

STR & MPA - MPM series

Flow rate up to 875 l/min



STR & MPA-MPM GENERAL INFORMATION

Description

Technical data

Suction filters

Flow rate up to 875 l/min

STR

STR is a range of suction strainers for protection of the downstream pump against the coarse contamination.

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

Available features:

- Female threaded connections up to 3", for a maximum flow rate of 875 l/min
- Bypass valve, to relieve excessive pressure drop across the filter media

Common application:

- Mobile machines (Construction and Agriculture machines)
- Industrial equipment

MPA - MPM

MPA and MPM are ranges of suction strainers 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.

The robust design allows the use of these filters in any heavy duty application.

Available features:

- Female threaded connections up to 3", for a maximum flow rate of 875 l/min
- Magnetic column (MPM), to hold the ferrous particles

Common application:

Industrial equipment

STR materials

- 1 - Connection: Polyamide, GF reinforced
- 2 - Core tube: Tinned Steel
- 3 - Wire mesh
- 4 - End cap: Polyamide, GF reinforced
- 5 - Bypass valve: Polyamide, GF reinforced - Steel

MPA - MPM materials

- 1 - Connection: Aluminium
- 2 - Magnetic column
- 3 - Tie rod: Galvanized Steel
- 4 - End cap: Galvanized Steel
- 5 - Core tube: Galvanized Steel
- 6 - Filter media: Wire mesh
- 7 - Bottom: Galvanized Steel
- 8 - Washer: Galvanized Steel
- 9 - Self-locking nut: Galvanized Steel - Nylon

Bypass valve

Opening pressure 30 kPa (0.3 bar)

Elements

Fluid flow through the filter element from OUT to IN.

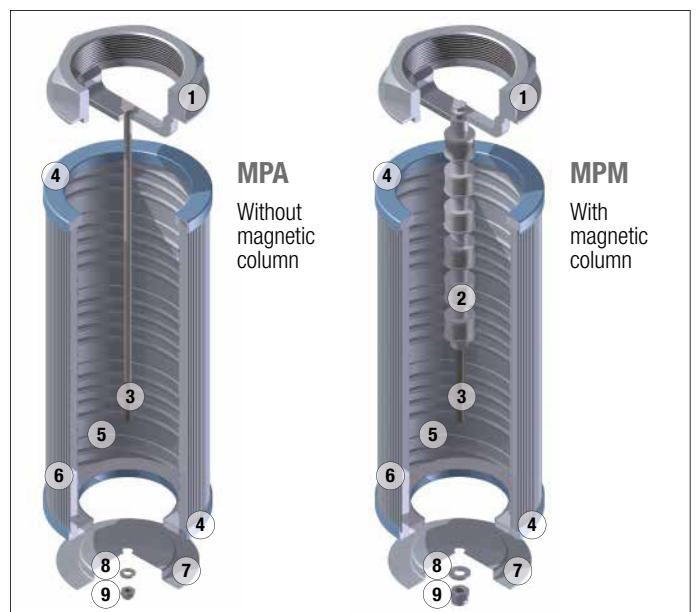
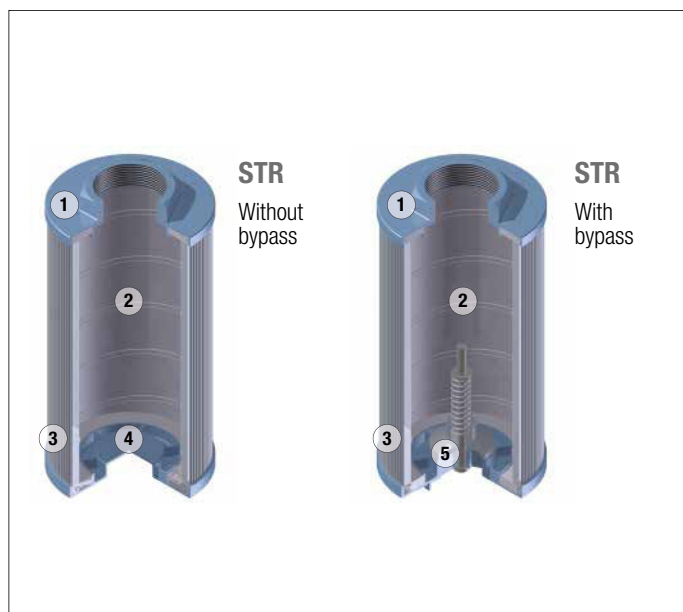


Temperature

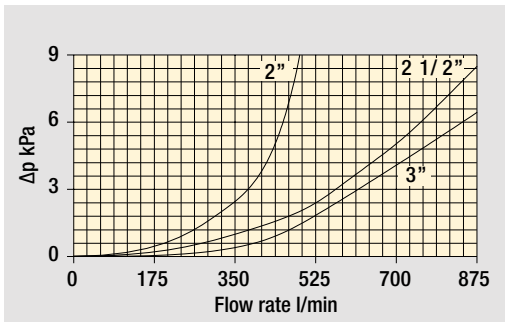
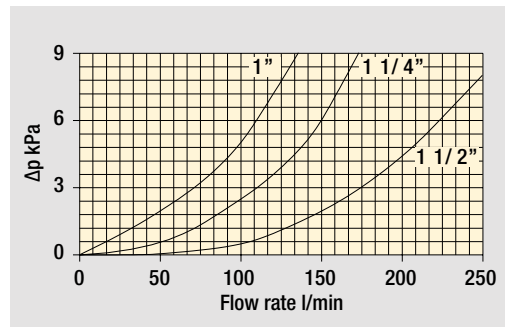
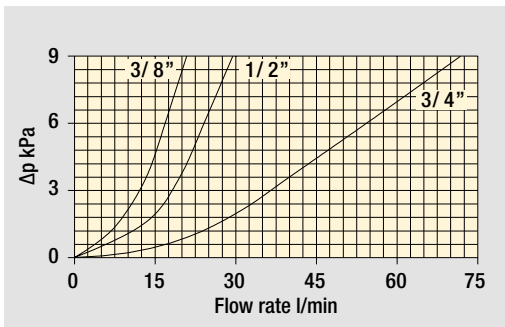
From -25 °C to +110 °C

Weights [kg]

Filter series	
STR	see page 35
MPA - MPM	see page 37



Filters pressure drop Δp
in function of connection type



The curves are plotted using mineral oil with density of 0.86 kg/dm^3 in compliance with ISO 3968.
 Δp varies proportionally with density.

Flow rates [l/min]

Filter series	Thread	l/min
STR & MPA - MPM	3/8"	19
	1/2"	28
	3/4"	67
	1"	126
	1 1/4"	167
	1 1/2"	258
	2"	480
	2 1/2"	854
	3"	995

Hydraulic symbols

Filter series	Style S	Style B
STR	•	•
MPA - MPM	•	

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

The reference fluid has a kinematic viscosity of $30 \text{ mm}^2/\text{s}$ (cSt)
and a density of 0.86 kg/dm^3 .

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

Please, contact our Sales Department for further additional information.

COMPLETE FILTER

Element series and size

STR045
STR050
STR065
STR070
STR086
STR100
STR140
STR150

Configuration example 1: STR045 1 B G1 M60 P01

Configuration example 2: STR100 4 S G2 M250 P01

Connection type

	STR045	STR050	STR065	STR070	STR086	STR100	STR140	STR150
1	3/8"	3/8"	1/2"	1/2"	1 1/2"	1 1/4"	1 1/2"	2"
2	1/2"	1/2"	3/4"	3/4"	2"	1 1/4"	2"	2 1/2"
3	-	-	3/4"	3/4"	1 1/2"	1 1/2"	2"	3"
4	-	-	1"	1"	2"	2"	2 1/2"	-
5	-	-	-	-	1 1/2"	1 1/2"	3"	-
6	-	-	-	1/2"	2"	-	3"	-

Valves

S	Without bypass
B	With bypass 0.3 bar

Thread type

G1	Thread GAS
G2	Thread NPT

Filtration rating (filter media)

M25	Wire mesh	25 µm
M60	Wire mesh	60 µm
M90	Wire mesh	90 µm
M250	Wire mesh	250 µm

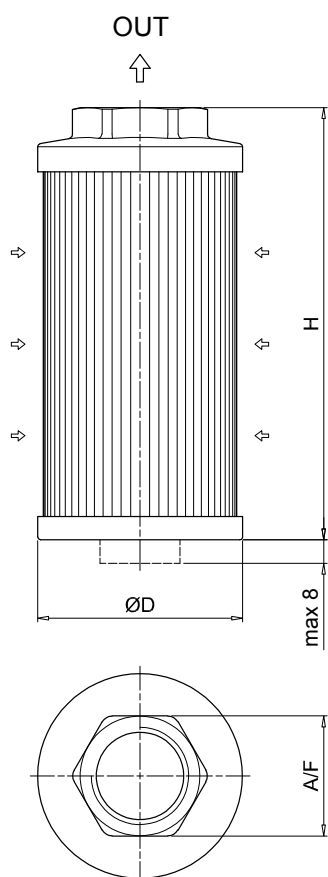
OTHER INFORMATION

Conditions of packaging

Filter size	Pcs. per box
045	12
050	12
065	6
070	6
086	6
100	6
140	1
150	1

Execution

P01	MP Filtri standard
Pxx	Customized



STR						
Filter size	Connection type	Thread	ØD [mm]	H [mm]	A / F [mm]	Weight [kg]
045	1	3/8"	46	105	30	0.15
	2	1/2"	46	105	30	0.19
050	1	3/8"	52	79	30	0.11
	2	1/2"	52	79	30	0.11
065	1	1/2"	65	110	41	0.19
	2	3/4"	65	110	41	0.22
	3	3/4"	65	144	41	0.24
070	4	1"	65	144	41	0.22
	1	1/2"	70	95	41	0.18
	2	3/4"	70	95	41	0.17
086	3	3/4"	70	141	41	0.23
	4	1"	70	141	41	0.22
	6	1/2"	70	141	41	0.24
	1	1 1/2"	86	143	69	0.33
100	2	2"	86	143	69	0.30
	3	1 1/2"	86	201	69	0.43
	4	2"	86	201	69	0.40
	5	1 1/2"	86	261	69	0.53
	6	2"	86	261	69	0.50
	1	1 1/4"	99	137	69	0.47
140	2	1 1/4"	99	227	69	0.58
	3	1 1/2"	99	227	69	0.55
	4	2"	99	227	69	0.51
	5	1 1/2"	99	137	69	0.43
	1	1 1/2"	130	160	69	0.70
150	2	2"	130	160	69	0.68
	3	2"	130	262	69	0.94
	4	2 1/2"	130	272	101	1.10
	5	3"	130	272	101	1.00
	6	3"	130	330	101	1.17
	1	2"	150	150	70	0.34
150	2	2 1/2"	150	212	90	0.37
	3	3"	150	272	100	0.40

MPA-MPM

Designation & Ordering code

COMPLETE FILTER

Element series

MPA Without magnetic column

MPM With magnetic column

Configuration example 1: **MPA** **030** **G1** **M60** **P01**

Configuration example 2: **MPM** **430** **G2** **M250** **P01**

Connections

012 3/8"

015 1/2"

025 1/2"

030 3/4"

045 3/4"

050 1"

075 1"

095 1 1/4"

120 1 1/4"

150 1 1/2"

180 1 1/2"

220 2"

280 2"

300 2 1/2"

380 2"

430 3"

Thread type

G1 Thread GAS

G2 Thread NPT

Filtration rating (filter media)

M25 Wire mesh 25 µm

M60 Wire mesh 60 µm

M90 Wire mesh 90 µm

M250 Wire mesh 250 µm

Execution

P01 MP Filtri standard

Pxx Customized

OTHER INFORMATION

Conditions of packaging

Size Pcs. per box

012 12

015 6

025 6

030 6

045 6

050 6

075 6

095 6

120 6

150 6

180 1

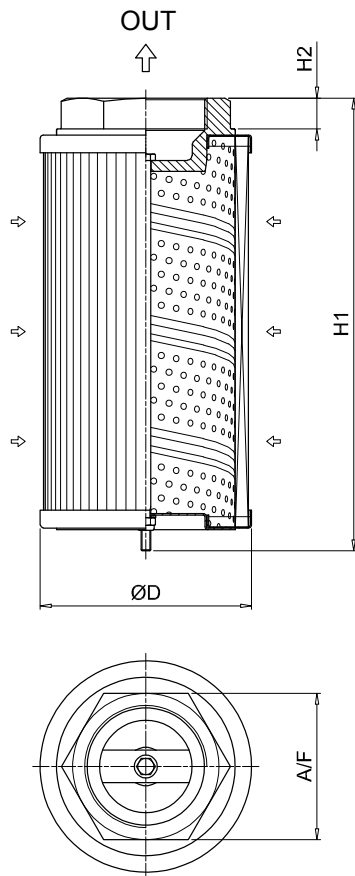
220 1

280 1

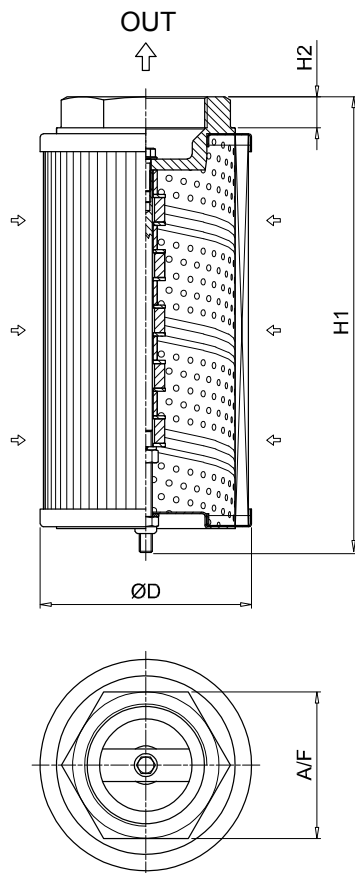
300 1

380 1

430 1



MPA						
Filter size	Thread	ØD [mm]	H1 [mm]	H2 [mm]	A/F [mm]	Weight [kg]
012	3/8"	50	98	16	28	0.17
015	1/2"	50	98	16	28	0.17
025	1/2"	70	113	16	28	0.27
030	3/4"	70	115	18	42	0.36
045	3/4"	70	160	18	42	0.39
050	1"	70	160	18	42	0.35
075	1"	99	145	18	42	0.54
095	1 1/4"	99	148	20	60	0.63
120	1 1/4"	99	239	20	60	0.95
150	1 1/2"	99	239	20	60	0.91
180	1 1/2"	130	174	20	60	0.98
220	2"	130	162	13	80	1.00
280	2"	130	272	13	80	1.60
300	2 1/2"	130	281	20	90	1.67
380	2"	130	322	13	80	1.60
430	3"	130	335	22	106	1.93



MPM						
Filter size	Thread	ØD [mm]	H1 [mm]	H2 [mm]	A/F [mm]	Weight [kg]
012	3/8"	50	98	16	28	0.17
015	1/2"	50	98	16	28	0.17
025	1/2"	70	113	16	28	0.27
030	3/4"	70	115	18	42	0.36
045	3/4"	70	160	18	42	0.39
050	1"	70	160	18	42	0.35
075	1"	99	148	18	42	0.54
095	1 1/4"	99	154	20	60	0.63
120	1 1/4"	99	244	20	60	0.95
150	1 1/2"	99	244	20	60	0.91
180	1 1/2"	130	174	20	60	0.98
220	2"	130	163	13	80	1.00
280	2"	130	273	13	80	1.60
300	2 1/2"	130	282	20	90	1.67
380	2"	130	323	13	80	1.60
430	3"	130	336	22	106	1.93

SF2 250-350 series

Flow rate up to 160 l/min



SF2 250-350 GENERAL INFORMATION

Description

Technical data

Suction filters

Flow rate up to 160 l/min

SF2 250 and SF2 350 are ranges 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:

- Female threaded connections up to 1" and flanged connections up to 1 1/2", for a maximum flow rate of 160 l/min
- Multiple connections, to connect several suction lines
- Bypass valve, to relieve excessive pressure drop across the filter media
- Magnetic column, to hold the ferrous particles
- Visual, electrical and electronic clogging indicators

Common application:

- Mobile machines
- Industrial equipment

Filter housing materials

- Filter body: Aluminium
- Cover: Polyamide, GF reinforced
- Valve: Polyamide, GF reinforced - Steel
- Anti-Emptying valve: Steel

Bypass valve

Opening pressure 30 kPa (0.3 bar) $\pm 10\%$

Elements

Fluid flow through the filter element from IN to OUT

Seals

- Standard NBR series A
- Optional FPM series V

Temperature

From -25 °C to +110 °C

Note

SF2 250-350 filters mounting, see the drawings on page 43 and following.



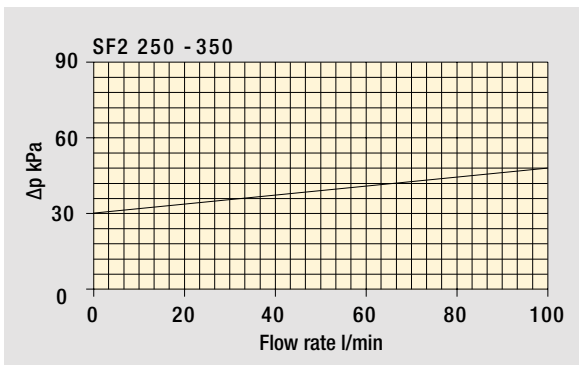
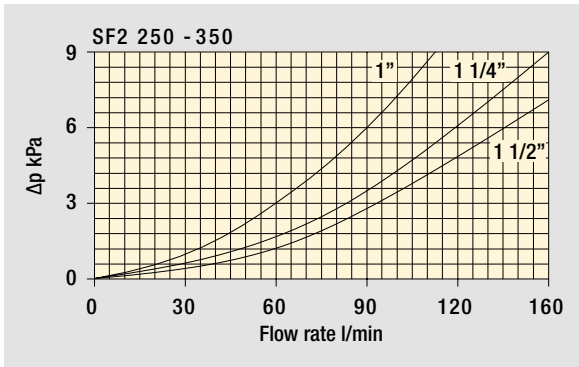
Weights [kg]

Filter series	
SF2 250	2.6
SF2 350	2.6

GENERAL INFORMATION SF2 250-350

Pressure drop

Filter housings Δp pressure drop



Bypass valve pressure drop

The curves are plotted using mineral oil with density of 0.86 kg/dm^3 in compliance with ISO 3968. Δp varies proportionally with density.

Flow rates [l/min]

Filter series	Filter element design - N Series					
	M25	M60	M90	M250	P10	P25
SF2 250	147	151	155	160	85	132
SF2 350	147	151	155	160	85	132

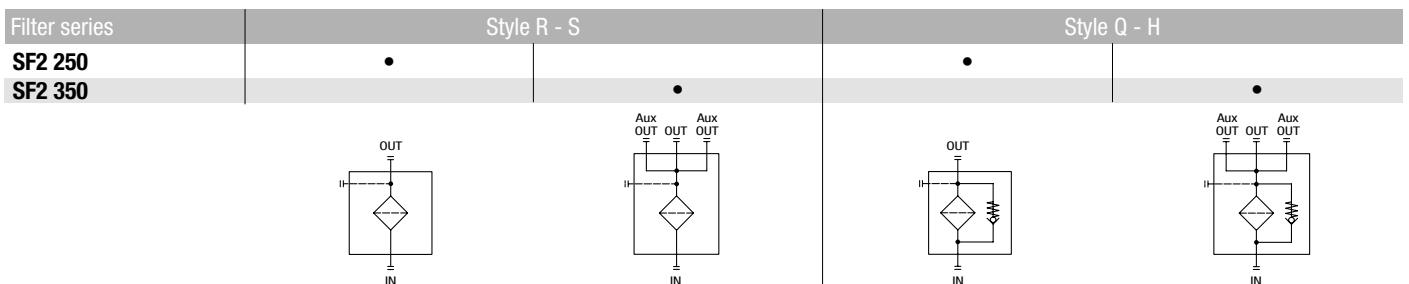
Maximum flow rate for a complete suction filter with a pressure drop $\Delta p = 0.08 \text{ bar}$.

The reference fluid has a kinematic viscosity of $30 \text{ mm}^2/\text{s}$ (cSt) and a density of 0.86 kg/dm^3 .

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

Please, contact our Sales Department for further additional information.

Hydraulic symbols



SF2 250-350

Designation & Ordering code

COMPLETE FILTER

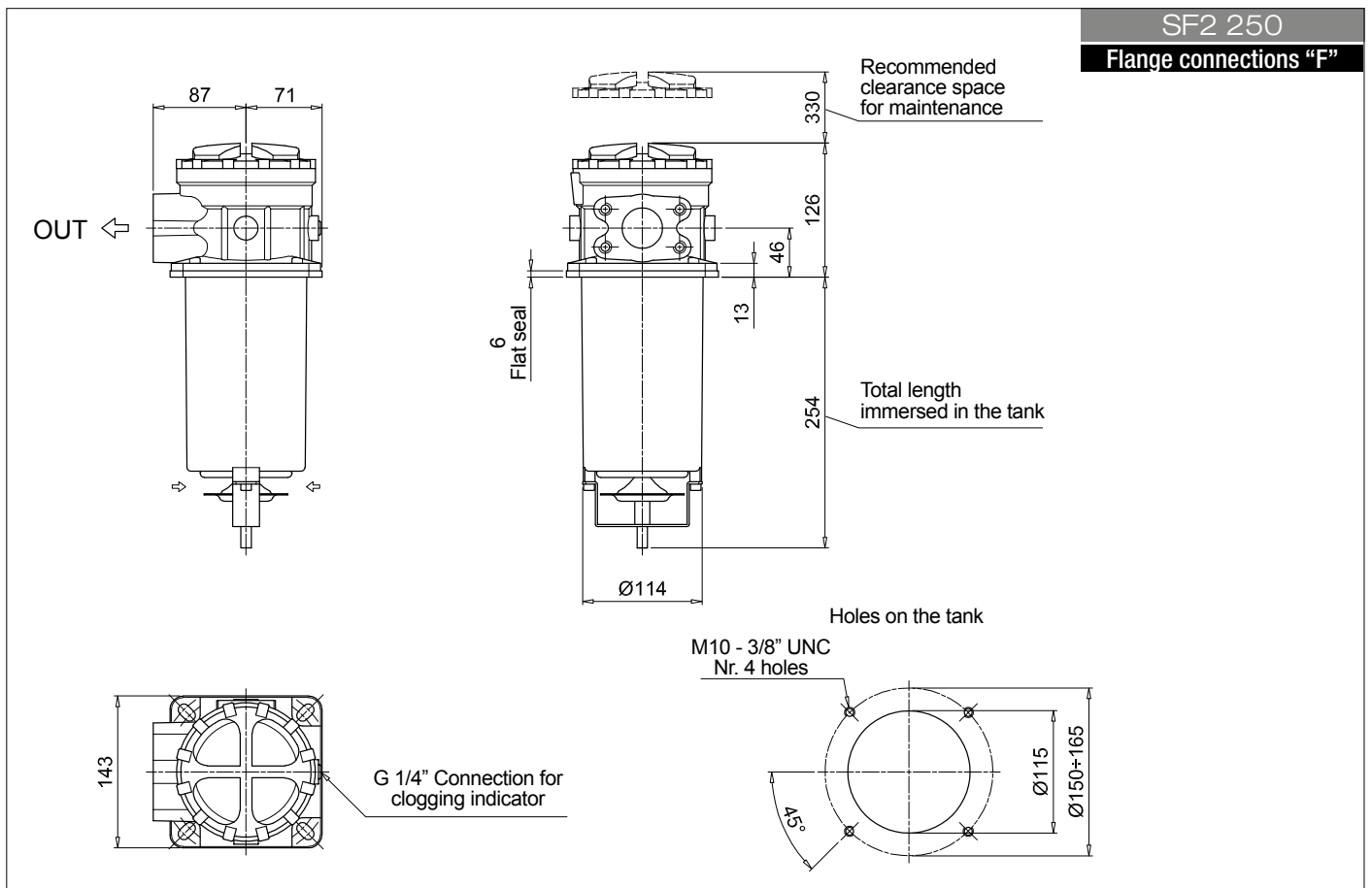
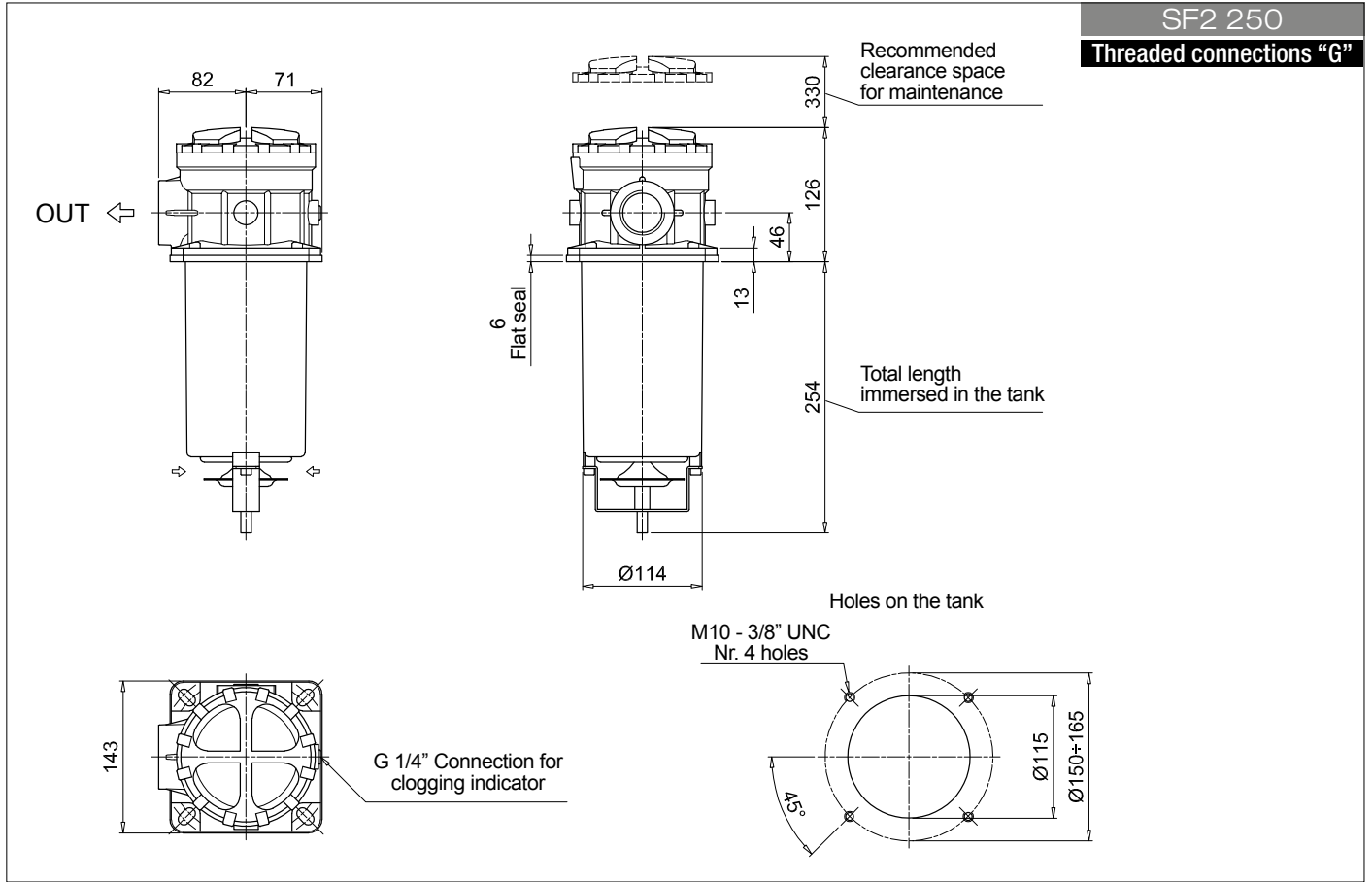
Series and size		Configuration example 1: SF2250 W F2 R M25 P01					
SF2250		Configuration example 2: SF2350 A G1 S M90 P01					
SF2350							
Seals and treatments		Filtration rating					
		Mxx	Pxx				
A	NBR	•	•				
V	FPM	•	•				
W	NBR compatible with fluids HFA-HFB-HFC	•					
Z	FPM compatible with fluids HFA-HFB-HFC	•					
Connections		Aux (only SF2350)	SF2250	SF2350			
G1	G 1 1/2"	G 1"	•	•			
G2	1 1/2" NPT	-	•				
G3	SAE 24 - 1 7/8" - 12 UN	SAE 16 - 1 5/16" - 12 UN	•	•			
G4	G 1 1/4"	-	•				
G5	1 1/4" NPT	-	•				
G6	SAE 20 - 1 5/8" - 12 UN	-	•				
G7	G 1"	-	•				
G8	1" NPT	-	•				
G9	SAE 16 - 1 5/16" - 12 UN	-	•				
F1	1 1/2" SAE 3000 psi/M	-	•				
F2	1 1/2" SAE 3000 psi/UNC	-	•				
Bypass valve and magnetic column							
R	With bypass, with magnetic column	Q	Without bypass, with magnetic column				
S	With bypass, without magnetic column	H	Without bypass, without magnetic column				
Filtration rating (filter media)							
M25	Wire mesh 25 µm	P10	Resin impregnated paper 10 µm				
M60	Wire mesh 60 µm	P25	Resin impregnated paper 25 µm				
M90	Wire mesh 90 µm						
M250	Wire mesh 250 µm						
		Execution					
		P01 MP Filtri standard					
		Pxx Customized					

FILTER ELEMENT

Element series and size		Configuration example 1: SF250 M25 W P01			
SF250		Configuration example 2: SF250 M90 N P01			
Filtration rating (filter media)					
M25	Wire mesh 25 µm	P10	Resin impregnated paper 10 µm		
M60	Wire mesh 60 µm	P25	Resin impregnated paper 25 µm		
M90	Wire mesh 90 µm				
M250	Wire mesh 250 µm				
Seals and treatments		Filtration rating			
		Mxx	Pxx		
N	NBR	•	•		
V	FPM	•	•		
W	NBR compatible with fluids HFA-HFB-HFC	•			
Z	FPM compatible with fluids HFA-HFB-HFC	•			
		Execution			
		P01 MP Filtri standard			
		Pxx Customized			

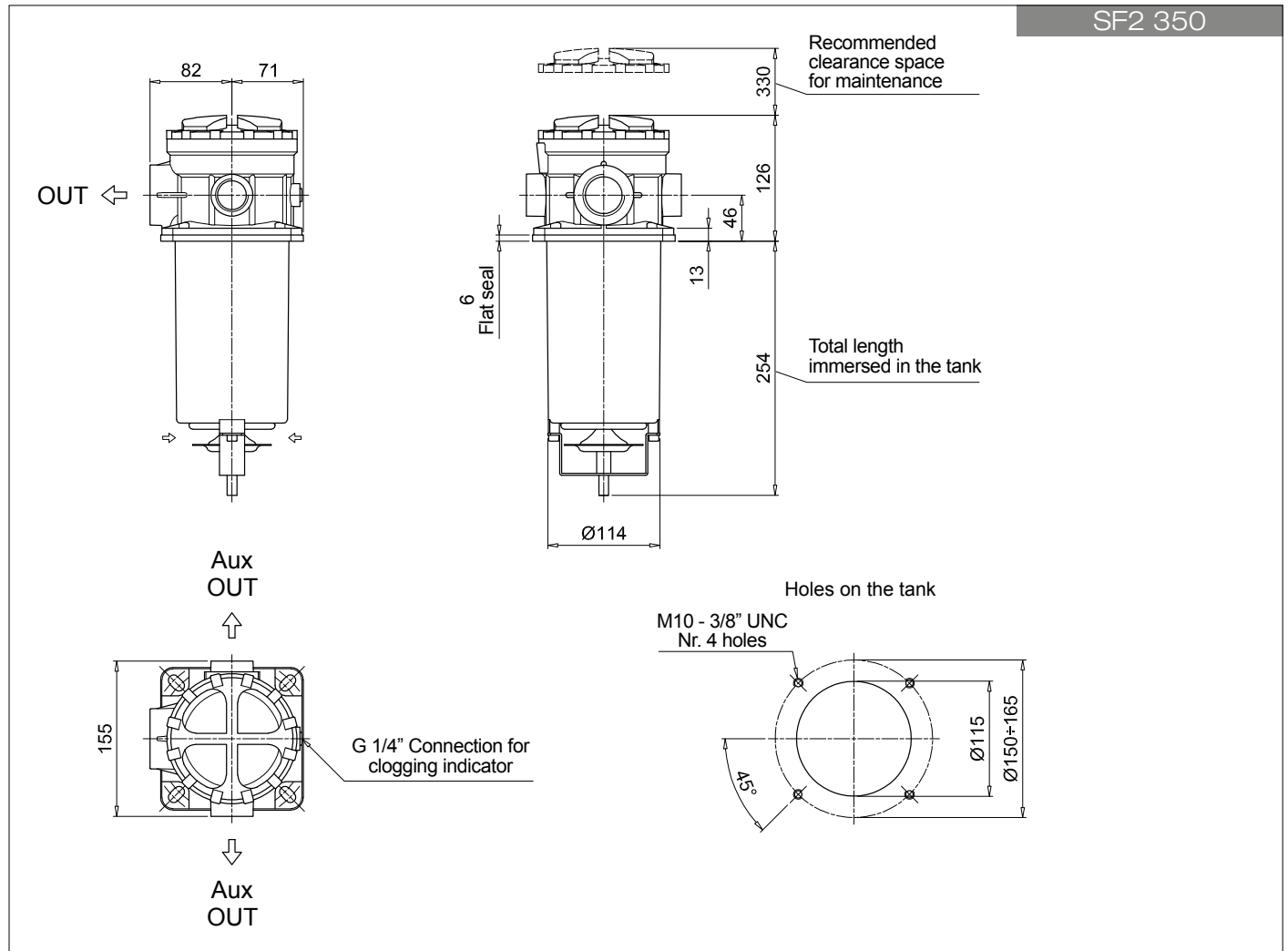
ACCESSORIES

Clogging indicators		page
VVA	Axial vacuum gauge	59
VVR	Radial vacuum gauge	59
VEA	Electrical vacuum indicator	58
VLA	Electrical / visual vacuum indicator	58



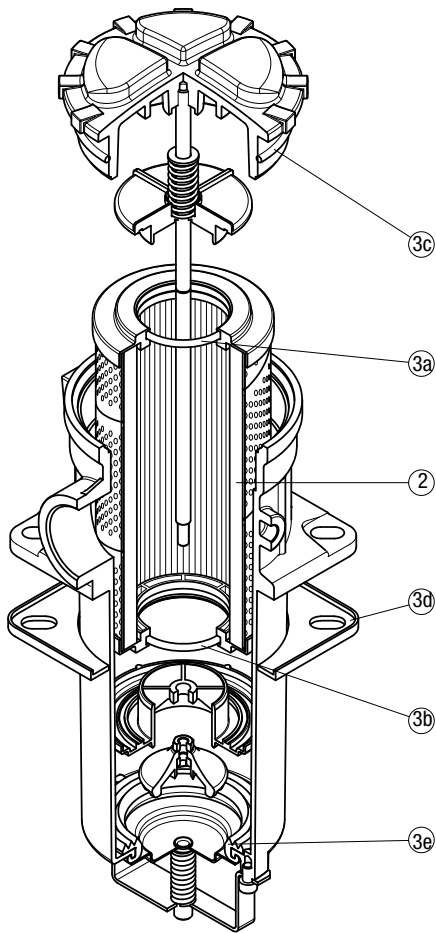
SF2 250-350

Dimensions



SPARE PARTS SF2 250-350

Order number for spare parts



Item:	Q.ty: 1 pc.	Q.ty: 1 pc.	
Filter series	Filter element	Seal Kit code number	
		NBR	FPM
SF2 250 - 350	See order table	02050586	02050587

SF2 500 series

Flow rate up to 800 l/min



SF2 500 GENERAL INFORMATION

Description

Suction filters

Flow rate up to 800 l/min

SF2 500 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 800 l/min
- Optional hose fitting installed, to connect the suction line without the use of flanges
- Magnetic column, 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

Technical data

Filter housing materials

- Housing:
 - Anodized Aluminium
 - Steel (chemical heat treatment): only for SF2 535 - 540
- Cover:
 - Anodized Aluminium
 - Steel (chemical heat treatment): only for SF2 535 - 540
- Optional flange:
 - Anodized Aluminium

Elements

Fluid flow through the filter element from IN to OUT

Seals

- Standard NBR series A
- Optional FPM series V

Temperature

From -25 °C to +110 °C

Note

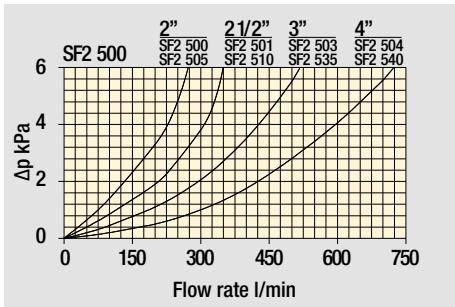
SF2 500 filters mounting, see the drawings on page 51 and following



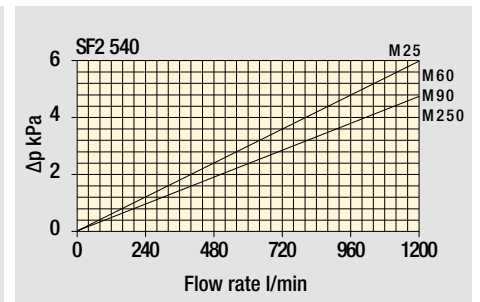
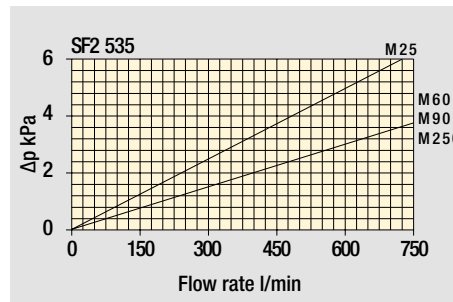
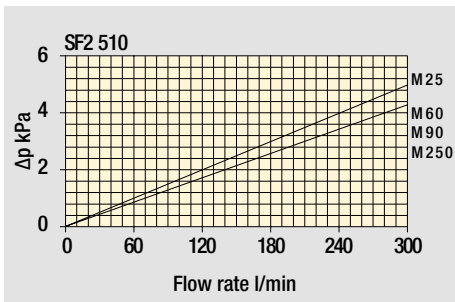
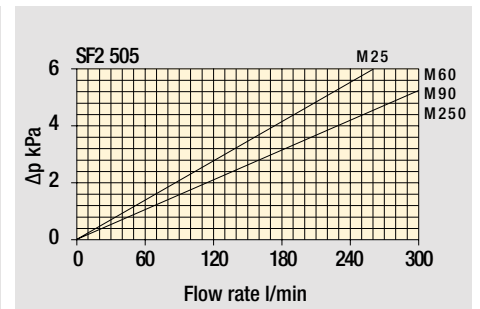
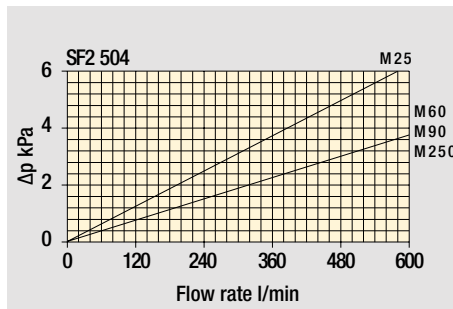
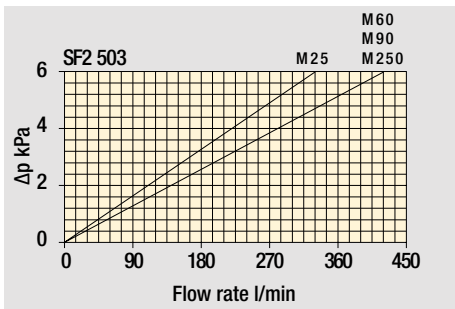
Weights [kg]

Filter series	
SF2 500-501	4.0
SF2 503	4.8
SF2 504	5.8
SF2 505	6.0
SF2 510	7.2
SF2 535	17
SF2 540	19

Filter housings Δp pressure drop



Filter element 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.

Flow rates [l/min]

Filter series	Filter element design - N Series	
	M25	M60 M90 M250
SF2 500	219	234
SF2 501	259	282
SF2 503	325	390
SF2 504	484	543
SF2 505	199	221
SF2 510	259	282
SF2 535	439	479
SF2 540	644	688

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

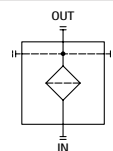
The reference fluid has a kinematic viscosity of 30 mm²/s (cSt) and a density of 0.86 kg/dm³.

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

Please, contact our Sales Department for further additional information.

Hydraulic symbols

Filter series	Symbol
SF2 500	



Designation & Ordering code

COMPLETE FILTER

Series and size		Configuration example 1: SF2500 W F1 D M25 P01					
SF2500		Configuration example 2: SF2535 A F2 C M60 P01					
SF2501							
SF2503							
SF2504							
SF2505							
SF2510							
SF2535							
SF2540							
Seals and treatments		Filtration rating					
		Mxx	Pxx				
A	NBR	•	•				
V	FPM	•	•				
W	NBR compatible with fluids HFA-HFB-HFC	•					
Z	FPM compatible with fluids HFA-HFB-HFC	•					
Connections							
SF2500 - SF2505		SF2501 - SF2510		SF2503 - SF2535		SF2504 - SF2540	
F1	2" SAE 3000 psi/M	2 1/2" SAE 3000 psi/M	3" SAE 3000 psi/M	4" SAE 3000 psi/M			
F2	2" SAE 3000 psi/UNC	2 1/2" SAE 3000 psi/UNC	3" SAE 3000 psi/UNC	4" SAE 3000 psi/UNC			
C1	Hose barb 2"/M	Hose barb 2 1/2"/M	Hose barb 3"/M	Hose barb 4"/M			
Microswitch and Handweel							
		SF2500 - SF2501	SF2503 - SF2504	SF2505 - SF2510	SF2535 - SF2540		
S	Without microswitch, without handweel	•	•	•	•		
C	With microswitch, without handweel			•	•		
D	With microswitch, with Nylon handweel	•	•				
K	With microswitch, with steel handweel	•	•				
M	Without microswitch, with Nylon handweel	•	•				
Filtration rating (filter media)							
M25	Wire mesh 25 µm	M90	Wire mesh 90 µm				
M60	Wire mesh 60 µm	M250	Wire mesh 250 µm				

Execution
P01 MP Filtri standard
Pxx Customized

FILTER ELEMENT

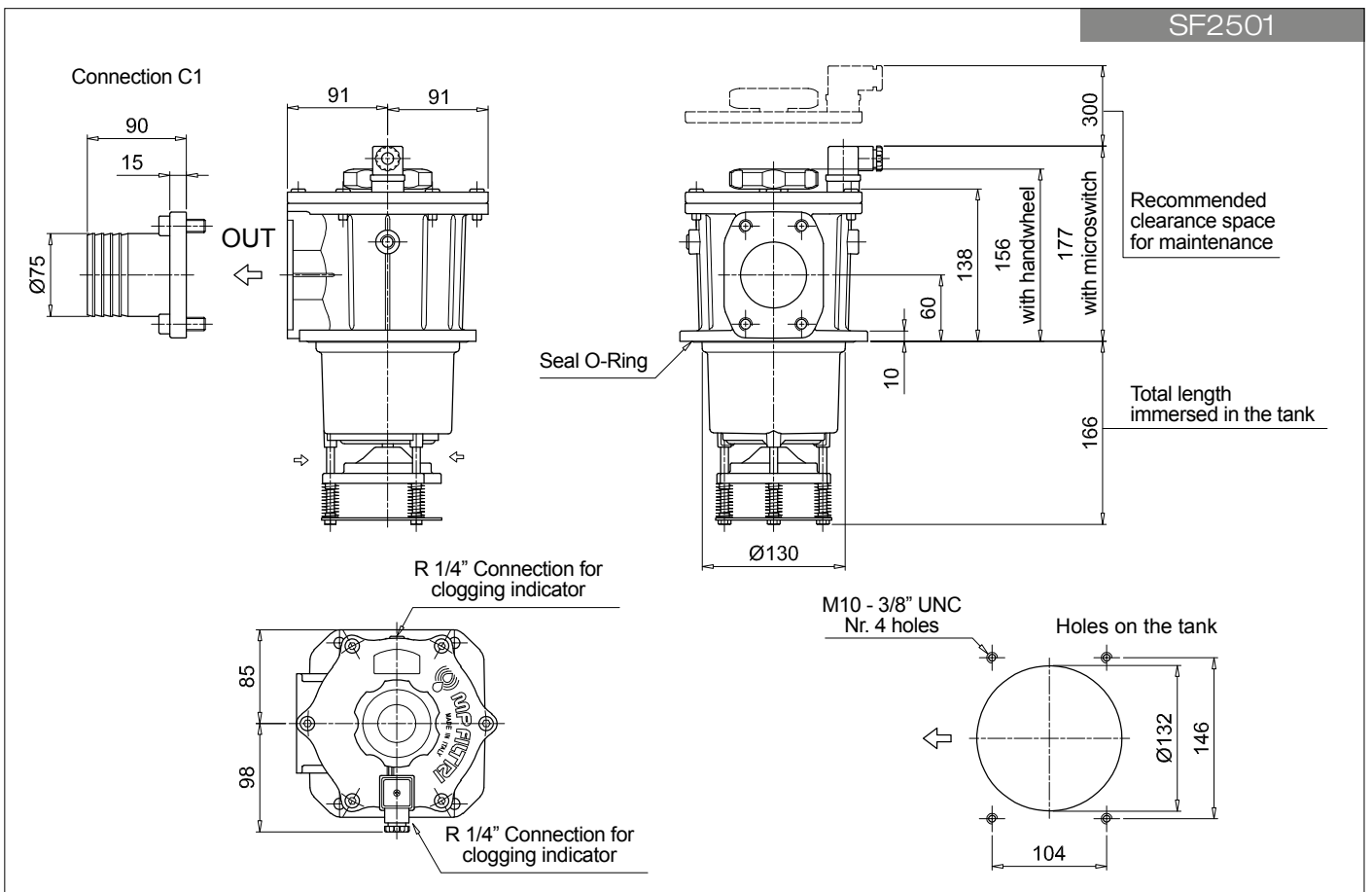
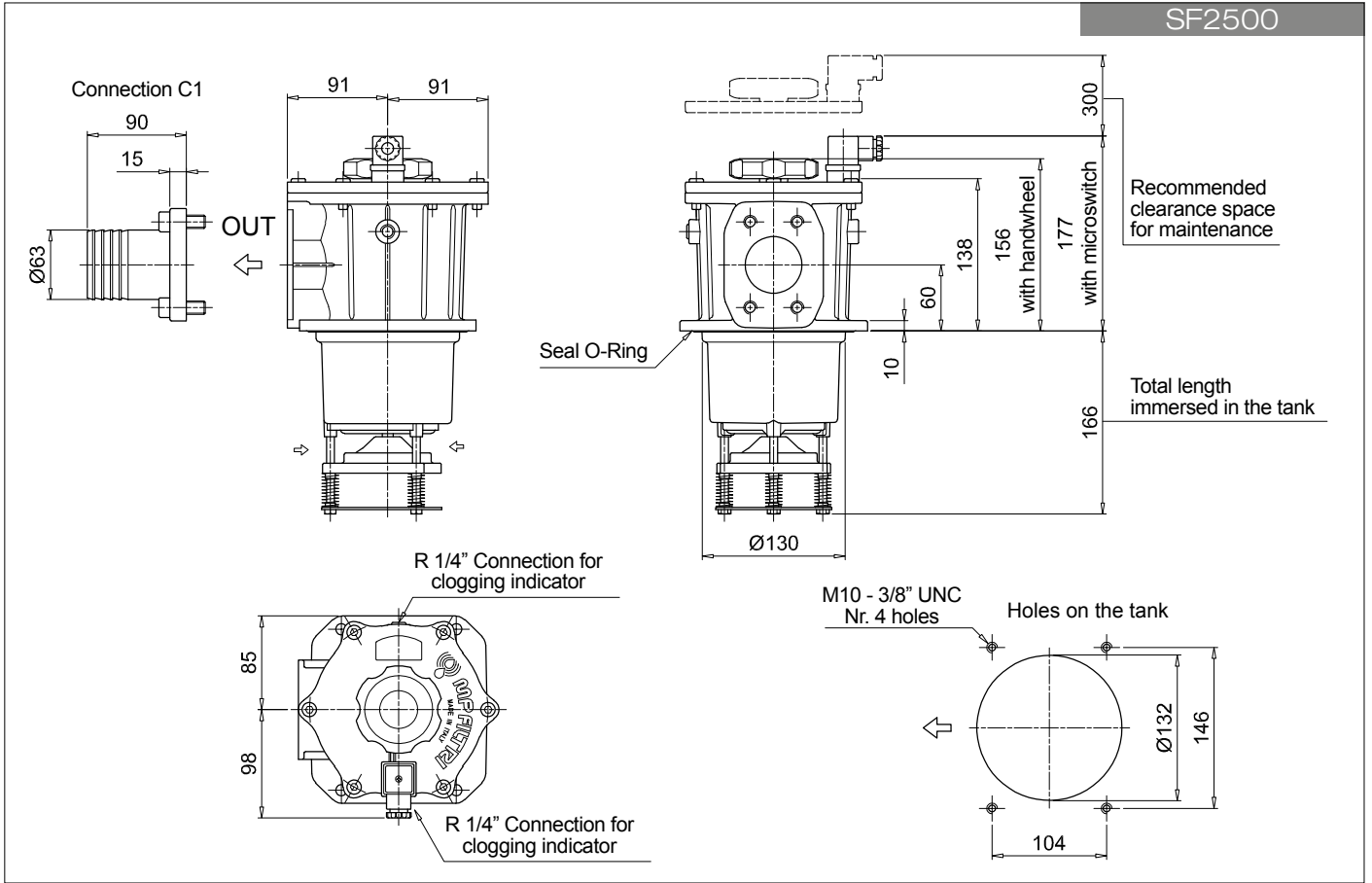
Element series and size								Configuration example 1: SF510 M25 W P01				
								Configuration example 2: SF535 M60 P01				
	SF2500	SF2501	SF2503	SF2504	SF2505	SF2510	SF2535	SF2540				
SF503			•									
SF504				•								
SF505					•							
SF510	•	•				•						
SF535							•					
SF540								•				
Filtration rating (filter media)												
M25	Wire mesh 25 µm	M90	Wire mesh 90 µm									
M60	Wire mesh 60 µm	M250	Wire mesh 250 µm									

Seals and treatments		Filtration rating	
		Mxx	Pxx
Standard version		•	•
W	Compatible with fluids HFA-HFB-HFC	•	

Execution
P01 MP Filtri standard
Pxx Customized

ACCESSORIES

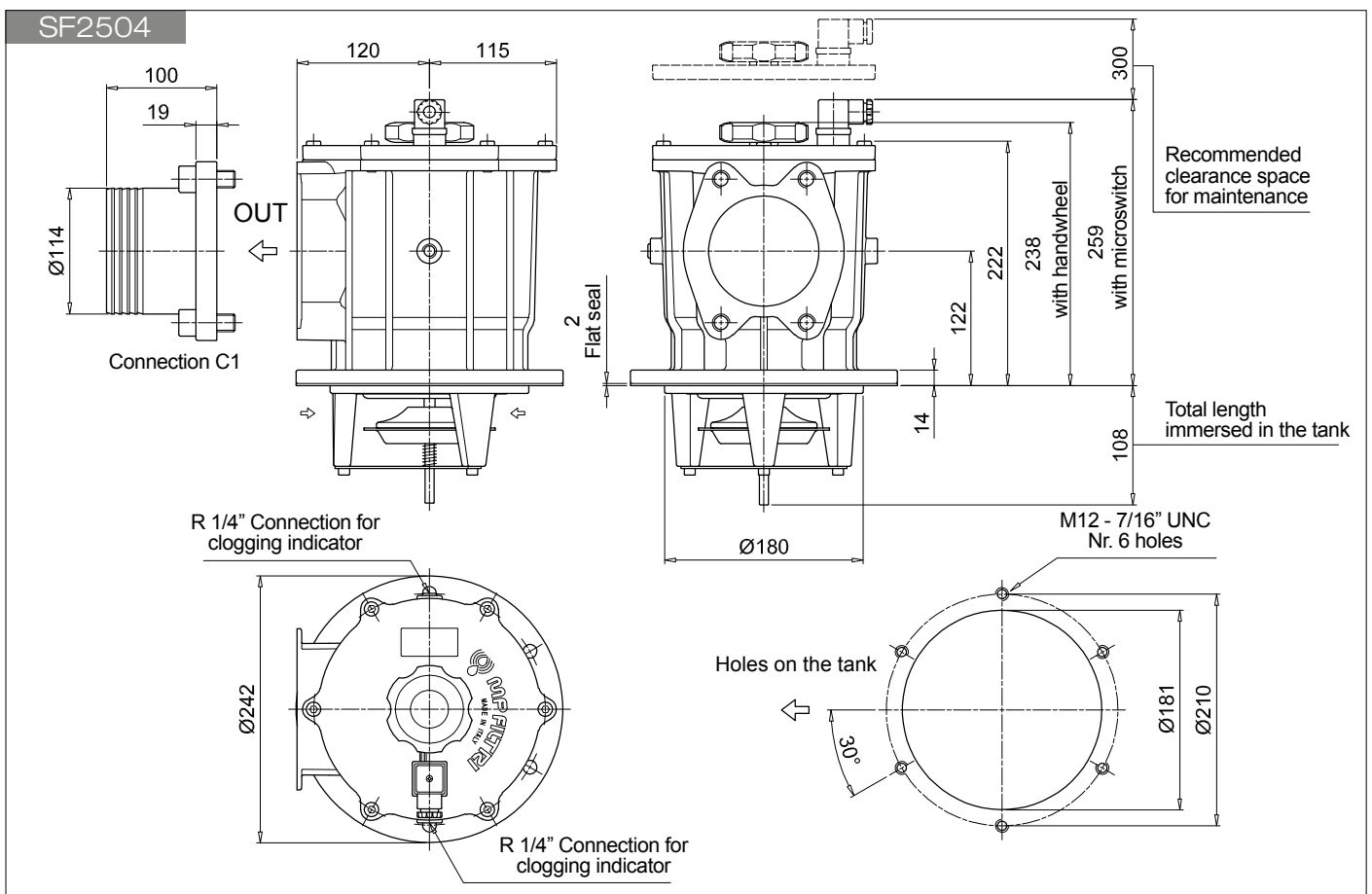
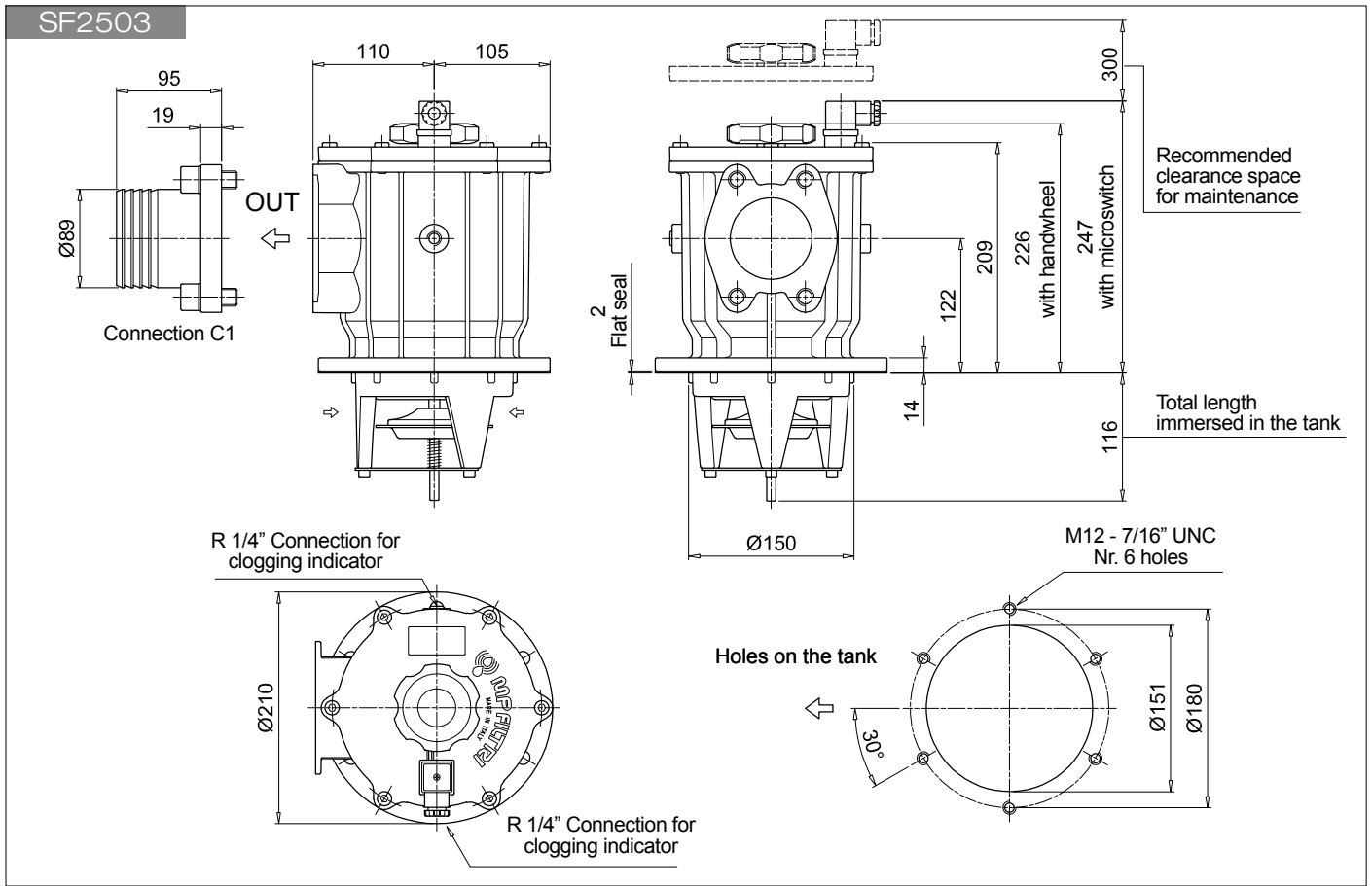
Clogging indicators		page
VVA	Axial vacuum gauge	59
VVR	Radial vacuum gauge	59
VEA	Electrical vacuum indicator	58
VLA	Electrical / visual vacuum indicator	58



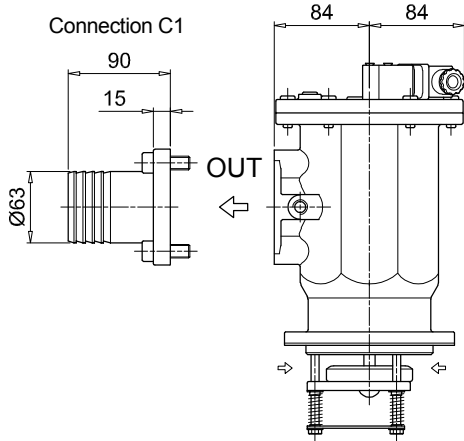
SF2 500

SF2500 - SF2501 - SF2503 - SF2504 - SF2505 - SF2510 - SF2535 - SF2540

Dimensions



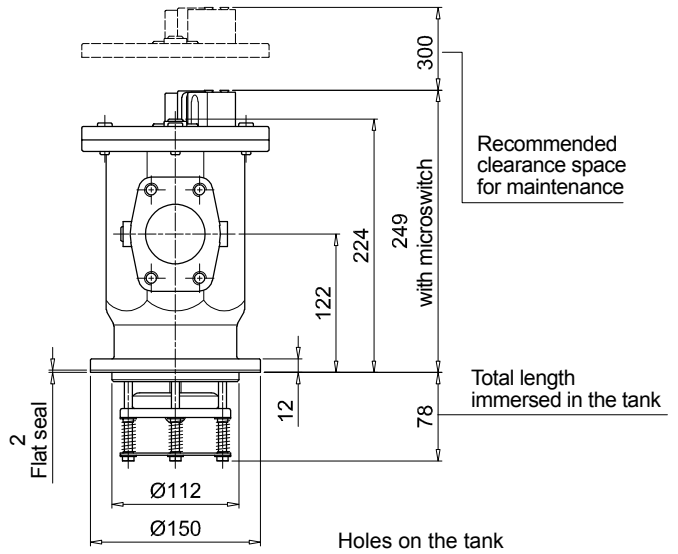
SF2505



R 1/4" Connection for clogging indicator

R 1/4" Connection for clogging indicator

R 1/4" Connection for clogging indicator

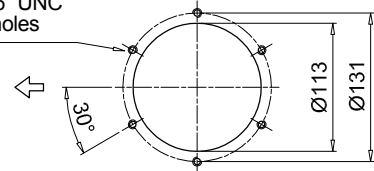


Recommended clearance space for maintenance

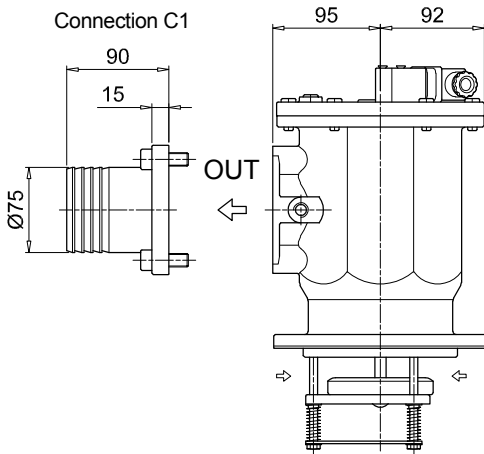
Total length immersed in the tank

Holes on the tank

M8 - 5/16" UNC
Nr. 6 holes



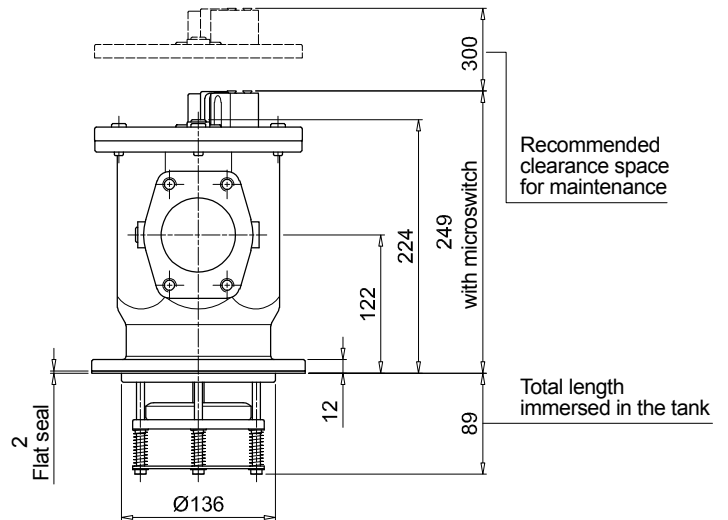
SF2510



R 1/4" Connection for clogging indicator

R 1/4" Connection for clogging indicator

R 1/4" Connection for clogging indicator

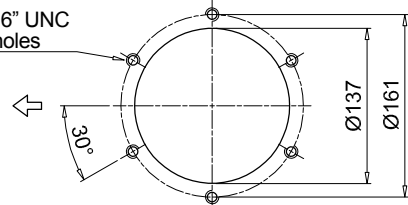


Recommended clearance space for maintenance

Total length immersed in the tank

Holes on the tank

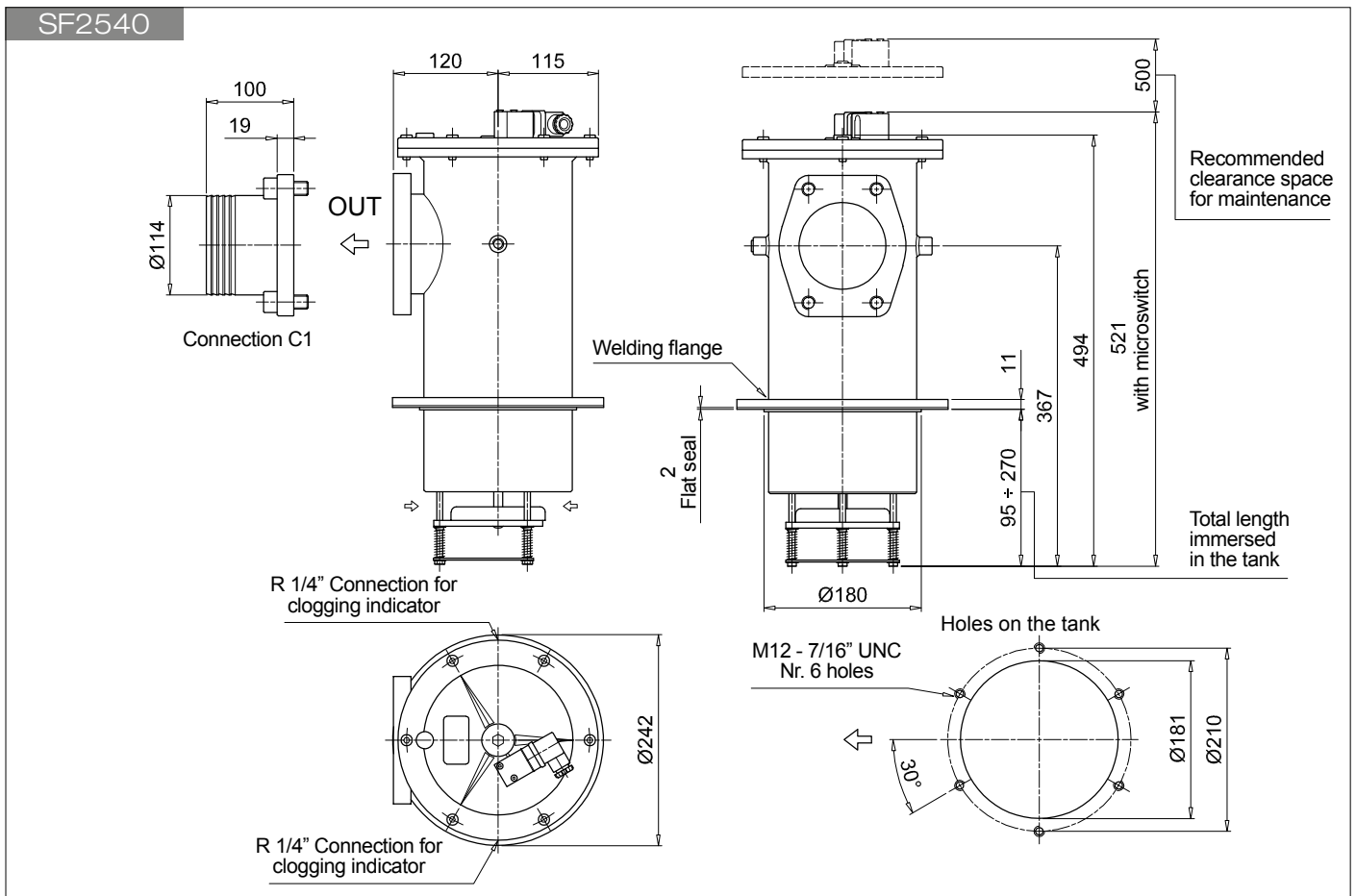
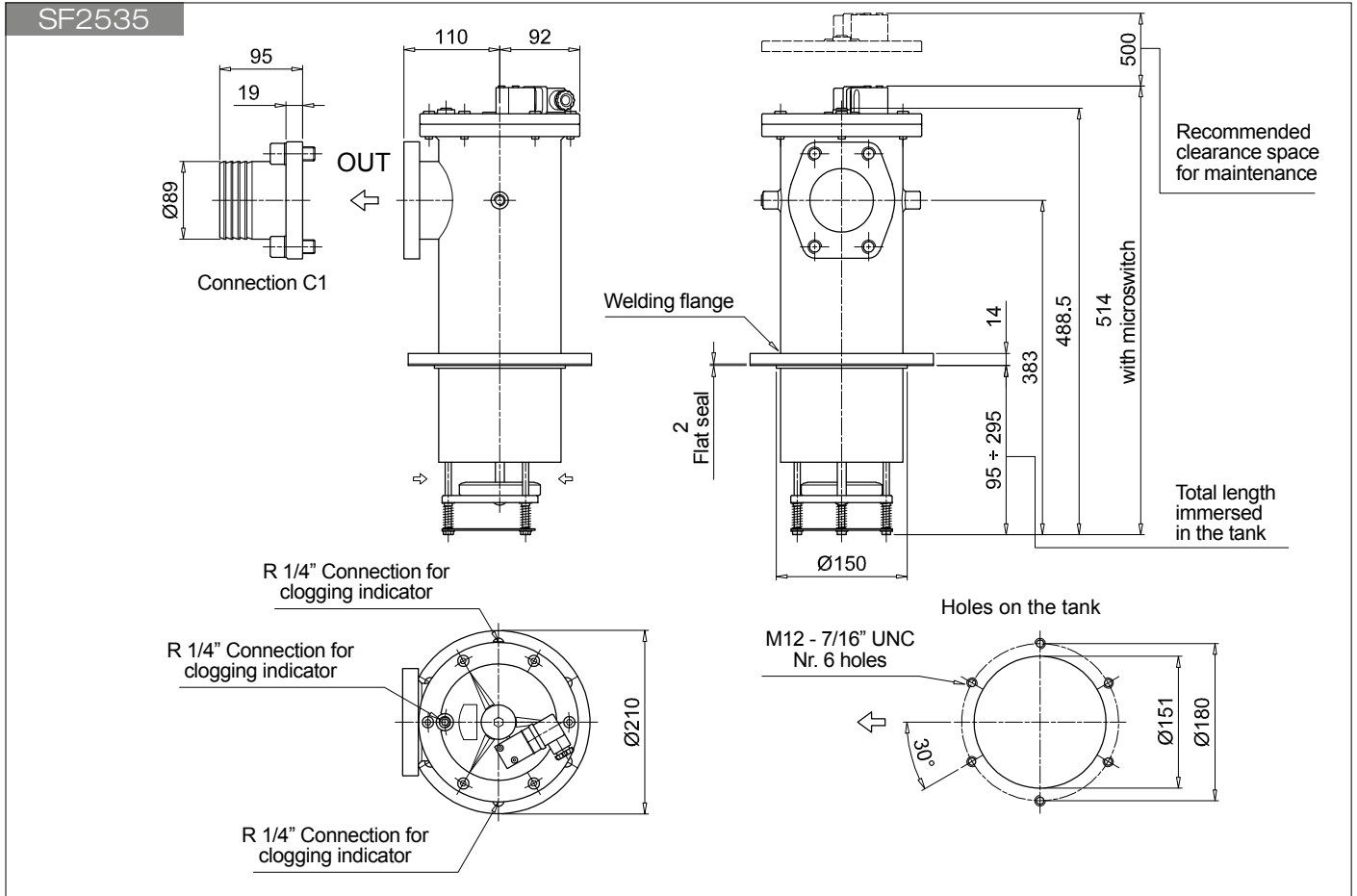
M12 - 7/16" UNC
Nr. 6 holes



SF2 500

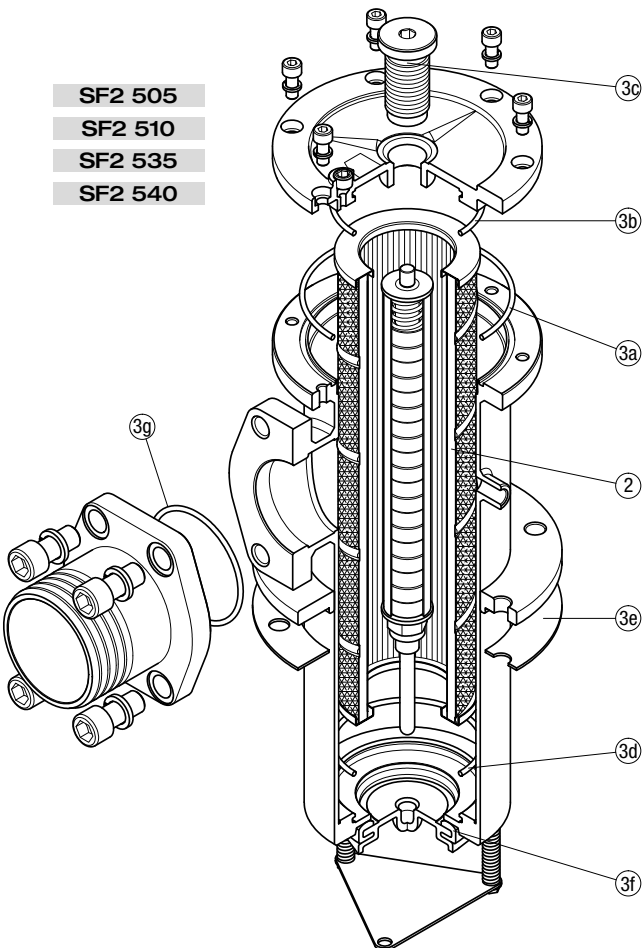
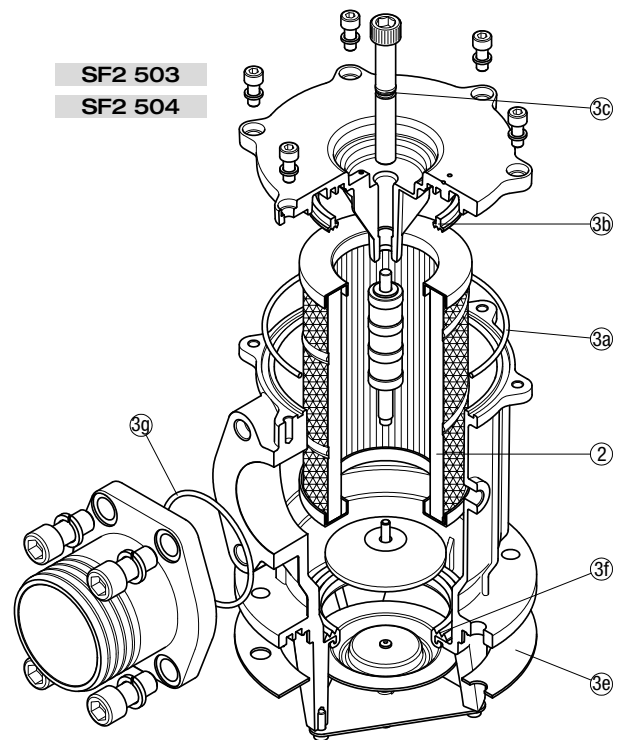
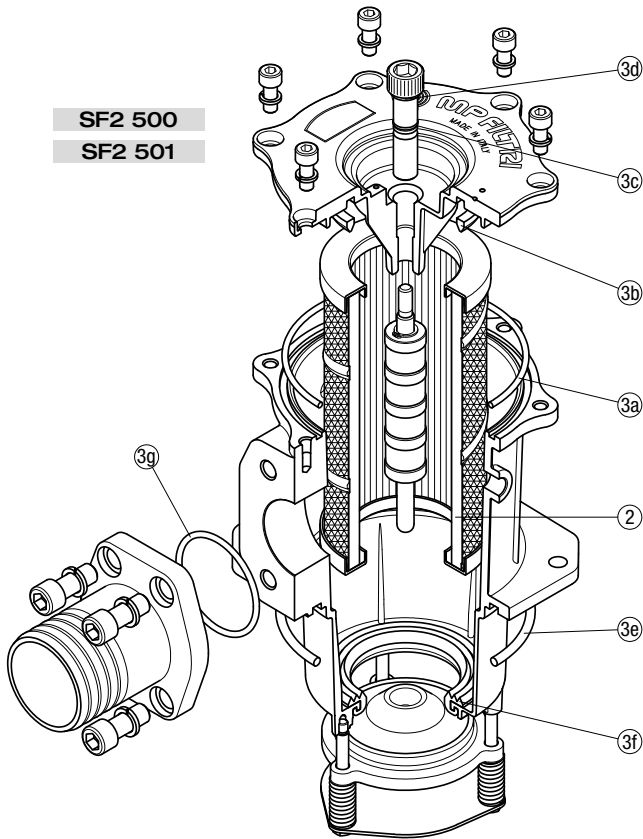
SF2500 - SF2501 - SF2503 - SF2504 - SF2505 - SF2510 - SF2535 - SF2540

Dimensions



SPARE PARTS SF2 500

Order number for spare parts



Item:	Q.ty: 1 pc.		
	2	3 (3a = 3g)	
Filter series	Filter element	Seal Kit code number	
		NBR	FPM
SF2 500	See order table	02050141	02050142
SF2 501		02050143	02050144
SF2 503		02050070	02050071
SF2 504		02050072	02050073
SF2 505		02050043	02050044
SF2 510		02050045	02050046
SF2 535		02050051	02050052
SF2 540		02050053	02050054