

# SF2 500 series

Flow rate up to 700 l/min



# SF2 500 GENERAL INFORMATION

## Description

## Technical data

### Suction filters

#### Flow rate up to 700 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 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 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	
<b>SF2 500-501</b>	4.0
<b>SF2 503</b>	4.8
<b>SF2 504</b>	5.8
<b>SF2 505</b>	6.0
<b>SF2 510</b>	7.2
<b>SF2 535</b>	17
<b>SF2 540</b>	19

# GENERAL INFORMATION SF2 500

## FILTER ASSEMBLY SIZING 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

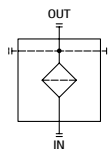
### Maximum flow rate for a complete suction filter with a pressure drop $\Delta p = 0.08$ bar.

The reference fluid has a kinematic viscosity of 30 mm<sup>2</sup>/s (cSt) and a density of 0.86 kg/dm<sup>3</sup>.

For different pressure drop or fluid viscosity we recommend to use our selection software available on [www.mpfiltri.com](http://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.

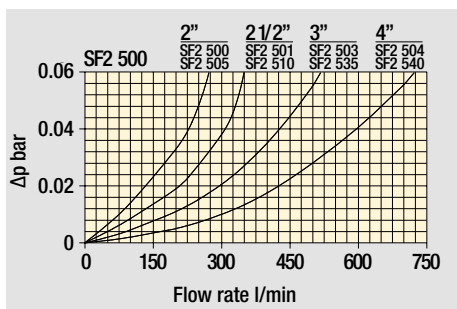
Filter series	
SF2 500	•



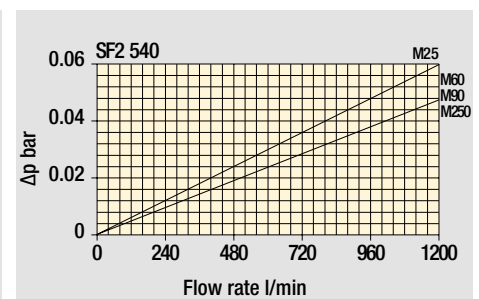
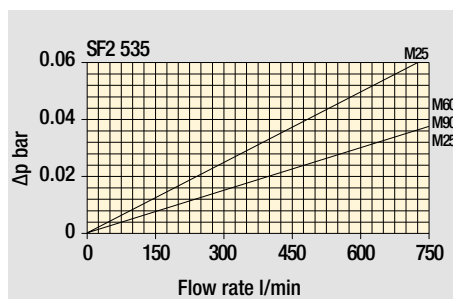
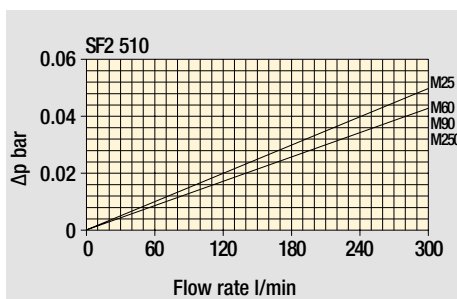
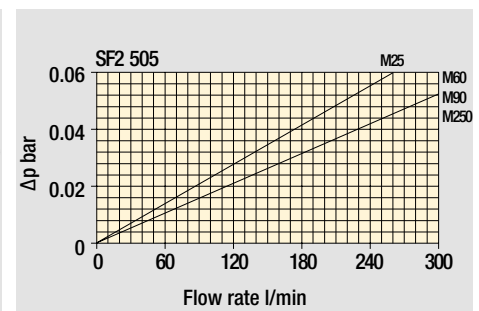
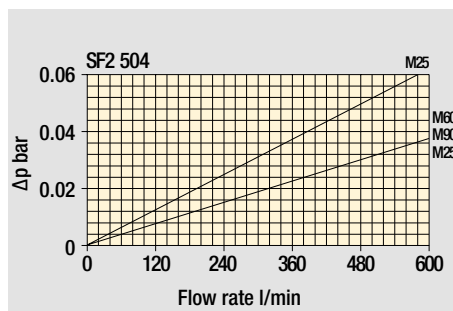
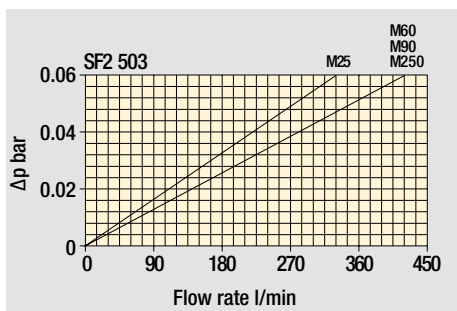
## Hydraulic symbols

### Pressure drop

Filter housings  $\Delta p$  pressure drop



### Filter element $\Delta p$ pressure drop



The curves are plotted using mineral oil with density of 0.86 kg/dm<sup>3</sup> in compliance with ISO 3968.  $\Delta p$  varies proportionally with density.

## Designation & Ordering code

### COMPLETE FILTER

<b>Series and size</b>	Configuration example 1:	SF2500	W	F1	D	M25	P01
<b>SF2500</b>	Configuration example 2:	SF2535	A	F2	C	M60	P01
<b>SF2501</b>							
<b>SF2503</b>							
<b>SF2504</b>							
<b>SF2505</b>							
<b>SF2510</b>							
<b>SF2535</b>							
<b>SF2540</b>							

<b>Seals and treatments</b>	
<b>A</b>	NBR
<b>V</b>	FPM
<b>W</b>	NBR compatible with fluids HFA-HFB-HFC
<b>Z</b>	FPM compatible with fluids HFA-HFB-HFC

<b>Connections</b>				
	SF2500 - SF2505	SF2501 - SF2510	SF2503 - SF2535	SF2504 - SF2540
<b>F1</b>	2" SAE 3000 psi/M	2 1/2" SAE 3000 psi/M	3" SAE 3000 psi/M	4" SAE 3000 psi/M
<b>F2</b>	2" SAE 3000 psi/UNC	2 1/2" SAE 3000 psi/UNC	3" SAE 3000 psi/UNC	4" SAE 3000 psi/UNC
<b>C1</b>	Hose barb 2"/M	Hose barb 2 1/2"/M	Hose barb 3"/M	Hose barb 4"/M

<b>Microswitch and Handweel</b>				
	SF2500 - SF2501	SF2503 - SF2504	SF2505 - SF2510	SF2535 - SF2540
<b>S</b>	Without microswitch, without handweel	•	•	•
<b>C</b>	With microswitch, without handweel	-	-	•
<b>D</b>	With microswitch, with polyamide handweel	•	•	-
<b>K</b>	With microswitch, with steel handweel	•	•	-
<b>M</b>	Without microswitch, with polyamide handweel	•	•	-

<b>Filtration rating (filter media)</b>			
<b>M25</b>	Wire mesh	25 µm	<b>M90</b> Wire mesh 90 µm
<b>M60</b>	Wire mesh	60 µm	<b>M250</b> Wire mesh 250 µm

All filter media except M60, P10 and P25 are compatible with fluids HFA, HFB and HFC

<b>Execution</b>	
<b>P01</b>	MP Filtri standard
<b>Pxx</b>	Customized

### FILTER ELEMENT

<b>Element series and size</b>	Configuration example 1:	SF510	M25	W	P01			
	Configuration example 2:	SF535	M60		P01			
	SF2500	SF2501	SF2503	SF2504	SF2505	SF2510	SF2535	SF2540
<b>SF503</b>	-	-	•	-	-	-	-	-
<b>SF504</b>	-	-	-	•	-	-	-	-
<b>SF505</b>	-	-	-	-	•	-	-	-
<b>SF510</b>	•	•	-	-	-	•	-	-
<b>SF535</b>	-	-	-	-	-	-	•	-
<b>SF540</b>	-	-	-	-	-	-	-	•

<b>Filtration rating (filter media)</b>			
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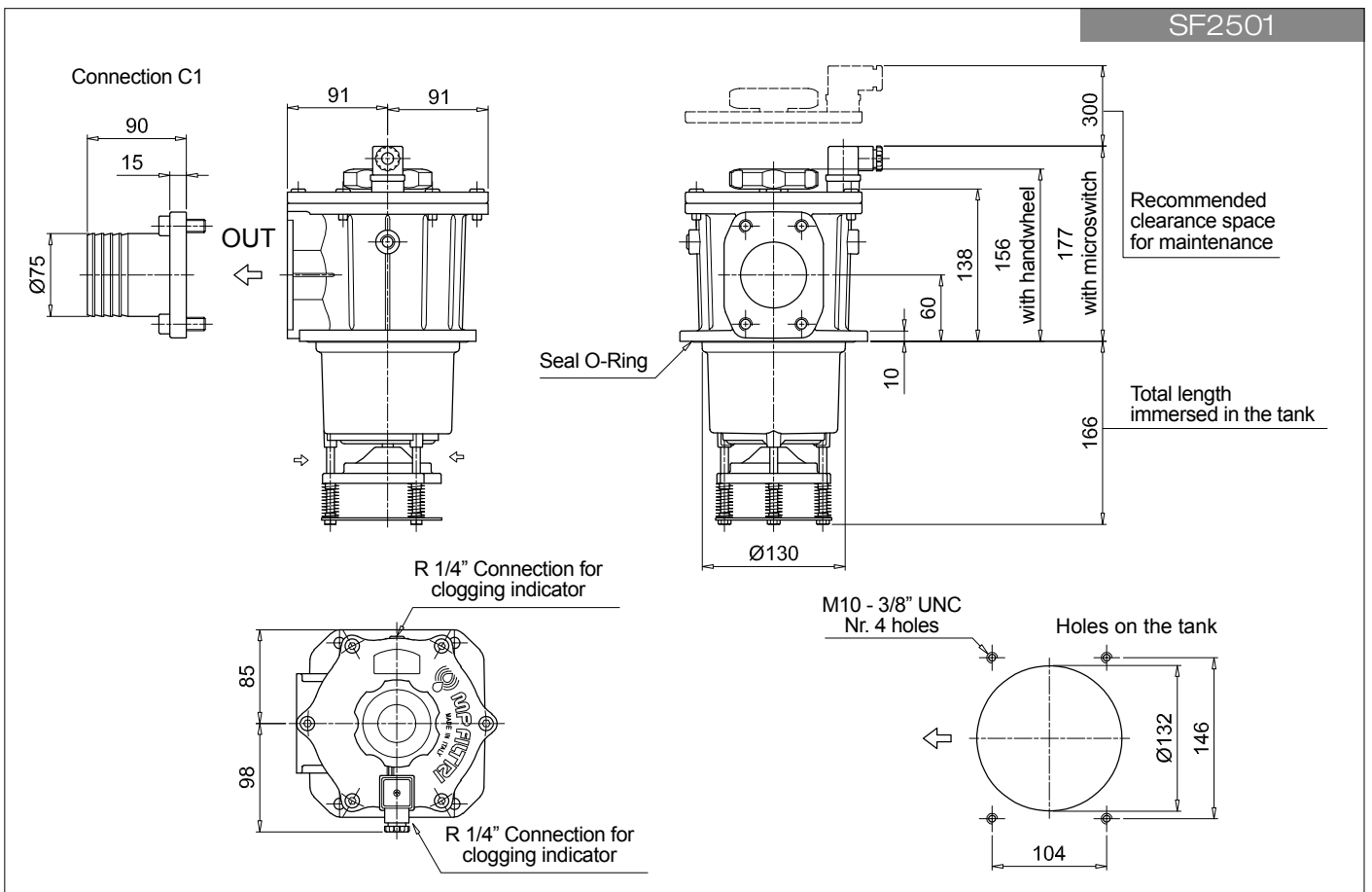
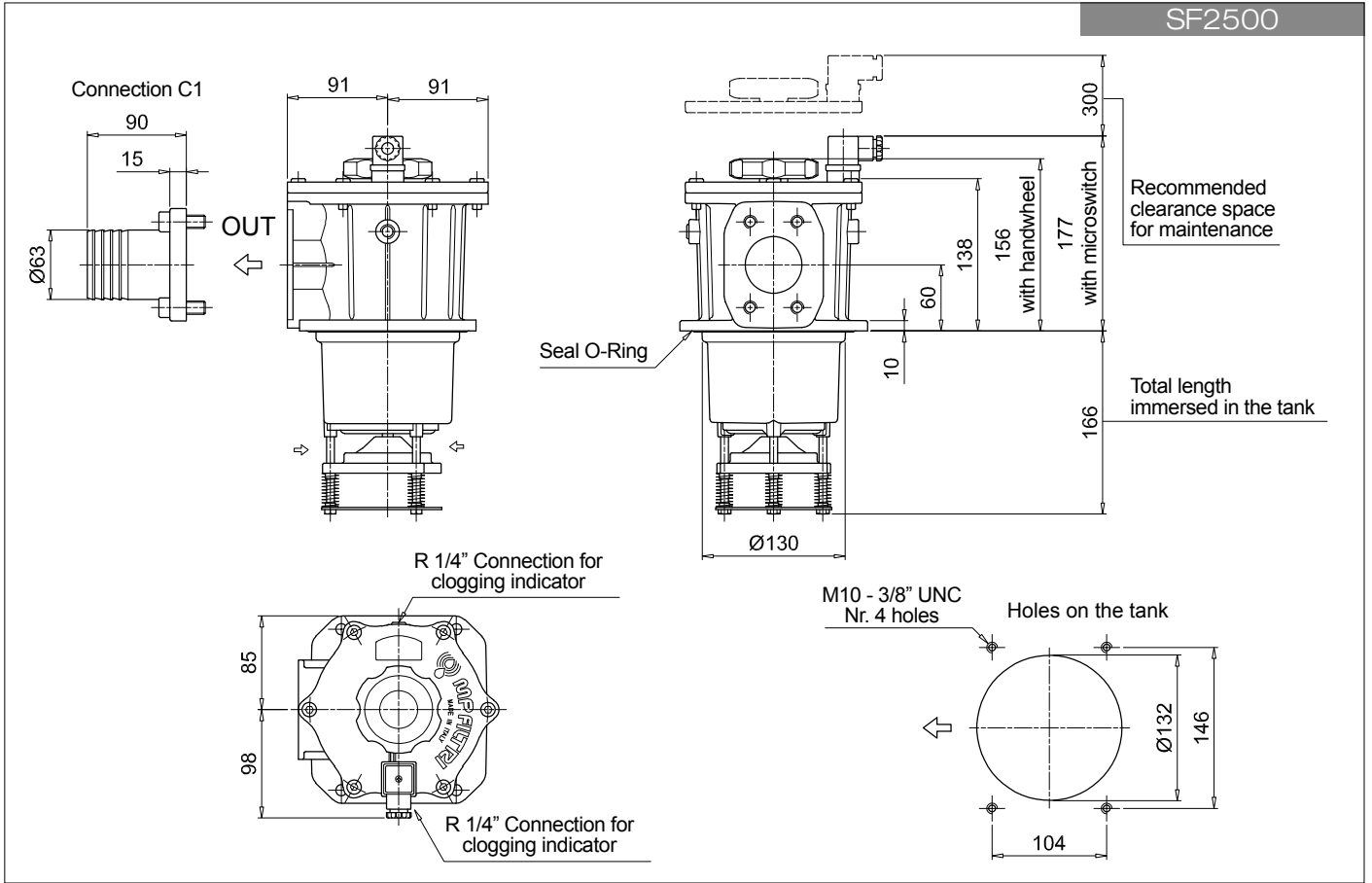
<b>Seals and treatments</b>	
-	Standard version
<b>W</b>	Compatible with fluids HFA-HFB-HFC

<b>Execution</b>	
<b>P01</b>	MP Filtri standard
<b>Pxx</b>	Customized

### CLOGGING INDICATORS

See page 679

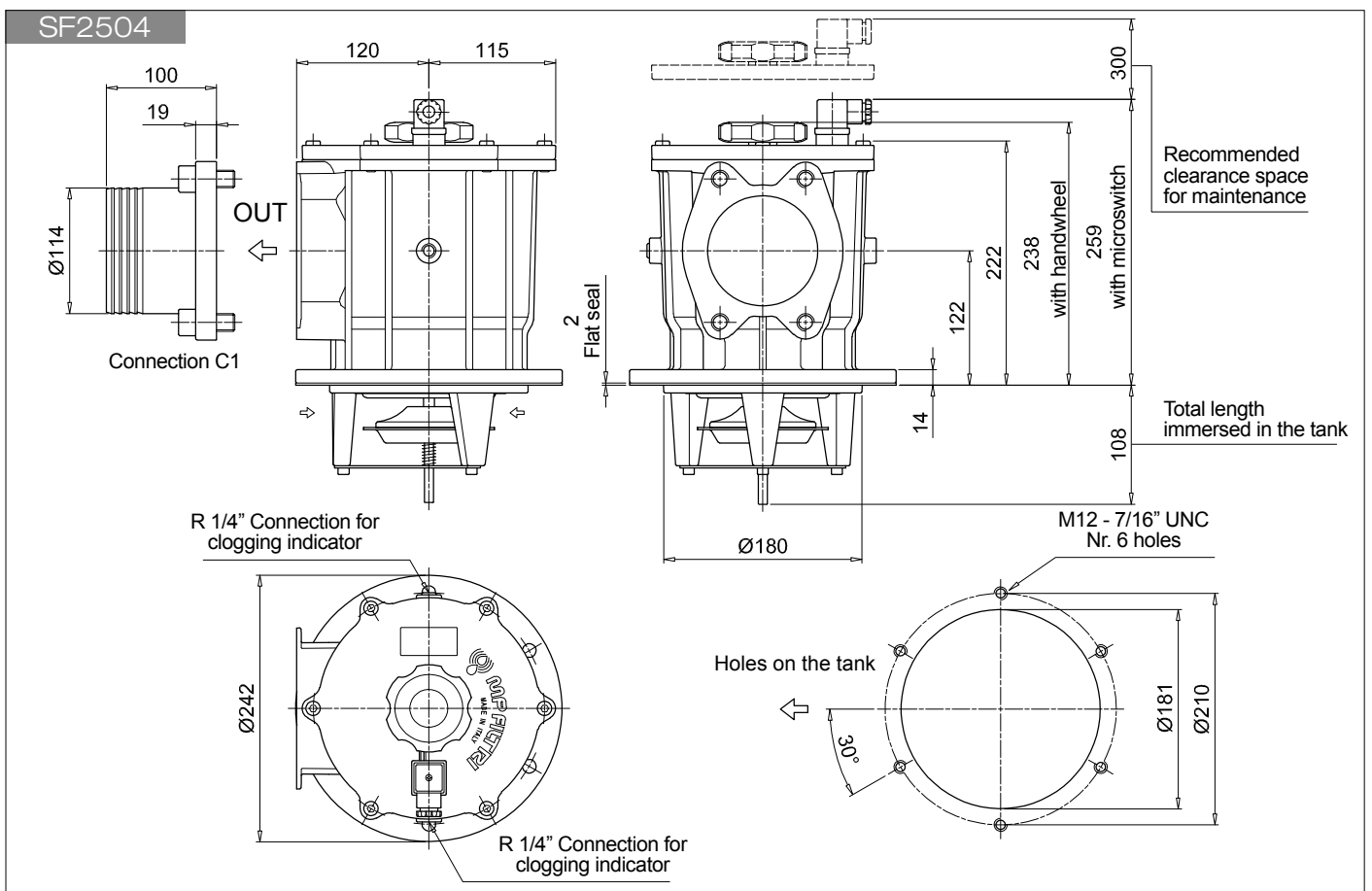
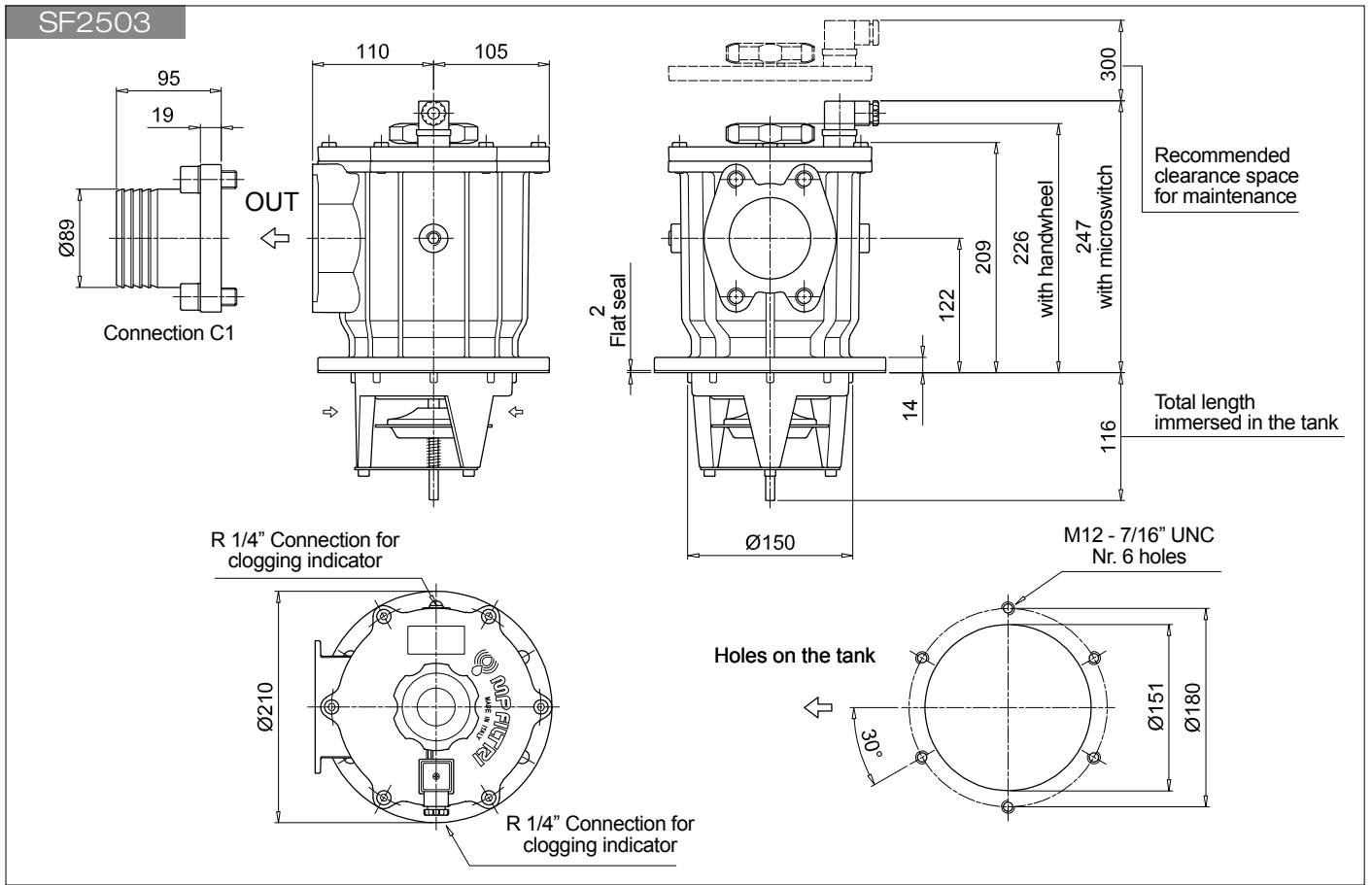
<b>VVA</b>	Axial vacuum gauge
<b>VVR</b>	Radial vacuum gauge
<b>VEA</b>	Electrical vacuum indicator
<b>VLA</b>	Electrical / visual vacuum indicator



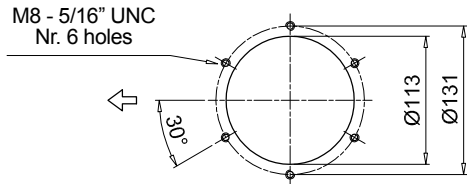
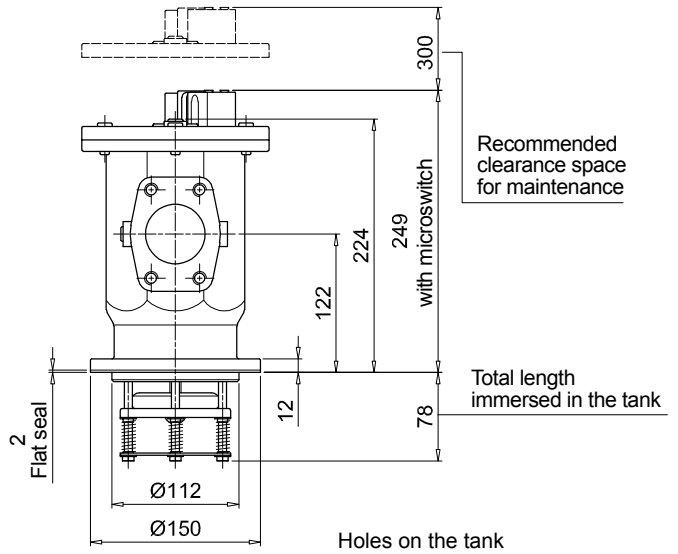
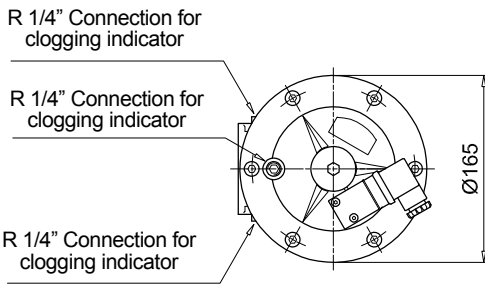
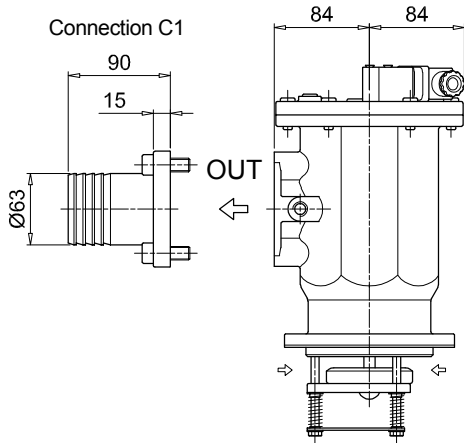
# SF2 500

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

## Dimensions



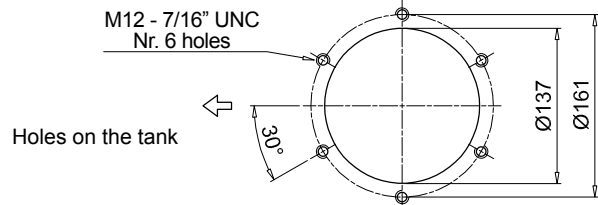
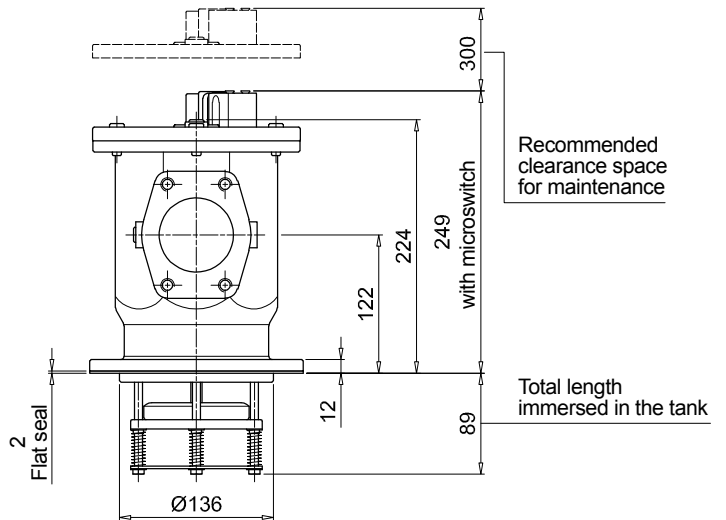
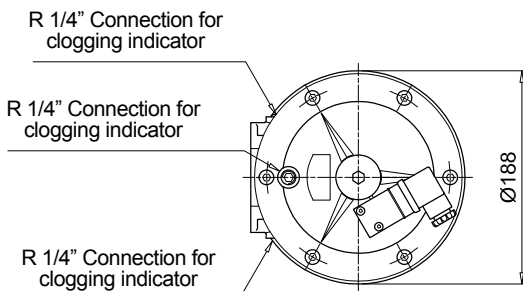
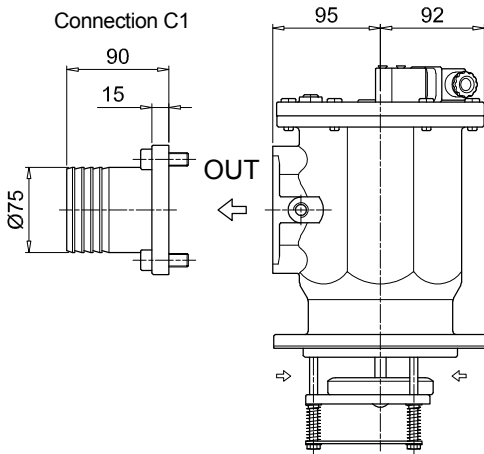
SF2505



Recommended clearance space for maintenance

Total length immersed in the tank

SF2510



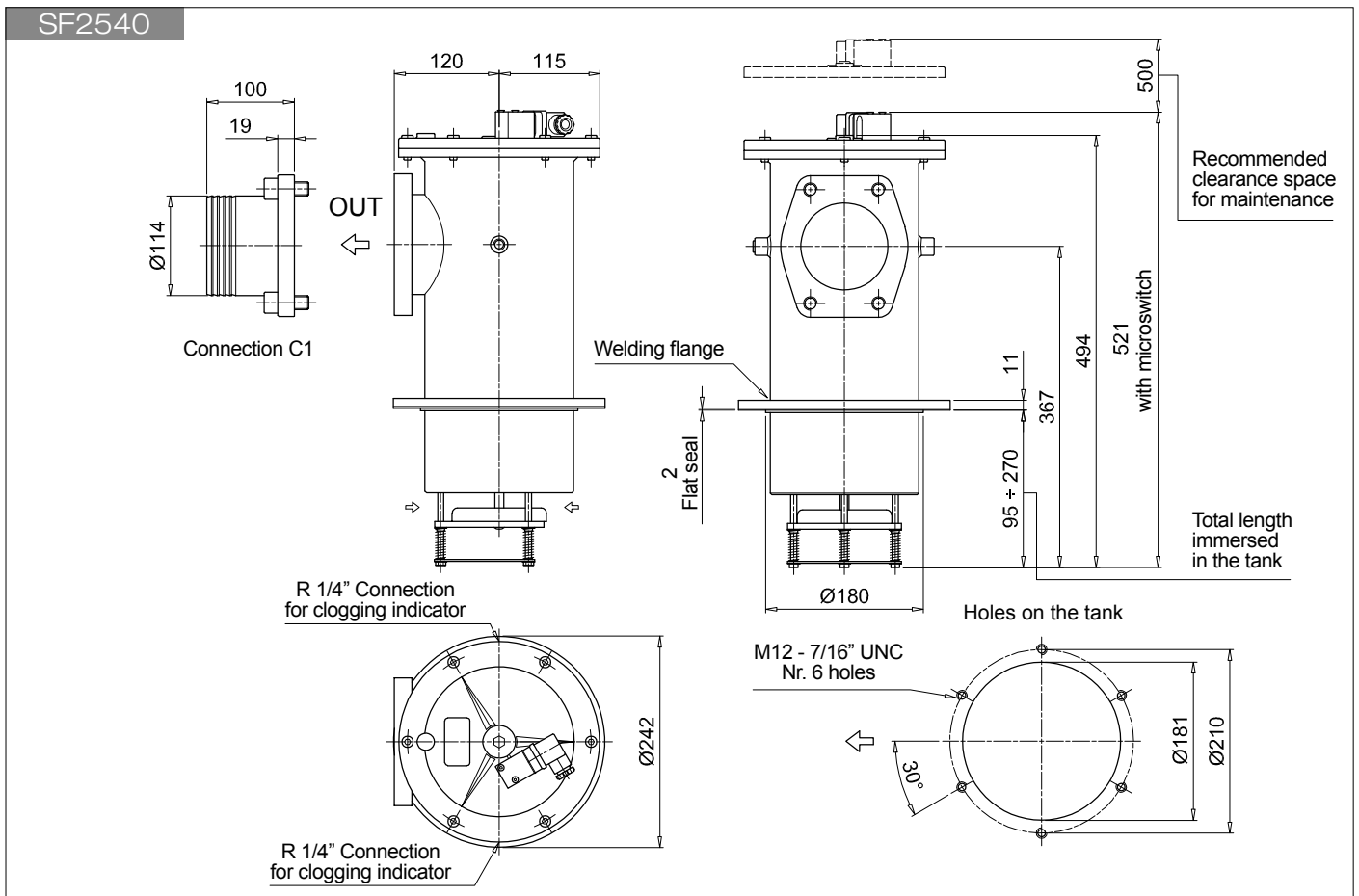
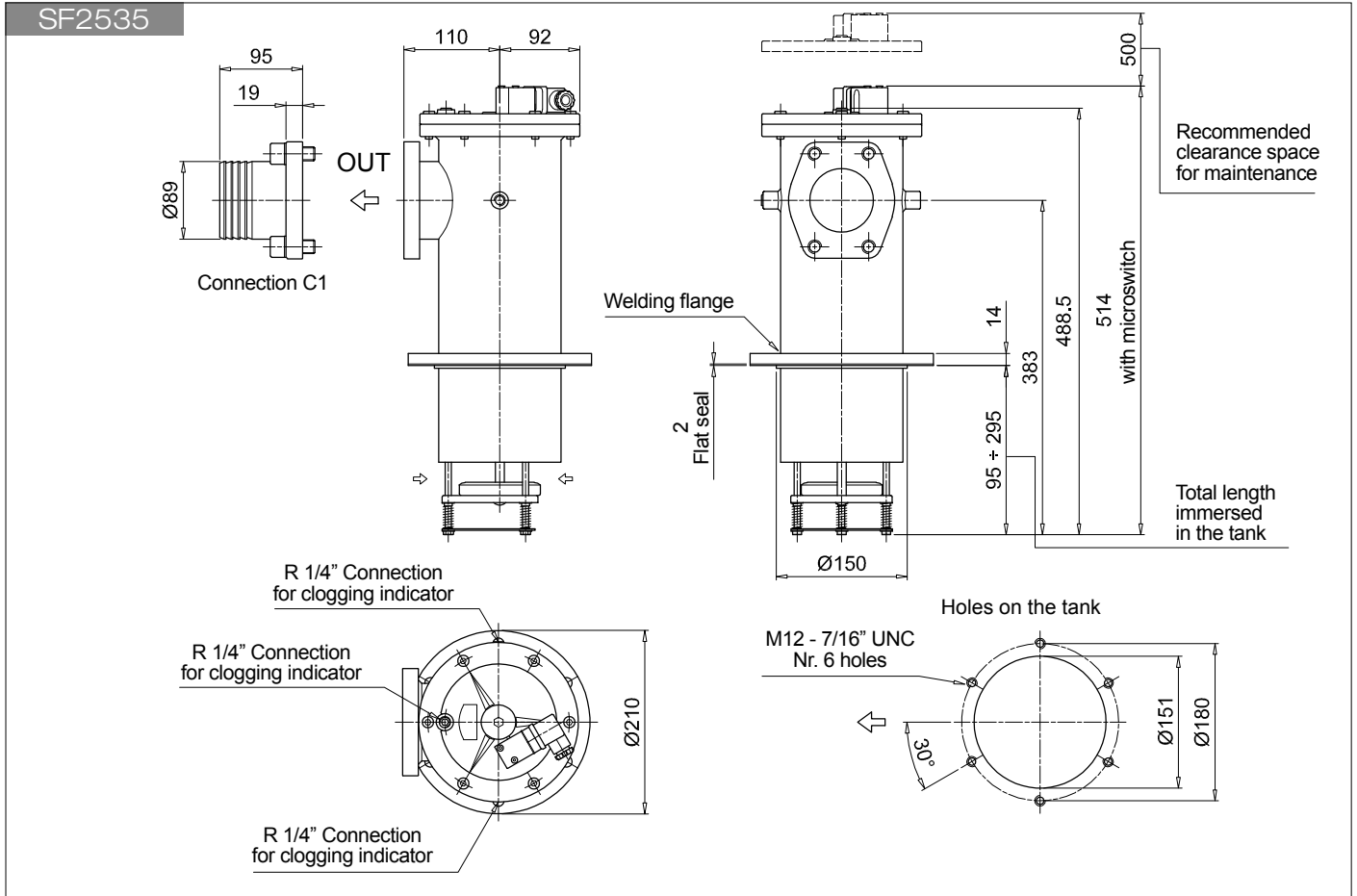
Recommended clearance space for maintenance

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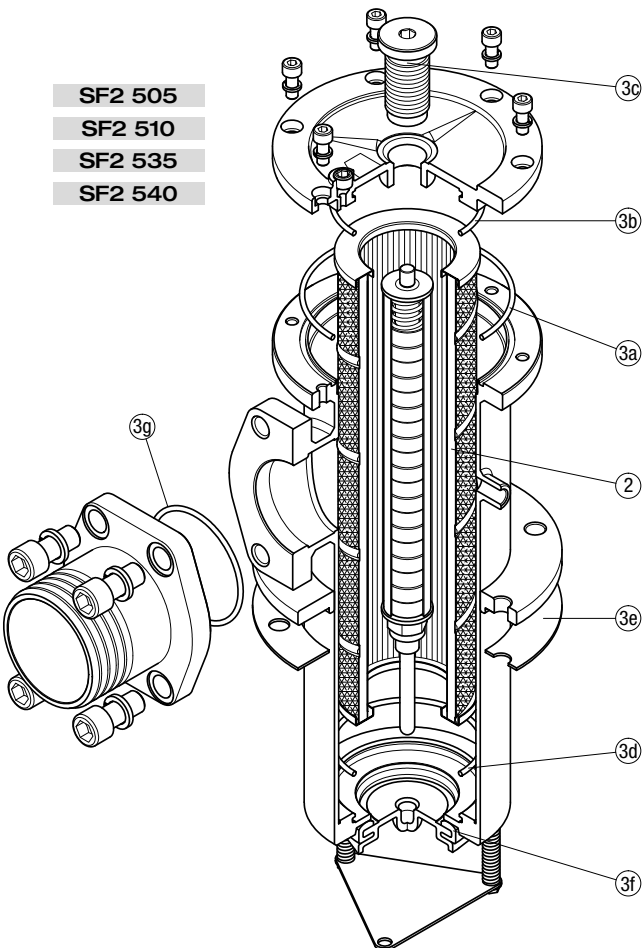
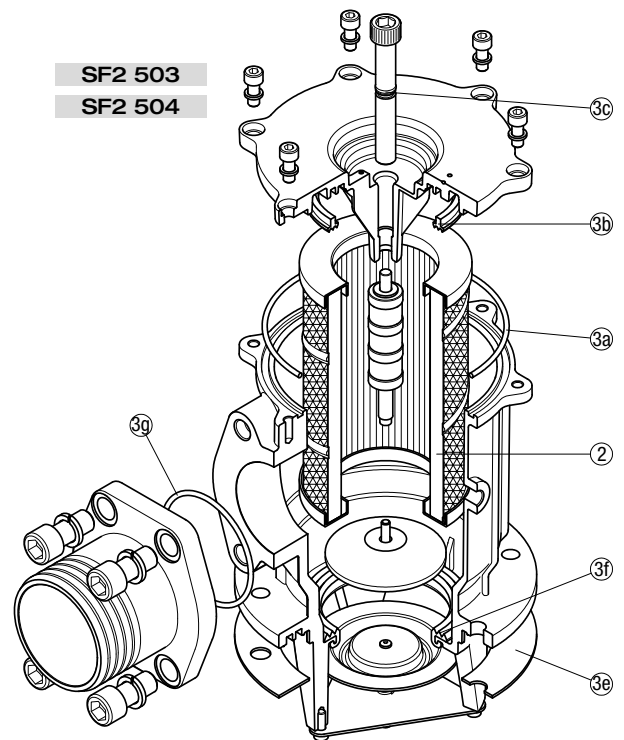
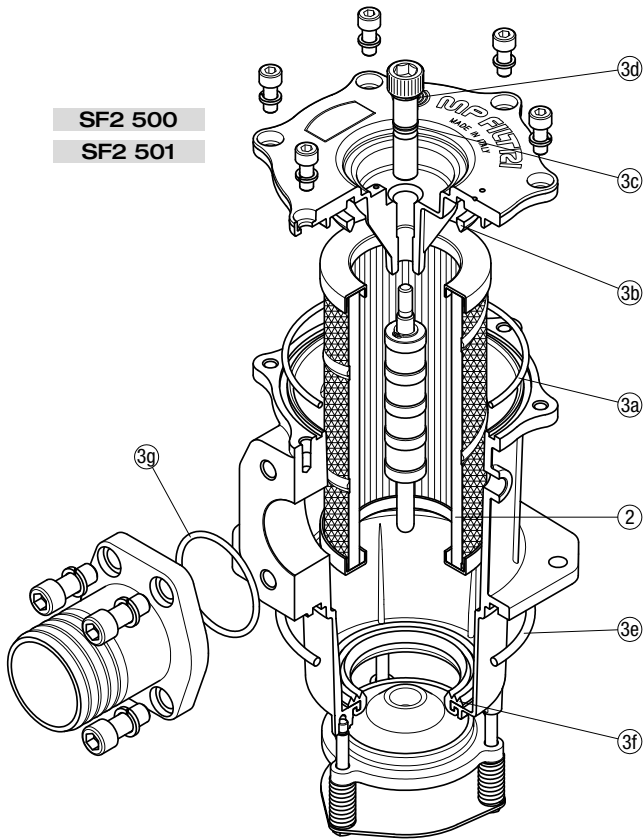
# SF2 500

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

## Dimensions







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