

# 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      |     |
|--------------------|-----|
| <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  |

| Filter series | Filter element design - N Series |                    |
|---------------|----------------------------------|--------------------|
|               | M25                              | M60<br>M90<br>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                |

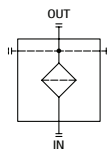
### Maximum flow rate for a complete suction filter with a pressure drop $\Delta p = 0.08$ bar.

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.

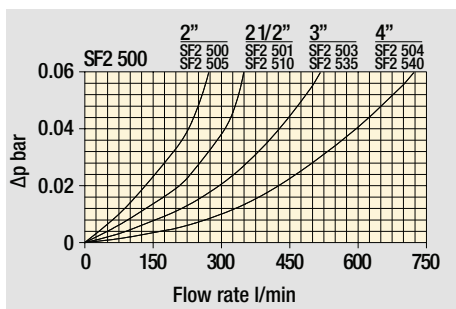
| Filter series |   |
|---------------|---|
| SF2 500       | • |



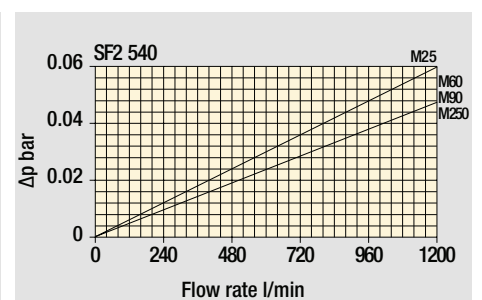
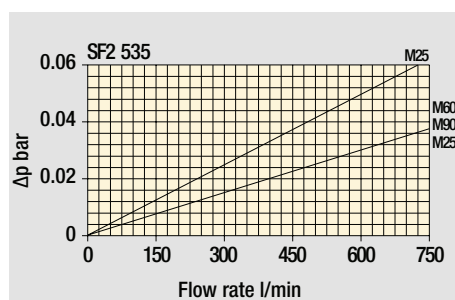
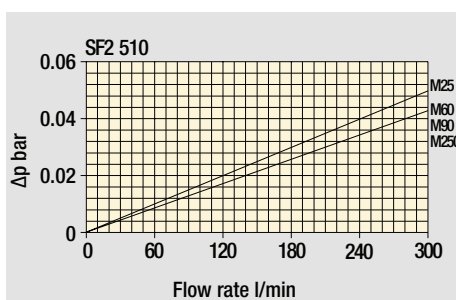
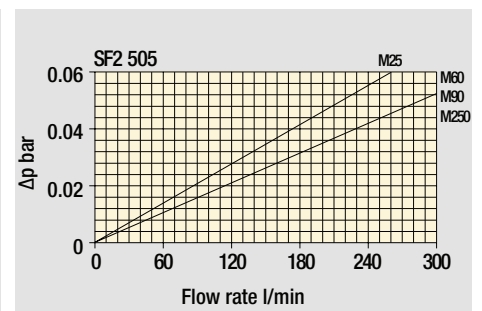
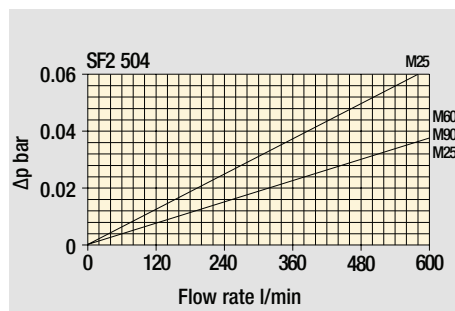
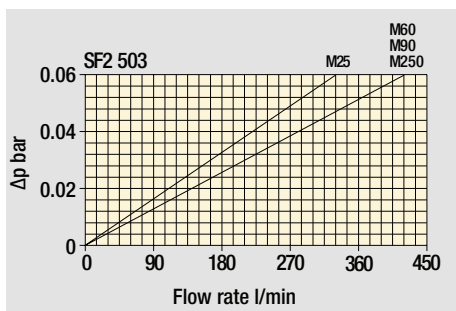
### Hydraulic symbols

### 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

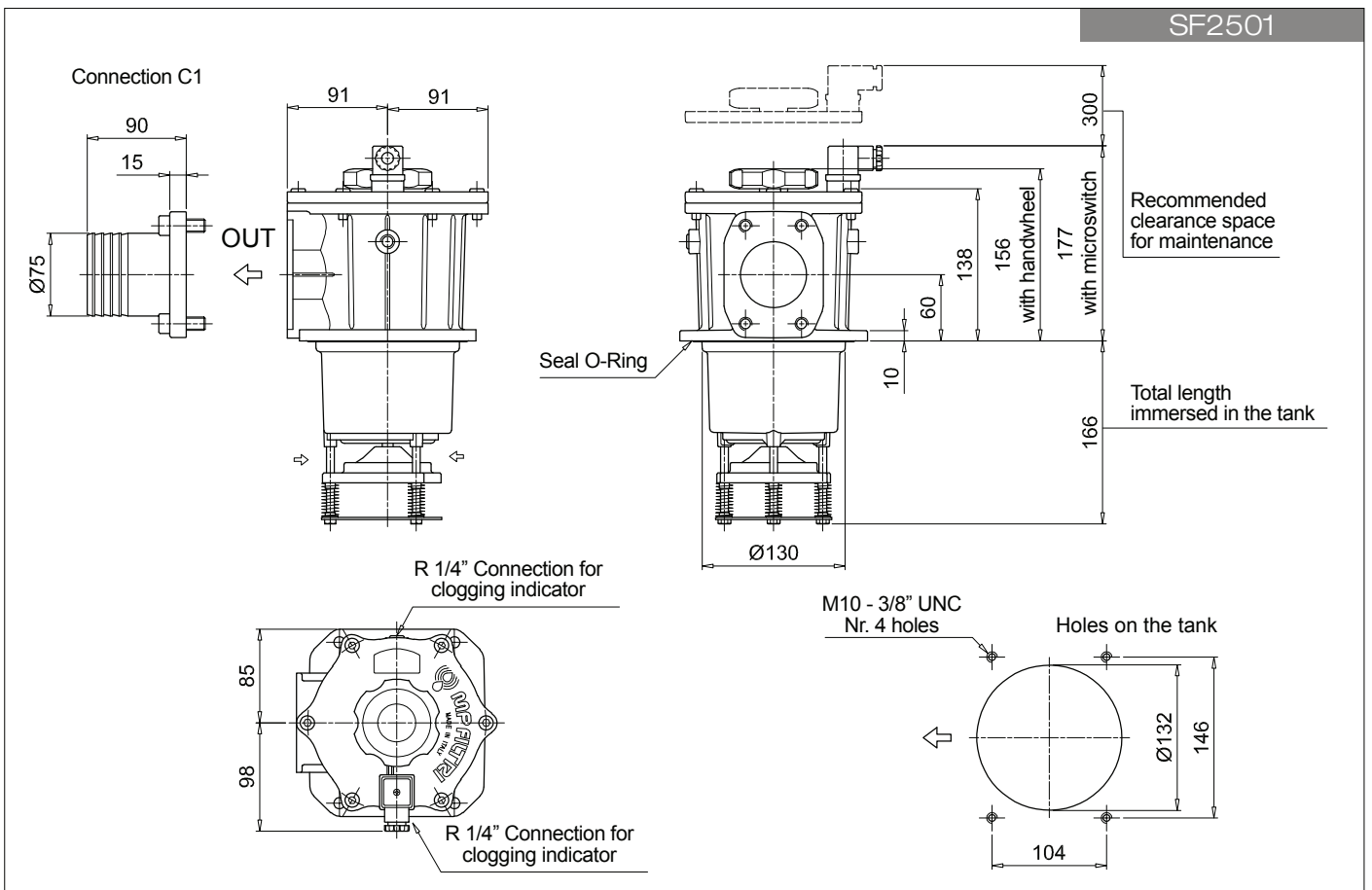
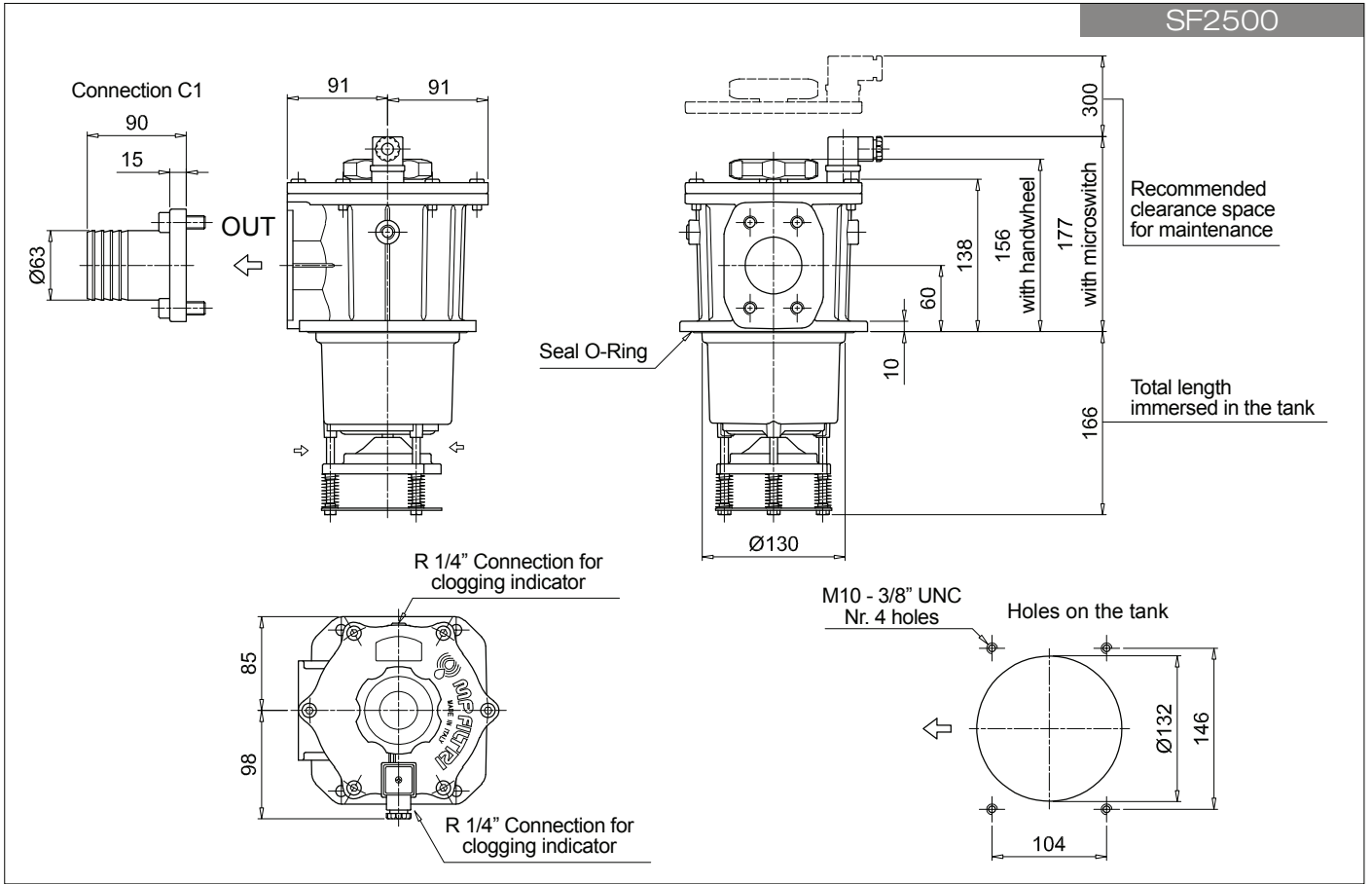
|   |  |  |                     |                     |                 |                 |                               |
|---|--|--|---------------------|---------------------|-----------------|-----------------|-------------------------------|
| <b>Series and size</b>                  |  | Configuration example 1: <b>SF2500</b> <b>W</b> <b>F1</b> <b>D</b> <b>M25</b> <b>P01</b> |                     |                     |                 |                 |                               |
| <b>SF2500</b>                           |  | Configuration example 2: <b>SF2535</b> <b>A</b> <b>F2</b> <b>C</b> <b>M60</b> <b>P01</b> |                     |                     |                 |                 |                               |
| <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>             |  | Filtration rating  |                     |                     |                 |                 |                               |
|   |  | Mxx  | Pxx                 |                     |                 |                 |                               |
| <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 Nylon handweel    | •  | •                   |                     |                 |                 |                               |
| <b>K</b>                                | With microswitch, with steel handweel    | •  | •                   |                     |                 |                 |                               |
| <b>M</b>                                | Without microswitch, with Nylon 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    |                     |                 |                 |                               |
|   |  |  |                     |                     |                 |                 | <b>Execution</b>              |
|   |  |  |                     |                     |                 |                 | <b>P01</b> MP Filtri standard |
|   |  |  |                     |                     |                 |                 | <b>Pxx</b> Customized         |

### FILTER ELEMENT

|   |                 |             |                  |        |        |        |        |  |     |  |  |  |
|---|-----------------|-------------|------------------|--------|--------|--------|--------|--|-----|--|--|--|
| <b>Element series and size</b>              |                 |             |                  |        |        |        |        | Configuration example 1: <b>SF510</b> <b>M25</b> <b>W</b> <b>P01</b> |     |  |  |  |
|   |                 |             |                  |        |        |        |        | Configuration example 2: <b>SF535</b> <b>M60</b> <b></b> <b>P01</b>  |     |  |  |  |
|   | 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>     |                 |             |                  |        |        |        |        |  |     |  |  |  |
| <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 |        |        |        |        |  |     |  |  |  |
| <b>Seals and treatments</b>                 |                 |             |                  |        |        |        |        | Filtration rating  |     |  |  |  |
|   |                 |             |                  |        |        |        |        | Mxx  | Pxx |  |  |  |
| Standard version                            |                 |             |                  |        |        |        |        | •  | •   |  |  |  |
| <b>W</b> Compatible with fluids HFA-HFB-HFC |                 |             |                  |        |        |        |        | •  |     |  |  |  |
|   |                 |             |                  |        |        |        |        | <b>Execution</b>   |     |  |  |  |
|   |                 |             |                  |        |        |        |        | <b>P01</b> MP Filtri standard  |     |  |  |  |
|   |                 |             |                  |        |        |        |        | <b>Pxx</b> Customized  |     |  |  |  |

### ACCESSORIES

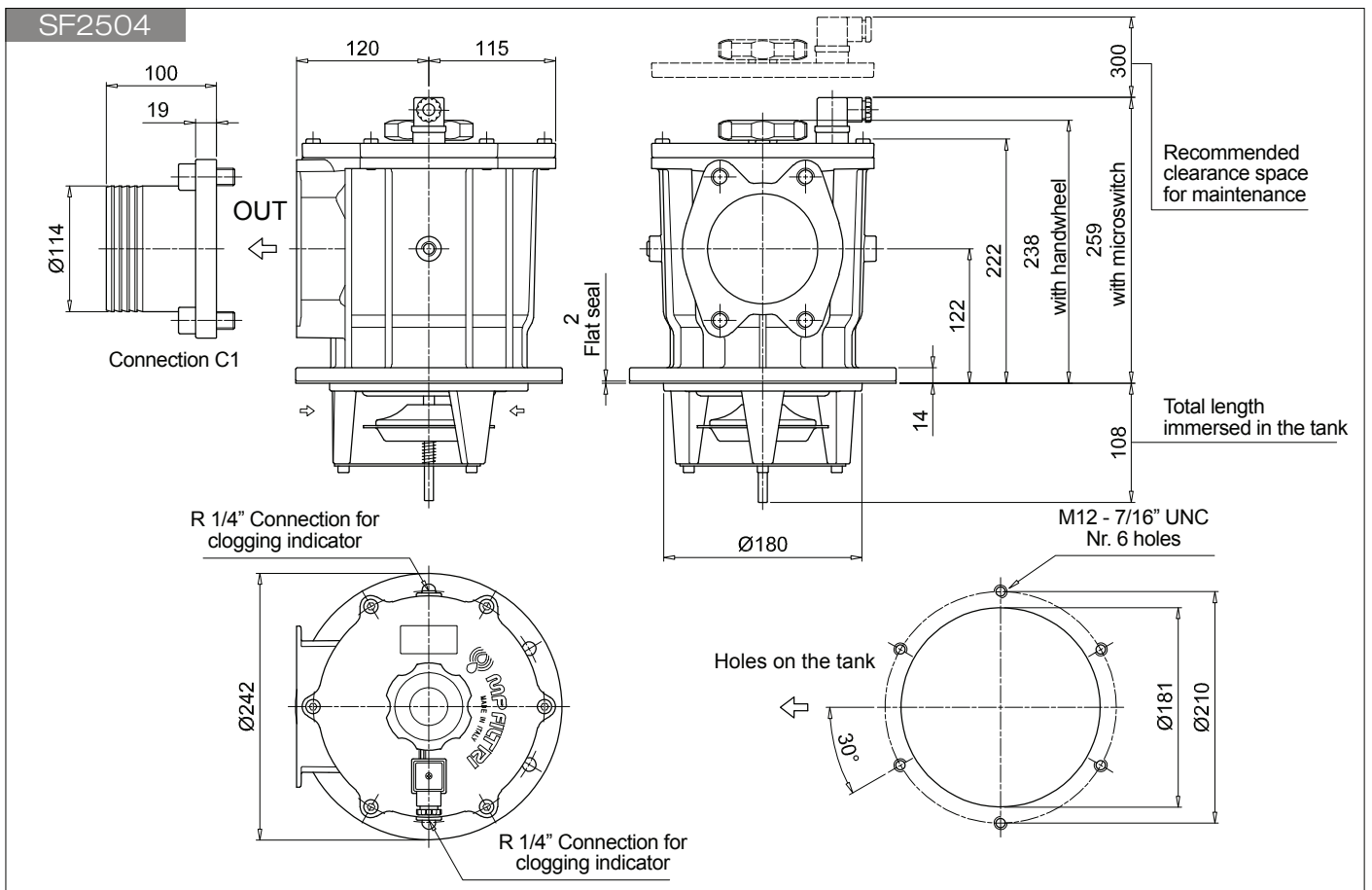
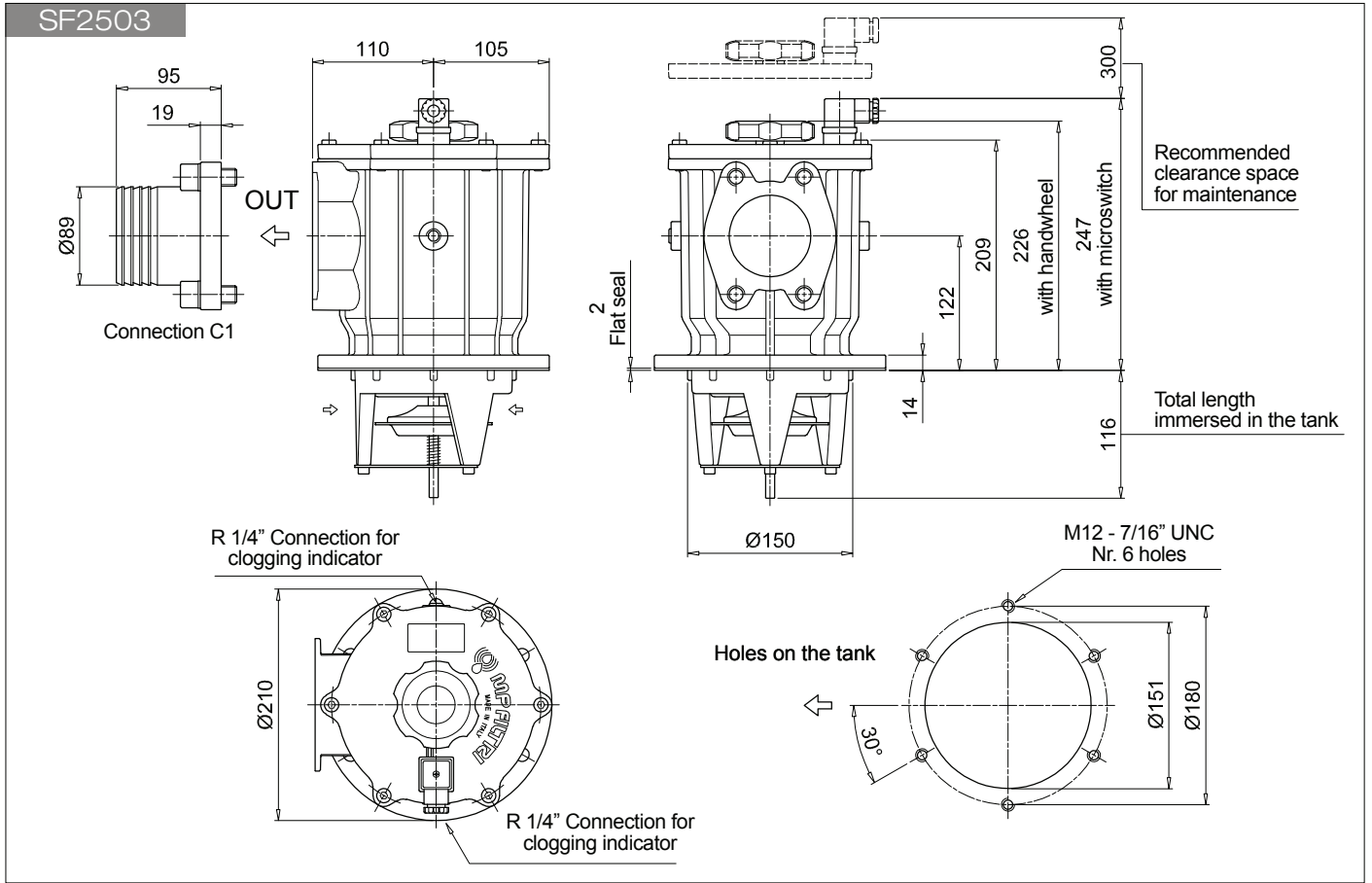
|                            |                                      |      |
|----------------------------|--------------------------------------|------|
| <b>Clogging indicators</b> |                                      | page |
| <b>VVA</b>                 | Axial vacuum gauge                   | 59   |
| <b>VVR</b>                 | Radial vacuum gauge                  | 59   |
| <b>VEA</b>                 | Electrical vacuum indicator          | 58   |
| <b>VLA</b>                 | Electrical / visual vacuum indicator | 58   |



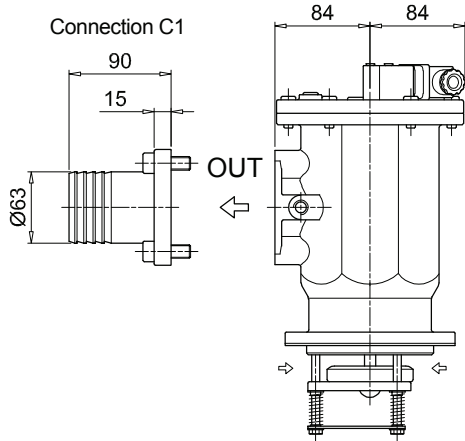
# SF2 500

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

## Dimensions



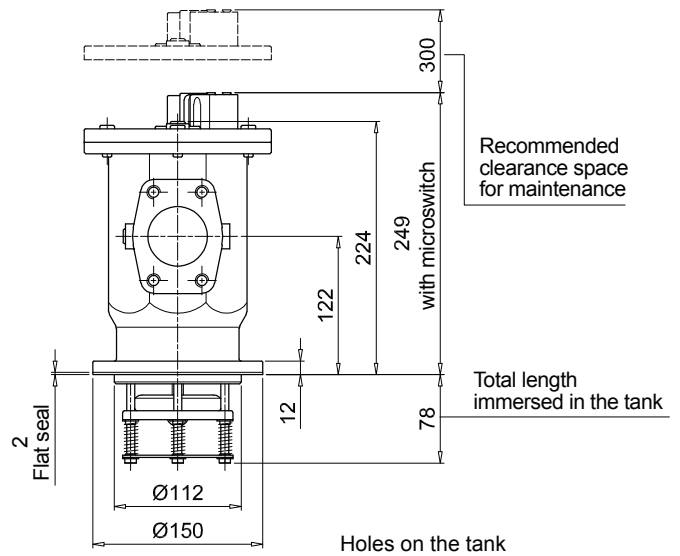
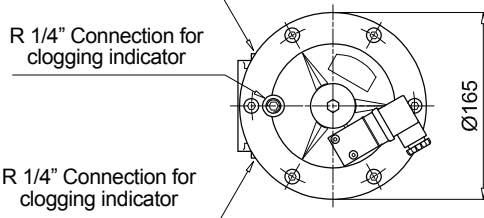
SF2505



R 1/4" Connection for clogging indicator

R 1/4" Connection for clogging indicator

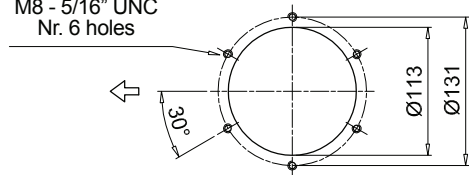
R 1/4" Connection for clogging indicator



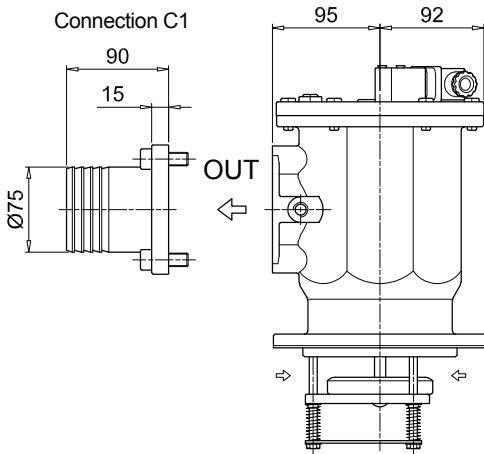
Recommended clearance space for maintenance

Total length immersed in the tank

M8 - 5/16" UNC  
Nr. 6 holes



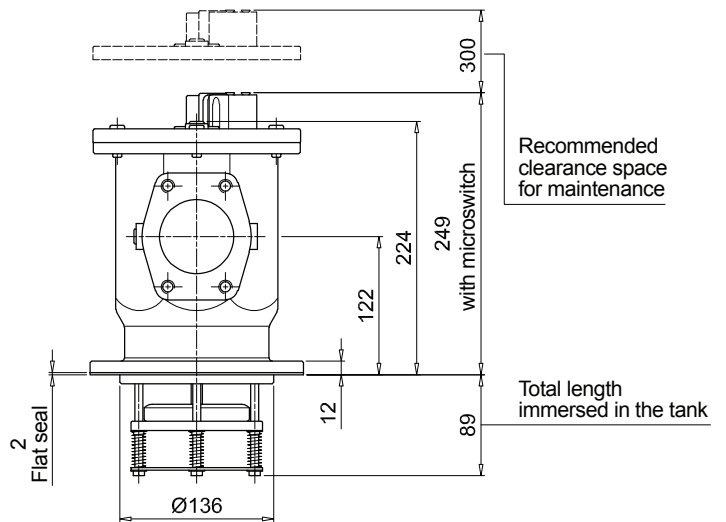
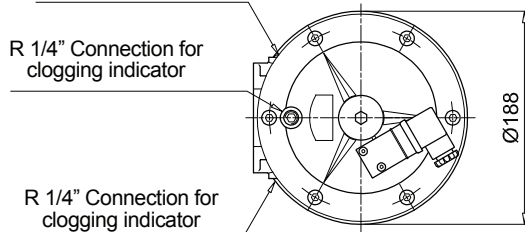
SF2510



R 1/4" Connection for clogging indicator

R 1/4" Connection for clogging indicator

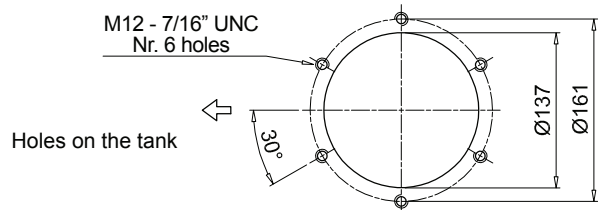
R 1/4" Connection for clogging indicator



Recommended clearance space for maintenance

Total length immersed in the tank

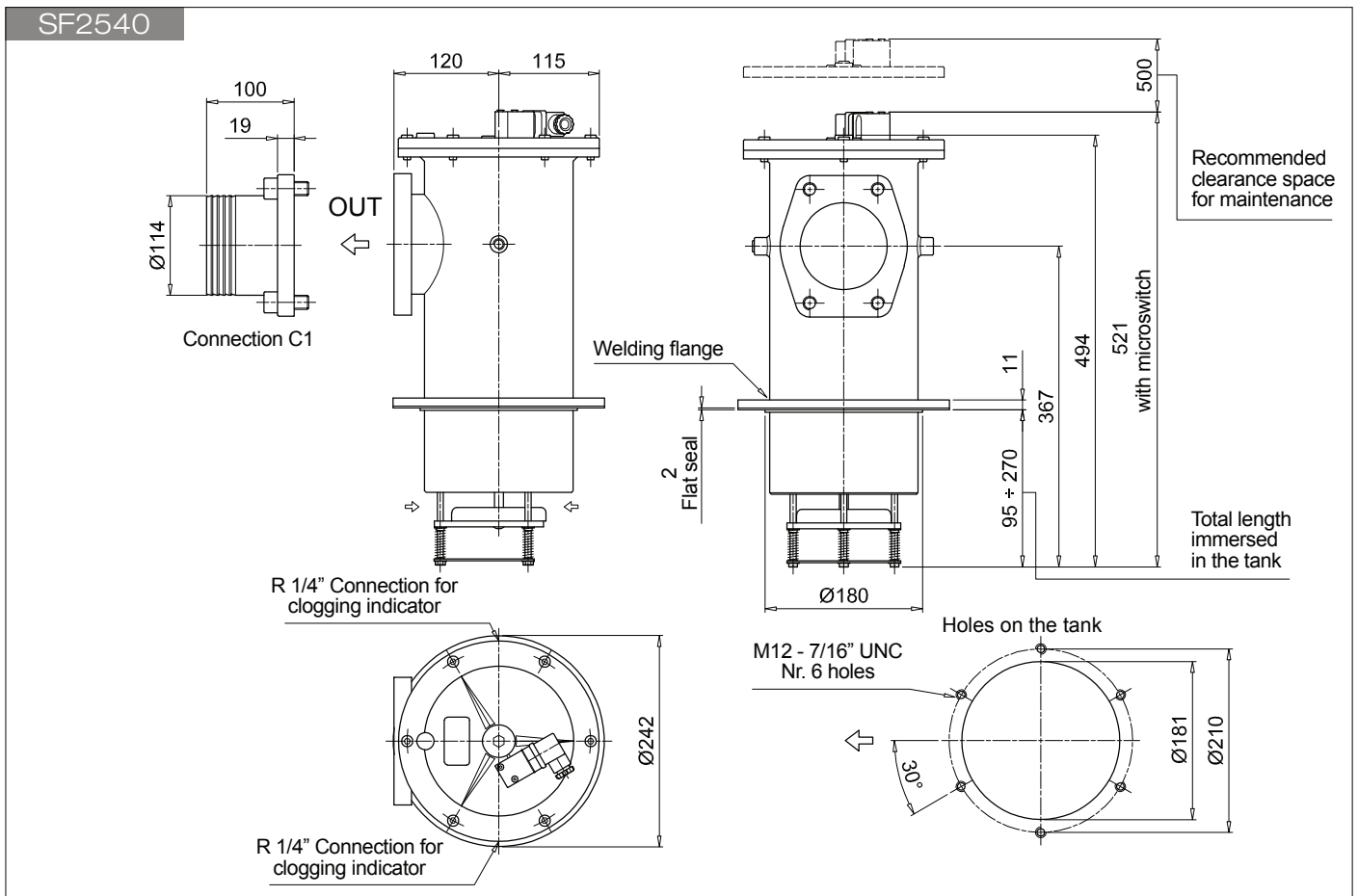
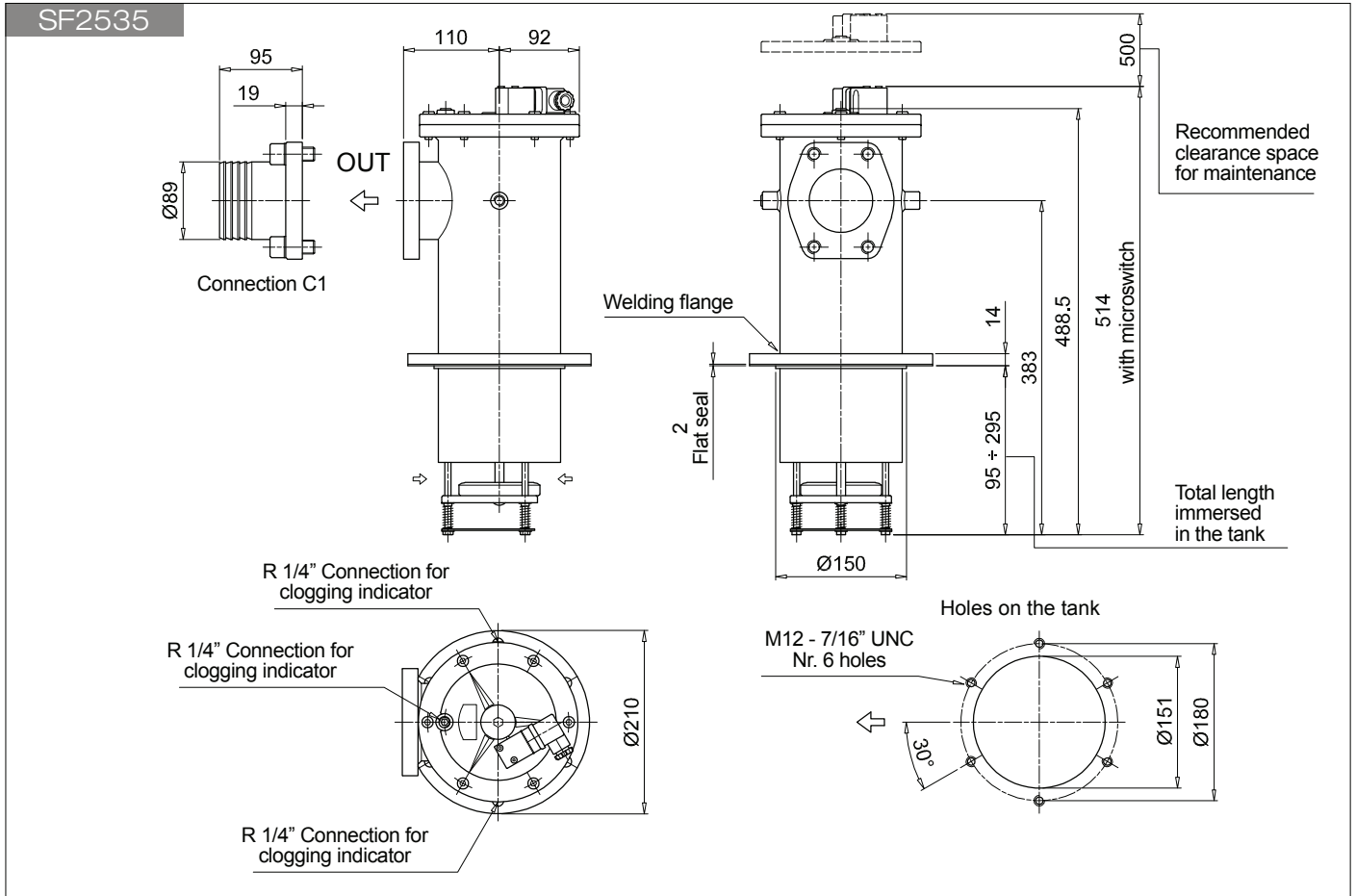
M12 - 7/16" UNC  
Nr. 6 holes



# SF2 500

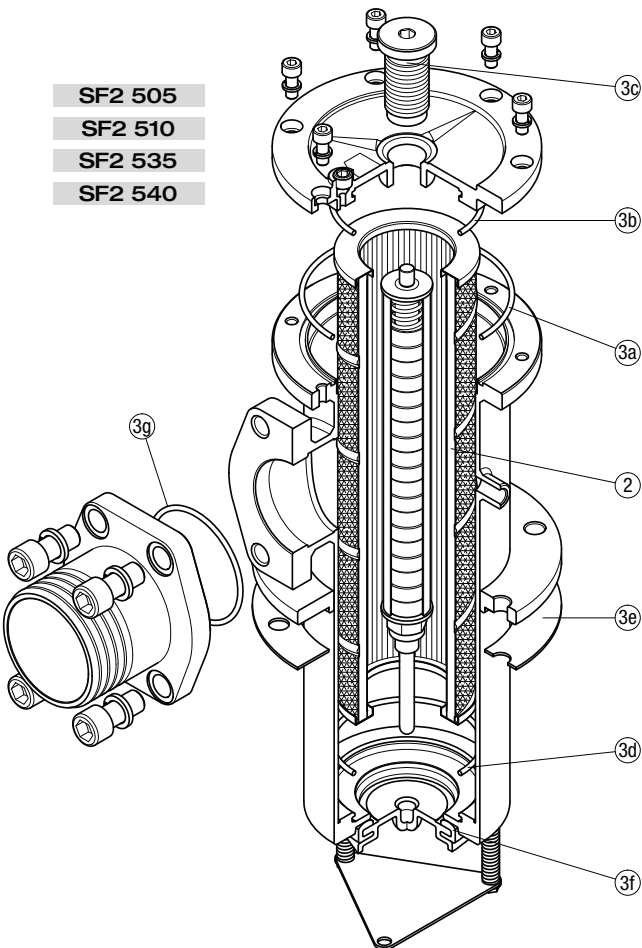
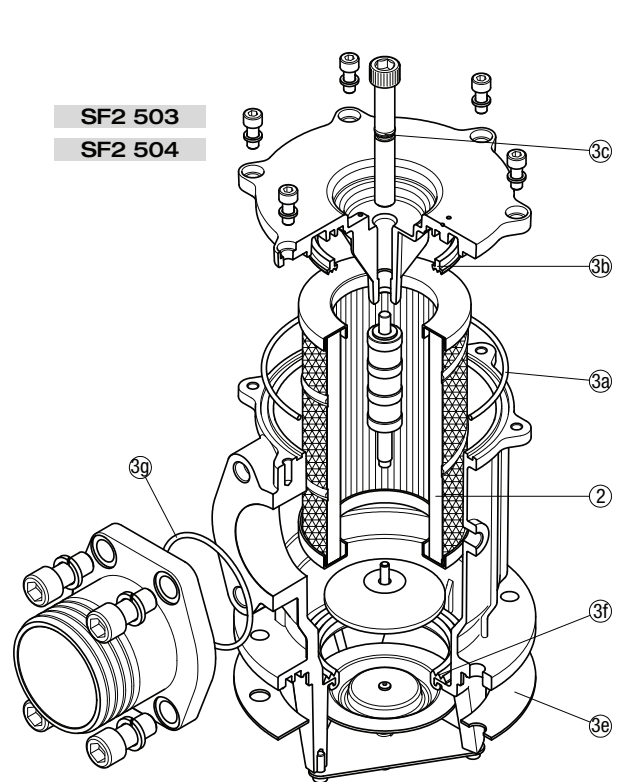
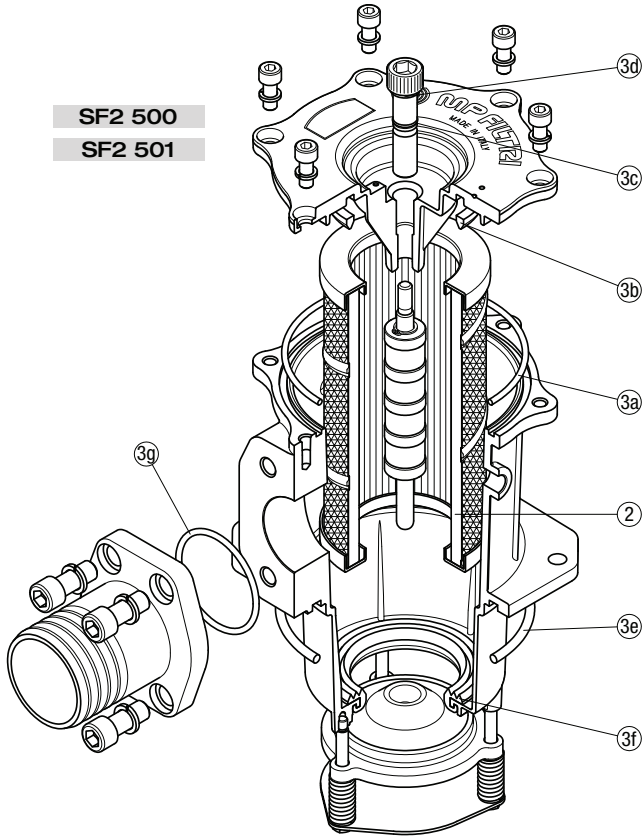
SF2500 - SF2501 - SF2503 - SF2504 - SF2505 - SF2510 - SF2535 - SF2540

## 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 |