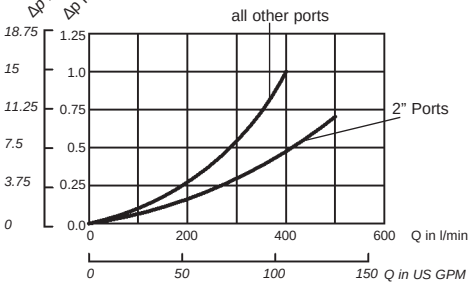
03	3 µm
10	10 µm
25	25 µm

Pressure Filter SIF48 Flow Characteristics

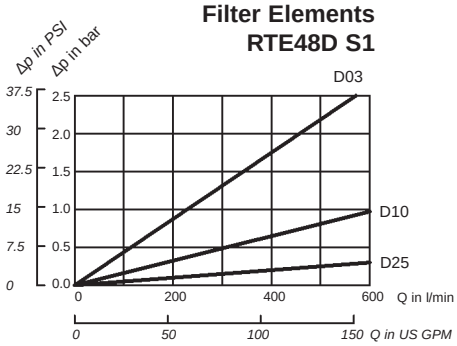
Flow Characteristics

The following characteristics are valid for mineral based fluids with a density of 0,85 kg/dm^3 and the kinematic viscosity of 30 mm^2/s. The characteristics have been determined in accordance to ISO 3968.

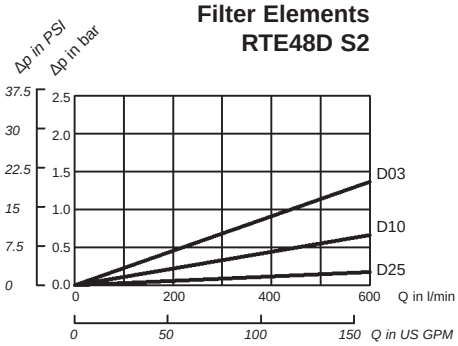
Filter Housing SIF48



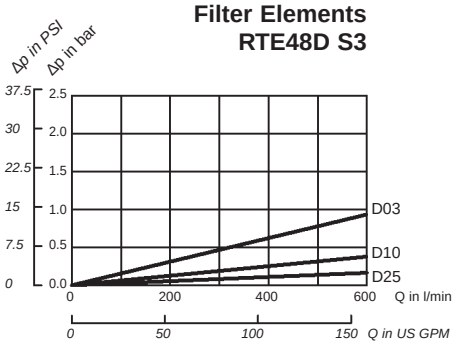
Filter Elements RTE48D S1



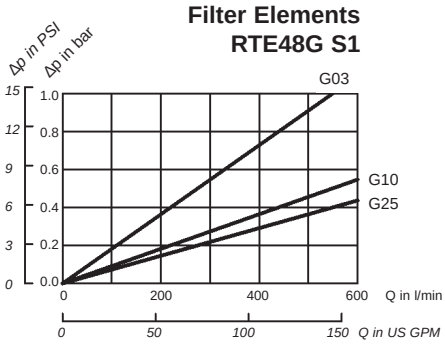
Filter Elements RTE48D S2



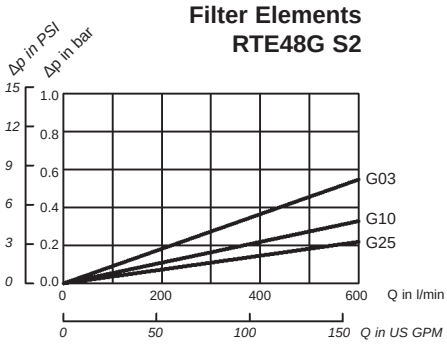
Filter Elements RTE48D S3



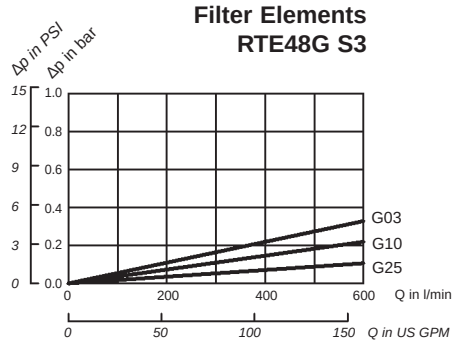
Filter Elements RTE48G S1



Filter Elements RTE48G S2



Filter Elements RTE48G S3



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Stauff Filtration Technology

Stauff Filtration Technology offers a complete range of filtration products and services that will provide the system designer or user with the highest level of contamination control demanded by today's most sophisticated applications. Products include pressure filters, return line filters, elements, spin on filters suction strainers and filler breathers for various hydraulic, lubrication and fuel oils.

Stauff has the technical expertise to provide superior filter element designs for the Stauff original filter housings and also for the interchange element market. Stauff manufactures more than 10,000 different elements. Many of these are designed to fit into filter housings produced by other companies while maintaining or surpassing the original performance.

The "Stauff Contamination Control Program" includes the diagnostic services including fluid sampling and laser particle counting products needed to monitor the system contamination level.

Stauff, through its global network of wholly owned companies and technically qualified distributors, is ideally placed to assist its customers in the total contamination process providing a well balanced filtration solution.

Pressure Filter SF

	Page
Technical Data	3
Dimensions	4
Valves	6
Clogging Indicators	7
Ordering Code	8
Filter Elements SE	9
Flow characteristics	10

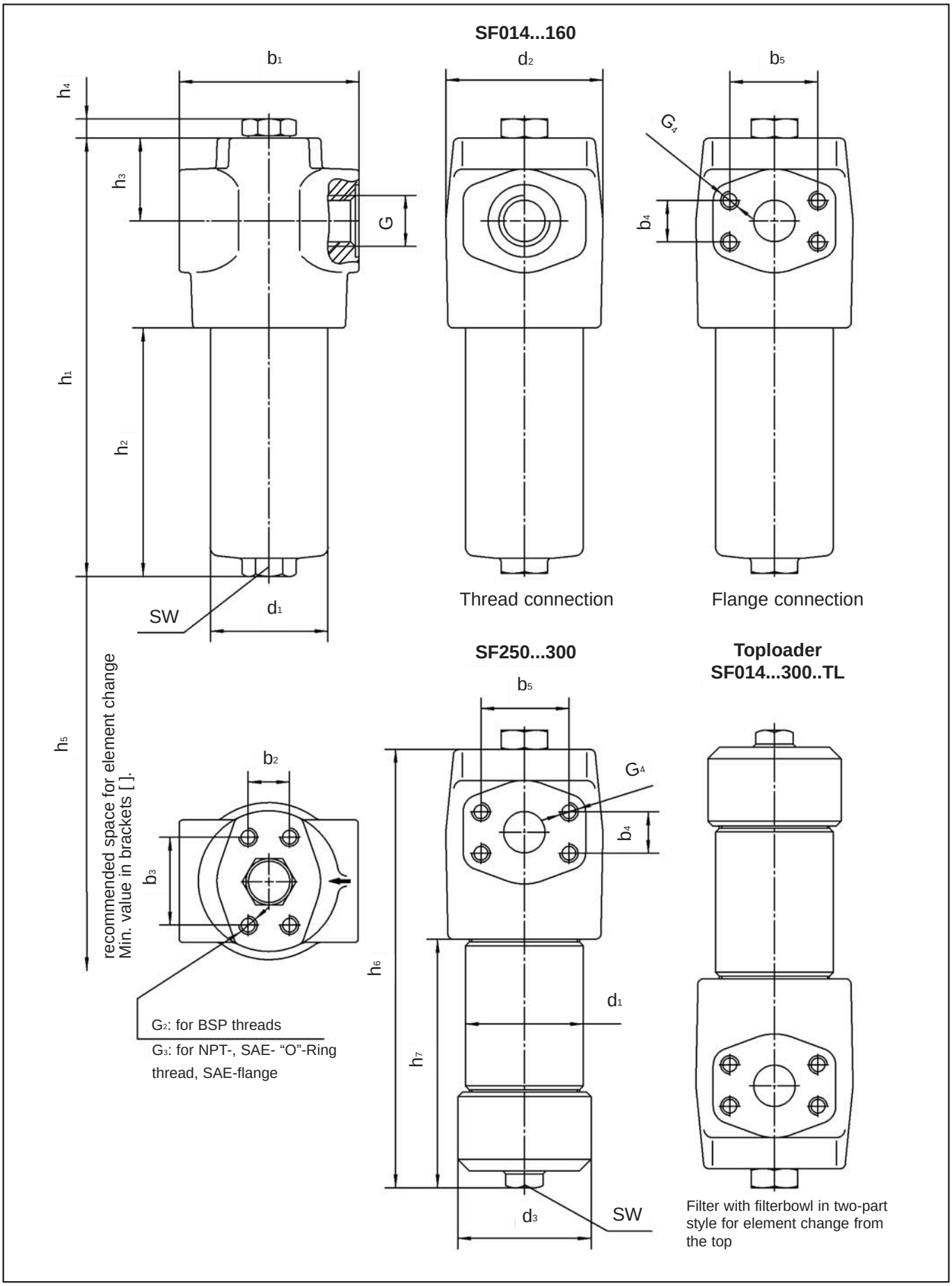
Technical Data

STAUFF high pressure filters are designed for in-line hydraulic applications, with a maximum operating pressure of 420 bar *(6000 PSI)*. Used together with STAUFF filter elements, a high efficiency of contaminant removal is assured. The high dirt holding capacity of the elements ensures long service life and, as a result, reduced maintenance costs.

Technical Specification

Construction	In-line assembly, with threaded mounting holes on top of head
Filter head	Spheroidal graphite cast iron
Filter bowl	Cold drawn steel
Seals	O-Rings NBR (Buna-N®) FPM (Viton®) EPDM (Ethylene-propylene), support ring PTFE
Port connections	BSP, NPT, SAE “O”-Ring thread or SAE Code 61 & 62 flange
Operating pressure	max 420 bar *(6000 PSI)*
Proof pressure	630 bar *(9100 PSI)*
Burst pressure	>1260 bar *(18250 PSI)*
Temperature range	-10°C up to +100°C *(14°F up to 212°F)*
By-pass valve	Allows unfiltered oil to by-pass the contaminated element once the opening pressure has been reached
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	Forward by-pass, reverse flow capability and non-return valve opening pressure 6 $^{+0,5}$ bar (*87* $^{+7,25}$ *PSI*) Δp all in one valve
Clogging indicators	standard actuating pressure 5 $_{-0,5}$ bar (72 $_{-7,25}$ *PSI*)Δp execution indicators: visual, electrical and visual-electrical (24 V, 110 V, 220 V versions) other actuating pressures on request
Filter elements	Specifications see page 9
Media	Mineral oils, other fluids on request

Dimensions



Dimensions in mm (inch)

Pressure Filter SF Dimensions

Dimensions

Filter Size	Thread connection G				Weight including elements			
	BSP	NPT	SAE- "O"-Ring thread	SAE - flange *6000 PSI*	with bowl in one-part style		with bowl in two-part style	
					kg	*lbs*	kg	*lbs*
SF014	G 3/4	3/4"	1 1/16-12 UN	3/4"	5,3	*11,7*	5,9	*13*
SF030					6,2	*13,7*	6,9	*15,2*
SF045	G 1 1/4	1 1/4"	1 5/8-12 UN	1 1/4"	10,3	*22,7*	12,2	*26,9*
SF070					12	*26,5*	13,7	*30,2*
SF125					16,3	*35,9*	20	*44,1*
SF090	G 1 1/2	1 1/2"	1 7/8-12 UN	1 1/2"	27	*59,9*	32	*70,5*
SF160					35,5	*78,3*	39,3	*86,5*
SF250					-	-	49	*108*
SF300					-	-	57,3	*126,3*

Filter Size	Dimensions														
					with filterbowl in one-part style Type SF					with filterbowl in two-part style Type SF...-TL					
	b_1	d_2	h_3	h_4	d_1	h_1	h_2	h_5	SW	d_1	d_3	h_6	h_7	h_5	SW
SF014	104 *(4,1)*	83 *(3,27)*	48 *(1,89)*	12,5 *(0,49)*	68 *(2,68)*	188 *(7,4)*	78 *(3,07)*	100 [85] *(3,94 [3,35])*	27 *(1,06)*	70 *(2,76)*	84 *(3,31)*	190 *(7,48)*	80 *(3,15)*	65 *(2,6)*	27 *(1,06)*
SF030						254 *(10)*	144 *(5,67)*	170 [85] *(6,69 [3,35])*				256 *(10,08)*	146 *(5,75)*	130 *(5,12)*	
SF045	140 *(5,51)*	116 *(4,57)*	49,5 *(1,95)*		95 *(3,74)*	239 *(9,41)*	103 *(4,06)*	140 [120] *(5,51 [4,72])*	32 *(1,26)*	101,6 *(4)*	115 *(4,53)*	241 *(9,49)*	103 *(4,06)*	100 *(3,94)*	32 *(1,26)*
SF070						298 *(11,73)*	161 *(6,34)*	200 [120] *(7,87 [4,72])*				300 *(11,81)*	163 *(6,42)*	160 *(6,3)*	
SF125						483 *(19,11)*	343 *(13,5)*	380 [120] *(14,96 [4,72])*				485 *(19,1)*	344 *(13,54)*	340 *(13,39)*	
SF090	178 *(7,01)*	159 *(6,26)*	72 *(2,84)*		130 *(5,12)*	323 *(12,72)*	148 *(5,83)*	190 [150] *(7,48 [5,91])*	36 *(1,42)*	133 *(5,24)*	155 *(6,1)*	329,5 *(12,97)*	154,5 *(6,08)*	120 *(4,72)*	36 *(1,42)*
SF160						494 *(19,45)*	319 *(12,56)*	360 [150] *(14,17 [5,91])*				500,5 *(19,71)*	325,5 *(12,82)*	290 *(11,42)*	
SF250						not available						656,5 *(25,85)*	481,5 *(18,96)*	425 *(16,73)*	
SF300						not available						821,5 *(32,34)*	646,5 *(25,45)*	590 *(23,23)*	

Filter Size	Dimensions Mounting Flange								Dimensions SAE-Flange *6000 PSI*		
	New Standard Style (for new engineering/constructions) TH				Old Style (running out, not for new engineering/constructions) T						
	b_2	b_3	G_2	G_3	b_2	b_3	G_2	G_3	b_4	b_5	G_4
SF014	32 *(1,26)*	56 *(2,21)*	M6x9	1/4 - 28 UNF x 0.35	23,8 *(0,94)*	50,8 *(2)*	M10x15	3/8 -16 UNC x 0.59	23,8 *(0,94)*	50,8 *(2)*	3/8-16 UNC
SF030											
SF045	35 *(1,38)*	85 *(3,35)*	M10x15	3/8 - 24 UNF x 0.59	31,6 *(1,24)*	66,7 *(2,63)*	M14x20	1/2-13 UNC x 0.79	31,6 *(1,24)*	66,7 *(2,63)*	1/2-13 UNC
SF070											
SF125											
SF090	60 *(2,36)*	115 *(4,53)*	M12x20	1/2 - 20 UNF x 0.79	36,7 *(1,45)*	79,4 *(3,13)*	M16x20	5/8-11 UNC x 0.79	36,7 *(1,45)*	79,4 *(3,13)*	5/8-11 UNC
SF160											
SF250											
SF300											

Dimensions in mm *(inch)*

Valves

The optional valves are fitted as an insert in the filter head and incorporate the spigot on which the element seals. The valve is selected to suit the filter application.

HV-O **Non-by-pass standard insert** without any valve function. Element collapse rating should be higher than system pressure

HV-B **By-pass valve** which allows oil to bypass the element when the differential pressure across the element reaches $6^{+0,5}$bar *(87$^{+7,25}$ PSI)*. (Other pressure settings available on request). The opening pressure should be higher than the Δp setting of an optional clogging indicator. Low collapse (30 bar / *435 PSI* Δp) elements are normally used with this valve.

HV-R **Reverse flow valve** is used in systems where there is flow in reverse through the filter. It allows reverse flow without back-flushing the element but does not filter in the reverse direction. Element collapse rating should be higher than the system pressure.

HV-N **Non-return valve**
This valve prevents the oil in the delivery line from draining out while the filter is being serviced. Because there is no by-pass, the element collapse rating should be higher than system pressure.

HV-M **Multi-function valve**
This valve combines the by-pass, the reverse flow and the non-return functions in one unit. The by-pass opening pressure is $6^{+0,5}$ bar (*87$^{+7,25}$ PSI)* Δp with other opening pressures available on request. The opening pressure should be higher than the Δp setting of an optional clogging indicator. Low collapse (30 bar / *435 PSI* Δp) elements are normally used with this valve.

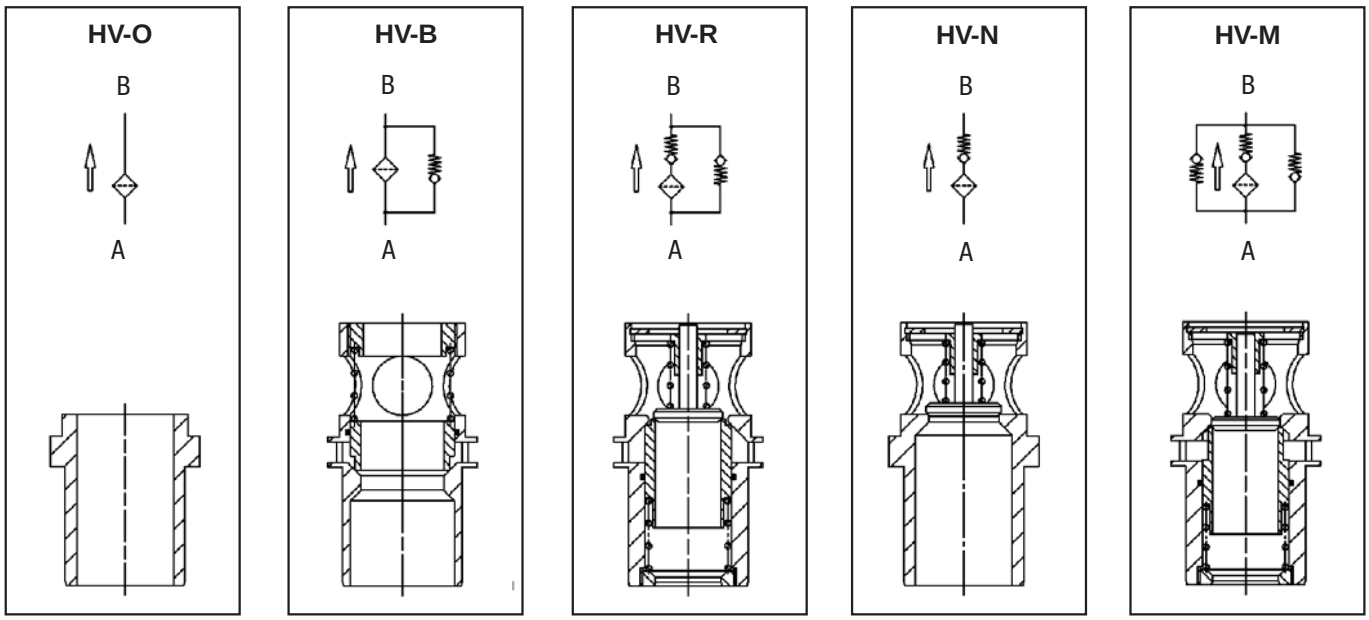
HV – M 014/030 /X

Valves

Code	Valve type
O	Non-bypass standard insert without any valve
B	By-pass Valve
R	Reverse Flow Valve
N	Non-Return Valve
M	Multi-Function Valve

Design Code
only for information

Filter Group
014/030
045/070/125
090/160/250/300



Flow characteristics of the valves see page 10

Clogging Indicators

STAUFF pressure filters have a range of clogging indicators available. If no indicator is specified, the port is sealed by a plug (HI-O). The clogging indicators are actuated by the differential pressure (Δp) across the element. The special piston design minimizes the effects of peak pressures in the system. An optional thermostatic lockout (thermo-stop) is available to prevent false indication under cold start conditions. Fluid temperature must be at least 20°C *(68°F)* for the indicator to function.

Technical Specification

Body	Stainless steel
Seals	NBR (Buna-N®), FPM (Viton®), EPDM Seal 18,5x23,9x2 *(0,73x 0,94x 0,08)* O-Ring 15,5x1,5 *(0,61x0,06)*
Thread	1/2" BSP
Differential pressure setting	$5_{-0,5}$ bar *($72_{-7,25}$ PSI)* (other settings on request)
Electrical	Standard DIN appliance plug, Screwed cable gland PG11, protection rating (DIN40050) IP65, both NO and NC contacts are available in the switch, rated capacity: see chart

The visual clogging indicators are available in the following configurations :

Manual reset	The indicator continues to display the clogged signal even through the Δp may have fallen. Pressing the plastic cover down will reset the indicator.
Automatic reset	The clogged signal will disappear when the Δp drops below the setting for the indicator.

Electrical and visual-electrical clogging indicators are only available with automatic reset.

HI – P T 220 B - 5,0B /X

Clogging Indicator

Code	Execution
O	plug
A	visual, automatic reset
V	visual, manual reset
E	electrical
P	visual-electrical

Thermostop

	without Thermostop
T	with Thermostop

Voltage (only for Code P)

24	24 V
110	110 V
220	220 V

Design Code

only for information

Differential pressure setting

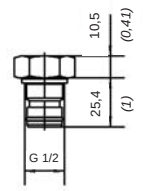
25P	*25 PSI* (1,72 bar)
2,0B	2,0 bar *(29 PSI)*
3,0B	3,0 bar *(43,5 PSI)*
5,0B	5,0 bar *(72,5 PSI)* (Standard)
7,0B	7,0 bar *(101,5 PSI)*

others on request

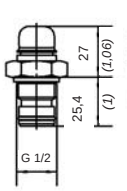
Sealing Material

B	NBR (Buna®)
V	FPM (Viton®)
E	EPDM

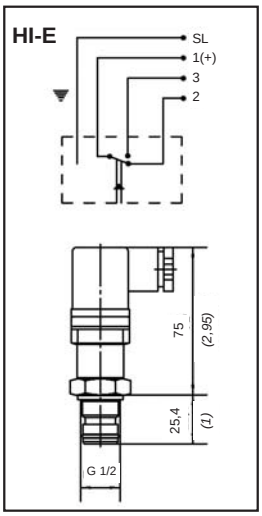
HI-O



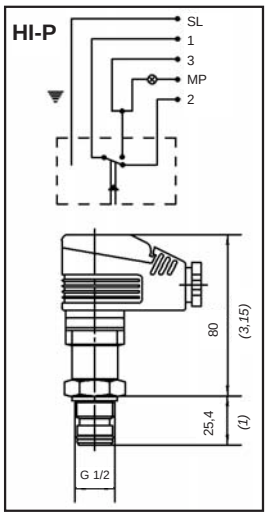
HI-A
HI-A



HI-E



HI-P



Rated Capacity HI-E and HI-P

Alternating current
250V AC 5 Amps

Direct current:
see table below

Voltage V	Resistive Load Amps	Inductive Load Amps
24	8,00	7,00
110	0,50	0,20
220	0,25	0,10

N.B. High voltage peaks occur when inductive loads are switched off.
Protective circuitry should be employed to reduce contact burnout.

Pressure Filter SF Ordering Code

Ordering Code Filter Housings

SF 014 ... V – TH B / B / PT 220 / TL /X

Filter type	SF

Group

Size	Flow *	
	l/min	GPM
014	60	14
030	110	30
045	160	45
070	240	70
090	330	90
160	660	160
250	990	250
300	1320	300

Note: Exact flow will depend on filter element selected. Consult Technical data on page 10 & 11

for complete filters:
identification filter material
+ micron rating code
(see ordering code filter elements below)

Seal material

B	NBR (Buna®)
V	FPM (Viton®)
E	EPDM

other seal materials on request

Connecting Flange

TH	Type TH (new standard)
(T)	*Type T*

see table page 5
dimensions connecting flange
Type T is running out, please use only type TH for new engineering/constructions

Design Code
only for information

Style filterbowl

	with bowl in one-part style
TL	Toploader. with bowl in two-part style

Voltage (only for code P)

24	24 V
110	110 V
220	220 V

Thermostop

	without Thermostop
T	with Thermostop

Clogging indicator

	without clogging indicator
A	visual, with autom. reset
V	visual, with manual reset
E	electrical
P	visual-electrical

Valve

O	without valve
B	By-pass valve
R	Reverse flow valve
N	Non return valve
M	Multi-function valve

Connection style		Group								
Code	Connection style	014	030	045	070	125	090	160	250	300
B	BSP	G 3/4		G 1 1/4			G 1 1/2			
B1	BSP	G1		G 1 1/2			-			
N	NPT	3/4"		1 1/4"			1 1/2"			
U	SAE-"O"-Ring thread	1 1/16 – 12		1 5/8 – 12			1 7/8 – 12			
F	SAE-flange *(3000 PSI)*	3/4"		1 1/4"			1 1/2"			
F1	SAE-flange *(3000 PSI)*	1"		-			2"			
G	SAE-flange *(6000 PSI)*	3/4"		1 1/4"			1 1/2"			

Other port connections on request. Flanges do not belong to the scope of supply!

Ordering Code Filter Elements

SE-014 G 10 V /X

Series	SE

Group
according to filter housing

Filter material			Micron ratings available
Code	Material	max $\Delta p^*_{collapse}$	
A	Stainless fiber	210 bar *(3045 PSI)*	03, 05, 10, 20
G	Inorganic glass fiber	30 bar *(435 PSI)*	
H	Inorganic glass fiber	210 bar *(3045 PSI)*	
B, **S**	Stainless mesh	30 bar *(435 PSI)*	25, 50, 100, 200

*collapse / burst resistance as per ISO 2941

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

Design Code
only for information

Seal material

B	NBR (Buna®)
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

Replacement Filter Elements for SF Series

STAUFF replacement filter elements for SF series filters are manufactured in the common filter materials such as stainless fiber, stainless mesh, paper and inorganic glass fiber. As standard all replacement elements series SF have tin plated steel parts for use with aggressive media such as water glycol, other materials available on request. All STAUFF replacement elements comply with quality specifications in accordance with international standards.

SE-014 G 10 V /X

Series	SE

Group
according to filter housing

Filter material			Micron ratings available
Code	Material	max $\Delta p^*_{collapse}$	
A	Stainless fiber	210 bar *(3045 PSI)*	03, 05, 10, 20
G	Inorganic glass fiber	30 bar *(435 PSI)*	
H	Inorganic glass fiber	210 bar *(3045 PSI)*	
B, **S**	Stainless mesh	30 bar *(435 PSI)*	25, 50, 100, 200
*collapse / burst resistance as per ISO 2941			

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

Design Code
only for information

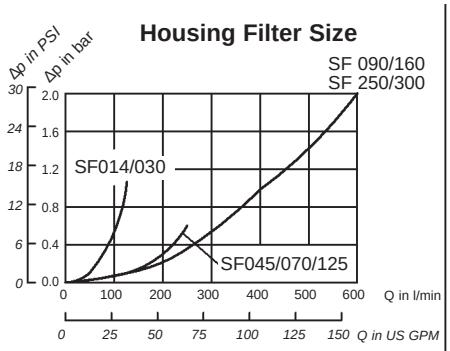
Seal material	
B	NBR (Buna®)
V	FPM (Viton®)
E	EPDM
other seal materials on request	

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	

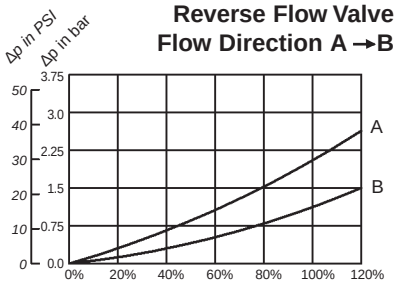
Flow Characteristics of Pressure Filters

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.

Housing Filter Size

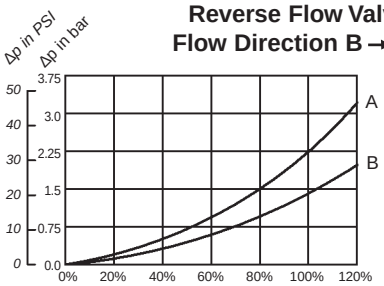


Reverse Flow Valve Flow Direction A → B



Q as a percentage of the nominal flow

Reverse Flow Valve Flow Direction B → A



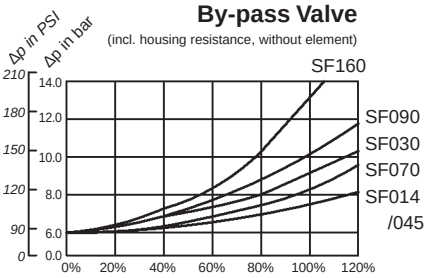
Q as a percentage of the nominal flow

A= Filter Size SF 030/070/125/160/250/300 B= Filter Size SF 014/045/090

Characteristics of the multi-function valve are approximately 15% higher than those of the reverse flow valve

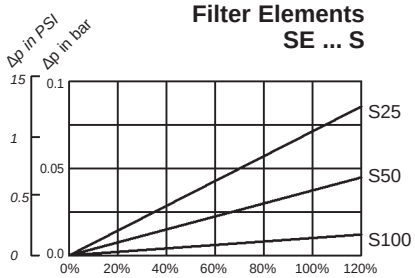
By-pass Valve

(incl. housing resistance, without element)



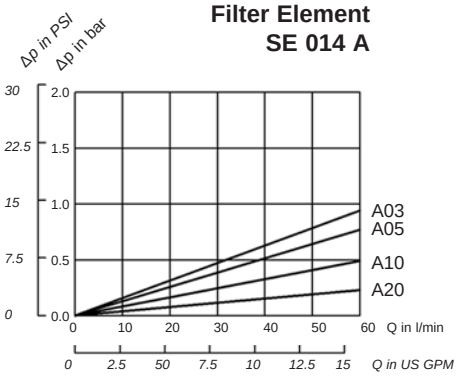
Characteristics of the multi-function valve are approximately 5% higher than those of the by-pass valve.

Filter Elements SE ... S

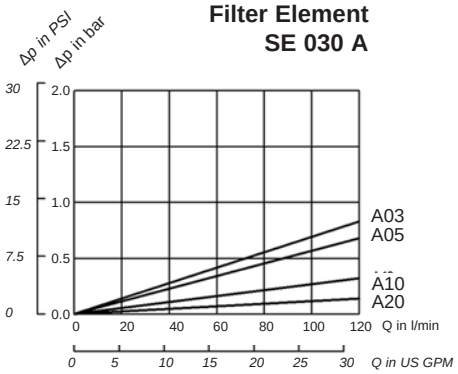


Q as a percentage of the nominal flow

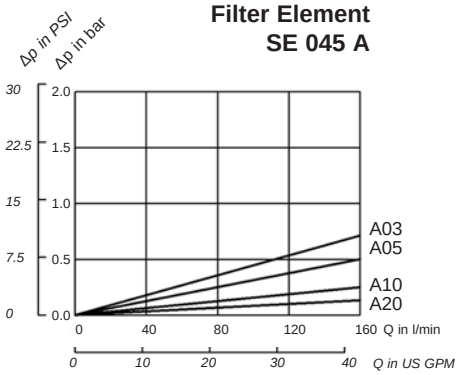
Filter Element SE 014 A



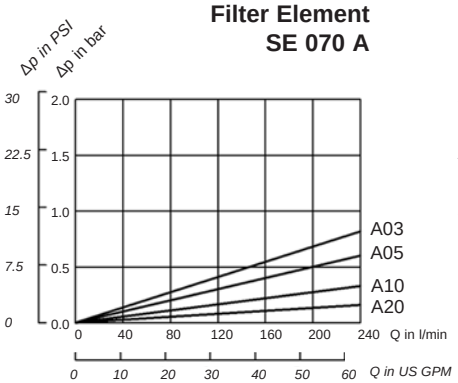
Filter Element SE 030 A



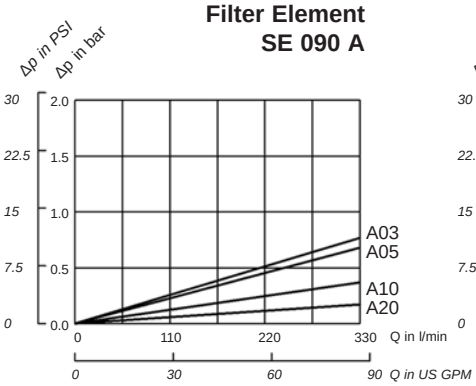
Filter Element SE 045 A



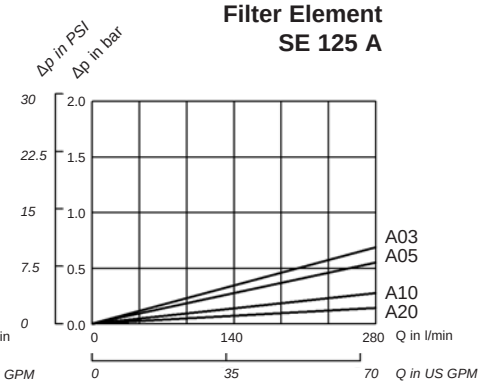
Filter Element SE 070 A



Filter Element SE 090 A



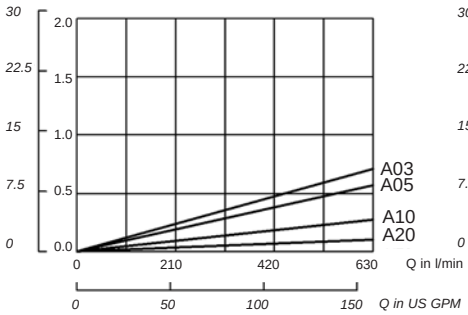
Filter Element SE 125 A



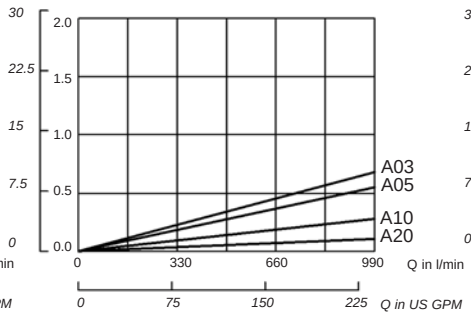
Flow Characteristics of Pressure Filters

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.

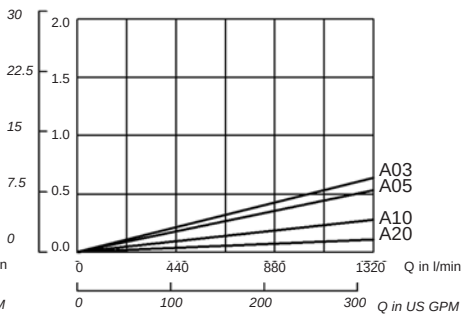
Filter Element SE 160 A



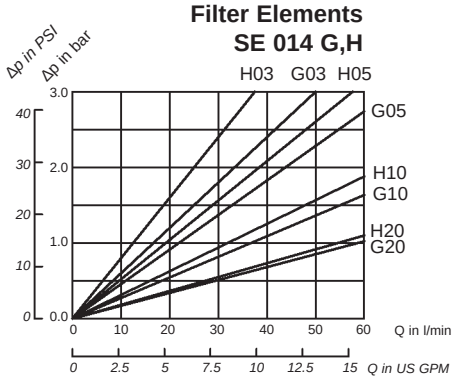
Filter Element SE 250 A



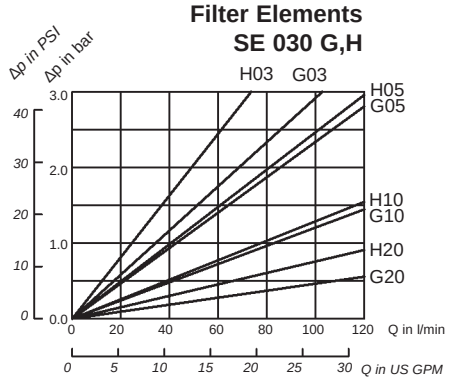
Filter Element SE 300 A



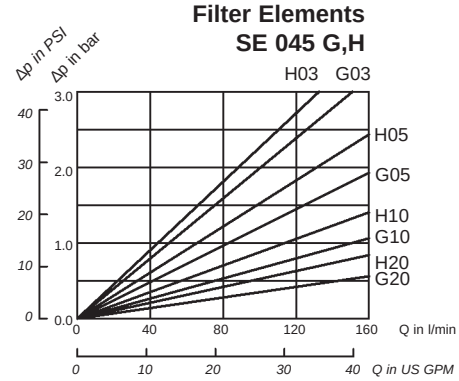
Filter Elements SE 014 G,H



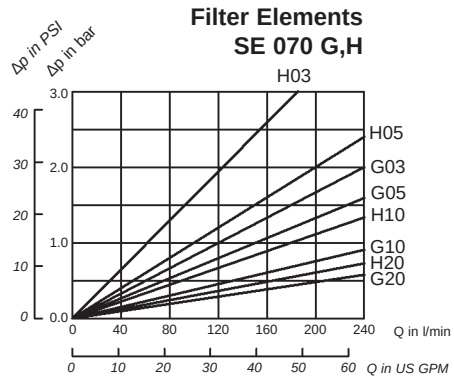
Filter Elements SE 030 G,H



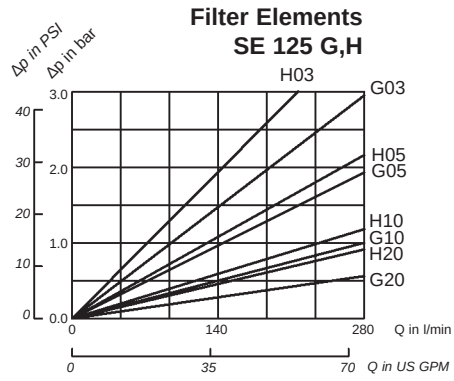
Filter Elements SE 045 G,H



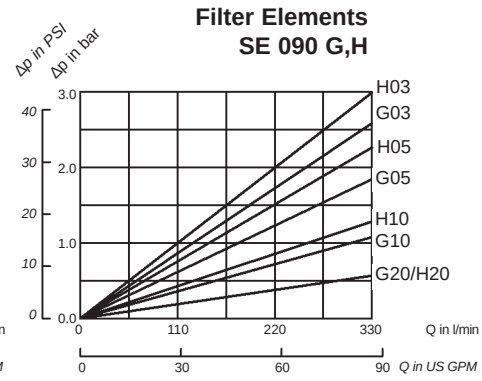
Filter Elements SE 070 G,H



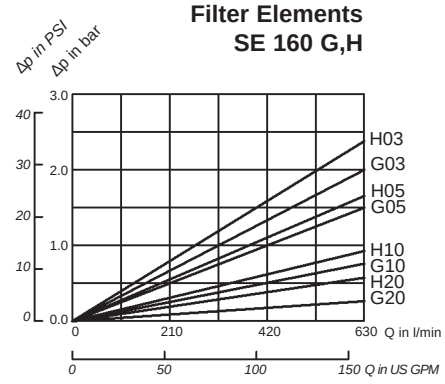
Filter Elements SE 125 G,H



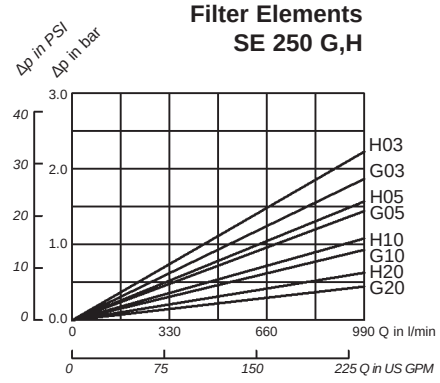
Filter Elements SE 090 G,H



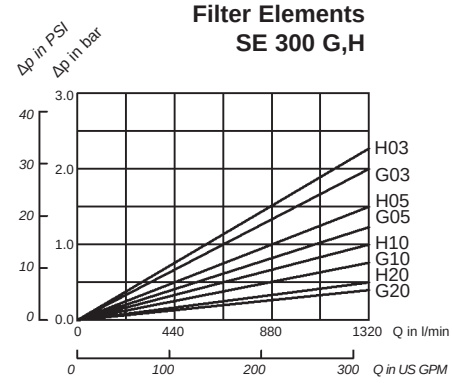
Filter Elements SE 160 G,H



Filter Elements SE 250 G,H



Filter Elements SE 300 G,H



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Ordering Code # :SFT - 2004 - 3A - UK

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FILTRATION TECHNOLOGY

Medium Pressure Filters SMPF

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Stauff Filtration Technology

Stauff Filtration Technology offers a complete range of filtration products and services that will provide the system designer or user with the highest level of contamination control demanded by today's most sophisticated applications. Products include pressure filters, return line filters, elements, spin on filters suction strainers and filler breathers for various hydraulic, lubrication and fuel oils.

Stauff has the technical expertise to provide superior filter element designs for the Stauff original filter housings and also for the interchange element market. Stauff manufactures more than 10,000 different elements. Many of these are designed to fit into filter housings produced by other companies while maintaining or surpassing the original performance.

The "Stauff Contamination Control Program" includes the diagnostic services including fluid sampling and laser particle counting products needed to monitor the system contamination level.

Stauff, through its global network of wholly owned companies and technically qualified distributors, is ideally placed to assist its customers in the total contamination process providing a well balanced filtration solution.

Medium Pressure Filter SMPF

	Page
Technical Data	3
Dimensions	4
Clogging Indicators	5
Ordering Code	6
Flow characteristics	7

Technical Data

STAUFF SMPF series medium pressure filters are designed for in-line hydraulic applications with a maximum operating pressure of 110 bar *(1600 PSI)*. Used together with STAUFF filter elements, a high efficiency of contaminant removal is assured.

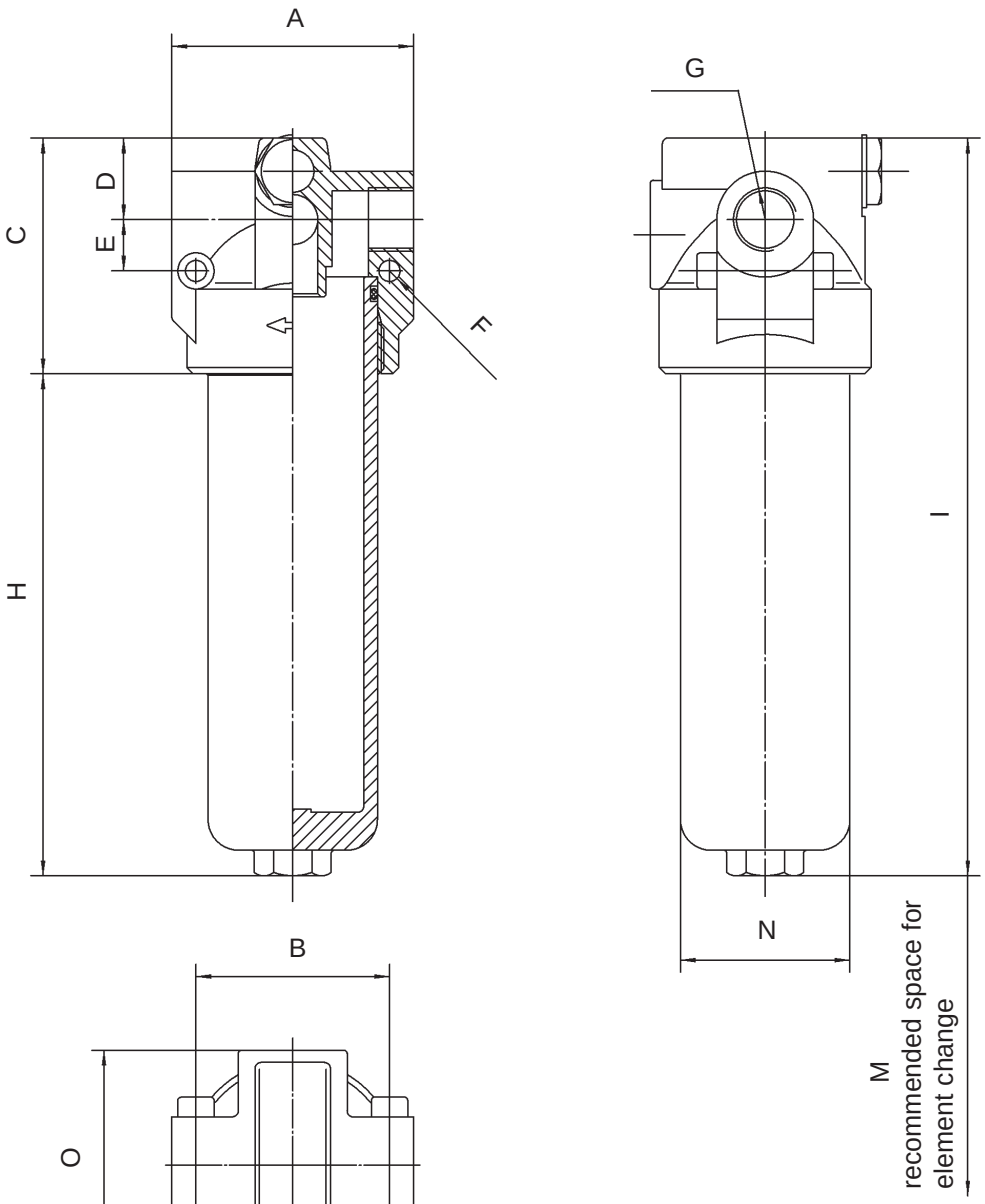
Technical Specification

Construction	In-line assembly
Filter base and cap	Aluminium alloy
Seals	O-Rings NBR (Buna-N®)
Port connections	BSP, SAE “O”-Ring thread
Flow rating	up to 90 l/min *(25 US GPM)* for 32 cSt *(150 SUS)* fluids
Operating pressure	max 110 bar *(1600 PSI)*
Test pressure	200 bar *(2900 PSI)*
Temperature range	-25°C to +110°C *(-13°F to +230°F)*

By-pass valve	Allows unfiltered oil to by-pass the contaminated element once the opening pressure has been reached
By-pass setting	6 bar *(87 PSI)*
Clogging indicators	standard actuating pressure: 5 bar *(72 PSI)* indicator types: visual and visual-electrical
Filter elements	Flow characteristics see page 7
Media	Mineral oils, other fluids on request

Medium Pressure Filter SMPF Dimensions

Dimensions

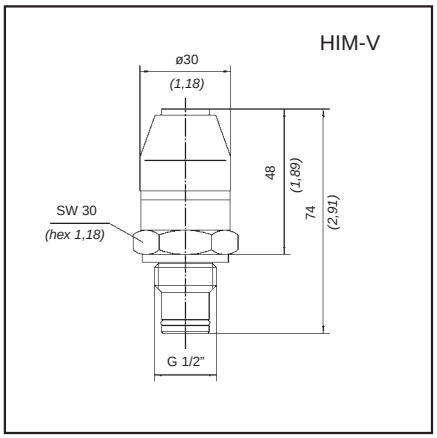


Dimensions in mm *(inch)*

Filter Size	Nominal Flow	A	B	C	D	E	F	H	I	M	N	O	Thread connection G		Weight
													SAE	BSP	
SMPF015	60 LPM *(15 GPM)*	80 *(3.2)*	64 *(2.52)*	78 *(3.1)*	27 *(1.1)*	17 *(0.7)*	7 *(0.3)*	79 *(3.1)*	157 *(6.2)*	60 *(2.4)*	56 *(2,2)*	76,5 *(3)*	*3/4-16 UN*	*G 1/2*	0.95 kg *(2.1 lb)*
SMPF025	90 LPM *(25 GPM)*	80 *(3.2)*	64 *(2.52)*	78 *(3.1)*	27 *(1.1)*	17 *(0.7)*	7 *(0.3)*	166 *(6.5)*	244 *(9.61)*	60 *(2.4)*	56 *(2,2)*	76,5 *(3)*	*3/4-16 UN*	*G 1/2*	1.25 kg *(2.8lb)*

1. Visual clogging indicator HIM-V

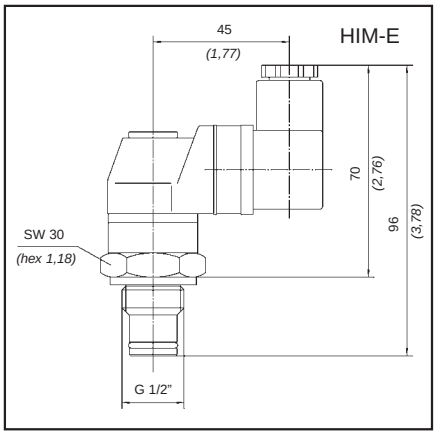
Part number HIM-V is a clogging indicator actuated by the differential pressure across the filter element. The actuating pressure of 5 bar *(72 PSI)* allows the dirty element to be changed before the by-pass setting of 6 bar *(87 PSI)* is reached.



Dimensions in mm *(in)*

2. Visual-Electrical clogging indicator HIM-E

Part number HIM-E is used when an electrical signal is needed to indicate when the element needs changing. It is actuated by the differential pressure across the filter element. The actuating pressure of 5 bar *(72 PSI)* allows the dirty element to be changed before the by-pass setting of 6 bar *(87 PSI)* is reached.

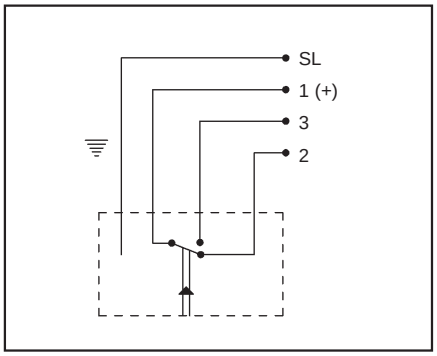


Dimensions in mm *(in)*

HIM-E Rated capacity

Voltage V	Resistive Load Amps	Inductive Load Amps
125 VAC	5	5
250 VAC	5	5
15 VAC	10	10
30 VDC	5	5
50 VDC	1	1
125 VDC	0.5	0.06

HIM-E Wiring diagram



Ordering Code

HIM - E B - 5,0B /X

Clogging Indicator SMPF

Type	
Code	**Type**
V	visual
E	visual-electrical

Seal Material	
B	NBR (Perbunan®)
other material on request	

Design Code
only for information

Actuating pressure	
5,0B	5 bar *(72 PSI)*
other pressures on requests	

Medium Pressure Filter SMPF Ordering Code

Ordering Code Filter Housings

SMPF 015 ... B - T B / B / E /X

Filter type	SMPF

Group

Size	Flow*	
	l/min	GPM
15	60	15
25	90	25

* Note: exact flow will depend on filter element selected. Consult technical data on page 7.

for complete filters:
identification filter material
+ micron rating code
(see ordering code filter elements below)

Seal material

B	NBR (Buna-N®)

Other seal material on request

Design Code
only for information

Clogging Indicators

V	visual
E	visual - electrical

Valve

O	Without Valve
B	By-pass Valve

Connection Style

B	BSP	G1/2
U	SAE O-Ring thread	3/4-16 UN

Mounting Style

T	In-line

Ordering Code Filter Elements

SME - 015 E 03 B /X

Series	SME

Group
according to filter housing

Filter material

Code	Material	max Δp*collapse	Micron ratings available
E	Inorganic glass fiber	20 bar *(290 PSI)*	03, 10, 20
S	Stainless mesh	20 bar *(290 PSI)*	60

*collapse/ burst resistance as per ISO 2941

Design Code
only for information

Seal material

B	NBR (Buna-N®)

Other seal material on request

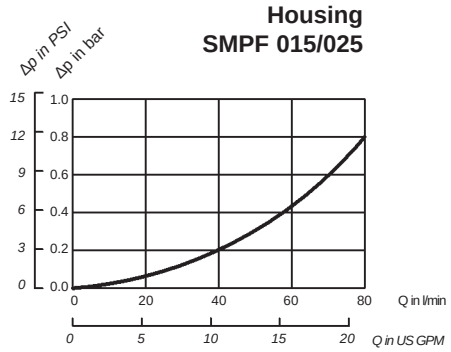
Micron rating

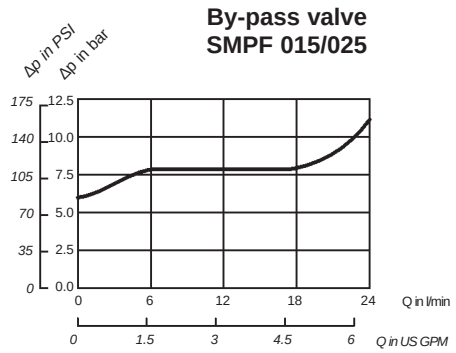
Code	Rating
03	3 µm
10	10 µm
20	20 µm
60	60 µm

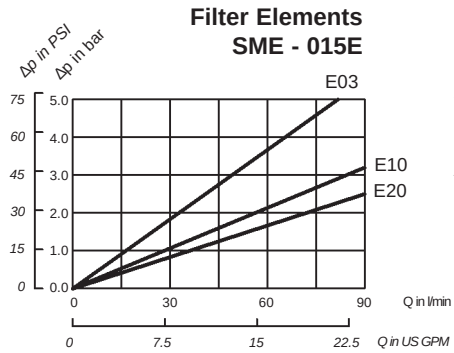
Other micron ratings on request

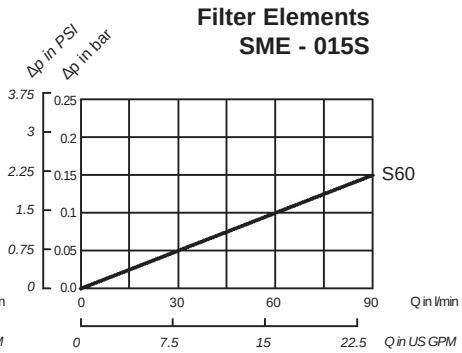
Flow Characteristics of Medium Pressure Filters SMPF

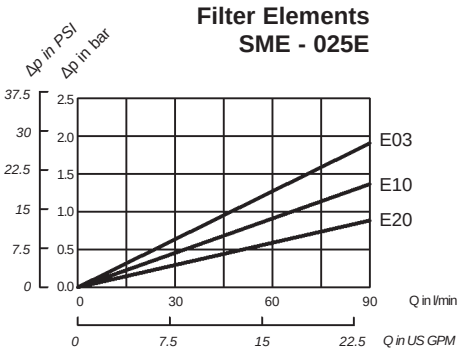
The following characteristics are valid for mineral oils with a density of 0,85 kg/dm³ and the kinematic viscosity of 30 mm²/s. The characteristics have been determined in accordance to ISO 3968.

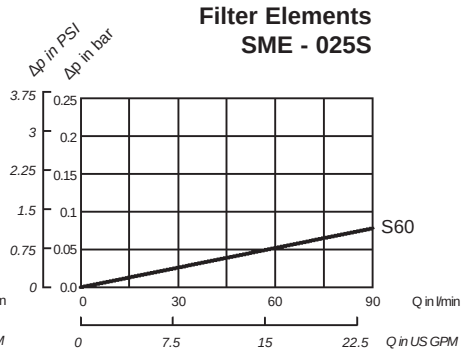












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STAUFF Filtration Technology

STAUFF Filtration Technology offers a complete range of filtration products and services that will provide the system designer or user with the highest level of contamination control demanded by today's most sophisticated applications.

Products include high-pressure filters, medium-pressure filters, return line filters, elements, spin-on filters, suction strainers and filler breathers for various hydraulic, lubrication and fuel oils.

STAUFF has the technical expertise to provide superior filter element designs for the STAUFF original filter housings and also for the interchange element market. STAUFF manufactures more than 10,000 different elements. Many of these are designed to fit into filter housings produced by other companies while maintaining or surpassing the original performance.

STAUFF, through its global network of wholly owned companies and technically qualified distributors, is ideally placed to assist its customers in the total contamination control process providing a well balanced filtration solution.

The *STAUFF Contamination Control Program* includes the diagnostic services including fluid sampling and laser particle counting products needed to monitor system contamination levels.

STAUFF Medium-Pressure Filters MF-MQ

	Page/s
Description	3
Specifications	3
Technical Data	4 / 5
Options	6
Ordering Code	7
Filter Elements	8
Flow Characteristics Filter Housings / Bypass Valves	9
Flow Characteristics Complete Filters	10
Notes	11

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Globally available through wholly-owned branches and distributors in all industral countries.

Medium-Pressure Filters MF-MQ: Introduction / Specifications

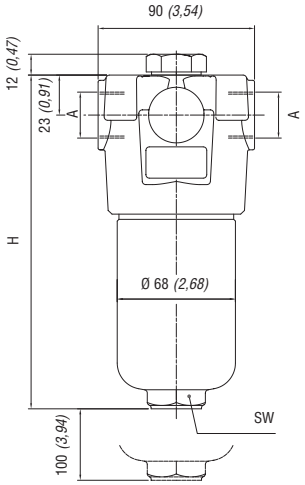
Description

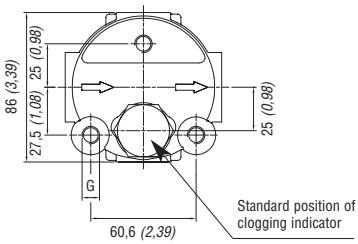
STAUFF MF-MQ series medium pressure filters are designed for in-line hydraulic applications with a maximum operating pressure of 280 bar *(4.000 PSI)*. Used together with STAUFF filter elements, a high efficiency of contaminant removal is assured.

Specifications

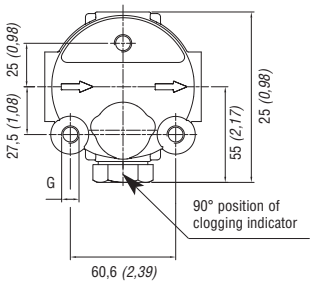
Construction	In-line assembly (with threaded mounting holes on top of head)
Port Connections	BSP; Metric, NPT, SAE O-Ring thread, SAE code 61 & 62 flange on request
Material Filter Head	Cast iron (chemical heat treatment)
Material Filter Bowl	Steel (chemical heat treatment)
Material Bypass Valve	Steel (for MF-MQ-024/.../035) Brass (for MF-MQ-037/.../127)
Material Sealings	NBR (Perbunan); FKM (Viton) on request
Operating Pressure	max 280 bar *(4.000 PSI)*
Proof Pressure	420 bar *(6.000 PSI)*
Burst Pressure	> 840 bar *(12.000 PSI)*
Temperature Range	-25°C ... +110°C *(-13°F ... +230°F)*
Bypass Valve	Allows unfiltered oil to bypass the contaminated element once the opening pressure of 6 bar *(87 PSI)* ±10% has been reached; version without bypass valve on request
Clogging Indicator	Visual and electrical clogging indicators (actuated by the differential pressure across the filter element) with an actuating pressure of 5 bar *(72 PSI)* ±10%
Filter Elements	Specifications, see page 8
Media Compatibility	Suitable for mineral oils, aqueous emulsions and sythetic fluids; compatibility with other media on request

Dimensions MF-MQ-024/027/030/035



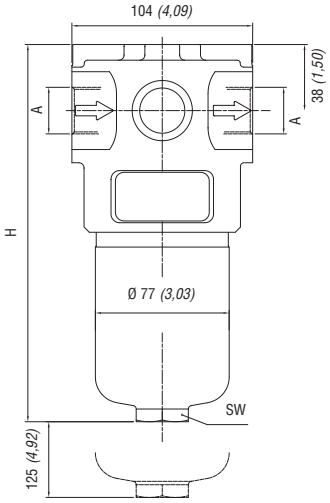


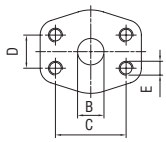
Standard position (top) of clogging indicator



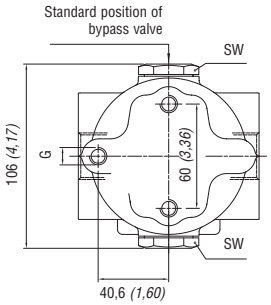
90° position of clogging indicator (on request)

Dimensions MF-MQ-026/037/048

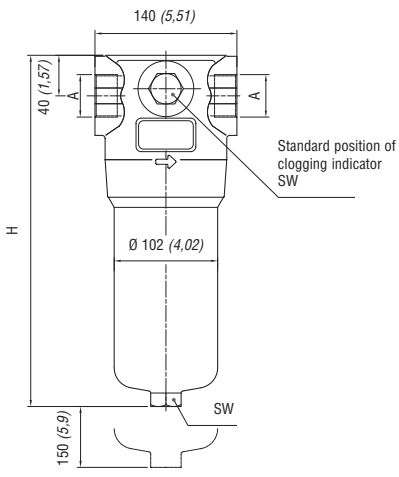


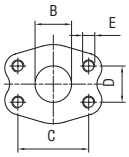


Flange connection

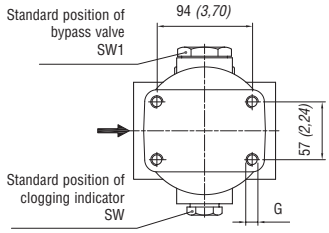


Dimensions MF-MQ-053/106/119/127





Flange connection



All dimensions in mm *(inch)*.

Medium-Pressure Filters MF-MQ: Technical Data

Port Connection A (Delivery standards and printed in **bold**.)

Filter Size	BSP	NPT	Metric	SAE O-Ring thread	SAE flange 3.000 PSI Metr.	SAE flange 3.000 PSI UNC
MF-MQ-024						
MF-MQ-027	G 1/2"	1/2" NPT	M18x1,5	3/4"-16 UNF	-	-
MF-MQ-030	**G 3/4"**	3/4" NPT	M22x1,5	1-1/16"-12 UN		
MF-MQ-035						
MF-MQ-026	G 3/4"	3/4" NPT	-	1-1/16"-12 UN	3/4"	3/4"
MF-MQ-037	**G 1"**	1" NPT		1-5/16"-12 UN	1"	1"
MF-MQ-048						
MF-MQ-053						
MF-MQ-106	G 1-1/4"	1-1/4" NPT	-	1-5/8"-12 UN	1-1/4"	1-1/4"
MF-MQ-119	**G 1-1/2"**	1-1/2" NPT		1-7/8"-12 UN	1-1/2"	1-1/2"
MF-MQ-127						

Dimensions (Delivery standards and printed in **bold**.)

Filter Size	H	G Depth 15mm *(0,59)*	SW	SW1	B	C	D	E Depth 15mm *(0,59)*
MF-MQ-024	195 *(7,68)*							
MF-MQ-027	237 *(9,33)*	M10	30 *(hex 1.18)*	-	-	-	-	-
MF-MQ-030	285 *(11,22)*	*(3/8" UNC)*						
MF-MQ-035	407 *(16,02)*							
MF-MQ-026	220 *(8,66)*	M10			3/4"	47,63 *(1,88)*	22,23 *(0,88)*	M10
MF-MQ-037	333 *(13,11)*	*(3/8" UNC)*	30 *(hex 1.18)*	-	1"	52,73 *(2,06)*	26,19 *(1,03)*	*(3/8" UNC)*
MF-MQ-048	408 *(16,06)*							
MF-MQ-053	263 *(10,35)*							
MF-MQ-106	386 *(15,20)*	M12	30 *(hex 1.18)*	46 *(hex 1.81)*	1-1/4"	58,72 *(2,31)*	30,18 *(1,19)*	M10 *(7/16" UNC)*
MF-MQ-119	528 *(20,79)*	*(1/2" UNC)*			1-1/2"	69,85 *(2,75)*	35,71 *(1,41)*	M12 *(1/2" UNC)*
MF-MQ-127	673 *(26,50)*							

Weigths and Internal Volumes (Delivery standards and printed in **bold**.)

Filter Size	Weight (without Filter Element)	Internal Volumes
MF-MQ-024	3,6 kg *(7,94 lbs)*	0,48 l *(0,13 US gallon)*
MF-MQ-027	3,9 kg *(8,59 lbs)*	0,58 l *(0,15 US gallon)*
MF-MQ-030	4,5 kg *(9,92 lbs)*	0,69 l *(0,18 US gallon)*
MF-MQ-035	6,1 kg *(13,45 lbs)*	0,86 l *(0,23 US gallon)*
MF-MQ-026	6,0 kg *(13,23 lbs)*	0,40 l *(0,11 US gallon)*
MF-MQ-037	8,2 kg *(18,09 lbs)*	1,02 l *(0,27 US gallon)*
MF-MQ-048	12,0 kg *(26,46 lbs)*	1,24 l *(0,33 US gallon)*
MF-MQ-053	12,7 kg *(28,00 lbs)*	1,61 l *(0,43 US gallon)*
MF-MQ-106	14,7 kg *(32,41 lbs)*	2,61 l *(0,69 US gallon)*
MF-MQ-119	20,7 kg *(45,64 lbs)*	3,27 l *(0,86 US gallon)*
MF-MQ-127	23,7 kg *(50,05 lbs)*	4,20 l *(1,11 US gallon)*

All dimensions in mm *(inch)*.

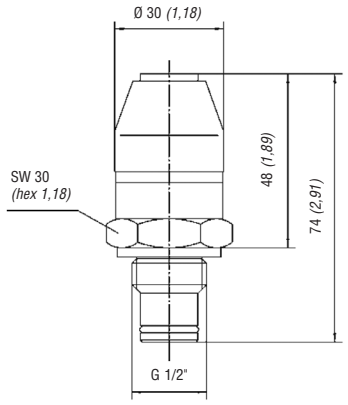
Visual Clogging Indicator HIM-V

Part number HIM-V is a visual clogging indicator actuated by the differential pressure across the filter element.

The actuating pressure of 5 bar *(72 PSI)* ±10% allows the dirty element to be changed before the bypass setting of 6 bar *(87 PSI)* ±10% is reached.

Ordering code (delivery standard): **HIM-V B-5,0B**

Dimensions HIM-V



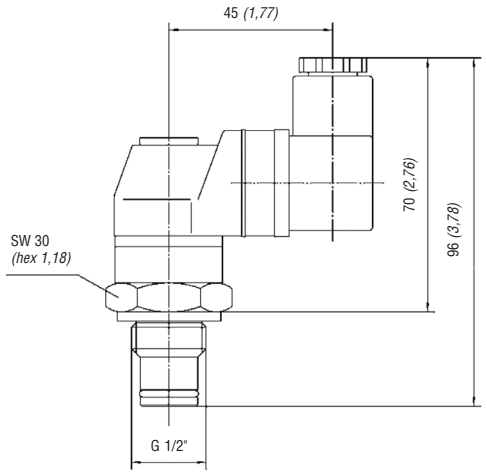
Electircal Clogging Indicator HIM-E

Part number HIM-V is an electrical clogging indicator actuated by the differential pressure across the filter element and using an electrical signal to indicate when the element needs to be replaced.

The actuating pressure of 5 bar *(72 PSI)* ±10% allows the dirty element to be changed before the bypass setting of 6 bar *(87 PSI)* ±10% is reached.

Ordering code (delivery standard): **HIM-E B-5,0B**

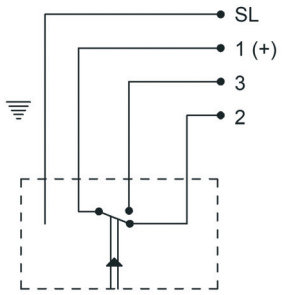
Dimensions HIM-E



Rated Capacity HIM-E

Voltage V	Resistive Load Amps A	Inductive Load Amps A
125 VAC	5	5
250 VAC	5	5
15 VAC	10	10
30 VDC	5	5
50 VDC	1	1
125 VDC	0,5	0,06

Wiring Diagram HIM-E



All dimensions in mm *(inch)*.

Medium-Pressure Filters MF-MQ: Ordering Code

Ordering Code Filter Housing (Delivery standards and printed in **bold**.)

MF-M Q - 024 ... B / B1 / B / V _

Series

MF-M	medium pressure, filters, series M

Nominal Pressure Level

Q	280 bar *(4.000 PSI)*

Filter Size

Nom. Size	Nominal Flow*
024	87 l/min *(23 US GPM)*
027	100 l/min (26 *US GPM)*
030	118 l/min *(31 US GPM)*
035	130 l/min *(34 US GPM)*
026	100 l/min *(26 US GPM)*
037	140 l/min *(37 US GPM)*
048	180 l/min *(48 US GPM)*
053	200 l/min *(53 US GPM)*
106	400 l/min *(106 US GPM)*
119	450 l/min *(119 US GPM)*
127	480 l/min *(127 US GPM)*

* The exact flow depends on filter element selected. The flow stated above applies to a STAUFF filter element E10B.

for Complete Filters

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

Position (Clogging Indicator)

	standard position
1	90° position (MF-MQ-024/.../035)

Clogging Indicator

O	without
V	visual, 5 bar *(72 PSI)* ±10%
E	electrical, 5 bar *(72 PSI)* ±10%

Bypass Valve

O	without bypass valve
B	with bypass valve

Port Connection

B1	BSP (MF-MQ-024/027/030/035: G 3/4") (MF-MQ-026/037/048: G 1") (MF-MQ-053/106/119/127: G 1-1/2")

Alternative port connections (metric, NPT, SAE O-Ring thread, SAE code 61 & 62 flange) on request.

Sealing Material

B	NBR (Perbunan)
V	FKM (Viton)

Ordering Code Filter Elements (Delivery standards and printed in **bold**.)

ME-M - 024 E 03 B

Series

ME-M	elements (medium pressure filters)

Filter Size

according to filter housing

Filter Material

Code	Material	max. $\triangle p^*_{collapse}$	micron ratings avlb.
E	glass fibre	20 bar *(290 PSI)*	03, 06, 10, 16, 25
F	glass fibre	210 bar *(3.045 PSI)*	03, 06, 10, 16, 25
B	stainless mesh	20 bar *(290 PSI)*	25

* Collapse / burst resistance as per ISO 2941

Sealing Material

B	NBR (Perbunan)
V	FKM (Viton)

Micron Ratings

03	micron rating 3µm
06	micron rating 6µm
10	micron rating 10µm
16	micron rating 16µm
25	micron rating 25µm

Description

STAUFF replacement filter elements ME-M for MF-MQ series filters are manufactured in the common filter materials such as stainless mesh and inorganic glass fiber. All STAUFF replacement elements comply with quality specifications in accordance with international standards

Ordering Code Filter Elements (Delivery standards and printed in **bold**.)

ME-M - 024 E 03 B

Series	
ME-M	elements (medium pressure filters)

Filter Size
according to filter housing

Filter Material			
Code	Material	max. $\triangle p^*_{collapse}$	micron ratings avlb.
E	glass fibre	20 bar *(290 PSI)*	03, 06, 10, 16, 25
F	glass fibre	210 bar *(3.045 PSI)*	03, 06, 10, 16, 25
B	stainless mesh	20 bar *(290 PSI)*	25 (µm)

Sealing Material	
B	NBR (Perbunan)
V	FKM (Viton)

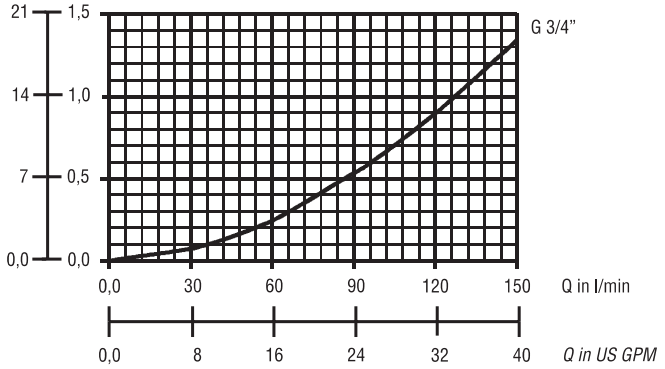
Micron Ratings	
03	micron rating 3µm
06	micron rating 6µm
10	micron rating 10µm
16	micron rating 16µm
25	micron rating 25µm

* Collapse / burst resistance as per ISO 2941

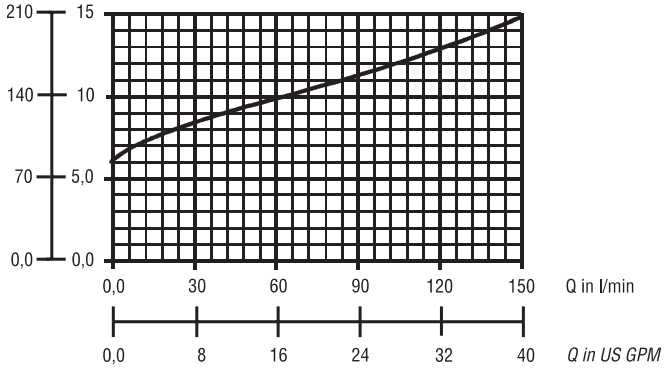
Flow Characteristics Filter Housings / Bypass Valves

The following characteristics are valid for mineral oils with a density of 0,86 kg/dm³ and the kinematic viscosity of 30 mm²/s *(30 cSt)*. The characteristics have been determined in accordance to ISO 3968.

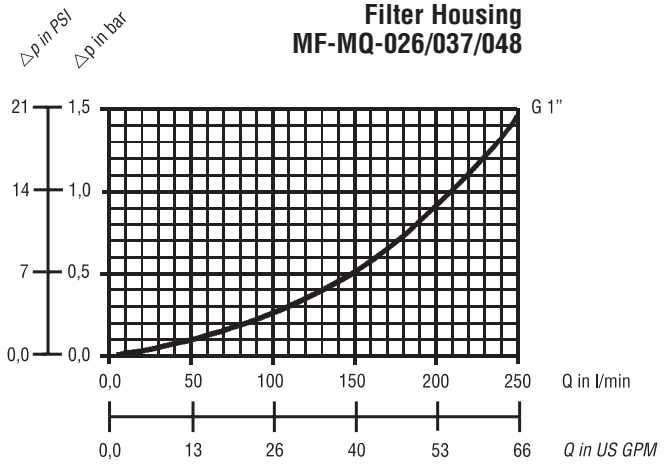
Filter Housing MF-MQ-024/027/030/035



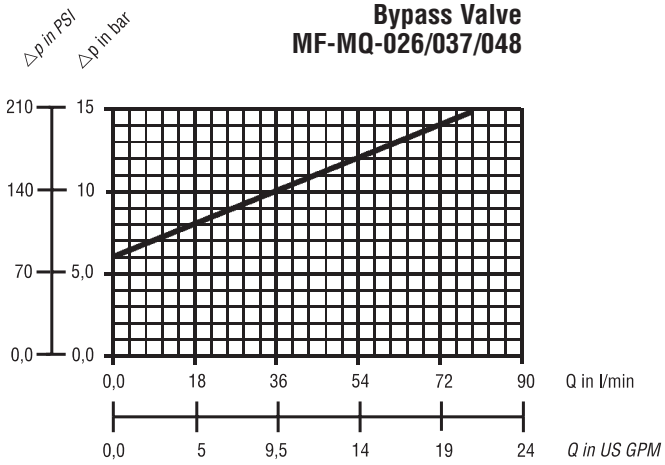
Bypass Valve MF-MQ-024/027/030/035



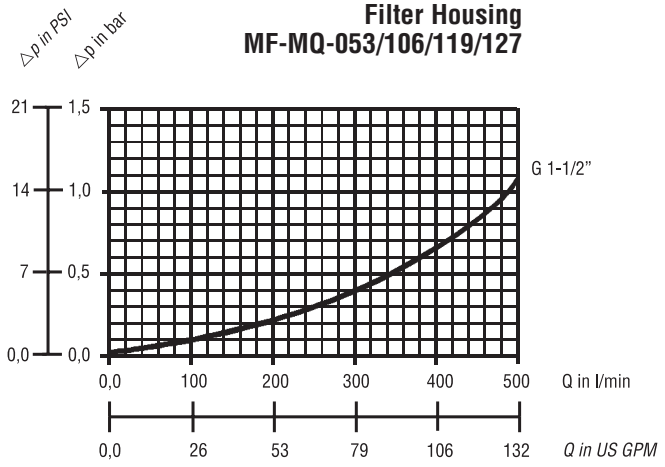
Filter Housing MF-MQ-026/037/048



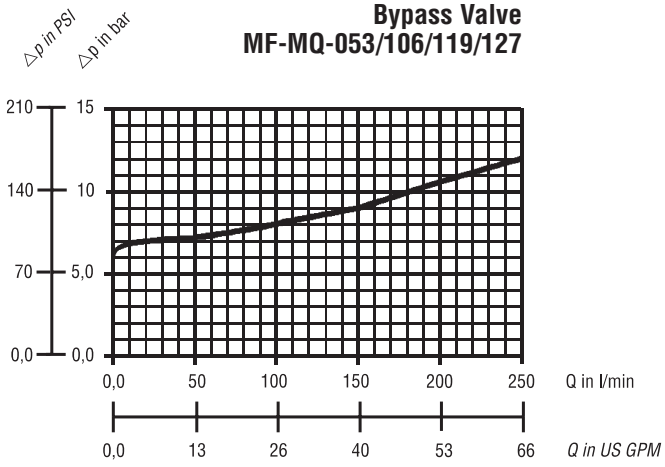
Bypass Valve MF-MQ-026/037/048



Filter Housing MF-MQ-053/106/119/127



Bypass Valve MF-MQ-053/106/119/127



Flow Characteristics Complete Filters

The following characteristics are valid for mineral oils with a density of 0,86 kg/dm³ and the kinematic viscosity of 30 mm²/s *(30 cSt)*. The characteristics have been determined in accordance to ISO 3968. The pressure drop of a complete filter (consisting of filter housing and filter element) is △p = 1,5 bar *(210 PSI)*.

Type of Complete Filter	Flow Rate Q l/min	Flow Rate Q *US GPM*
MF-M Q-024 E03 B/B1/O/O	53	*14*
MF-M Q-024 E06 B/B1/O/O	58	*15*
MF-M Q-024 E10 B/B1/O/O	87	*23*
MF-M Q-024 E16 B/B1/O/O	100	*26*
MF-M Q-024 E25 B/B1/O/O	125	*33*
MF-M Q-024 F03 B/B1/O/O	45	*12*
MF-M Q-024 F06 B/B1/O/O	50	*13*
MF-M Q-024 F10 B/B1/O/O	78	*21*
MF-M Q-024 F16 B/B1/O/O	90	*24*
MF-M Q-024 F25 B/B1/O/O	119	*31*
MF-M Q-024 B25 B/B1/O/O	140	*37*
MF-M Q-027 E03 B/B1/O/O	68	*18*
MF-M Q-027 E06 B/B1/O/O	71	*19*
MF-M Q-027 E10 B/B1/O/O	100	*26*
MF-M Q-027 E16 B/B1/O/O	110	*29*
MF-M Q-027 E25 B/B1/O/O	135	*36*
MF-M Q-027 F03 B/B1/O/O	59	*16*
MF-M Q-027 F06 B/B1/O/O	62	*16*
MF-M Q-027 F10 B/B1/O/O	92	*24*
MF-M Q-027 F16 B/B1/O/O	100	*26*
MF-M Q-027 F25 B/B1/O/O	130	*34*
MF-M Q-027 B25 B/B1/O/O	140	*37*
MF-M Q-030 E03 B/B1/O/O	85	*22*
MF-M Q-030 E06 B/B1/O/O	92	*24*
MF-M Q-030 E10 B/B1/O/O	118	*31*
MF-M Q-030 E16 B/B1/O/O	120	*32*
MF-M Q-030 E25 B/B1/O/O	135	*36*
MF-M Q-030 F03 B/B1/O/O	75	*20*
MF-M Q-030 F06 B/B1/O/O	82	*22*
MF-M Q-030 F10 B/B1/O/O	106	*28*
MF-M Q-030 F16 B/B1/O/O	112	*30*
MF-M Q-030 F25 B/B1/O/O	135	*36*
MF-M Q-030 B25 B/B1/O/O	145	*38*
MF-M Q-035 E03 B/B1/O/O	110	*29*
MF-M Q-035 E06 B/B1/O/O	112	*30*
MF-M Q-035 E10 B/B1/O/O	130	*34*
MF-M Q-035 E16 B/B1/O/O	135	*36*
MF-M Q-035 E25 B/B1/O/O	140	*37*
MF-M Q-035 F03 B/B1/O/O	94	*25*
MF-M Q-035 F06 B/B1/O/O	98	*26*
MF-M Q-035 F10 B/B1/O/O	112	*30*
MF-M Q-035 F16 B/B1/O/O	120	*32*
MF-M Q-035 F25 B/B1/O/O	140	*37*
MF-M Q-035 B25 B/B1/O/O	152	*40*

Type of Complete Filter	Flow Rate Q l/min	Flow Rate Q *US GPM*
MF-M Q-026 E03 B/B1/O/O	69	*18*
MF-M Q-026 E06 B/B1/O/O	74	*20*
MF-M Q-026 E10 B/B1/O/O	120	*32*
MF-M Q-026 E16 B/B1/O/O	129	*34*
MF-M Q-026 E25 B/B1/O/O	171	*45*
MF-M Q-026 F03 B/B1/O/O	50	*13*
MF-M Q-026 F06 B/B1/O/O	57	*15*
MF-M Q-026 F10 B/B1/O/O	98	*26*
MF-M Q-026 F16 B/B1/O/O	101	*27*
MF-M Q-026 F25 B/B1/O/O	106	*28*
MF-M Q-026 B25 B/B1/O/O	200	*53*
MF-M Q-037 E03 B/B1/O/O	110	*29*
MF-M Q-037 E06 B/B1/O/O	117	*31*
MF-M Q-037 E10 B/B1/O/O	148	*39*
MF-M Q-037 E16 B/B1/O/O	151	*40*
MF-M Q-037 E25 B/B1/O/O	208	*55*
MF-M Q-037 F03 B/B1/O/O	91	*24*
MF-M Q-037 F06 B/B1/O/O	110	*29*
MF-M Q-037 F10 B/B1/O/O	136	*36*
MF-M Q-037 F16 B/B1/O/O	139	*37*
MF-M Q-037 F25 B/B1/O/O	175	*46*
MF-M Q-037 B25 B/B1/O/O	230	*61*
MF-M Q-048 E03 B/B1/O/O	150	*40*
MF-M Q-048 E06 B/B1/O/O	153	*40*
MF-M Q-048 E10 B/B1/O/O	192	*51*
MF-M Q-048 E16 B/B1/O/O	195	*51*
MF-M Q-048 E25 B/B1/O/O	213	*56*
MF-M Q-048 F03 B/B1/O/O	126	*33*
MF-M Q-048 F06 B/B1/O/O	140	*37*
MF-M Q-048 F10 B/B1/O/O	170	*45*
MF-M Q-048 F16 B/B1/O/O	179	*47*
MF-M Q-048 F25 B/B1/O/O	196	*52*
MF-M Q-048 B25 B/B1/O/O	232	*61*

Type of Complete Filter	Flow Rate Q l/min	Flow Rate Q *US GPM*
MF-M Q-053 E03 B/B1/O/O	126	*33*
MF-M Q-053 E06 B/B1/O/O	137	*36*
MF-M Q-053 E10 B/B1/O/O	230	*61*
MF-M Q-053 E16 B/B1/O/O	274	*72*
MF-M Q-053 E25 B/B1/O/O	330	*87*
MF-M Q-053 F03 B/B1/O/O	107	*28*
MF-M Q-053 F06 B/B1/O/O	112	*30*
MF-M Q-053 F10 B/B1/O/O	185	*49*
MF-M Q-053 F16 B/B1/O/O	193	*51*
MF-M Q-053 F25 B/B1/O/O	292	*77*
MF-M Q-053 B25 B/B1/O/O	425	*112*
MF-M Q-106 E03 B/B1/O/O	248	*65*
MF-M Q-106 E06 B/B1/O/O	270	*71*
MF-M Q-106 E10 B/B1/O/O	376	*99*
MF-M Q-106 E16 B/B1/O/O	395	*104*
MF-M Q-106 E25 B/B1/O/O	440	*116*
MF-M Q-106 F03 B/B1/O/O	192	*51*
MF-M Q-106 F06 B/B1/O/O	220	*58*
MF-M Q-106 F10 B/B1/O/O	300	*79*
MF-M Q-106 F16 B/B1/O/O	312	*82*
MF-M Q-106 F25 B/B1/O/O	378	*100*
MF-M Q-106 B25 B/B1/O/O	445	*117*
MF-M Q-119 E03 B/B1/O/O	319	*84*
MF-M Q-119 E06 B/B1/O/O	353	*93*
MF-M Q-119 E10 B/B1/O/O	427	*113*
MF-M Q-119 E16 B/B1/O/O	440	*116*
MF-M Q-119 E25 B/B1/O/O	150	*40*
MF-M Q-119 F03 B/B1/O/O	255	*67*
MF-M Q-119 F06 B/B1/O/O	300	*79*
MF-M Q-119 F10 B/B1/O/O	367	*97*
MF-M Q-119 F16 B/B1/O/O	375	*99*
MF-M Q-119 F25 B/B1/O/O	417	*110*
MF-M Q-119 B25 B/B1/O/O	465	*123*
MF-M Q-127 E03 B/B1/O/O	354	*93*
MF-M Q-127 E06 B/B1/O/O	375	*99*
MF-M Q-127 E10 B/B1/O/O	430	*113*
MF-M Q-127 E16 B/B1/O/O	447	*118*
MF-M Q-127 E25 B/B1/O/O	467	*123*
MF-M Q-127 F03 B/B1/O/O	298	*79*
MF-M Q-127 F06 B/B1/O/O	320	*84*
MF-M Q-127 F10 B/B1/O/O	375	*99*
MF-M Q-127 F16 B/B1/O/O	382	*101*
MF-M Q-127 F25 B/B1/O/O	422	*111*
MF-M Q-127 B25 B/B1/O/O	475	*125*

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Stauff Filtration Technology

Stauff Filtration Technology offers a complete range of filtration products and services that will provide the system designer or user with the highest level of contamination control demanded by today's most sophisticated applications. Products include pressure filters, return line filters, elements, spin on filters suction strainers, and filler breathers for various hydraulic, lubrication and fuel oils.

Stauff has the technical expertise to provide superior filter element designs for the Stauff original filter housings and also for the interchange element market. Stauff manufactures more than 10,000 different elements. Many of these are designed to fit into filter housings produced by other companies while maintaining or surpassing the original performance.

The "Stauff Contamination Control Program" includes the diagnostic services including fluid sampling and laser particle counting products needed to monitor the system contamination level.

Stauff, through its global network of wholly owned companies and technically qualified distributors, is ideally placed to assist its customers in the total contamination process providing a well balanced filtration solution.

Page

Return Line Duplex Filter SRFL-S/D
Technical Data 3

Return Line Simplex Filter SRFL-S 160-600
Dimensions 4

Return Line Simplex Filter SRFL-S 1200-3600
Dimensions 5

Return Line Duplex Filter SRFL-D 160-600
Dimensions 6

Return Line Duplex Filter SRFL-D 1200-2400
Dimensions 7

Return Line Duplex Filter SRFL-D 3600
Dimensions 8

Return Line Filter SRFL-S/D
Ordering Code 9
Filter Elements RE & Options 10
Flow Characteristics 11

Technical Data

STAUFF return line simplex filter SRFL-S and duplex filter SRFL-D are designed for in-line hydraulic applications. With its compact construction and the easy to maintain assembly the filter SRFL-S and SRFL-D are suitable for flow rates up to 6600 l/min *(1750 US GPM)*. The two housings of the duplex filter, SRFL-D are connected with a special gate valve that is operated with a lever or hand wheel. Therefore the filter may be serviced without shutting down the hydraulic system. A high efficiency of contaminant removal is assured by using STAUFF replacement filter elements RE series. The high dirt holding capacity of STAUFF elements ensures a long service life and, as a result, reduced maintenance costs.

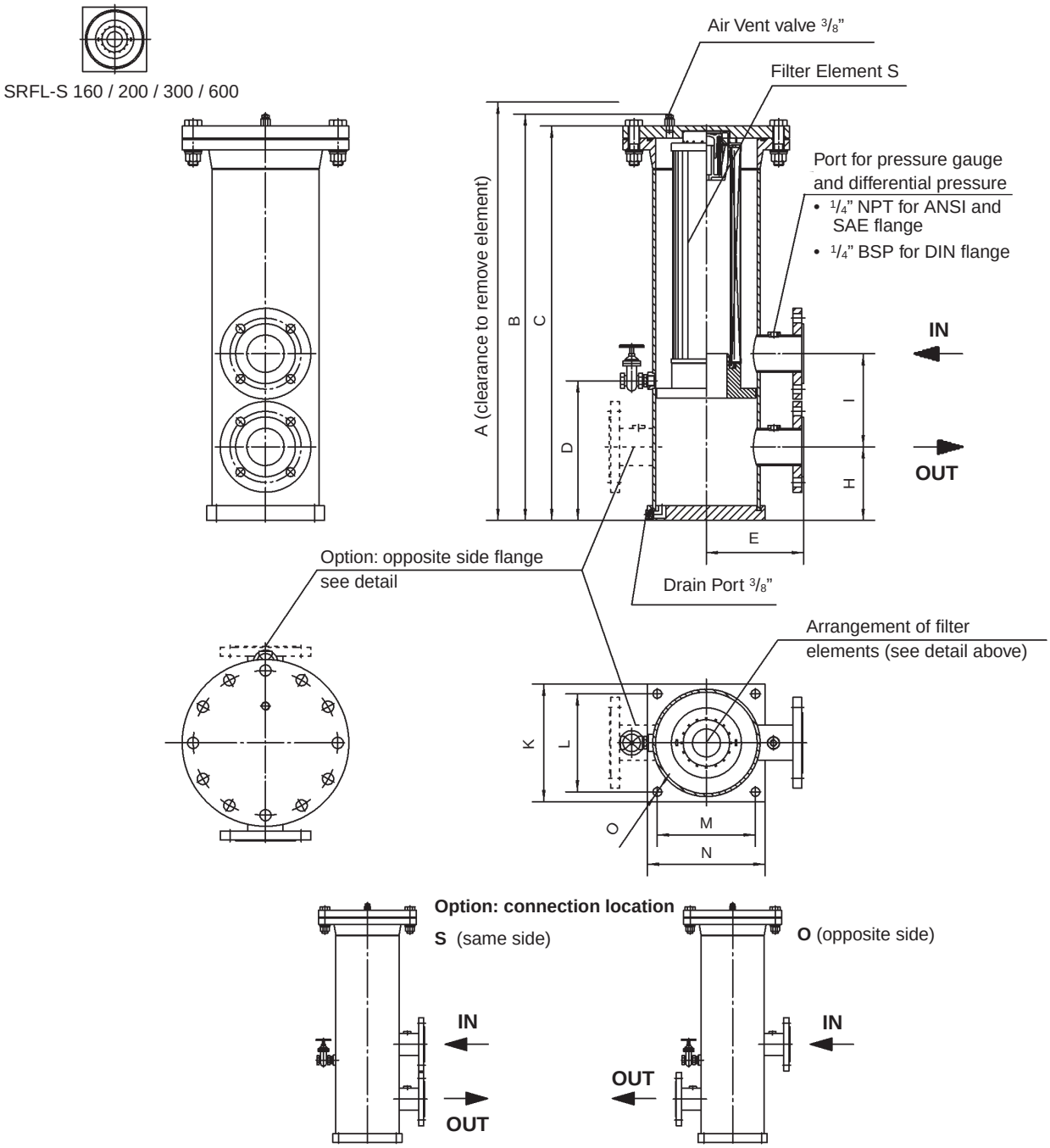
Technical Specification

Construction	In-line assembly, base mounted
Housings	Carbon steel Stainless steel (on request)
Seals	NBR (Buna-N®), FPM (Viton®)
Port connection	ANSI, SAE and DIN flanges
Operating pressure	max 14 bar *(232 PSI)*
Flow rating	up to 6600 l/min *(1750 US GPM)*
Temperature Range	-10°C up to +100°C *(14ºF up to 212ºF)*

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	Differential pressure switch, setting 1,6 bar *(23 PSI)* scale 0...1,6 bar *(0...23 PSI)*
Filter elements	Specification see page 10
Media	Mineral oils, lubrication oils other fluids on request

Dimensions SRFL-S 160 / 200 / 300 / 600

Detail arrangement of filter elements

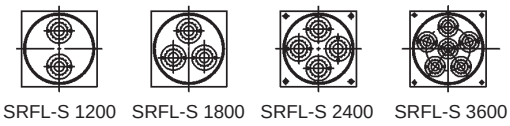


All dimensions in mm *(inch)*

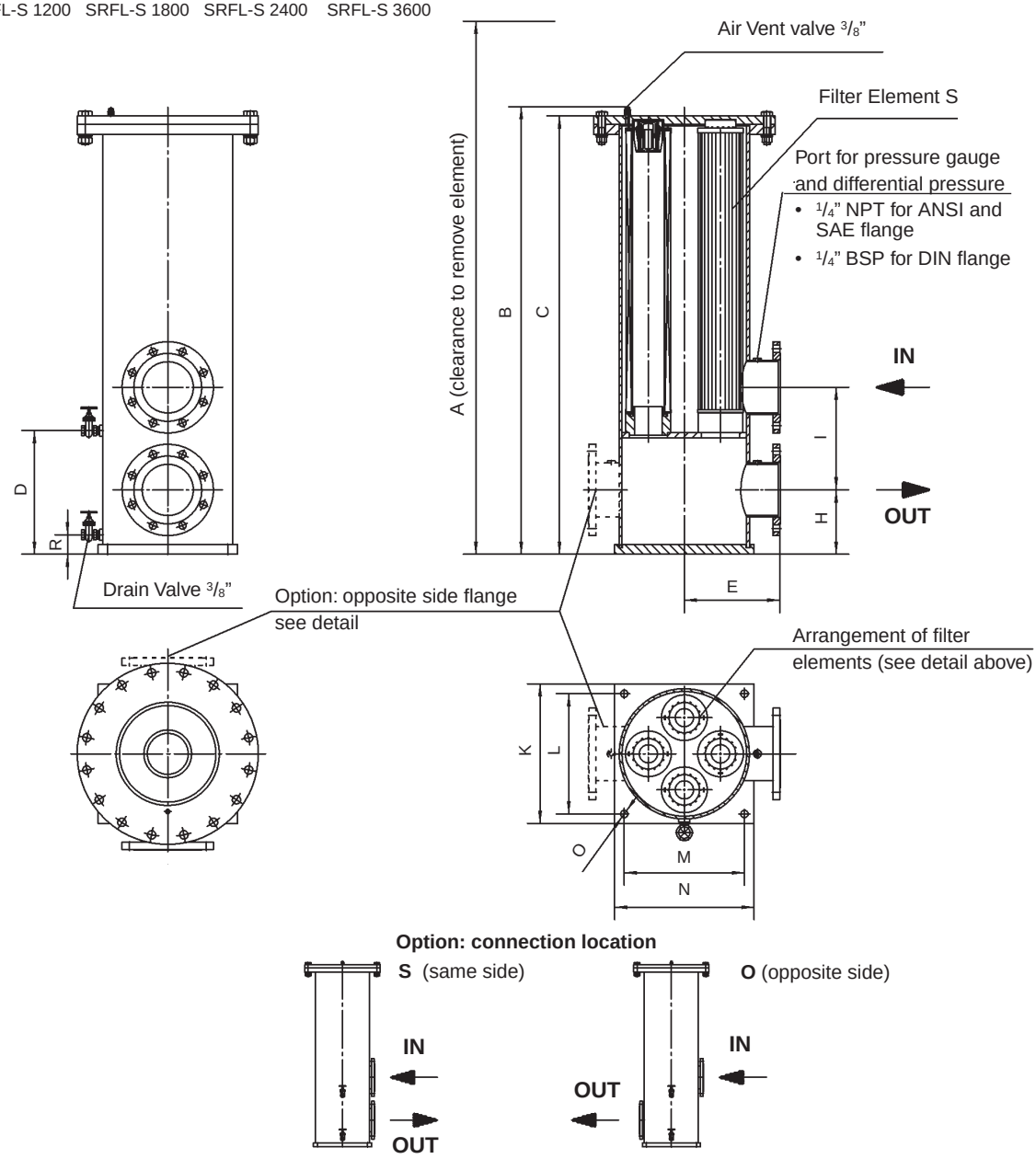
Filter Size	Flange Connection			Dimensions												Total oil Capacity		Weight (without element)		Filter Element S	
	DIN	ANSI	SAE	A	B	C	D	E	H	I	K	L	M	N	O	l	gal	kg	lbs	Designation	Qty
SRFL-S-160	DN40	1-1/2"	1-1/2"	885,8 *(34,87)*	607,6 *(23,92)*	584 *(22,99)*	214 *(8,43)*	148 *(5,83)*	130 *(5,12)*	155 *(6,1)*	150 *(5,91)*	125 *(4,92)*	125 *(4,92)*	150 *(5,91)*	11 *(0,43)*	6,0	*1,59*	14,5	*32*	RE-160...	1 x 1
SRFL-S-200	DN50	2"	2"	1045,8 *(41,17)*	688,7 *(27,12)*	664 *(26,14)*	214 *(8,43)*	148 *(5,83)*	140 *(5,51)*	190 *(7,48)*	150 *(5,91)*	125 *(4,92)*	125 *(4,92)*	150 *(5,91)*	11 *(0,43)*	7,1	*1,86*	15,9	*35*	RE-200...	1 x 1
SRFL-S-300	DN65	2-1/2"	2-1/2"	1248,7 *(49,16)*	828,6 *(32,63)*	803,9 *(31,65)*	285 *(11,22)*	198 *(7,8)*	150 *(5,91)*	190 *(7,48)*	240 *(9,45)*	200 *(7,87)*	200 *(7,87)*	240 *(9,45)*	18 *(0,71)*	22,2	*5,87*	29	*64*	RE-300...	1 x 1
SRFL-S-600	DN80	3"	3"	2126,7 *(83,73)*	1267,6 *(49,91)*	1242,9 *(48,93)*	285 *(11,22)*	198 *(7,8)*	160 *(6,3)*	220 *(8,66)*	240 *(9,45)*	200 *(7,87)*	200 *(7,87)*	240 *(9,45)*	18 *(0,71)*	37,1	*9,80*	34,5	*76*	RE-600...	1 x 1

Dimensions SRFL-S 1200 / 1800 / 2400 / 3600

Detail arrangement of filter elements



SRFL-S 1200 SRFL-S 1800 SRFL-S 2400 SRFL-S 3600



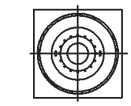
All dimensions in mm *(inch)*

Filter Size	Flange Connection			Dimensions													Total oil Capacity		Weight (without element)		Filter Element S	
	DIN	ANSI	SAE	A	B	C	D	E	H	I	K	L	M	N	O	R	l	gal	kg	lbs	Designation	Qty
SRFL-S-1200	DN100	4"	4"	2176,7 *(85,7)*	1319,6 *(51,96)*	1294,9 *(50,98)*	275 *(10,83)*	273 *(10,75)*	190 *(7,48)*	250 *(9,84)*	385 *(15,16)*	325 *(12,8)*	325 *(12,8)*	385 *(15,16)*	23 *(0,91)*	60 *(2,36)*	103	*27,2*	86,2	*190*	RE-600...	1 x 2
SRFL-S-1800	DN125	5"	5"	2176,7 *(85,7)*	1323,6 *(52,11)*	1294,9 *(50,98)*	275 *(10,83)*	273 *(10,75)*	190 *(7,48)*	280 *(11,02)*	385 *(15,16)*	325 *(12,8)*	325 *(12,8)*	385 *(15,16)*	23 *(0,91)*	60 *(2,36)*	103	*27,2*	90,7	*200*	RE-600...	1 x 3
SRFL-S-2400	DN150	6"	6"	2249,1 *(88,55)*	1394,8 *(54,92)*	1366,1 *(53,78)*	325 *(12,8)*	298 *(11,73)*	200 *(7,87)*	320 *(12,6)*	435 *(17,13)*	375 *(14,76)*	375 *(14,76)*	435 *(17,13)*	23 *(0,91)*	60 *(2,36)*	149	*39,3*	105,2	*232*	RE-600...	1 x 4
SRFL-S-3600	DN200	8"	8"	2249,1 *(88,55)*	1392,8 *(54,84)*	1368,1 *(53,68)*	325 *(12,8)*	398 *(15,67)*	252 *(9,92)*	425 *(16,73)*	540 *(21,26)*	480 *(18,9)*	480 *(18,9)*	540 *(21,26)*	23 *(0,91)*	60 *(2,36)*	232	*61,3*	154,2	*340*	RE-600...	1 x 6

Return Line Duplex Filter SRFL-D 160-600 Dimensions

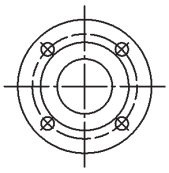
Dimensions SRFL-D 160 / 200 / 300 / 600

Detail arrangement of filter elements

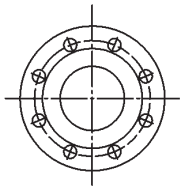


SRFL-D 160 / 200 / 300 / 600

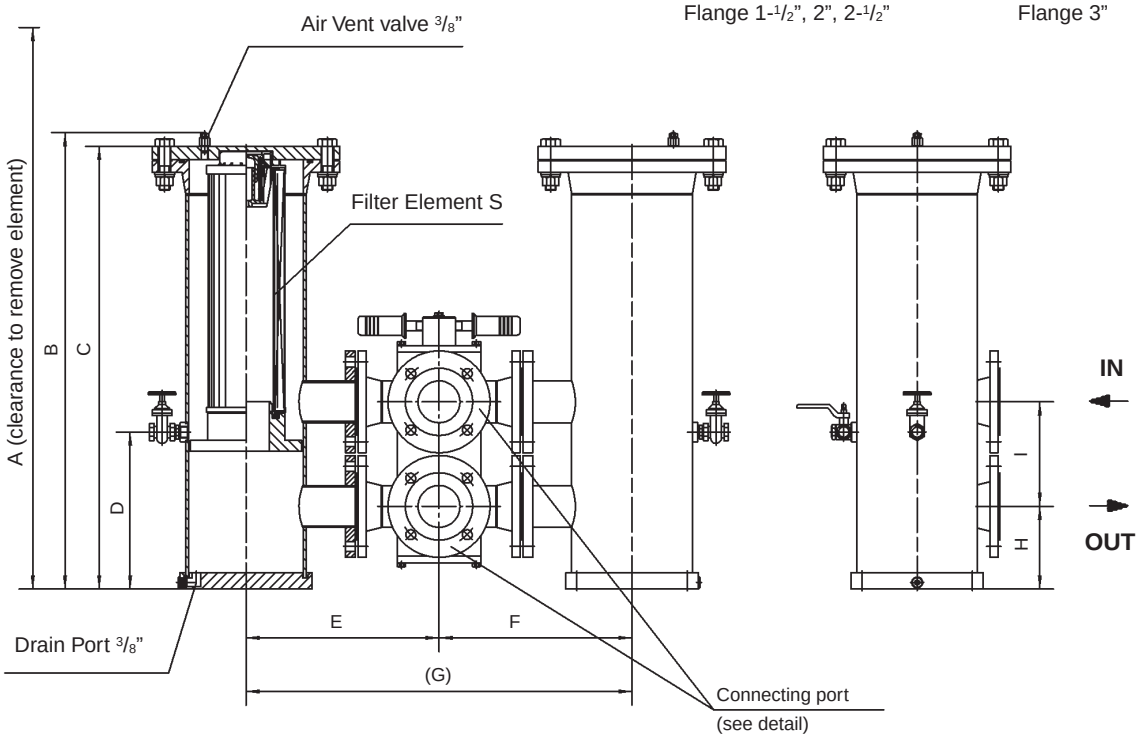
Detail connecting ports

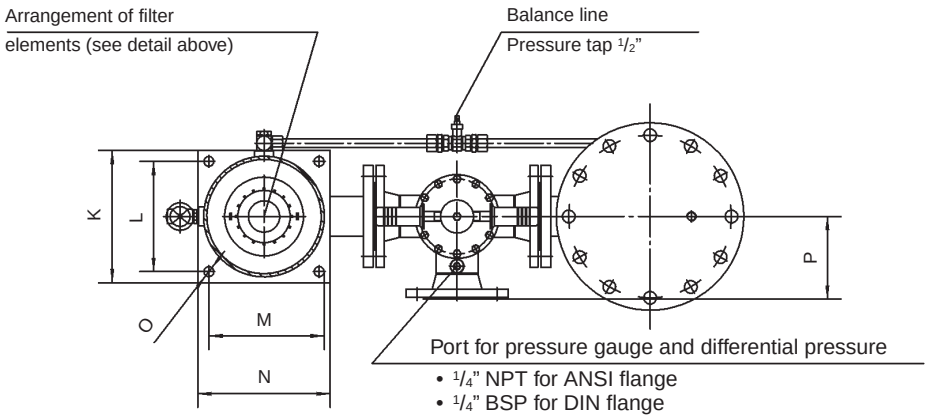


Flange 1-1/2", 2", 2-1/2"



Flange 3"





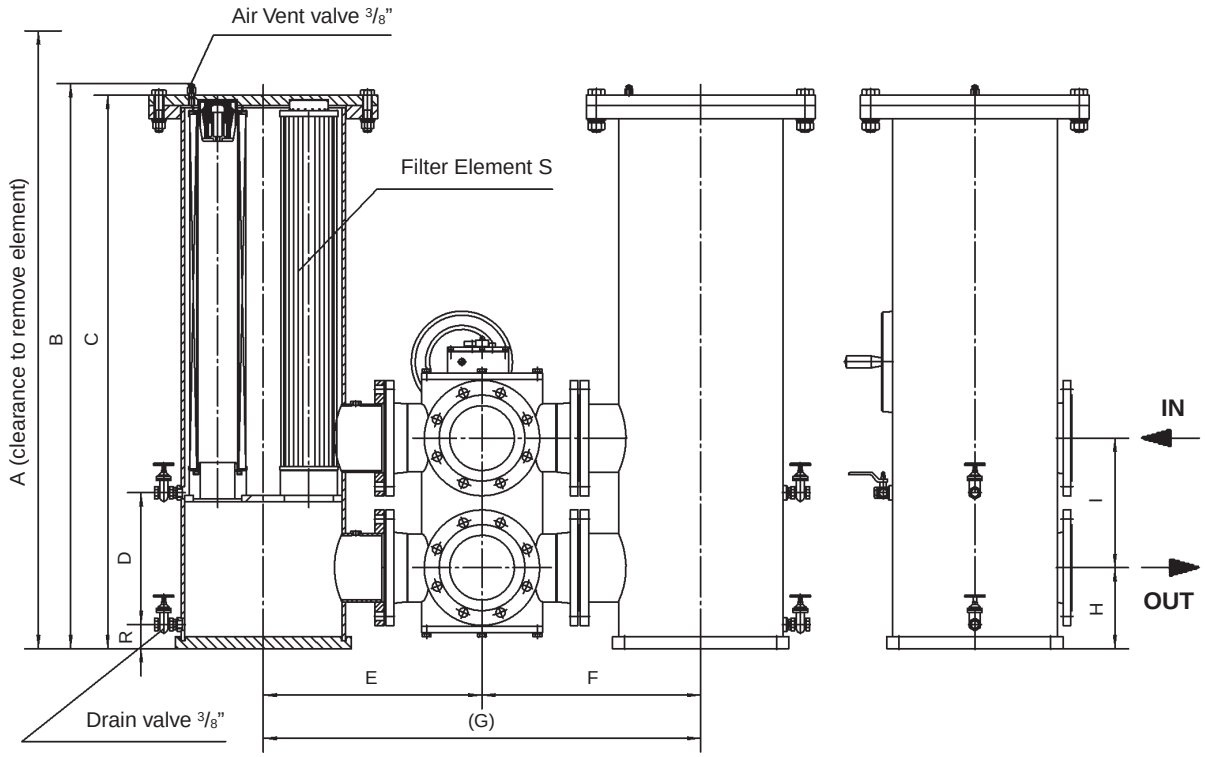
All dimensions in mm *(inch)*

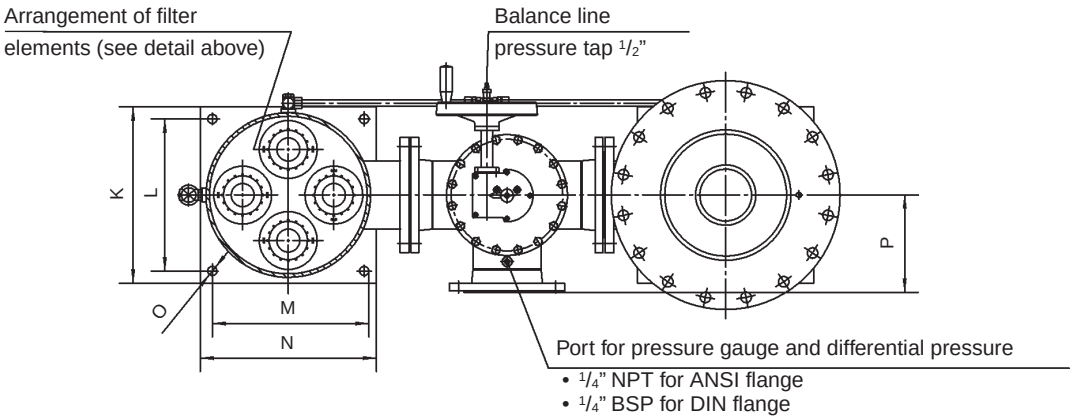
Filter Size	Flange Connection		Dimensions															Total oil Capacity		Weight (without element)		Filter Element S	
	DIN	ANSI	A	B	C	D	E	F	G	H	I	K	L	M	N	O	P	l	gal	kg	lbs	Designation	Qty
SRFL-D-160	DN 40	1-1/2"	885,8 *(34,87)*	607,6 *(23,92)*	584 *(22,99)*	214 *(8,43)*	260 *(10,24)*	260 *(10,24)*	520 *(20,47)*	130 *(5,12)*	155 *(6,1)*	150 *(5,91)*	125 *(4,92)*	125 *(4,92)*	150 *(5,91)*	11 *(0,43)*	110 *(4,33)*	6,02	*1,59*	43	*95*	RE-160...	2 x 1
SRFL-D-200	DN 50	2"	1045,8 *(41,17)*	688,7 *(27,12)*	642 *(25,28)*	214 *(8,43)*	300 *(11,81)*	300 *(11,81)*	600 *(23,62)*	140 *(5,51)*	190 *(7,48)*	150 *(5,91)*	125 *(4,92)*	125 *(4,92)*	150 *(5,91)*	11 *(0,43)*	150 *(5,91)*	7,11	*1,86*	56,7	*125*	RE-200...	2 x 1
SRFL-D-300	DN 65	2-1/2"	1248,7 *(49,16)*	828,6 *(32,63)*	803,9 *(31,65)*	285 *(11,22)*	350 *(13,78)*	350 *(13,78)*	700 *(27,56)*	150 *(5,91)*	190 *(7,48)*	240 *(9,45)*	200 *(7,87)*	200 *(7,87)*	240 *(9,45)*	18 *(0,71)*	150 *(5,91)*	22,24	*5,87*	84	*185*	RE-300...	2 x 1
SRFL-D-600	DN 80	3"	2126,7 *(83,73)*	1267,6 *(49,91)*	1242,9 *(48,93)*	285 *(11,22)*	375 *(14,76)*	375 *(14,76)*	750 *(29,53)*	160 *(6,3)*	220 *(8,66)*	240 *(9,45)*	200 *(7,87)*	200 *(7,87)*	240 *(9,45)*	18 *(0,71)*	175 *(6,89)*	37,1	*9,8*	104	*230*	RE-600...	2 x 1

Dimensions SRFL-D 1200 / 1800 / 2400

Detail arrangement of filter elements

SRFL-D 1200 SRFL-D 1800 SRFL-D 2400



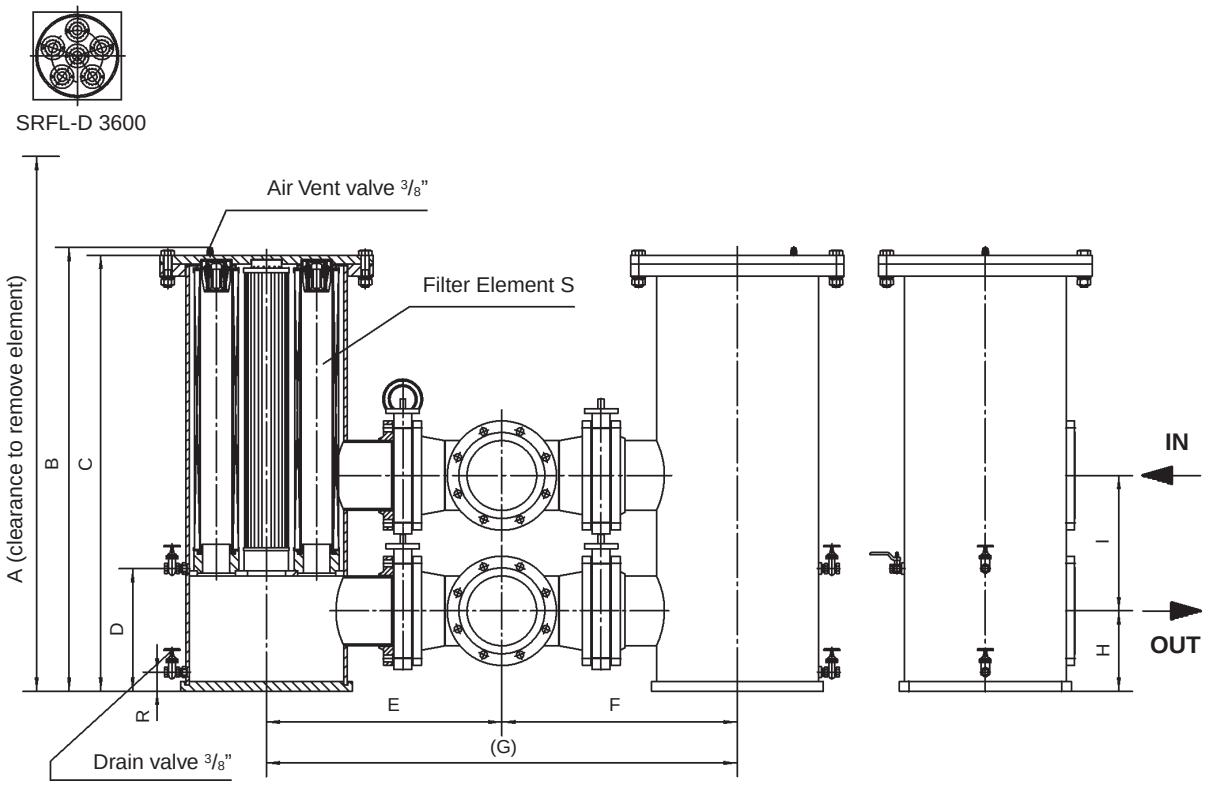


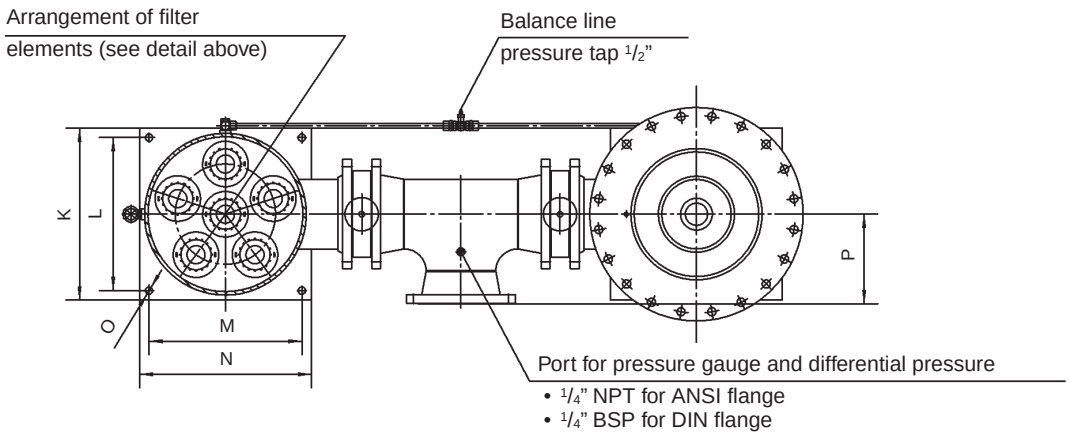
All dimensions in mm *(inch)*

Filter Size	Flange Connection		Dimensions																Total oil Capacity		Weight (without element)		Filter Element S	
	DIN	ANSI	A	B	C	D	E	F	G	H	I	K	L	M	N	O	P	R	l	gal	kg	lbs	Designation	Qty
SRFL-D-1200	DN 100	4"	2176,7 *(85,7)*	1319,6 *(51,96)*	1294,9 *(50,98)*	275 *(10,83)*	475 *(18,7)*	475 *(18,7)*	950 *(37,4)*	190 *(7,48)*	250 *(9,84)*	385 *(15,16)*	325 *(12,8)*	325 *(12,8)*	385 *(15,16)*	23 *(0,91)*	200 *(7,87)*	60 *(2,36)*	103	*27,2*	215	*475*	RE-600...	2 x 2
SRFL-D-1800	DN 125	5"	2176,7 *(85,7)*	1323,6 *(52,11)*	1294,9 *(50,98)*	275 *(10,83)*	500 *(19,69)*	500 *(19,69)*	1000 *(39,37)*	190 *(7,48)*	280 *(11,02)*	385 *(15,16)*	325 *(12,8)*	325 *(12,8)*	385 *(15,16)*	23 *(0,91)*	225 *(8,86)*	60 *(2,36)*	103	*27,2*	233	*515*	RE-600...	2 x 3
SRFL-D-2400	DN 150	6"	2249,1 *(88,55)*	1394,8 *(54,92)*	1366,1 *(53,78)*	325 *(12,8)*	540 *(21,26)*	540 *(21,26)*	1080 *(42,52)*	200 *(7,87)*	320 *(12,6)*	435 *(17,13)*	375 *(14,76)*	375 *(14,76)*	435 *(17,13)*	23 *(0,91)*	240 *(9,45)*	60 *(2,36)*	149	*39,3*	263	*580*	RE-600...	2 x 4

Dimensions SRFL- D 3600

Detail arrangement of filter elements





All dimensions in mm *(inch)*

Filter Size	Flange Connection		Dimensions																Total oil Capacity		Weight (without element)		Filter Element S	
	DIN	ANSI	A	B	C	D	E	F	G	H	I	K	L	M	N	O	P	R	l	gal	kg	lbs	Designation	Qty
SRFL-D-3600	DN 200	8"	2249,1 *(88,55)*	1392,8 *(54,84)*	1368,1 *(53,86)*	325 *(12,8)*	739 *(29,11)*	739 *(29,11)*	1479 *(58,22)*	252 *(9,92)*	425 *(16,73)*	540 *(21,26)*	480 *(18,9)*	480 *(18,9)*	540 *(21,26)*	23 *(0,91)*	281,4 *(11,08)*	60 *(2,36)*	233	*61,3*	390	*860*	RE-600...	2 x 6

Return Line Filter SRFL-S/D Ordering Code

Ordering Code Filter Housings

SRFL-D-160 ... B / A / O / CS / D /X

Filter type	
SRFL-S	Return Line Simplex Housing
SRFL-D	Return Line Duplex Housing

Group		
Size	Flow	
	l/min	*US GPM*
160	900	*240*
200	900	*240*
300	1400	*370*
1200	1400	*370*
1800	4000	*1050*
2400	4000	*1050*
3600	7000	*1850*

For complete filters:
Identification filter material + micron rating code (See ordering code filter elements below)

Seal material	
B	NBR (Buna®)
V	FPM (Viton®)
Other seal material on request	

Design code
Only for information

Clogging indicator	
O	Without clogging indicator
D	Differential pressure switch
Other indicators on request	

Material Housing	
CS	Carbon steel
SS	Stainless steel

Connection location	
O	Oposite side
S	Same side
Omit for SRFL-D series	

Connection style		Group							
Code	Connection style	160	200	300	600	1200	1800	2400	3600
A	ANSI flange	1-1/2"	2"	2-1/2"	3"	4"	5"	6"	8"
S	SAE flange (omit for SRFL-D)	1-1/2"	2"	2-1/2"	3"	4"	5"	6"	8"
D	DIN flange	DN 40	DN 50	DN 65	DN 80	DN 100	DN 125	DN 150	DN 200

Ordering Code Filter Elements

RE-160 G 10 V /X

Series	RE

Group			
Size	Filter Element		
	Designation	Quantity SRFL-S	SRFL-D
160	RE-160	1 x 1	2 x 1
200	RE-200	1 x 1	2 x 1
300	RE-300	1 x 1	2 x 1
600	RE-600	1 x 1	2 x 1
1200	RE-600	1 x 2	2 x 2
1800	RE-600	1 x 3	2 x 3
2400	RE-600	1 x 4	2 x 4
3600	RE-600	1 x 6	2 x 6

Filter material			Micron ratings available
Code	Material	max $\Delta p^*_{collapse}$	
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	Stainless mesh	30 bar *(435 PSI)*	10, 25, 50, 100, 200,500
*Collapse / burst resistance as per ISO 2941			

Design code
Only for information

Seal material	
B	NBR (Buna®)
V	FPM (Viton®)
Other seal materials on request	

Micron rating	
03	3 µm
05	5 µm
10	10 µm
20	20 µm
10	10 µm
25	25 µm
50	50 µm
100	100 µm
200	200 µm
200	500 µm
Other micron ratings on request	

1. Replacement Filter Elements RE

STAUFF replacement filter elements for SRFL-S and SRFL-D series filters are manufactured in the common filter materials such as stainless fiber, stainless mesh, paper and inorganic glass fiber. As standard all replacement elements series RE have tin plated steel parts for use with aggressive media such as water glycol, on request you also can get other materials. All replacement elements made by STAUFF comply with quality specifications in accordance with international standards.

RE-300 G 10 V /X

Series	RE

Group
According to filter housing (See ordering code page 9)

Filter material			Micron ratings available
Code	Material	max Δp*collapse	
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	Stainless mesh	30 bar *(435 PSI)*	10, 25, 50, 100, 200, 500
	*Collapse / burst resistance as per ISO 2941		

Design code
Only for information

Seal material	
B	NBR (Buna®)
V	FPM (Viton®)
other seal materials on request	

Micron rating	
03	3 µm
05	5 µm
10	10 µm
20	20 µm
10	10 µm
25	25 µm
50	50 µm
100	100 µm
200	200 µm
500	500 µm
Other micron ratings on request	

2. Differential Pressure Switch with visual gauge indicator

The switch is used to indicate when the elements need changing. The switch can turn on a light, shut down the machine or any further function controlled by an electrical signal. The gauge visually indicates the differential pressure across the filter elements.

Diameter	100 mm (6,9")
Scale	0 … 1,6 bar (0 … 23 PSI)
Connection thread	1/4 "
Working pressure	Max 200 bar (2900 PSI)
Temperature range	-20 °C up to +80 °C (-4 °F up to +176 °F)
Body	Aluminium
Lens	Glass
Seal	NBR (Buna-N ®) FPM (Viton ®)

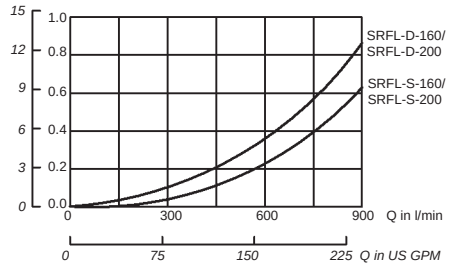
Protection system	IP 65
Switch Voltage	max 28 V AC/DC
Current on Contact	max 0,25 A AC/DC
Contact Rating	5 VA AC/DC

Other data on request

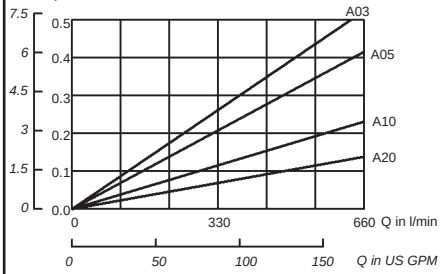
Flow Characteristics of Return-line Filters SRFL-S and SRFL-D

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. The housing pressure drop is directly porportional to the oil density.

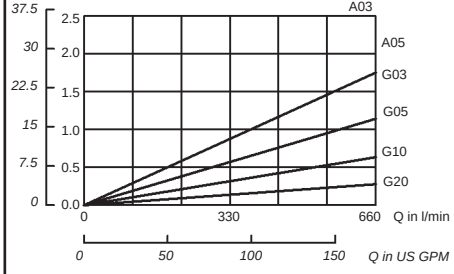
Housings SRFL-S/D 160/200



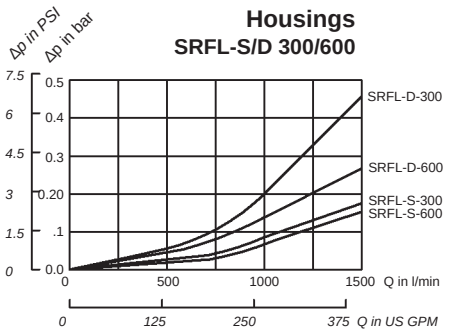
Filter Elements RE 160 A



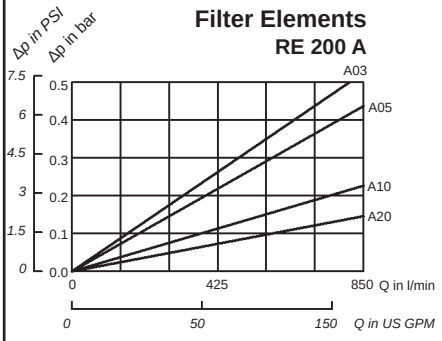
Filter Elements RE 160 G



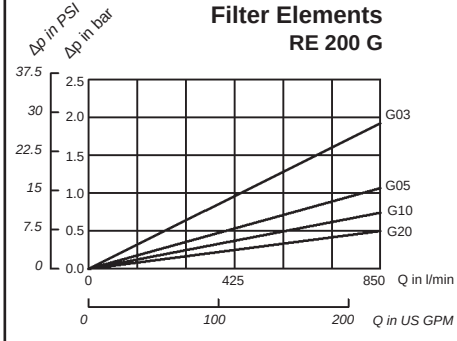
Housings SRFL-S/D 300/600



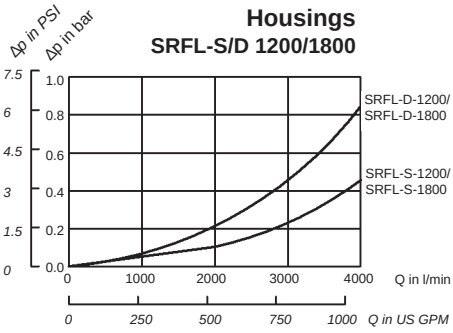
Filter Elements RE 200 A



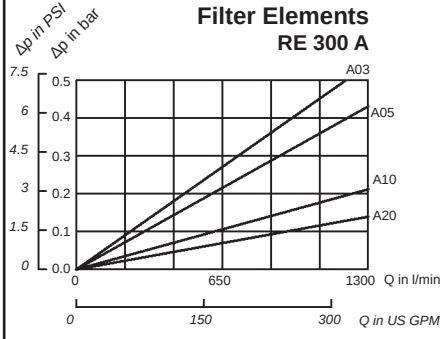
Filter Elements RE 200 G



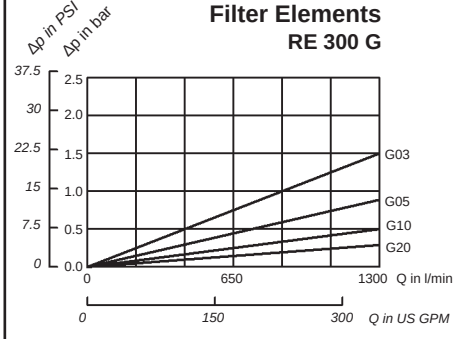
Housings SRFL-S/D 1200/1800



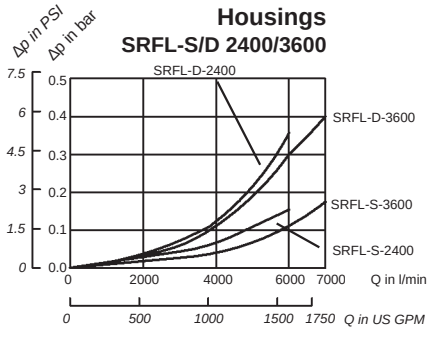
Filter Elements RE 300 A



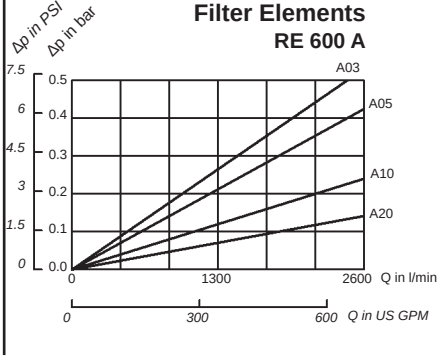
Filter Elements RE 300 G



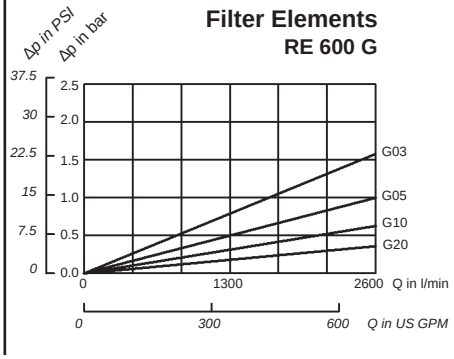
Housings SRFL-S/D 2400/3600



Filter Elements RE 600 A



Filter Elements RE 600 G



Pressure drop of housing including filter elements

General: Δp_{total} = Δp_{hous} + Δp_{Elem} x (operating viscosity [mm²/s] / 30mm²/s)

with Δp_{hous} see diagrams above

Δp_{Elem} pressure drop of element at a flow **Q/n** (at a viscosity of 30 mm²/s) and n= numbers of elements as listed in ordering code filter elements see page 9) see diagrams above.

Example

Data given Q_{max} = 6000 l/min (*1585 US GPM*), RFL-D-2400 with filter elements RE-600S25B; operating viscosity = 100 mm²/s

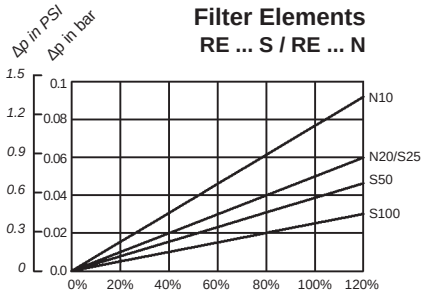
Q_{max} = 6000 l/min;n=4 elements (SRFL-D-2400) Q/n=1500 l/min *(396 gal)*

Δp_{hous} 0,35 bar *(5,07 PSI)*, Δp_{Elem} =0,043 bar *(0,62 PSI)*

Pressure drop: Δp_{total} = 0,35 bar + 0,043 bar x (100 mm²/s / 30mm²/s)

= 0,49 bar *(7,16 PSI)*

Filter Elements RE ... S / RE ... N



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STAUFF Filtration Technology

STAUFF Filtration Technology offers a complete range of filtration products and services that will provide the system designer or user with the highest level of contamination control demanded by today's most sophisticated applications.

Products include high-pressure filters, medium-pressure filters, return line filters, elements, spin-on filters, suction strainers and filler breathers for various hydraulic, lubrication and fuel oils.

STAUFF has the technical expertise to provide superior filter element designs for the STAUFF original filter housings and also for the interchange element market. STAUFF manufactures more than 10,000 different elements. Many of these are designed to fit into filter housings produced by other companies while maintaining or surpassing the original performance.

STAUFF, through its global network of wholly owned companies and technically qualified distributors, is ideally placed to assist its customers in the total contamination control process providing a well balanced filtration solution.

The *STAUFF Contamination Control Program* includes the diagnostic services including fluid sampling and laser particle counting products needed to monitor system contamination levels.

STAUFF Return Line Filters RF/RFI-MC **Page**

Description	3
Specifications	3
Technical Data RF-MC	4 / 5
Technical Data RFI-MC	6
Ordering Code RF-MC	7
Ordering Code RFI-MC	8
Filter Elements	9
Flow Characteristics	10 / 11

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Globally available through wholly-owned branches and distributors in all industral countries.

Return Line Filters RF/RFI-MC: Description / Specifications

Description

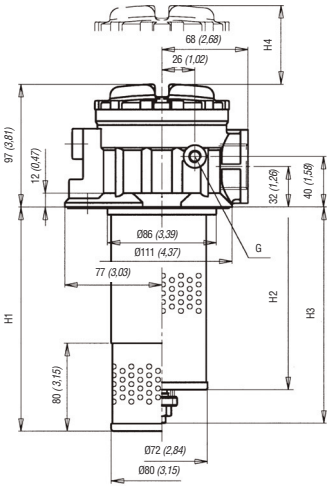
STAUFF Return Line Filters RF/RFI-MC are designed for return-line applications and provide various installation applications. The filters are installed semi-immersed or totally immersed into a reservoir. Th efiltration flow is from the inside to the outside of the filter element which ensures that all the contaminant is collected inside the element itself avoiding contact with the reservoir oil during element change. The combination of magnetic pre-filtration and high-filtration efficiency results in a cost effective and ver-satile filtration series.

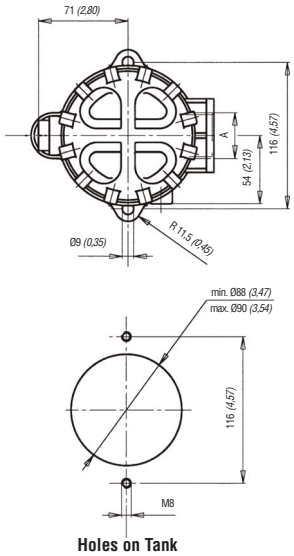
Specifications

Construction	RF-MC-...: semi-immersed into a reservoir RFI-MC-...:fully-immersed into a reservoir
Port Connections	RF-MC-010/015/020/030: BSP RF-MC-035/050/065/115: BSP RF-MC-080/105/125/135: SAE 3.000 PSI RF-MC-210/350/370/400: SAE 3.000 PSI / DN 100 / PN 10+16 Alternative port connections (NPT, SAE O-Ring thread, etc.) on request
Material Filter Head	Aluminium
Material Cover	RF-MC-010/015/020/030: Polyamide RF-MC-035/050/065/115: Aluminium RF-MC-080/105/125/135: Aluminium RF-MC-210/350/370/400: Steel
Material Bypass Valve	Steel
Material Diffusor	Steel
Material Sealing	NBR (Perbunan); FKM (Viton) on request

Operating Pressure	max 10 bar *(145 PSI)*
Proof Pressure	15 bar *(218 PSI)*
Burst Pressure	> 30 bar *(435 PSI)*
Temperature Range	-25°C ... +110°C *(-13°F ... +230°F)*
Bypass Valve	Allows unfiltered oil to bypass the contaminated element once the opening pressure of 1,75 bar bar *(25 PSI)* ±10% has been reached
Clogging Indicator	Visual and electrical clogging indicators (actuated by the differential pressure across the filter element) with an actuating pressure of 1,3 bar *(19 PSI)* ±10%
Filter Elements	Specifications, see page 9
Media Compatibility	Suitable for mineral oils, aqueous emulsions and sythetic fluids; compatibility with other media on request

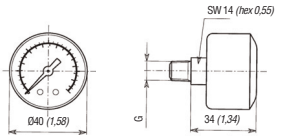
Dimensions RF-MC-010/015/020/030



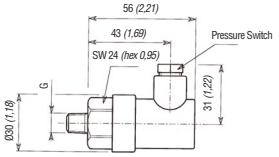


Holes on Tank

Visual Clogging Indicator V

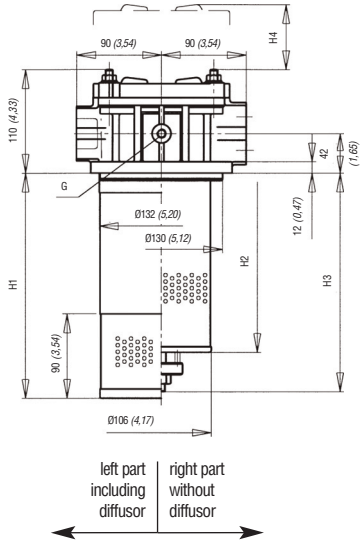


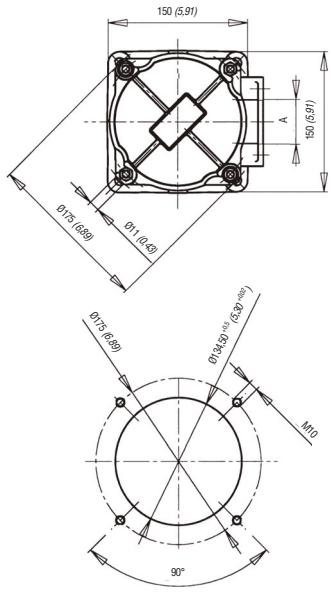
Electrical Clogging Indicator EC/EO



Filter Size	Element H1	Element H2	Element H3	Element H4	Port A (BSP)	Port G (BSP)	Weight incl. Filter Element and Diffusor
RF-MC-010	178 *(7,01)*	106 *(4,17)*	128 *(5,04)*	190 *(7,48)*	1-1/4" BSP	1/8" BSP	1,0 kg *(2,21 lbs)*
RF-MC-015	178 *(7,01)*	150 *(5,91)*	172 *(6,77)*	230 *(9,01)*	1-1/4" BSP	1/8" BSP	1,2 kg *(2,65 lbs)*
RF-MC-020	228 *(8,98)*	200 *(7,87)*	222 *(8,74)*	280 *(11,02)*	1-1/4" BSP	1/8" BSP	1,3 kg *(2,87 lbs)*
RF-MC-030	328 *(12,91)*	300 *(11,81)*	322 *(12,68)*	380 *(14,96)*	1-1/4" BSP	1/8" BSP	1,5 kg *(3,31 lbs)*

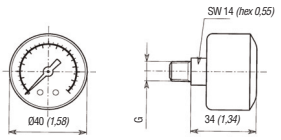
Dimensions RF-MC-035/050/065/115



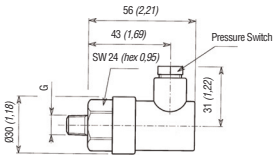


Holes on Tank

Visual Clogging Indicator V



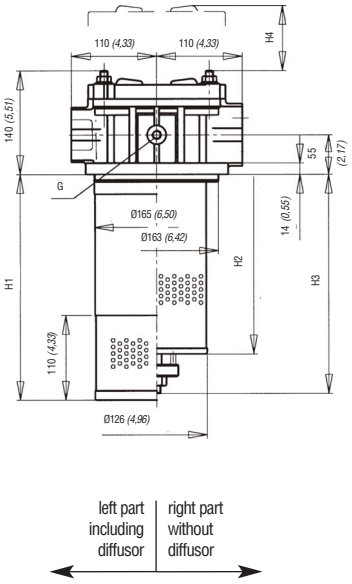
Electrical Clogging Indicator EC/EO

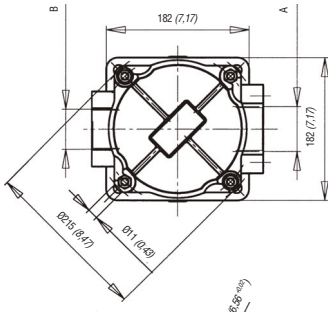


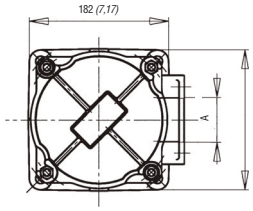
Filter Size	Element H1	Element H2	Element H3	Element H4	Port A (BSP)	Port G (BSP)	Weight incl. Filter Element and Diffusor
RF-MC-035	240 *(9,45)*	140 *(5,51)*	175 *(6,89)*	260 *(10,24)*	1-1/2" BSP	1/8" BSP	3,9 kg *(8,60 lbs)*
RF-MC-050	240 *(9,45)*	190 *(7,48)*	225 *(8,86)*	310 *(12,21)*	1-1/2" BSP	1/8" BSP	4,1 kg *(9,04 lbs)*
RF-MC-065	310 *(12,21)*	260 *(10,24)*	295 *(11,61)*	380 *(14,96)*	1-1/2" BSP	1/8" BSP	4,6 kg *(10,14 lbs)*
RF-MC-115	515 *(20,28)*	465 *(18,31)*	500 *(19,69)*	580 *(22,84)*	1-1/2" BSP	1/8" BSP	4,8 kg *(10,58 lbs)*

All dimensions in mm *(inch)*.

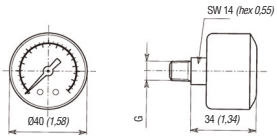
Dimensions RF-MC-080/105/125/135

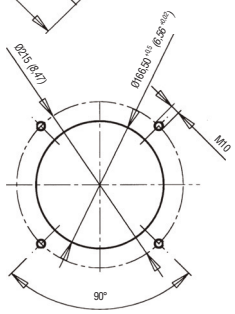




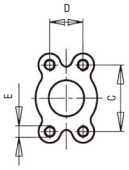


Visual Clogging Indicator V

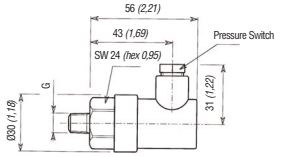




Flange Connection A / B



Electrical Clogging Indicator EC/EO

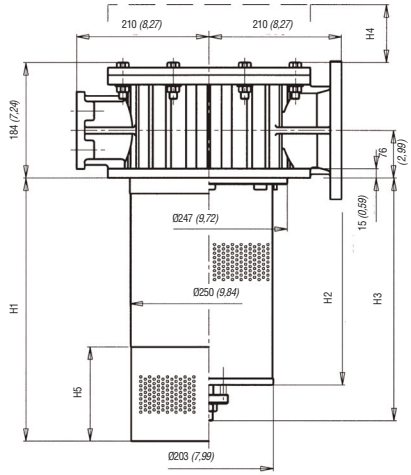


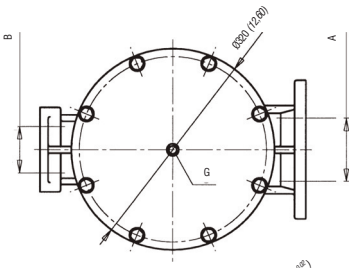
left part including diffusor | right part without diffusor

Holes on Tank

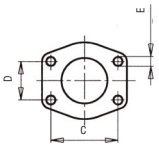
Filter Size	Element H1	H2	H3	H4	Flange Connection A	Flange Connection B (optional)	Port G (BSP)	Weight incl. Filter Element and Diffusor
RF-MC-080	280 *(11,02)*	210 *(8,27)*	260 *(10,24)*	350 *(13,78)*	2-1/2" SAE 3.000 PSI (Metric) C: 88,90 *(3,50)* D: 50,80 *(2,00)* E: M12	2" SAE 3.000 PSI (Metric) C: 77,80 *(3,06)* D: 42,90 *(1.69)* E: M12	1/8" BSP (Metric)	8,2 kg *(18,74 lbs)*
RF-MC-105	360 *(14,17)*	290 *(11,42)*	340 *(13,39)*	430 *(16,93)*				8,7 kg *(19,18 lbs)*
RF-MC-125	460 *(18,11)*	390 *(15,35)*	440 *(17,32)*	530 *(20,87)*	2-1/2" SAE 3.000 PSI (UNC) C: 88,90 *(3,50)* D: 50,80 *(2,00)* E: 1/2" UNC	2" SAE 3.000 PSI (UNC) C: 77,80 *(3,06)* D: 42,90 *(1.69)* E: 1/2" UNC	1/8" NPT (UNC)	9,0 kg *(19,84 lbs)*
RF-MC-135	550 *(21,65)*	478 *(18,82)*	530 *(20,87)*	620 *(24,41)*				9,5 kg *(20,94 lbs)*

Dimensions RF-MC-210/350/370/400

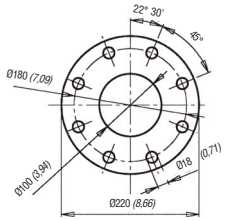




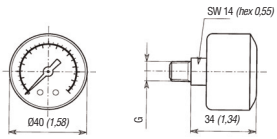
Flange Connection B



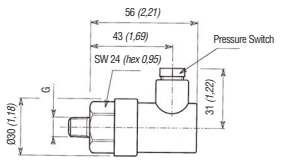
Flange Connection A



Visual Clogging Indicator V



Electrical Clogging Indicator EC/EO



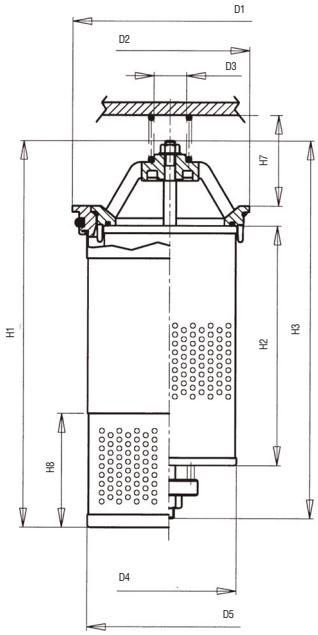
left part including diffusor | right part without diffusor

Holes on Tank

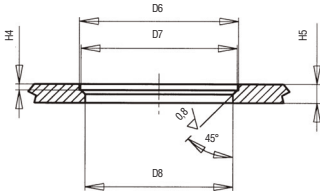
Filter Size	Element H1	H2	H3	H4	H5	Flange Connection A	Flange Connection B	Port G (BSP)	Weight incl. Filter Element and Diffusor
RF-MC-210	420 *(16,54)*	330 *(12,99)*	388 *(15,28)*	520 *(20,47)*	150 *(5,91)*	DN 100 / PN 10+16 (EN 1092-1)	3" SAE 3.000 PSI (Metric) C: 106,38 *(4,19)* D: 61,93 *(2,44)* E: M16	1/8" BSP (Metric)	30,0 kg *(66,14 lbs)*
RF-MC-350	635 *(25,00)*	545 *(21,46)*	603 *(23,74)*	740 *(29,13)*	150 *(5,91)*				34,0 kg *(74,96 lbs)/*
RF-MC-370	915 *(36,02)*	825 *(32,48)*	883 *(34,76)*	1020 *(40,16)*	250 *(9,84)*		3" SAE 3.000 PSI (UNC) C: 106,38 *(4,19)* D: 61,93 *(2,44)* E: 5/8" UNC	1/8" NPT (UNC)	37,0 kg *(81,57 lbs)*
RF-MC-400	1180 *(46,46)*	1090 *(42,91)*	1148 *(45,20)*	1290 *(50,79)*	250 *(9,84))*				41,0 kg *(90,39 lbs)*

All dimensions in mm *(inch)*.

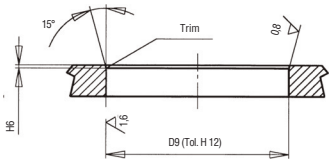
Dimensions RFI-MC



Tank internal plate without diffusor



Tank internal plate with diffusor



Filter Size	H1	H2	H3	H4	H5	H6	H7	H8	D1	D2	D3	D4	D5	D6	D7	D8	D9
RFI-MC-010	245 *(9,65)*	106 *(4,17)*	180 *(7,09)*														
RFI-MC-015	245 *(9,65)*	150 *(5,91)*	224 *(8,82)*	4 *(0,16)*	12 *(0,47)*	2,5 *(0,10)*	45 *(1,77)*	80 *(3,15)*	120 *(4,72)*	87 *(3,43)*	20 *(0,79)*	72 *(2,83)*	89 *(3,50)*	88 *(3,46)*	82,5 *(3,25)*	76 *(2,99)*	110 *(4,33)*
RFI-MC-020	295 *(11,61)*	200 *(7,87)*	274 *(10,79)*														
RFI-MC-030	395 *(15,55)*	300 *(11,81)*	374 *(14,72)*														
RFI-MC-035	307 *(12,09)*	140 *(5,51)*	250 *(9,84)*														
RFI-MC-050	307 *(12,09)*	190 *(7,48)*	300 *(11,81)*	5 *(0,20)*	15 *(0,59)*	2,5 *(0,10)*	78 *(3,07)*	90 *(3,54)*	155 *(6,10)*	125,5 *(4,94)*	25 *(0,98)*	106 *(4,17)*	133 *(5,24)*	126 *(4,96)*	123,5 *(4,86)*	117 *(4,61)*	145 *(5,71)*
RFI-MC-065	377 *(14,84)*	260 *(10,24)*	370 *(14,57)*														
RFI-MC-115	582 *(22,91)*	465 *(18,31)*	577 *(22,72)*														
RFI-MC-080	355 *(13,98)*	210 *(8,27)*	341 *(13,43)*														
RFI-MC-105	445 *(17,52)*	290 *(11,42)*	421 *(16,57)*	5 *(0,20)*	18 *(0,71)*	2,5 *(0,10)*	100 *(3,94)*	110 *(4,33)*	185 *(7,28)*	150 *(5,91)*	25 *(0,98)*	126 *(4,96)*	165 *(6,50)*	151 *(5,94)*	149 *(5,87)*	139 *(5,47)*	178 *(7,01)*
RFI-MC-125	545 *(21,46)*	390 *15,35)*	521 *(20,51)*														
RFI-MC-135	635 *(25,00)*	478 *(18,82)*	609 *23,98)*														
RFI-MC-210	530,5 *(20,89)*	330 *12,99)*	515 *(20,28)*														
RFI-MC-350	745,5 *(29,35)*	545 *(21,46)*	730 *(28,74)*	6 *(0,24)*	20 *(0,79)*	2,5 *(0,10)*	140 *(5,51)*	250 *(9,84)*	260 *(10,24)*	230 *(9,06)*	40 *(1,57)*	203 *(7,99)*	245 *(9,65)*	231 *(9,09)*	227 *(8,94)*	217 *(8,54)*	250,5 *(9,86)*
RFI-MC-370	1025,5 *(40,37)*	825 *(32,48)*	1010 *(39,76)*														
RFI-MC-400	1290,5 *(50,81)*	1090 *(42,91)*	1275 *(50,20)*														

All dimensions in mm *(inch)*.

Return Line Filters RF-MC: Ordering Code

Ordering Code Filter Housing (Delivery standards and printed in **bold**.)

RF-M C - 035 ... B / B / B / D / V

Series

RF-M	return line filters, series M (semi-immersed)

Nominal Pressure Level

C	10 bar *(145 PSI)*

Filter Size

Nom. Size	Nominal Flow*
010	38 l/min *(10 US GPM)*
015	60 l/min *(15 US GPM)*
020	75 l/min *(20 US GPM)*
030	110 l/min *(29 US GPM)*
035	130 l/min *(34 US GPM)*
050	200 l/min *(52 US GPM)*
065	250 l/min *(66 US GPM)*
115	440 l/min *(116 US GPM)*
080	300 l/min *(79 US GPM)*
105	400 l/min *(105 US GPM)*
125	480 l/min *(126 US GPM)*
135	520 l/min *(137 US GPM)*
210	800 l/min *(211 US GPM)*
350	1320 l/min *(348 US GPM)*
370	1400 l/min *(369 US GPM)*
400	1500 l/min *(396 US GPM)*

* The exact flow depends on filter element selected. The flow stated above applies to a STAUFF filter element E10B.

for Complete Filters

identification filter material + micron rating code
(see ordering code filter elements page 8)

Continuation see page 8

Sealing Material

B	NBR (Perbunan)
V	FKM (Viton)

Clogging Indicator

O	without indicator (plug)	
V	visual	1,3 bar *(19 PSI)* ±10%
EC	electrical	N.C. contacts, 1,3 bar *(19 PSI)* ±10%
EO	electrical	N.O. contacts, 1,3 bar *(19 PSI)* ±10%

Diffusor

O	without diffusor
D	including diffusor

Bypass Valve

B	including bypass	1,75 bar *(25 PSI)* ±10%

Port Connection

for RF-MC-010/015/020/030:	
B2	1-1/4" BSP
for RF-MC-035/050/065/115:	
B	1-1/2" BSP
for RF-MC-080/105/125/135:	
FM	Port A: 2-1/2" SAE 3.000 PSI (Metr.)
F1M	Port A: 2-1/2" SAE 3.000 PSI (Metr.) Port B: 2" SAE 3.000 PSI (Metr.)
FU	Port A: 2-1/2" SAE 3.000 PSI (UNC)
F1U	Port A: 2-1/2" SAE 3.000 PSI (UNC) Port B: 2" SAE 3.000 PSI (UNC)
for RF-MC-210/350/370/400:	
FM	Port A: DN 100 / PN 10+16 Port B: 3" SAE 3.000 PSI (Metr.)
FU	Port A: DN 100 / PN 10+16 Port B: 3" SAE 3.000 PSI (UNC)

Alternative port connections on request.

Return Line Filters RFI-MC: Ordering Code

Ordering Code Filter Housing (Delivery standards and printed in **bold**.)

RFI-M C - 035 ... B / B / D

Series	
RF-M	return line filters, series M (fully-immersed)

Nominal Pressure Level	
C	10 bar *(145 PSI)*

Filter Size	
Nom. Size	Nominal Flow*
010	38 l/min *(10 US GPM)*
015	60 l/min *(15 US GPM)*
020	75 l/min *(20 US GPM)*
030	110 l/min *(29 US GPM)*
035	130 l/min *(34 US GPM)*
050	200 l/min *(52 US GPM)*
065	250 l/min *(66 US GPM)*
115	440 l/min *(116 US GPM)*
080	300 l/min *(79 US GPM)*
105	400 l/min *(105 US GPM)*
125	480 l/min *(126 US GPM)*
135	520 l/min *(137 US GPM)*
210	800 l/min *(211 US GPM)*
350	1320 l/min *(348 US GPM)*
370	1400 l/min *(369 US GPM)*
400	1500 l/min *(396 US GPM)*

* The exact flow depends on filter element selected. The flow stated above applies to a STAUFF filter element E10B.

Diffusor	
O	without diffusor
D	including diffusor

Bypass Valve	
B	including bypass 1,75 bar *(25 PSI)* ±10%

Sealing Material	
B	NBR (Perbunan)
V	FKM (Viton)

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

Ordering Code Filter Elements (Delivery standards and printed in **bold**.)

RE-M - 035 E 06 B

Series	
SP	elements (return line filters)

Filter Size
according to filter housing

Filter Material			
Code	Material	max. $\triangle p^*_{kollaps}$	micron ratings avlb.
E	glass fibre	10 bar *(145 PSI)*	06, 10, 25 (µm)
K	filter paper	5 bar *(73 PSI)*	10, 25 (µm)
B	stainless mesh	20 bar *(290 PSI)*	25, 60, 90 (µm)

* Collapse / burst resistance as per ISO 2941

Sealing Material	
B	NBR (Perbunan)
V	FKM (Viton)

Micron Ratings	
06	micron rating 6µm
10	micron rating 10µm
25	micron rating 25µm
60	micron rating 60µm
90	micron rating 90µm

Return Line Filters RFI-MC: Filter Elements

Description

STAUFF replacement filter elements for RF-MC and RFI-MC series filters are manufactured in the common filter materials such as stainless mesh, filter paper and inorganic glass fiber. All STAUFF replacement elements comply with quality specifications in accordance with international standards.

Ordering Code Filter Elements (Delivery standards and printed in **bold**.)

RE-M - 035 E 06 B

Series	
SP	elements (return line filters)

Filter Size
according to filter housing

Filter Material			
Code	Material	max. $\triangle p^*_{kollaps}$	micron ratings avlb.
E	glass fibre	10 bar *(145 PSI)*	06, 10, 25 (µm)
K	filter paper	5 bar *(73 PSI)*	10, 25 (µm)
B	stainless mesh	20 bar *(290 PSI)*	25, 60, 90 (µm)

* Collapse / burst resistance as per ISO 2941

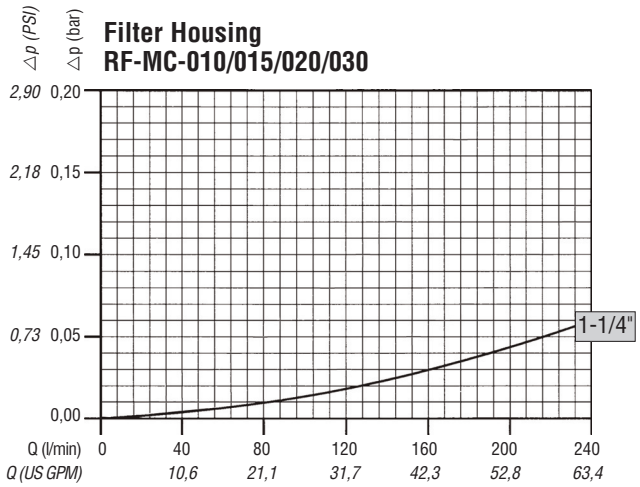
Sealing Material	
B	NBR (Perbunan)
V	FKM (Viton)

Micron Ratings	
06	micron rating 6µm
10	micron rating 10µm
25	micron rating 25µm
60	micron rating 60µm
90	micron rating 90µm

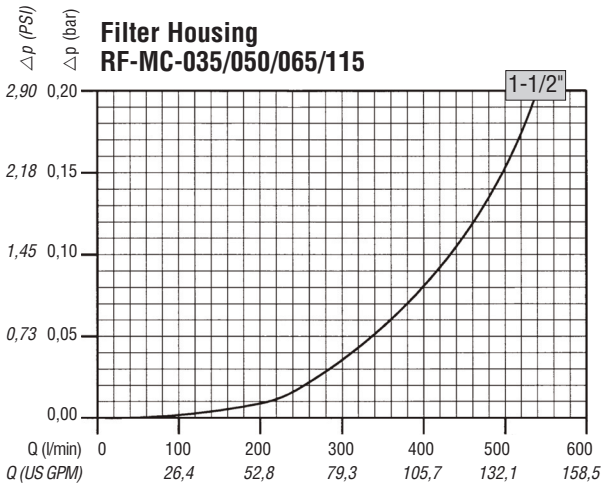
Flow Characteristics

The following characteristics are valid for mineral oils with a density of 0,86 kg/dm³ and the kinematic viscosity of 30 mm²/s *(30 cSt)*. The characteristics have been determined in accordance to ISO 3968.

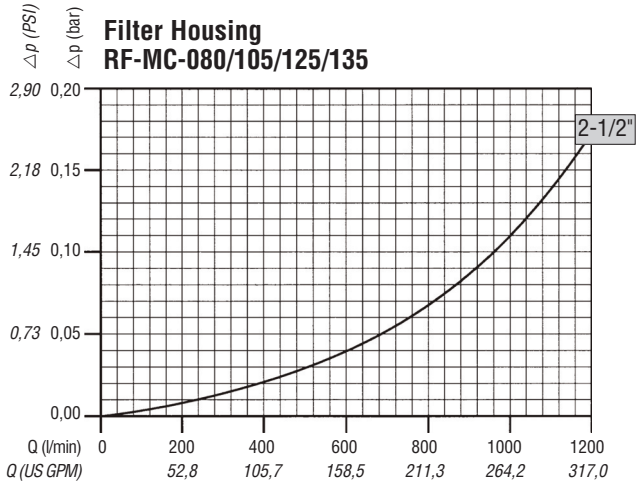
Filter Housing RF-MC-010/015/020/030



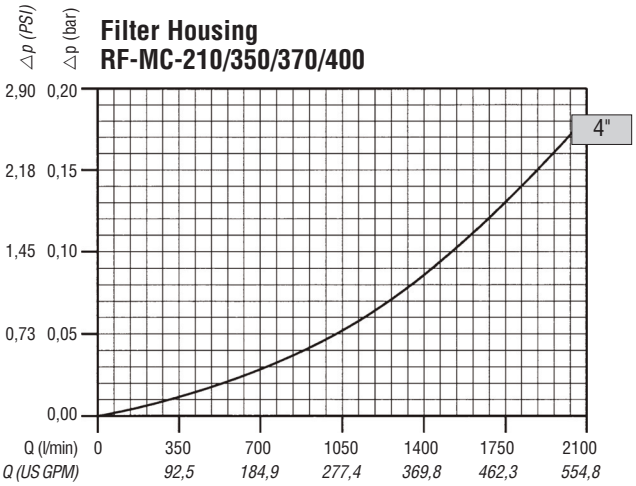
Filter Housing RF-MC-035/050/065/115



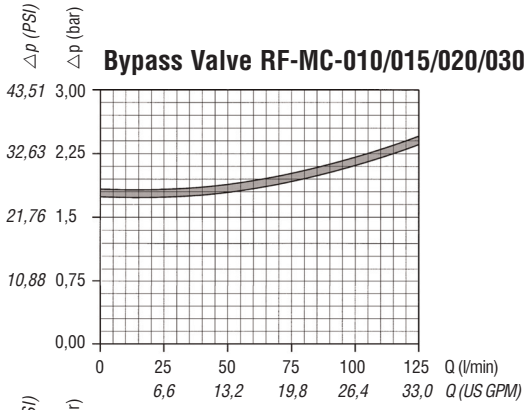
Filter Housing RF-MC-080/105/125/135



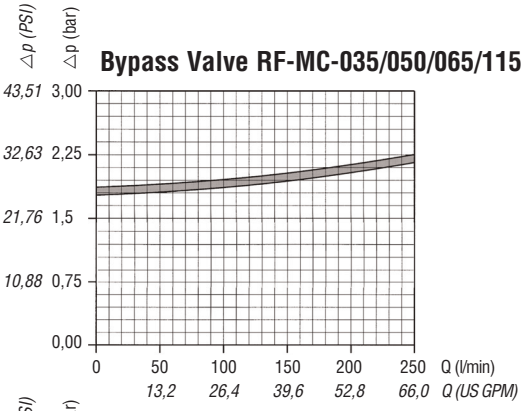
Filter Housing RF-MC-210/350/370/400



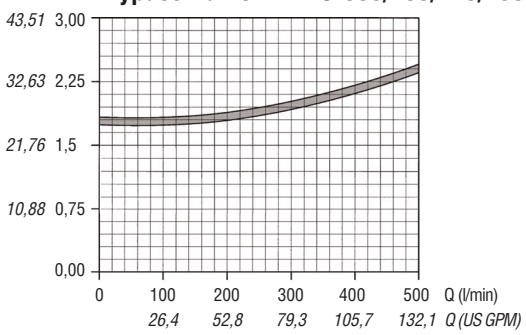
Bypass Valve RF-MC-010/015/020/030



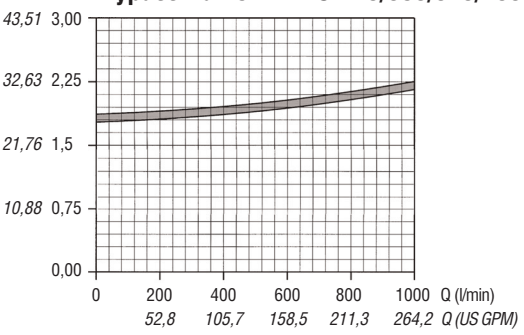
Bypass Valve RF-MC-035/050/065/115



Bypass Valve RF-MC-080/105/125/135



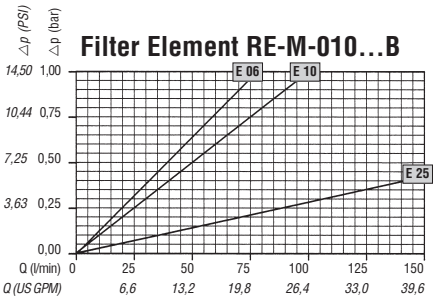
Bypass Valve RF-MC-210/350/370/400



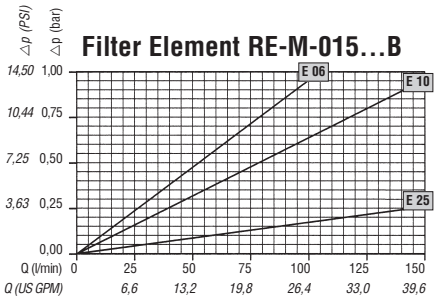
Flow Characteristics

The following characteristics are valid for mineral oils with a density of 0,86 kg/dm³ and the kinematic viscosity of 30 mm²/s *(30 cSt)*. The characteristics have been determined in accordance to ISO 3968.

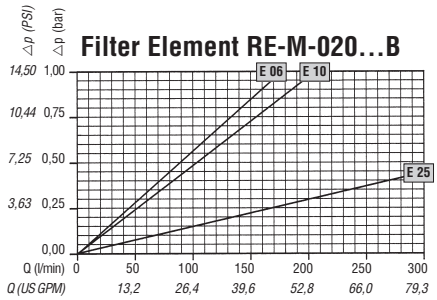
Filter Element RE-M-010…B



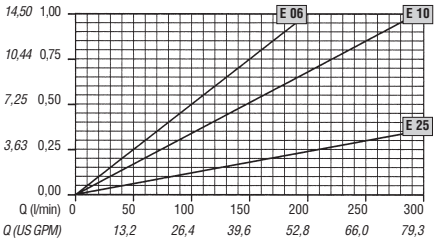
Filter Element RE-M-015…B



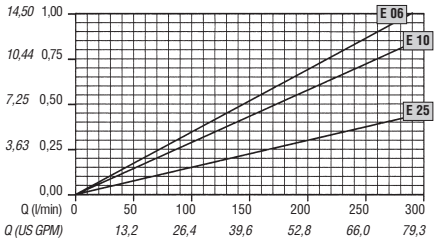
Filter Element RE-M-020…B



Filter Element RE-M-030…B



Filter Element RE-M-035…B



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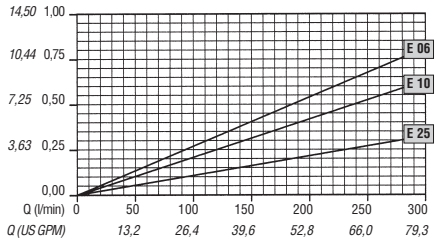

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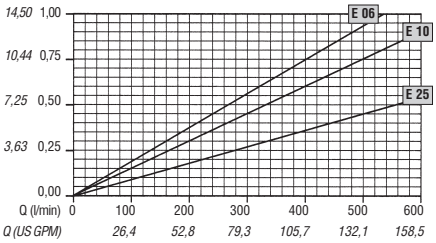

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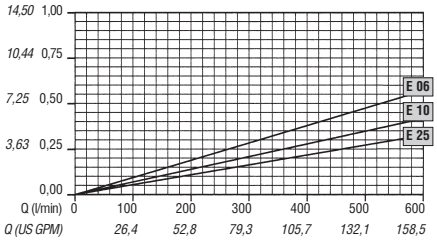

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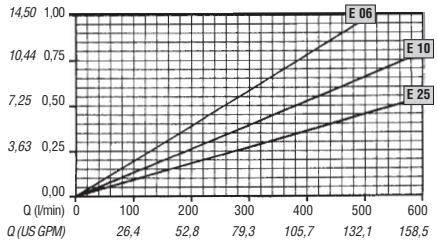

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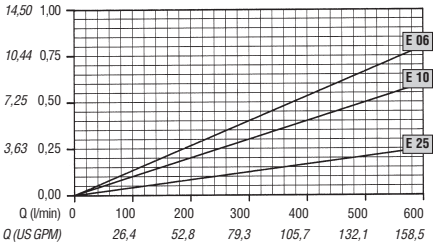

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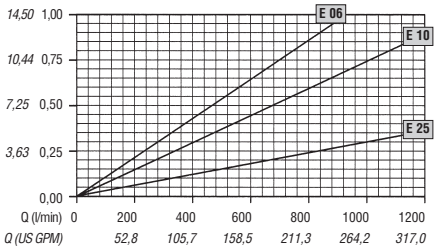

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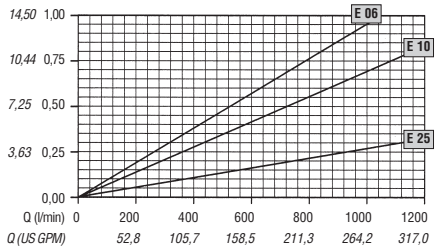

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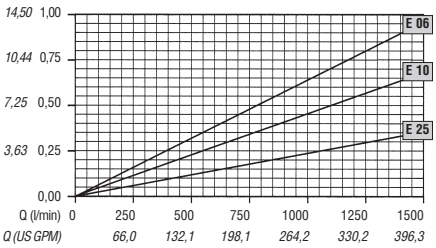

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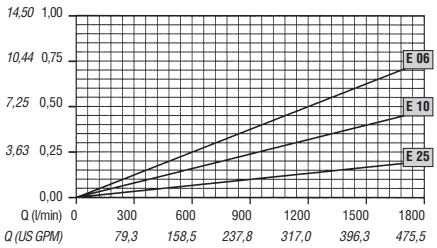

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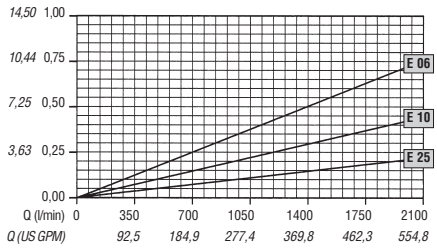

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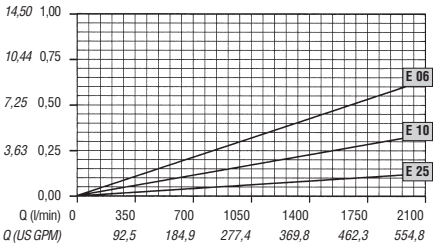

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Stauff Filtration Technology

Stauff Filtration Technology offers a complete range of filtration products and services that will provide the system designer or user with the highest level of contamination control demanded by today's most sophisticated applications. Products include pressure filters, return line filters, elements, spin on filters suction strainers and filler breathers for various hydraulic, lubrication and fuel oils.

Stauff has the technical expertise to provide superior filter element designs for the Stauff original filter housings and also for the interchange element market. nStauff manufactures more than 10,000 different elements. Many of these are designed to fit into filter housings produced by other companies while maintaining or surpassing the original performance.

The "Stauff Contamination Control Program" includes the diagnostic services including fluid sampling and laser particle counting products needed to monitor the system contamination level.

Stauff, through its global network of wholly owned companies and technically qualified distributors, is ideally placed to assist its customers in the total contamination process providing a well balanced filtration solution.

Return Line Filter RIF48

	Page
Technical Data	3
Dimensions	4
Options	5
Ordering Code	6
Flow characteristics	7

Technical Data

STAUFF RIF48 series return filters are designed for in-line hydraulic applications with a maximum operating pressure of 20 bar *(300 PSI)*. **The RIF48 series pressure filter meets the HF4 Automotive Standard.**

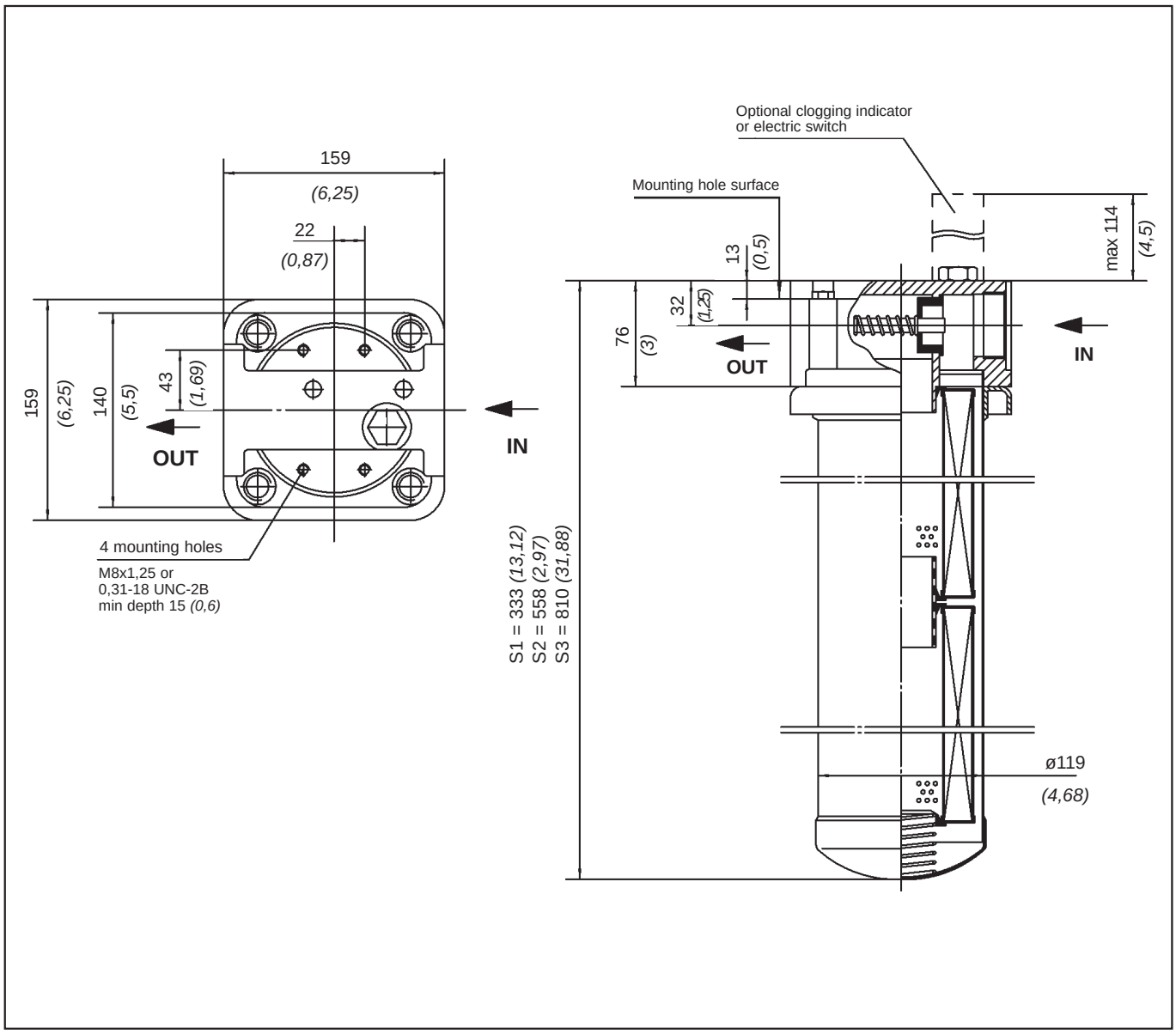
Technical Specification

Construction	In-line assembly
Filter head	Die cast aluminium
Element case	Steel
Seals	O-Rings NBR (Buna-N®), FPM (Viton®)
Port connections	BSP, NPT, SAE “O”-Ring thread or SAE Code 61 flange
Flow rating for	up to 380 l/min *(100 US GPM)* 32 cSt *(150 SUS)* fluids
Operating pressure	max 20 bar *(300 PSI)*
Burst pressure	min 70 bar *(1000 PSI)*

Temperature range	-29°C to +107°C *(-20°F to +225°F)*
By-pass valve	Allows unfiltered oil to by-pass the contaminated element once the opening pressure has been reached
By-pass setting	2.8 bar *(40 PSI)*
Clogging indicators	standard actuating pressure 2.8 bar *(40 PSI)* indicators types: visual and electrical (AC and DC voltage versions)
Filter elements	Flow characteristics see page 7
Media	Mineral oils, other fluids on request

Return Line Filter RIF48 Dimensions

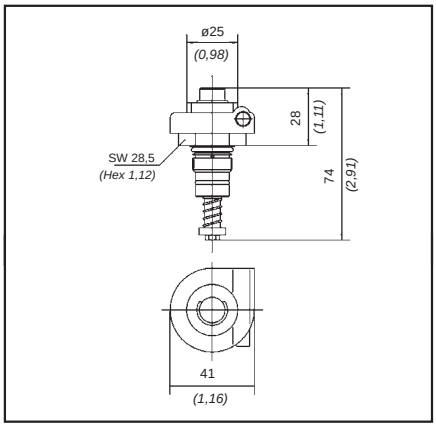
Dimensions



All dimensions in mm *(inch)*

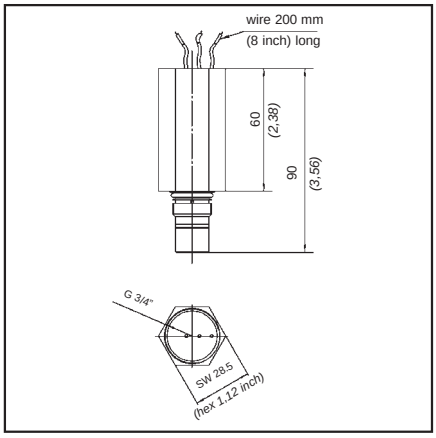
1. Visual clogging indicator

Part number HI48-V is a mechanical magnetic cartridge with a highly visible orange disk that pops up at 2.8 bar *(40 PSI)*. Once activated the orange signal continues to indicate a by-pass condition until it is manually reset.



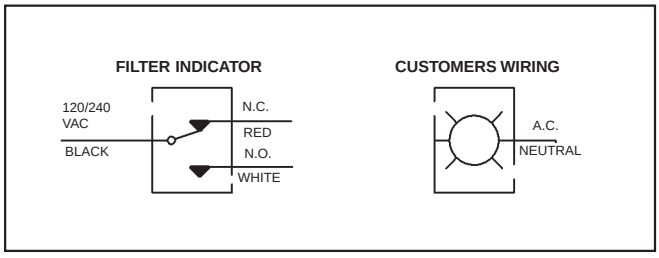
2. Electrical clogging indicator

Part number HI48-EAC and HI48-EDC are used when a electrical signal is needed to indicate when the element needs changing. The solid state switch is activated at 2.8 bar *(40 PSI)*. The indicators are supplied with a 200 mm *(8 in)* long wire leads and are NEMA 4 rated.



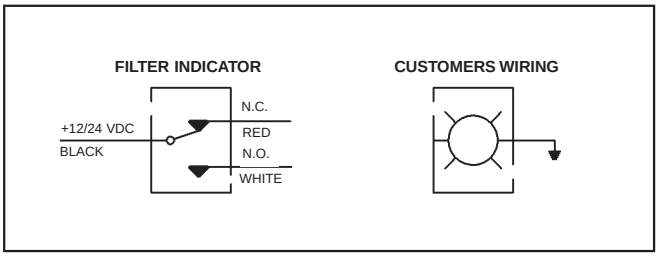
2.1 HI48-EAC Ratings

Voltage	max 240 VAC
Wattage	max 720 Watts
Current	0.10 to 6 amps
Contact type	solid state



2.2 HI48-VDC Ratings

Voltage	max 100 VDC
Wattage	max 50 Watts
Current	0.01 to 2 amps
Contact type	solid state



Ordering Code

HI 48-E-AC /X

Clogging Indicator	

Series	RIF48

Code	Execution
V	visual
E	electrical

Design Code
only for information

Voltage (only for Code E)	
AC	max 240 VAC
DC	max 100 VDC

Return Line Filter RIF48 Ordering Code

Ordering Code Filter Housings

RIF48 S ... B S1 V /X

Filter type	RIF48

Port Size	
Code	Connection Type
B	G 1 1/2
S	1 7/8 - 12 SAE (Standard)
N	1 1/2 NPT
F	1 1/2 SAE Code 61 Flange

for complete filters:
identification filter material
+ micron rating code
(see ordering code filter elements below)

Design Code
only for information

Clogging indicator	
N	without clogging indic.
V	visual
E	electrical

Bowl Length	
S1	Single Element
S2	Double Element
S3	Triple Element

Seal material	
B	NBR (Buna-N®)
V	FPM (Viton®)

Ordering Code Filter Elements

RTE48 G 10 B /X

Series	RTE48

Filter material			Micron ratings available
Code	Material	max Δp*collapse	
D	Filterpaper	10 bar *(150 PSI)*	03, 10, 25
G	Inorganic glass fiber	10 bar *(150 PSI)*	03, 10, 25

*collapse / burst resistance as per ISO 2941

Design Code
only for information

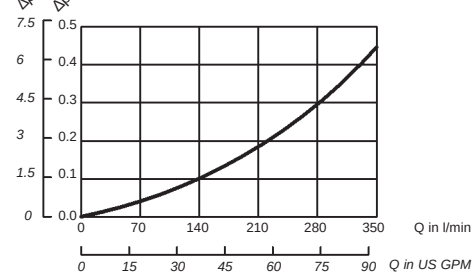
Seal material	
B	NBR (Buna-N®)
V	FPM (Viton®)

Micron rating	
03	3 µm
10	10 µm
25	25 µm

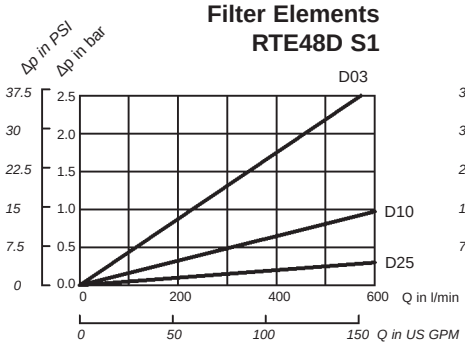
Flow Characteristics

The following characteristics are valid for mineral based fluids 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.

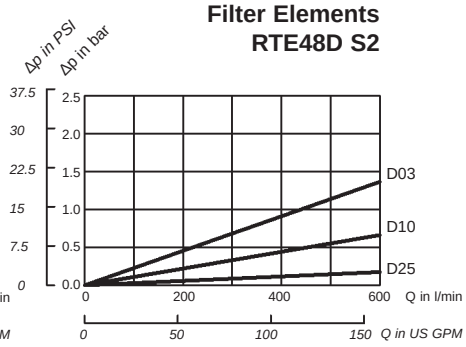
Filter Housing RIF48



Filter Elements RTE48D S1



Filter Elements RTE48D S2



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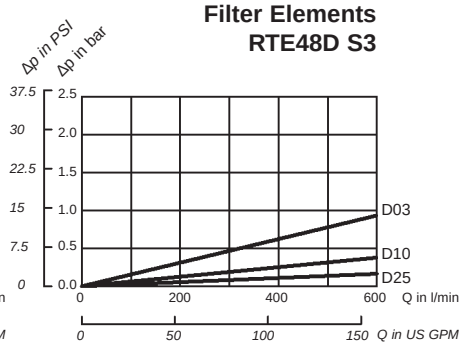
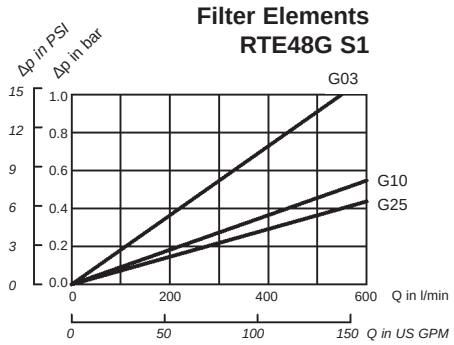
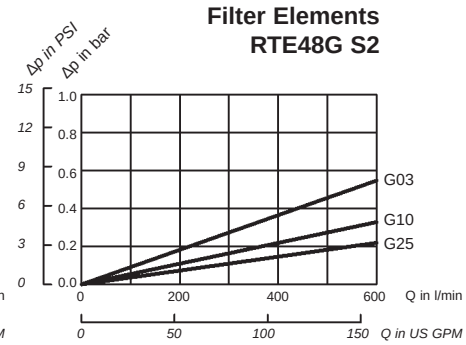


Filter Elements RTE48G S1



Filter Elements RTE48G S2



Filter Elements RTE48G S3