

SFSC series

Flow rate up to 700 l/min



Description

Technical data

Suction filters

Flow rate up to 700 l/min

SFSC is a range of suction filters with integrated shut-off valve for protection of the downstream pump against the coarse contamination.

They are placed below the minimum oil level, directly connected to the suction line of the pump.

They can be fitted on the side or below the tank, allowing a more flexible design of the tank.

The shut-off valve closes automatically when the cover is removed, allowing the filter element replacement without the fluid drop.

Available features:

- Flanged connections up to 4", for a maximum flow rate of 700 l/min
- Optional hose fitting installed, to connect the suction line without the use of flanges
- Magnetic filter, to hold the ferrous particles
- Plastic and metal handle, to close the shut-off valve before the cover removal
- Electrical switch, to signal the closed shut-off valve
- Visual, electrical and electronic clogging indicators

Common application:

Industrial equipment

Filter housing materials

- Housing:
 - Anodized Aluminium
 - Steel (chemical heat treatment): only for SFSC 535 - 540
- Cover:
 - Anodized Aluminium
 - Steel (chemical heat treatment): only for SFSC 535 - 540
- Optional flange:
 - Anodized Aluminium

Elements

Fluid flow through the filter element from IN to OUT

Seals

- Standard NBR series A or W
- Optional FPM series V or Z

Temperature

From -25 °C to +110 °C

Note

SFSC filters mounting, see the drawings on page 66 and following

Weights [kg] and volumes [dm³]

Filter series	Weights [kg]	Volumes [dm ³]
SFSC 500	4.2	1.8
SFSC 503	6.2	2.9
SFSC 504	7.2	4.0
SFSC 505	4.3	1.6
SFSC 510	5.4	2.1
SFSC 535	16	4.4
SFSC 540	18.6	6.5

Flow rates [l/min]

Filter series	Filter element design - N Series	
	M0025	M0060 M0090 M0250
SFSC 500	219	234
SFSC 503	325	390
SFSC 504	484	543
SFSC 505	199	221
SFSC 510	259	282
SFSC 535	439	479
SFSC 540	644	688

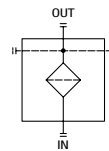
Maximum flow rate for a complete suction filter with a pressure drop $\Delta p = 0.08$ bar.

The reference fluid has a kinematic viscosity of 30 mm²/s (cSt) and a density of 0.86 kg/dm³.

For different pressure drop or fluid viscosity we recommend to use our selection software available on www.mpfiltri.com.

You can also calculate the right size using the formulas present on the FILTER SIZING paragraph at the beginning of the full catalogue or at the beginning of the filter family brochure. Please, contact our Sales Department for further additional information.

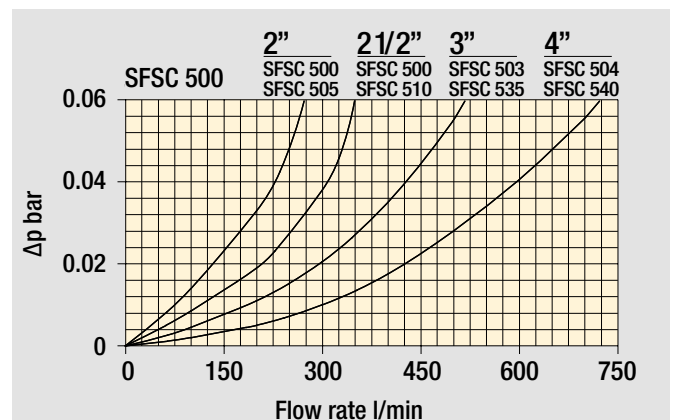
Hydraulic symbols



Filter series	
SFSC	•

PRESSURE DROP

Filter housings Δp pressure drop



The curves are plotted using mineral oil with density of 0.86 kg/dm³ in compliance with ISO 3968. Δp varies proportionally with density.

Corrective factors "Y" for filter element Δp calculation

Filter element		Nominal filtration Collapse $\Delta P : A = 1$ bar					
Type	Length	P0010	P0025	M0025	M0060	M0090	M0250
SSC 503	10	-	-	0.17	0.11	0.11	0.11
SSC 504	10	-	-	0.11	0.08	0.08	0.08
SSC 505	10	-	-	0.23	0.18	0.18	0.18
SSC 510	10	-	-	0.18	0.14	0.14	0.14
SSC 535	10	-	-	0.08	0.05	0.05	0.05
SSC 540	10	-	-	0.05	0.04	0.04	0.04

See page 22 for the complete information regarding filter element Δp calculation.

Maximum total pressure drop (Δp max) allowed by a new and clean filter

Filter family	Δp max	
Suction	0.08 bar	1.15 psi

Designation & Ordering code

COMPLETE FILTER

Series	Example 1:	SFSC	500	10	M0025	A	W	00	FE200	0	6T	MA	P01	NN
SFSC	Example 2:	SFSC	535	10	M0060	A	V	00	HB089	0	9T	MC	P01	NN

Size
500 | 503 | 504 | 505 | 510 | 535 | 540

Length
10

Filtration rating (filter media)

M0025 Wire mesh 25 µm	M0090 Wire mesh 90 µm
M0060 Wire mesh 60 µm	M0250 Wire mesh 250 µm

Element Δp
A 1 bar

Seals and treatments

A NBR
V FPM
W NBR with components surface treatment
Z FPM with components surface treatment

Bypass
00 Without bypass

Connections		500	505	510	503-535	504-540	500	505	510	503-535	504-540
FE200 2" SAE 3000 psi/M		•	•	-	-	-	•	•	-	-	-
FE212 2 1/2" SAE 3000 psi/M		•	-	•	-	-	•	-	-	-	-
FE300 3" SAE 3000 psi/M		-	-	-	•	-	-	-	-	•	-
FE400 4" SAE 3000 psi/M		-	-	-	-	•	-	-	-	-	•
FF200 2" SAE 3000 psi/UNC		•	•	-	-	-	-	-	-	-	-
FF212 2 1/2" SAE 3000 psi/UNC		•	-	•	-	-	-	-	-	-	-
FF300 3" SAE 3000 psi/UNC		-	-	-	•	-	-	-	-	-	-
FF400 4" SAE 3000 psi/UNC		-	-	-	-	•	-	-	-	-	•
HB063 Hose barb Ø 63 mm		•	•	-	-	-	•	•	-	-	-
HB075 Hose barb Ø 75 mm		•	-	•	-	-	•	-	-	-	-
HB089 Hose barb Ø 89 mm		-	-	-	•	-	-	-	-	•	-
HB114 Hose barb Ø 114 mm		-	-	-	-	•	-	-	-	-	•

Additional connections
0 Without additional connections

Connections for clogging indicators	500-503-504-540	505-510-535
6T With both side indicator connections, with metal plugs	•	-
9T With multiple indicator connections, with metal plugs	-	•

Additional features	500-503-504	505-510-535-540
MA With magnetic filter	•	•
MB With magnetic filter + polyamide handwheel	•	-
MC With magnetic filter + microswitch	-	•
MD With magnetic filter + microswitch + polyamide handwheel	•	-
ME With magnetic filter + microswitch + steel handwheel	•	-

Version
P01 Standard catalogue item

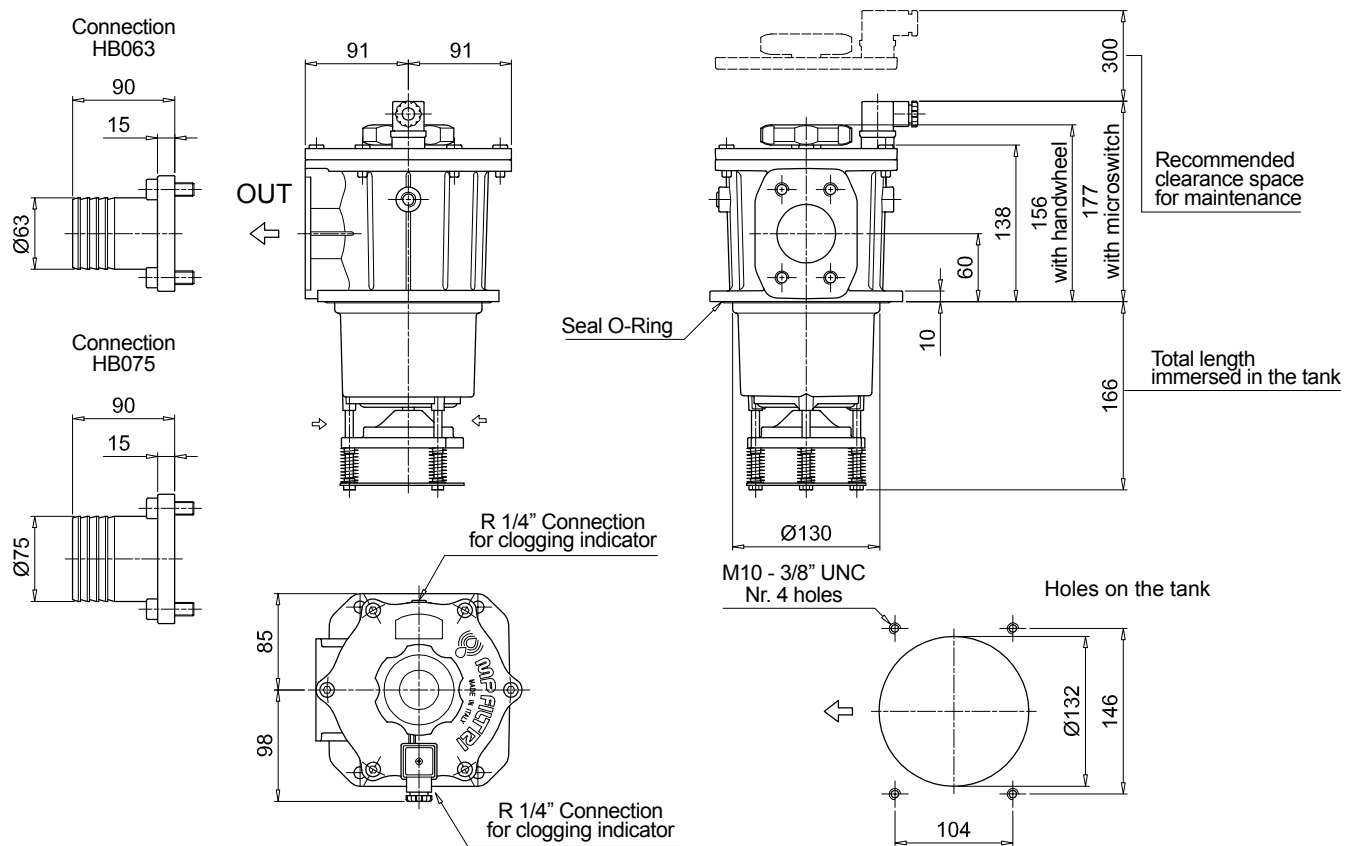
Certificates
NN None

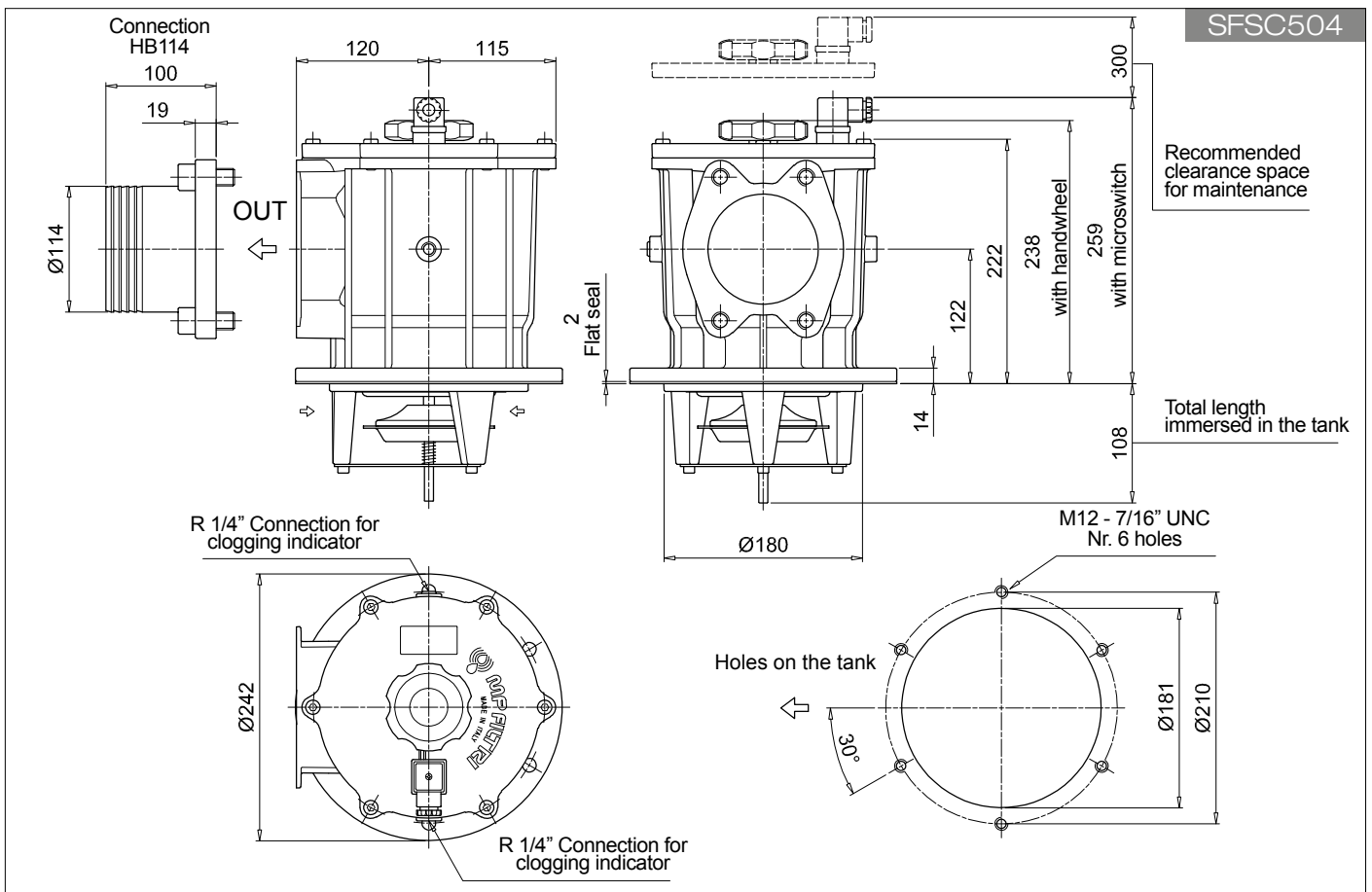
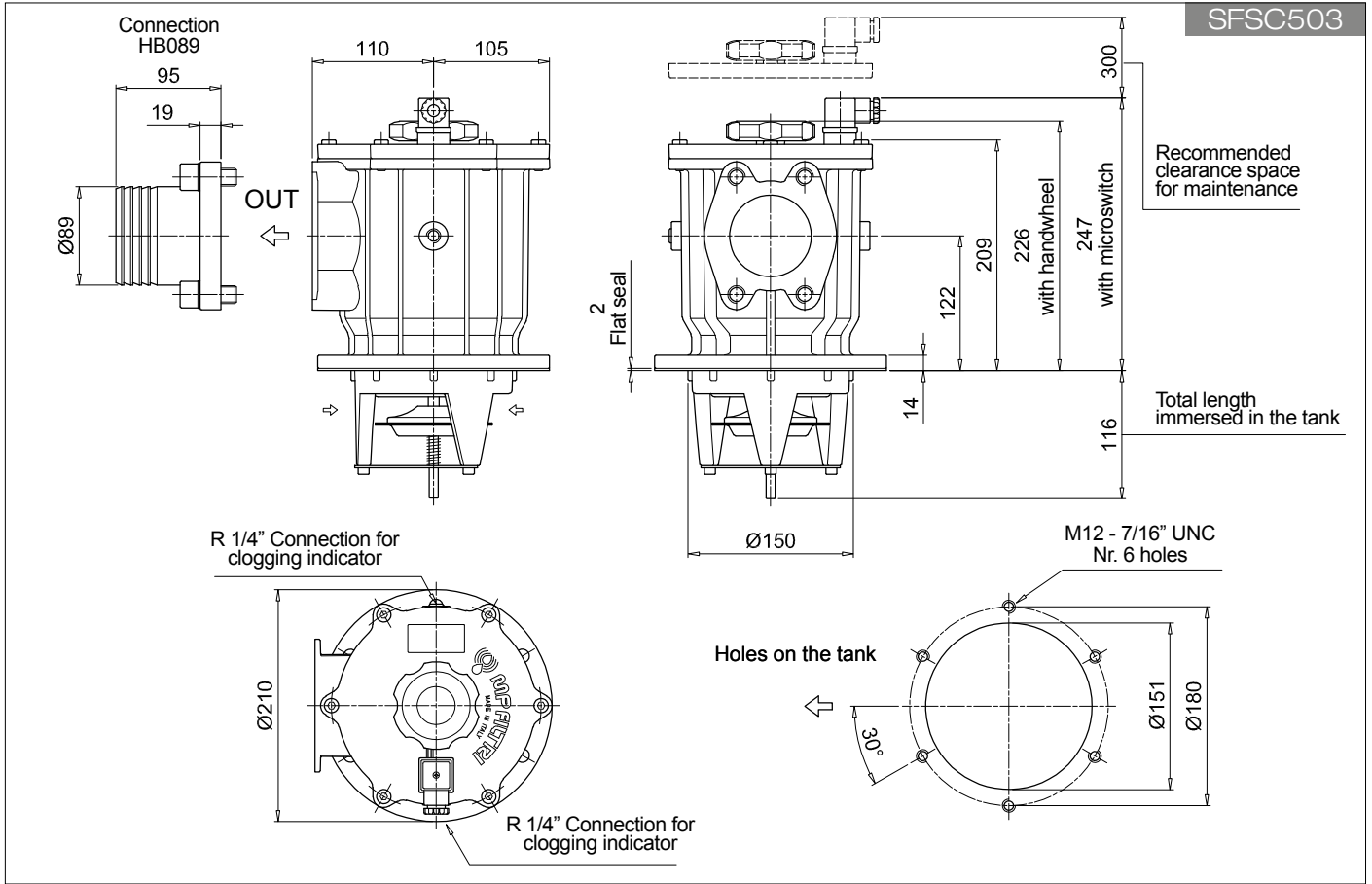
CLOGGING INDICATORS

See page 715

VEA Electrical vacuum indicator	VVA Axial vacuum gauge
VLA Electrical / visual vacuum indicator	VVR Radial vacuum gauge

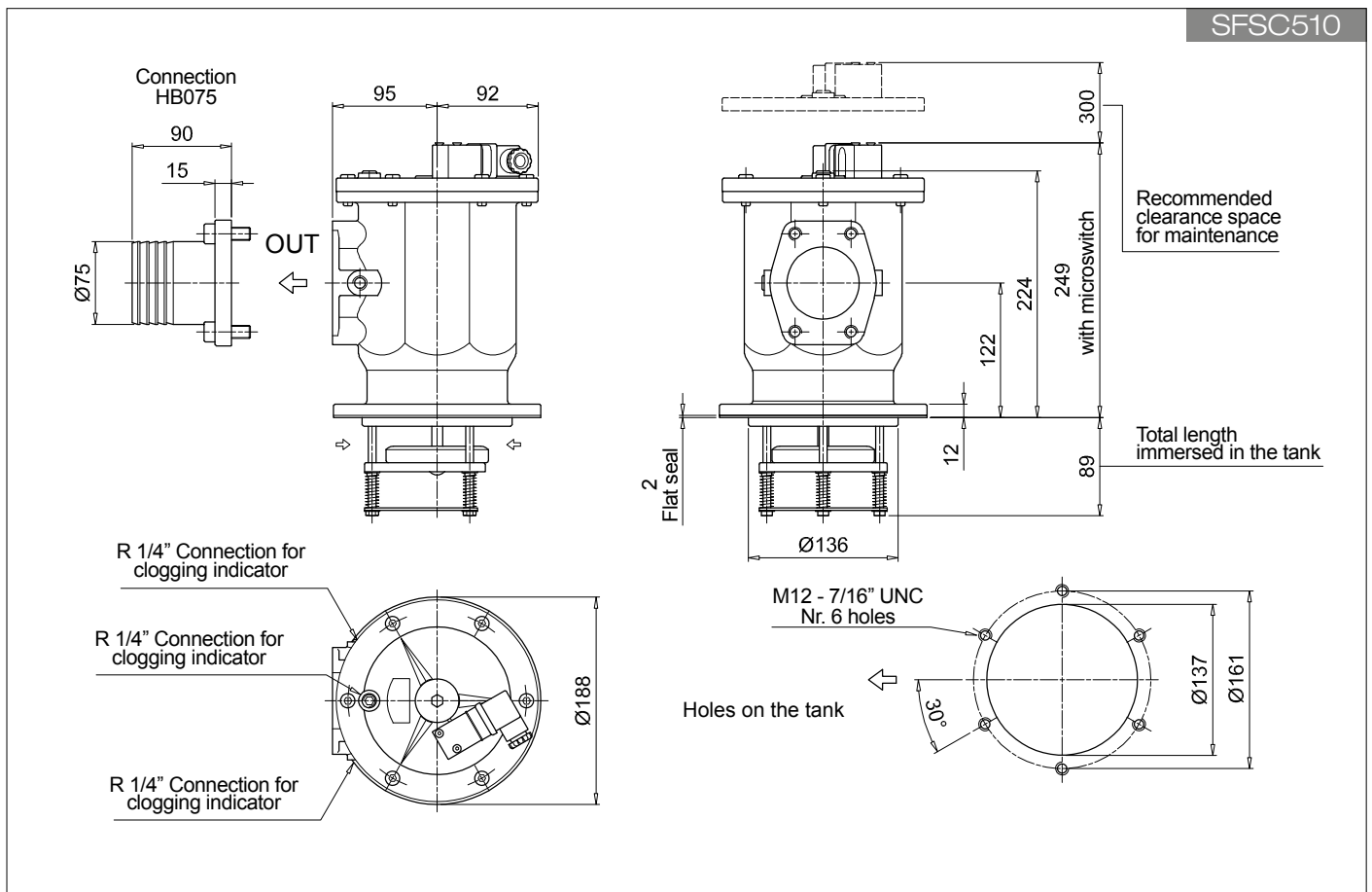
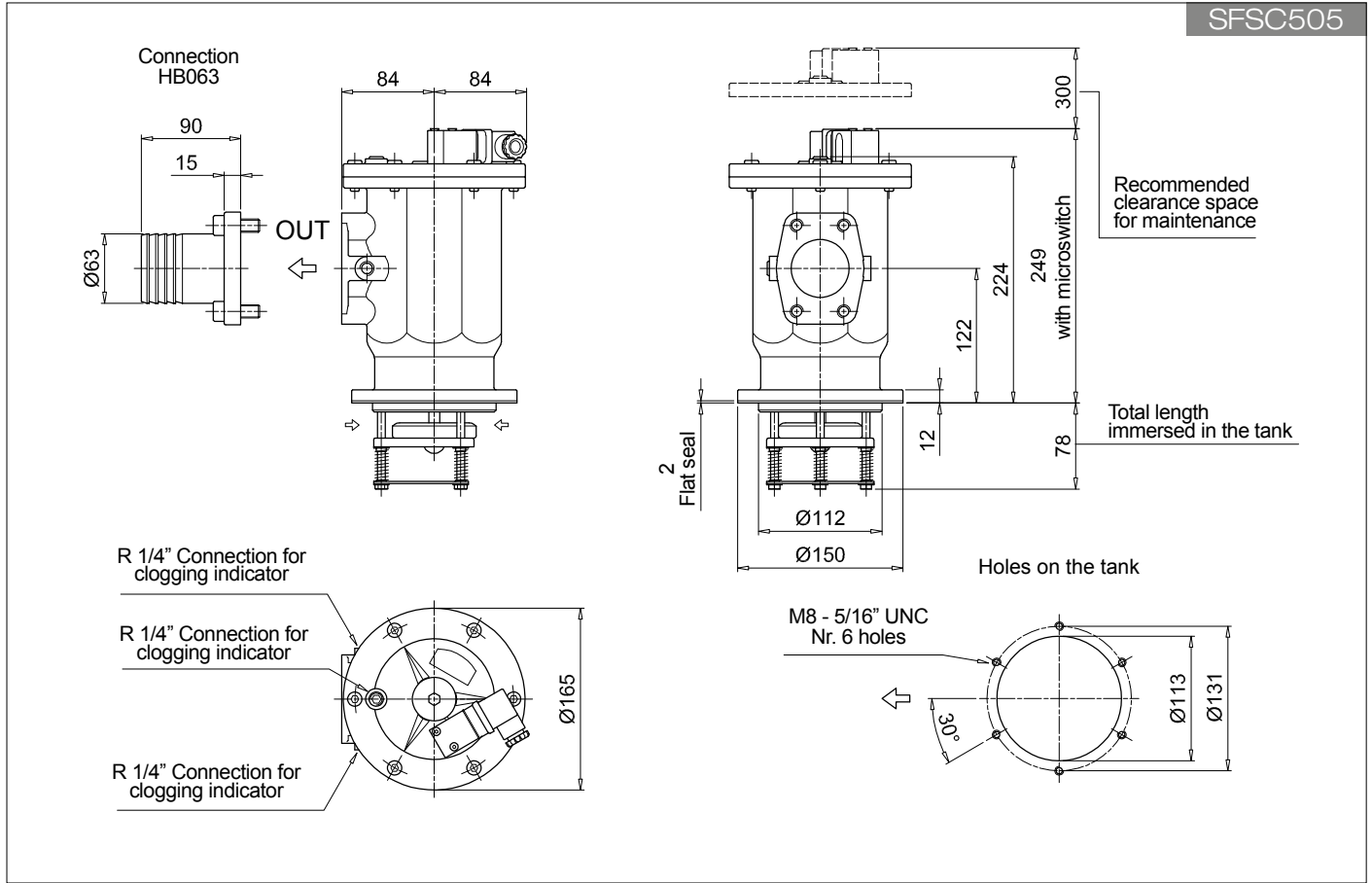
FILTER ELEMENT										
Series		Example 1: SSC 510 10 M0025 A A 00 NN P01 NN								
SSC		Example 2: SSC 535 10 M0060 A V 00 NN P01 NN								
Size										
503	SFSC 503	510	SFSC 500	540	SFSC 540					
504	SFSC 504		SFSC 510							
505	SFSC 505	535	SFSC 535							
Length										
10										
Filtration rating (filter media)										
M0025	Wire mesh 25 µm	M0090	Wire mesh 90 µm							
M0060	Wire mesh 60 µm	M0250	Wire mesh 250 µm							
Element Δp										
A		1 bar								
Seals and treatments										
A		NBR								
V		FPM								
Bypass										
00		Without bypass								
Additional features										
NN		Without								
Version										
P01		Standard catalogue item								
Certificates										
NN		None								

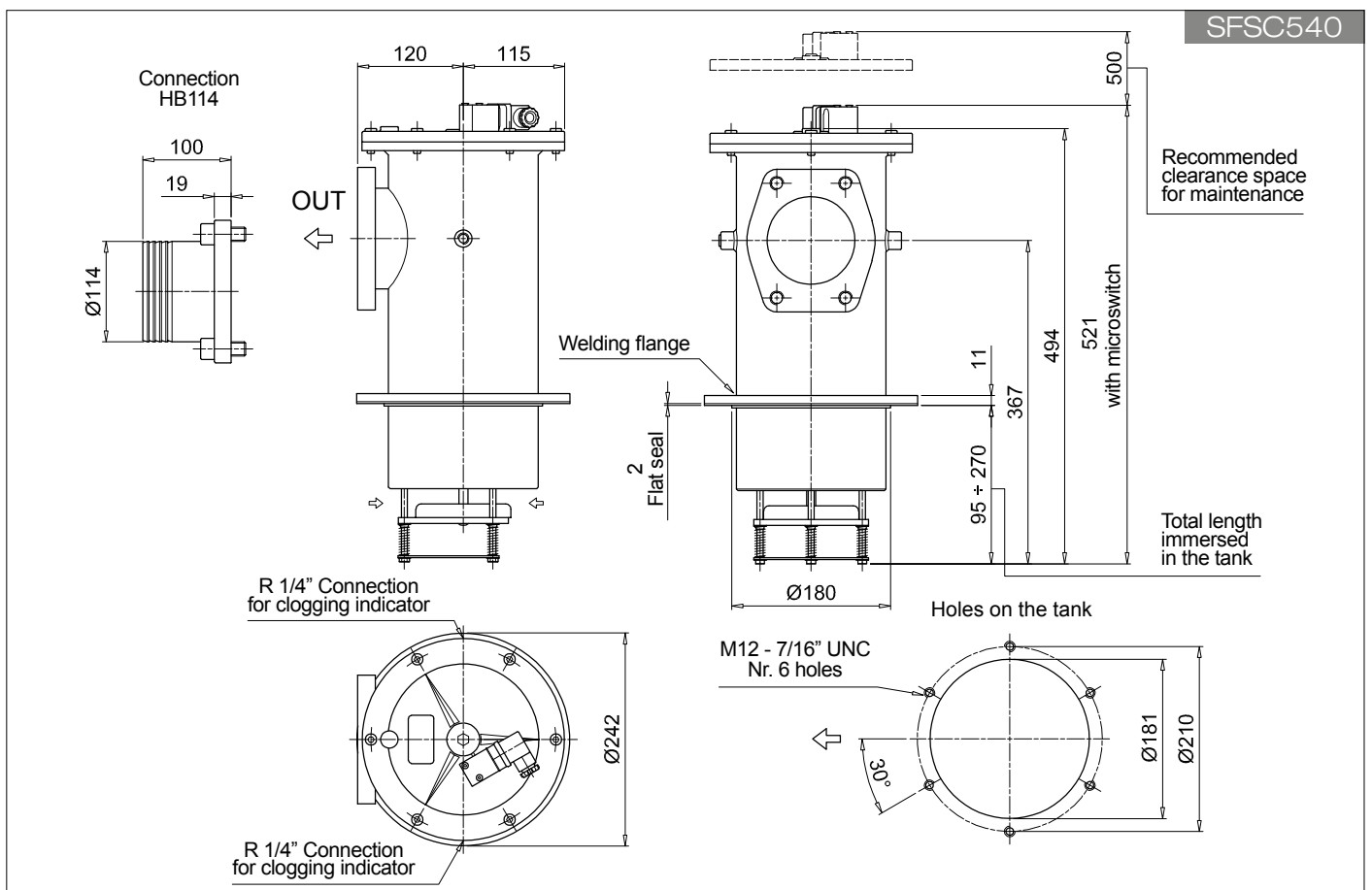
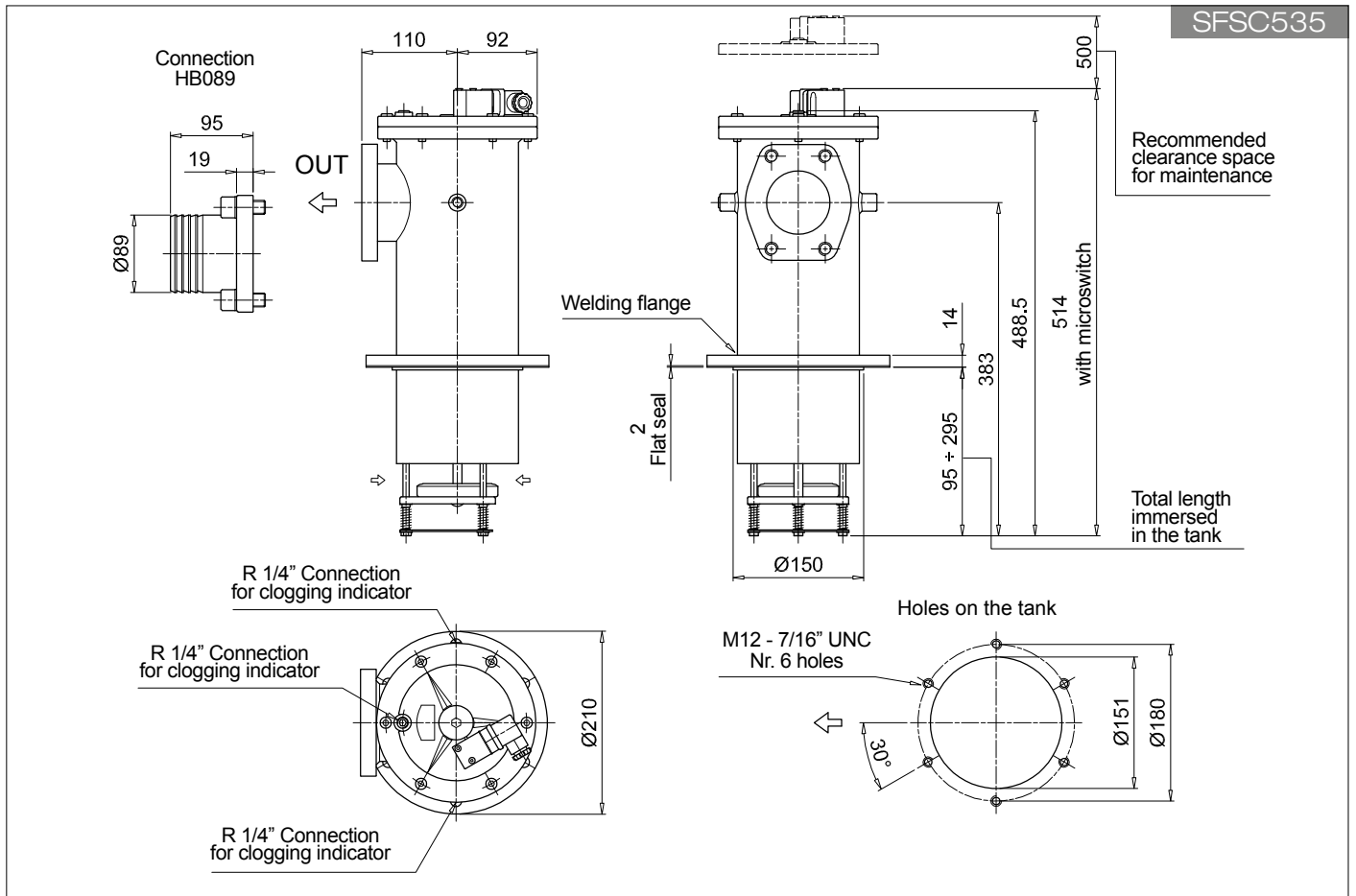




SFSC SFSC505 - SFSC510

Dimensions

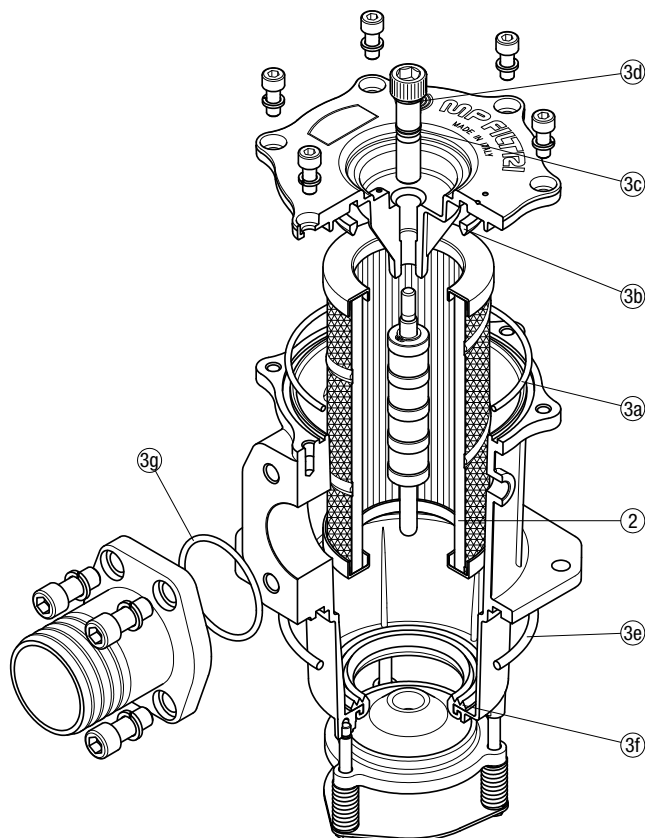




SFSC SPARE PARTS

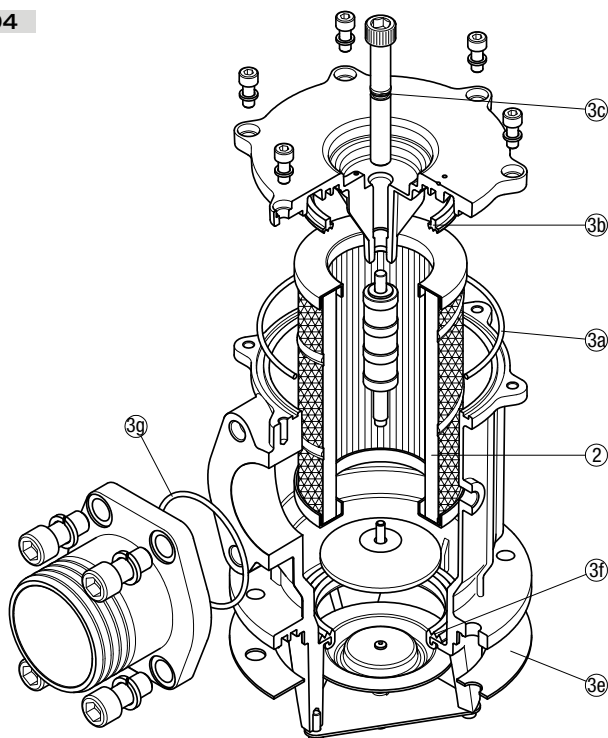
Order number for spare parts

SFSC 500



SFSC 503

SFSC 504



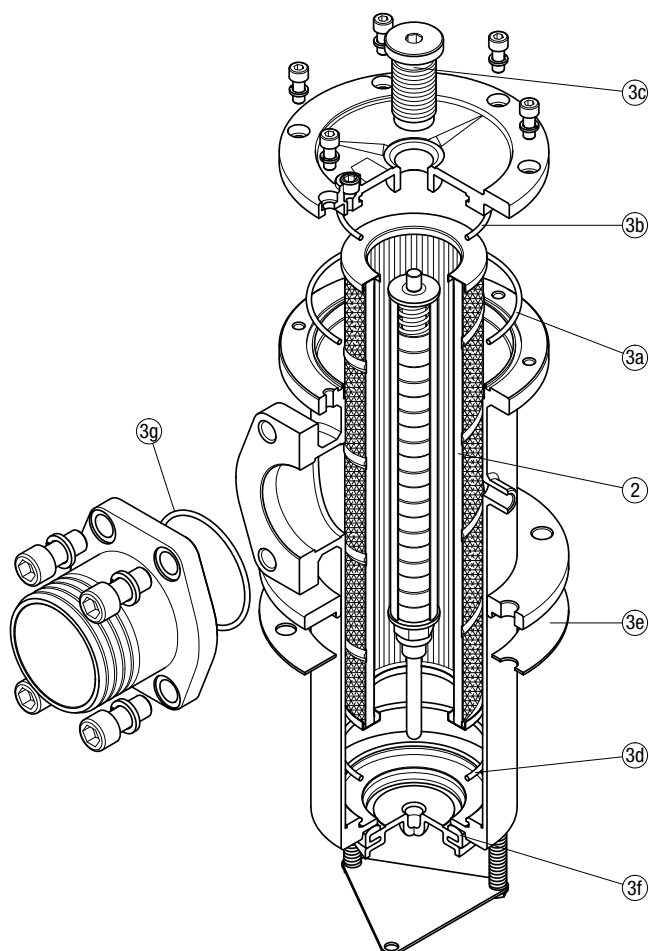
Item:	Q.ty: 1 pc.	Q.ty: 1 pc.	
Filter series	Filter element	Seal Kit code number NBR	Seal Kit code number FPM
SF2 500	See order table	02050141	02050142
SF2 503		02050070	02050071
SF2 504		02050072	02050073

SFSC 505

SFSC 510

SFSC 535

SFSC 540



Item:	Q.ty: 1 pc.	Q.ty: 1 pc.	
Filter series	Filter element	Seal Kit code number	
		NBR	FPM
SFSC 505	See order table	02050043	02050044
SFSC 510		02050045	02050046
SFSC 535		02050051	02050052
SFSC 540		02050053	02050054

Suitable indicator types

V ACUUM INDICATORS

Vacuum indicators are used on the Suction line to check the efficiency of the filter element.

They measure the pressure downstream of the filter element.

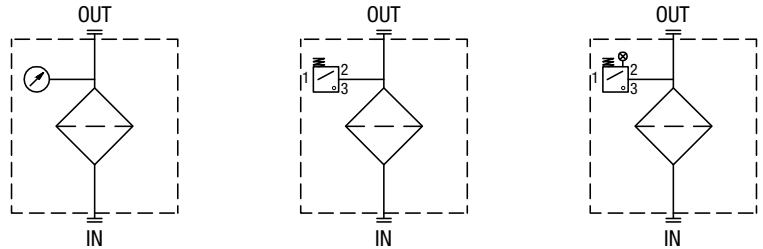
Standard items are produced with R 1/4" EN 10226 connection.

Available products with R 1/8" EN 10226 to be fitted on MPS series.

Vacuum indicators are identified in the Hydraulic Filtration catalogue and in the Quick Reference Guide table by the letter "V".

Example:

V VVB20P01



B BAROMETRIC (PRESSURE) INDICATORS

Pressure indicators are used on the Return line to check the efficiency of the filter element.

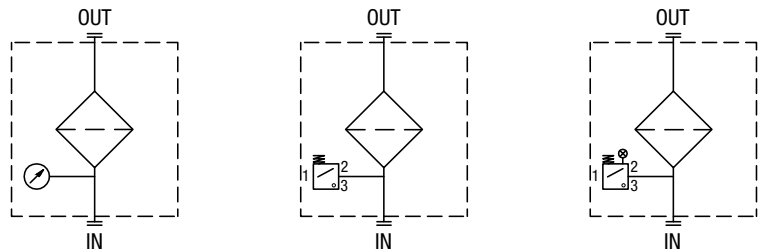
They measure the pressure upstream of the filter element.

Standard items are produced with R 1/8" EN 10226 connection.

Barometric (pressure) indicators are identified in the Hydraulic Filtration catalogue and in the Quick Reference Guide table by the letter "B".

Example:

B BVA14P01



D DIFFERENTIAL PRESSURE INDICATORS

Differential pressure indicators are used on the Pressure line to check the efficiency of the filter element.

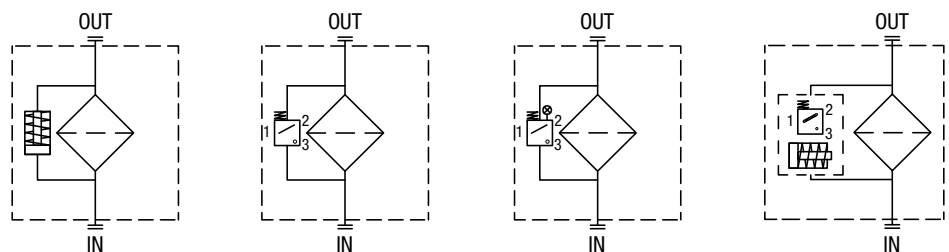
They measure the pressure upstream and downstream of the filter element (differential pressure).

Standard items are produced with special connection G 1/2" size.

Also available in Stainless Steel models. Differential pressure indicators are identified in the Hydraulic Filtration catalogue and in the Quick Reference Guide table by the letter "D".

Example:

D DVA20xP01



Designation & Ordering code

VACUUM INDICATORS

Series	Configuration example 1:	VE	A	21	V	A	50	P01	EX
VE Electrical vacuum indicator	Configuration example 2:	VL	B	21	A	A	71	P01	
VL Electrical/Visual vacuum indicator	Configuration example 3:	VV	R	20				P01	
VV Vacuum gauge									

Type VE - VL	Type VV	SF2	SFEX
A Connection EN 10226 - R1/4"	A Axial connection EN 10226 - R1/4"	•	-
B Connection EN 10226 - R1/8"	B Axial connection EN 10226 - R1/8"	-	•
	R Radial connection EN 10226 - R1/4"	•	-
	S Radial connection EN 10226 - R1/8"	-	•

Vacuum setting	VE	VL	VV
20 -0.16 bar	-	-	•
21 -0.21 bar	•	•	-

Seals	VEA - VLA	VEB - VLB
A NBR	•	•
V FPM	•	-

Thermostat	VE	VL
A Without	•	•

Electrical connections	VE	VL
50 Connection EN 175301-803	•	-
51 Connection EN 175301-803, transparent base with lamps 24 Vdc	-	•
52 Connection EN 175301-803, transparent base with lamps 110 Vdc	-	•
53 Connection EN 175301-803, transparent base with lamps 230 Vac	-	•
71 Connection IEC 61076-2-101 D (M12), black base with lamps 24 Vdc	-	•

Option	P01	Pxx
P01 MP Filtri standard		
Pxx Customized		

Certifications	VEA21A	VEA21V	VEB	VL	VV
Without	•	•	•	•	•
EX ATEX certification	•	•	•	-	-
UL UL certification	•	-	-	-	-