

# SF2 500

**Flow rates to 800 l/min**



## Technical data

### Filter housing (Materials)

- Head: 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

### Temperature

- From -25 °C to +110 °C

### Elements

- Fluid flow through the filter element from IN to OUT.

### Seals

- Standard NBR series A
- Optional FPM series V

**SF2 500 FILTERS MOUNTING SEE ON TOP DRAWING**

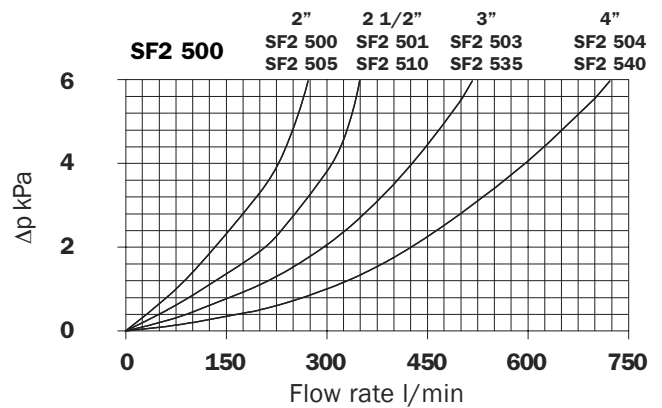
### Weights (kg)

- |               |     |
|---------------|-----|
| • 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 $\Delta p$ pressure drop

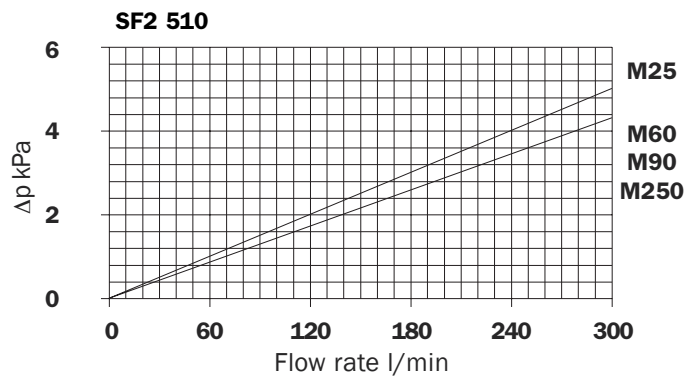
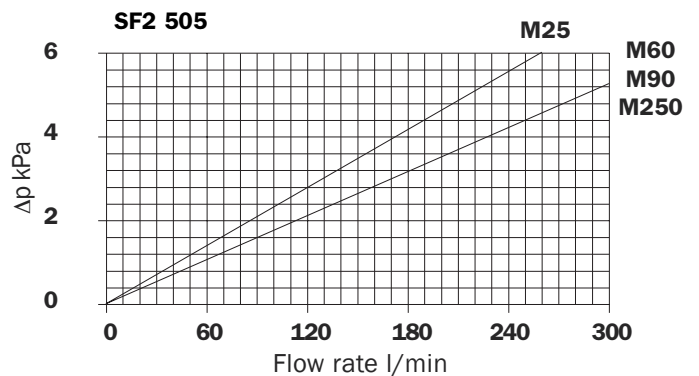
The curves are plotted utilising mineral oil with density of 0,86 kg/dm<sup>3</sup> to ISO 3968.

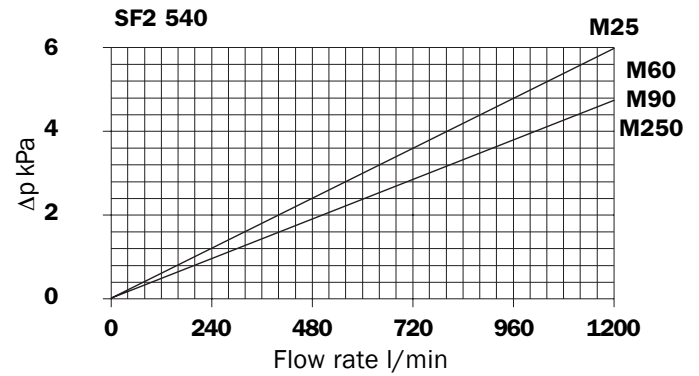
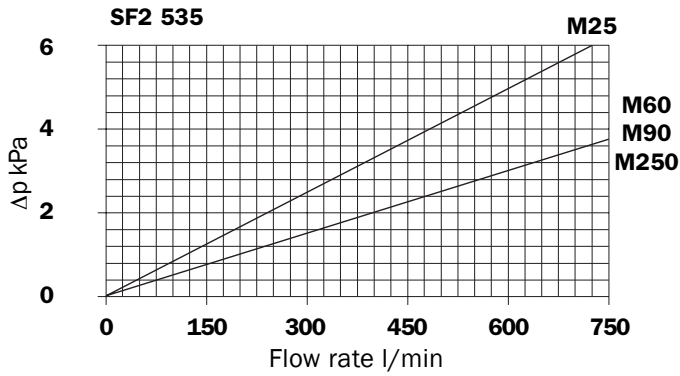
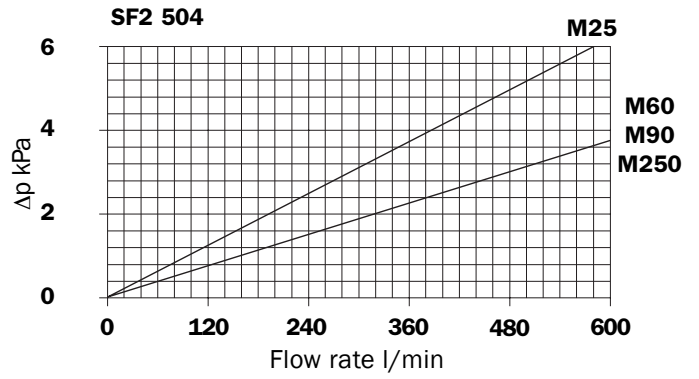
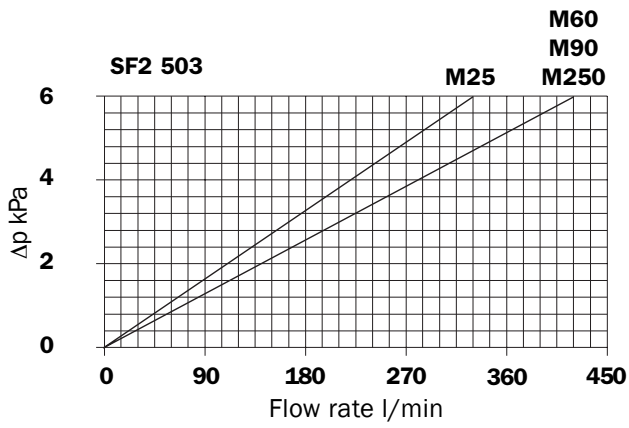
$\Delta p$  varies proportionally with density.



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

The curves are plotted utilising mineral oil with density of 0,86 kg/dm<sup>3</sup> to ISO 3968.





**Recommended maximum flow rate**

- Pressure drop of filter assembly equal to  $\Delta p$  8 kPa.
- Oil kinematic viscosity 30 mm<sup>2</sup>/s (cSt).
- Density 0,86 kg/dm<sup>3</sup>.

|                | Filtration |             |
|----------------|------------|-------------|
|                | M25        | M60-M90-250 |
| <b>SF2 500</b> | 250        | 280         |
| <b>SF2 501</b> | 300        | 340         |

Flow rate l/min

|                | Filtration |             |
|----------------|------------|-------------|
|                | M25        | M60-M90-250 |
| <b>SF2 503</b> | 400        | 480         |
| <b>SF2 504</b> | 550        | 650         |

Flow rate l/min

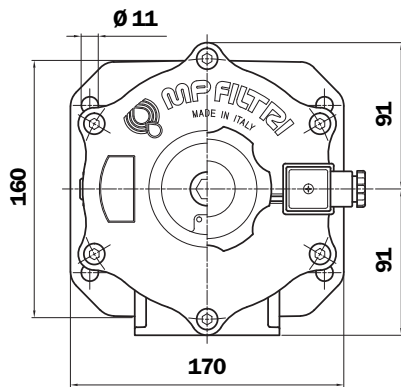
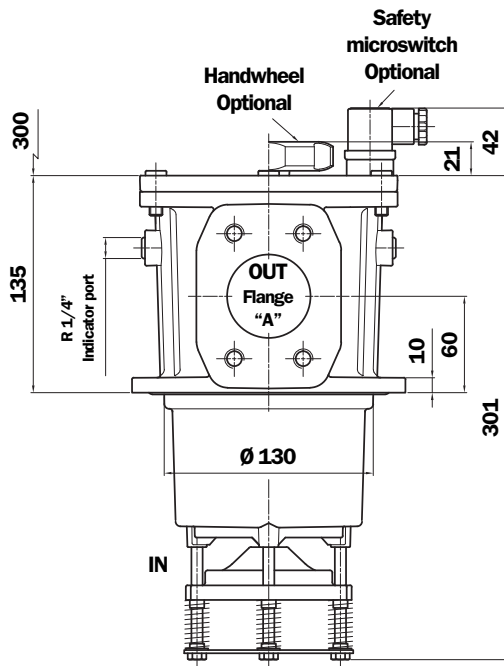
|                | Filtration |             |
|----------------|------------|-------------|
|                | M25        | M60-M90-250 |
| <b>SF2 505</b> | 200        | 250         |
| <b>SF2 510</b> | 250        | 280         |

Flow rate l/min

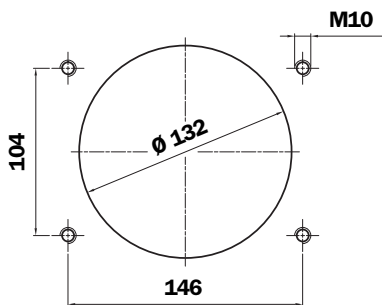
|                | Filtration |             |
|----------------|------------|-------------|
|                | M25        | M60-M90-250 |
| <b>SF2 535</b> | 450        | 550         |
| <b>SF2 540</b> | 700        | 800         |

Flow rate l/min

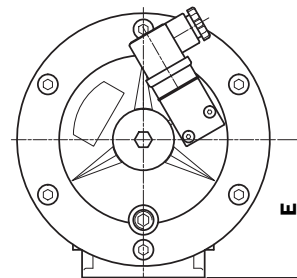
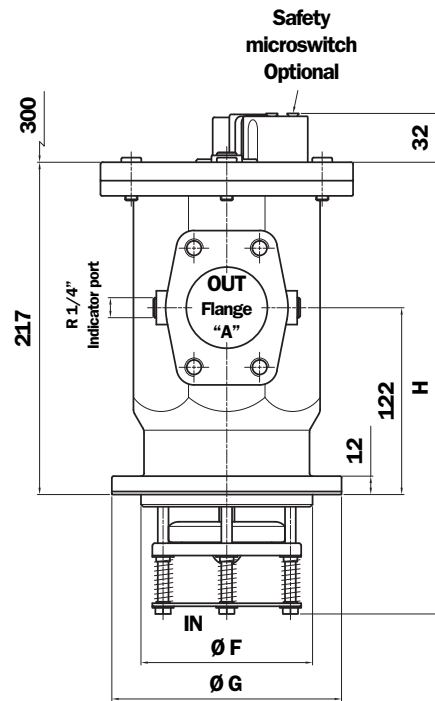
# SF2 500 - 501



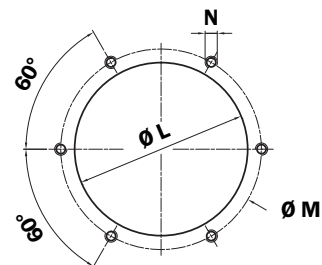
Holes on the tank



# SF2 505 - 510



Holes on the tank



## SF2 500 - 505 Flange connections

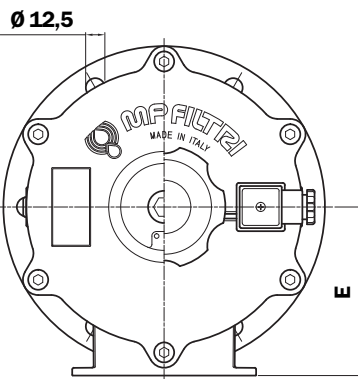
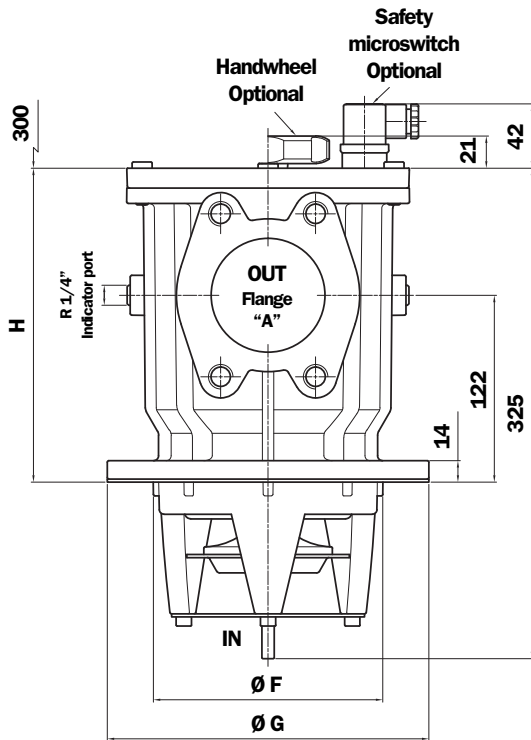
| Type | A                   |
|------|---------------------|
| F1   | 2" SAE 3000 psi/M   |
| F2   | 2" SAE 3000 psi/UNC |
| C1*  | 2" SAE 3000 psi/M   |
| C2*  | 2" SAE 3000 psi/UNC |

## SF2 501 - 510 Flange connections

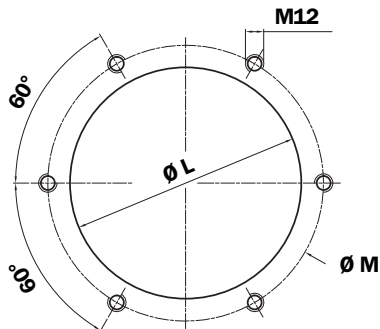
| Type | A                       |
|------|-------------------------|
| F1   | 2 1/2" SAE 3000 psi/M   |
| F2   | 2 1/2" SAE 3000 psi/UNC |
| C1*  | 2 1/2" SAE 3000 psi/M   |
| C2*  | 2 1/2" SAE 3000 psi/UNC |

\* Flange C1/C2 mounted (see page 32)

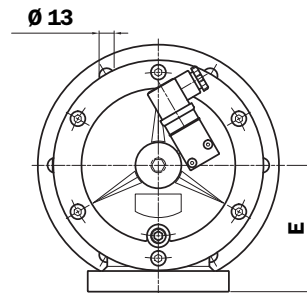
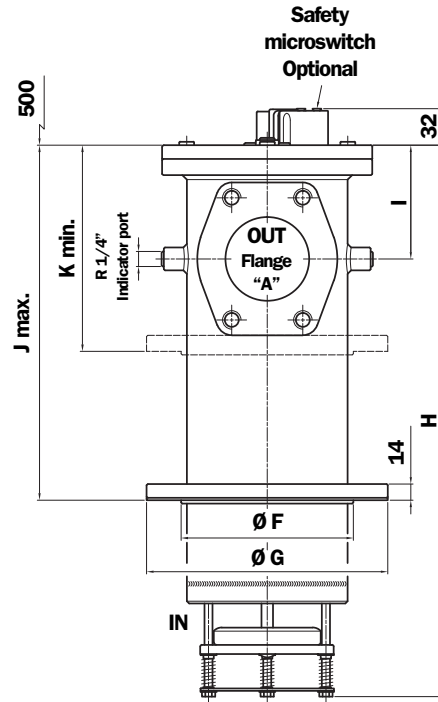
# SF2 503 - 504



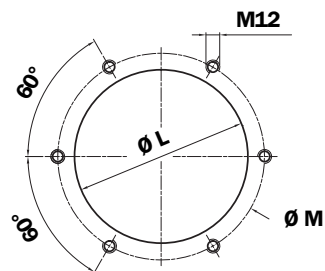
Holes on the tank



# SF2 535 - 540



Holes on the tank



| Length Filter | D1 mm | H1 mm | E mm | F mm | G mm | H mm | L mm | M mm |
|---------------|-------|-------|------|------|------|------|------|------|
| 503           | 89    | 95    | 110  | 150  | 210  | 205  | 151  | 180  |
| 504           | 114   | 100   | 120  | 180  | 242  | 218  | 181  | 210  |

| Length Filter | D1 mm | H1 mm | E mm | F mm | G mm | H mm | I mm | J mm | K mm | L mm | M mm |
|---------------|-------|-------|------|------|------|------|------|------|------|------|------|
| 535           | 89    | 95    | 110  | 150  | 210  | 480  | 99   | 385  | 180  | 151  | 180  |
| 540           | 114   | 100   | 120  | 180  | 242  | 485  | 122  | 390  | 214  | 181  | 210  |

## SF2 503 - 535 Flange connections

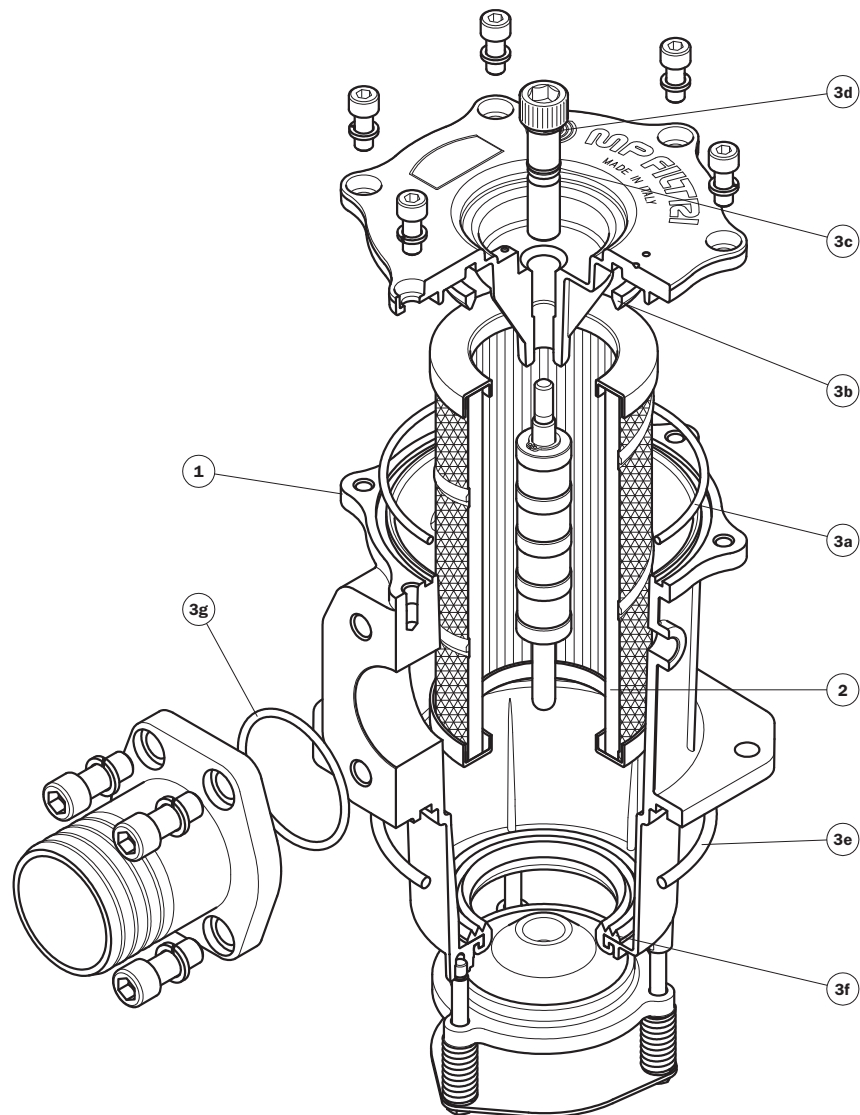
| Type | A                   |
|------|---------------------|
| F1   | 3" SAE 3000 psi/M   |
| F2   | 3" SAE 3000 psi/UNC |
| C1*  | 3" SAE 3000 psi/M   |
| C2*  | 3" SAE 3000 psi/UNC |

## SF2 504 - 540 Flange connections

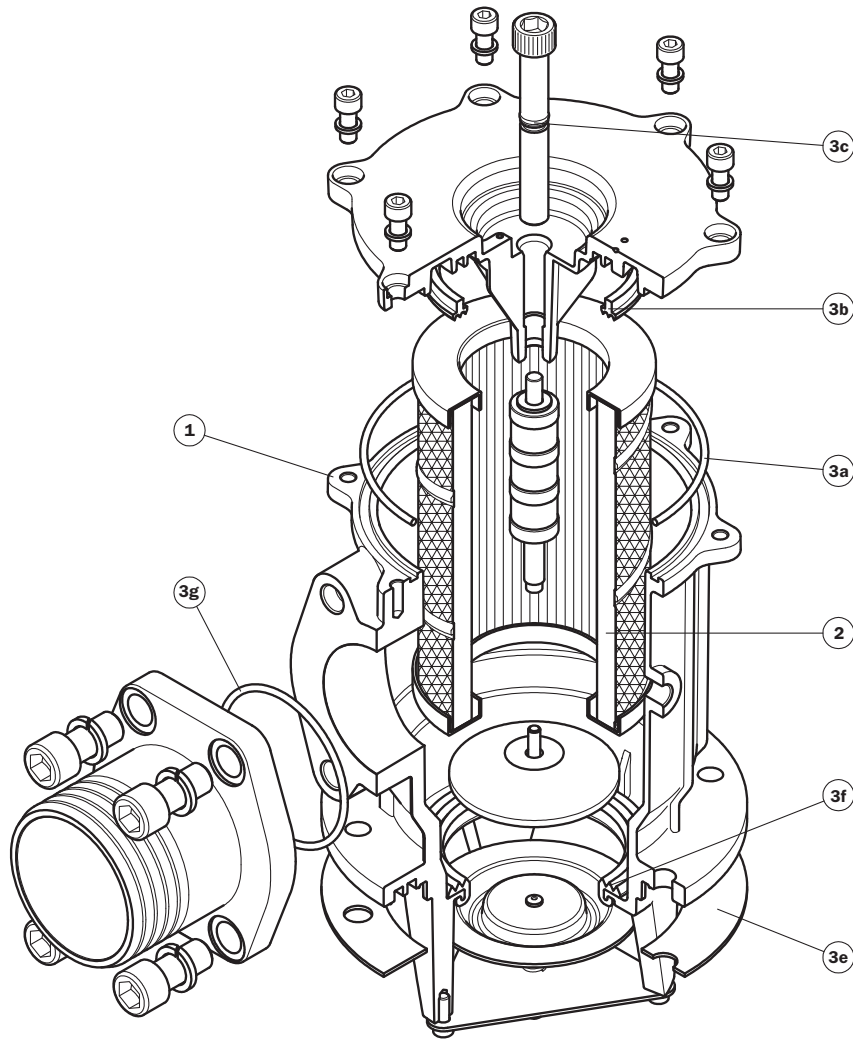
| Type | A                   |
|------|---------------------|
| F1   | 4" SAE 3000 psi/M   |
| F2   | 4" SAE 3000 psi/UNC |
| C1*  | 4" SAE 3000 psi/M   |
| C2*  | 4" SAE 3000 psi/UNC |

\* Flange C1/C2 mounted (see page 32)

# Spare parts

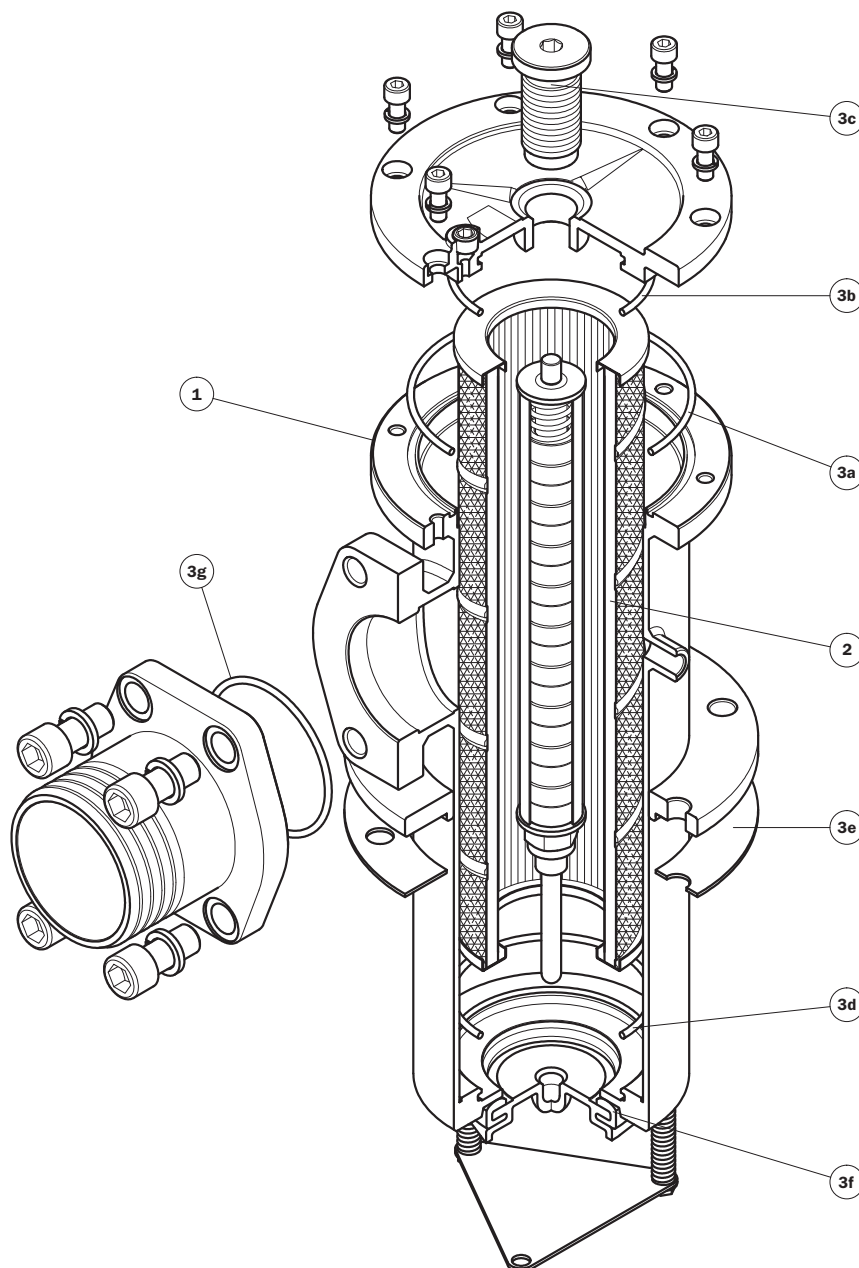


| Item      | Description           | Q.ty | FILTER Series SF2 500       |          | FILTER Series SF2 501       |          |
|-----------|-----------------------|------|-----------------------------|----------|-----------------------------|----------|
|           |                       |      | NBR                         | FPM      | NBR                         | FPM      |
| <b>1</b>  | Filter assembly       | 1    | See order table             |          | See order table             |          |
| <b>2</b>  | Filter element        | 1    | See order table             |          | See order table             |          |
| <b>3</b>  | Seal Kit              | 1    | 02050141                    | 02050142 | 02050143                    | 02050144 |
| <b>3a</b> | Cover/body seal       | 1    | O-R 4537<br>Ø 136,10 x 3,53 |          | O-R 4537<br>Ø 136,10 x 3,53 |          |
| <b>3b</b> | Cover/element seal    | 1    | 01026169                    | 01026168 | 01026169                    | 01026168 |
| <b>3c</b> | Cover/rod radial seal | 1    | O-R 114<br>Ø 11,11 x 1,78   |          | O-R 114<br>Ø 11,11 x 1,78   |          |
| <b>3d</b> | Cover/rod axial seal  | 1    | O-R Metric<br>Ø 12 x 3      |          | O-R Metric<br>Ø 12 x 3      |          |
| <b>3e</b> | Body seal             | 1    | O-R 215<br>Ø 139,70 x 5,34  |          | O-R 215<br>Ø 139,70 x 5,34  |          |
| <b>3f</b> | Valve seal            | 1    | 01026209                    | 01026210 | 01026209                    | 01026210 |
| <b>3g</b> | Flange seal           | 1    | O-R 4237<br>Ø 59,92 x 3,53  |          | O-R 177<br>Ø 74,71 x 3,53   |          |



| Item      | Description           | Q.ty | FILTER Series SF2 503       |          | FILTER Series SF2 504       |          |
|-----------|-----------------------|------|-----------------------------|----------|-----------------------------|----------|
|           |                       |      | NBR                         | FPM      | NBR                         | FPM      |
| <b>1</b>  | Filter assembly       | 1    | See order table             |          | See order table             |          |
| <b>2</b>  | Filter element        | 1    | See order table             |          | See order table             |          |
| <b>3</b>  | Seal Kit              | 1    | 02050070                    | 02050071 | 02050072                    | 02050073 |
| <b>3a</b> | Cover/body seal       | 1    | O-R 4650<br>Ø 164,70 x 3,53 |          | O-R 4750<br>Ø 190,10 x 3,53 |          |
| <b>3b</b> | Cover/element seal    | 1    | 01026631                    | 01026632 | 01026190                    | 01026193 |
| <b>3c</b> | Cover/rod radial seal | 1    | O-R 114<br>Ø 11,11 x 1,78   |          | O-R 114<br>Ø 11,11 x 1,78   |          |
| <b>3e</b> | Body seal             | 1    | 01026303                    | 01026313 | 01026304                    | 01026314 |
| <b>3f</b> | Valve seal            | 1    | 01026213                    | 01026218 | 01026214                    | 01026219 |
| <b>3g</b> | Flange seal           | 1    | O-R 4325<br>Ø 82,14 x 3,53  |          | O-R 4425<br>Ø 107,50 x 3,53 |          |

# Spare parts

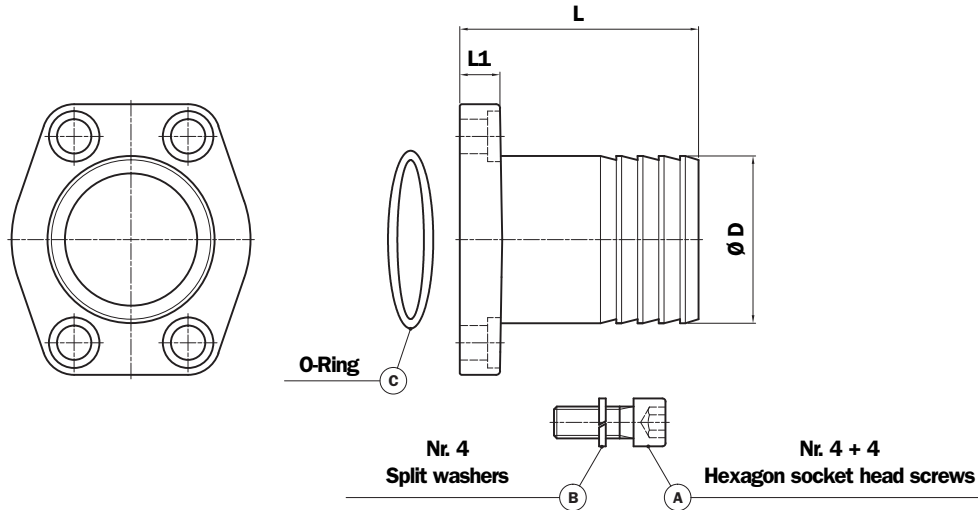


| Item | Description           | Q.ty | FILTER Series SF2 505       |          | FILTER Series SF2 510       |          | FILTER Series SF2 535       |          | FILTER Series SF2 540       |          |
|------|-----------------------|------|-----------------------------|----------|-----------------------------|----------|-----------------------------|----------|-----------------------------|----------|
|      |                       |      | NBR                         | FPM      | NBR                         | FPM      | NBR                         | FPM      | NBR                         | FPM      |
| 1    | Filter assembly       | 1    | See order table             |          | See order table             |          | See order table             |          | See order table             |          |
| 2    | Filter element        | 1    | See order table             |          | See order table             |          | See order table             |          | See order table             |          |
| 3    | Seal Kit              | 1    | 02050043                    | 02050044 | 02050045                    | 02050046 | 02050051                    | 02050052 | 02050053                    | 02050054 |
| 3a   | Cover/body seal       | 1    | O-R 4475<br>Ø 120,20 x 3,53 |          | O-R 4550<br>Ø 139,30 x 3,53 |          | O-R 4550<br>Ø 139,30 x 3,53 |          | O-R 4675<br>Ø 171 x 3,53    |          |
| 3b   | Cover/element seal    | 1    | O-R 4362<br>Ø 91,67 x 3,53  |          | O-R 4400<br>Ø 101,20 x 3,53 |          | O-R 4400<br>Ø 101,20 x 3,53 |          | O-R 4550<br>Ø 139,30 x 3,53 |          |
| 3c   | Cover/rod radial seal | 1    | O-R 4100<br>Ø 24,99 x 3,53  |          | O-R 4100<br>Ø 24,99 x 3,53  |          | O-R 4100<br>Ø 24,99 x 3,53  |          | O-R 4100<br>Ø 24,99 x 3,53  |          |
| 3d   | Cover/rod axial seal  | 1    | O-R 4362<br>Ø 91,67 x 3,53  |          | O-R 4400<br>Ø 101,20 x 3,53 |          | O-R 4400<br>Ø 101,20 x 3,53 |          | O-R 213<br>Ø 136,50 x 5,34  |          |
| 3e   | Body seal             | 1    | 01026301                    | 01026311 | 01026302                    | 01026312 | 01026303                    | 01026313 | 01026304                    | 01026314 |
| 3f   | Valve seal            | 1    | 01026201                    | 01026205 | 01026202                    | 01026206 | 01026202                    | 01026206 | 01026203                    | 01026207 |
| 3g   | Flange seal           | 1    | O-R 4237<br>Ø 59,92 x 3,53  |          | O-R 177<br>Ø 74,61 x 3,53   |          | O-R 4325<br>Ø 82,14 x 3,53  |          | O-R 4425<br>Ø 107,50 x 3,53 |          |





# Kit flange & Hose Barb C1



| Flange Size | Flange description                       | Ø D | L  | L1 | A Screw         | B Split washer | C O-Ring                   |
|-------------|--|-----|----|----|-----------------|----------------|----------------------------|
| A           | 2" SAE 3000 psi/M<br>2" SAE 3000 psi/UNC | 63  | 90 | 15 | M12<br>1/2" UNC | Ø 12           | O-R 4237<br>Ø 59,92 x 3,53 |

| Flange Size | Flange description                               | Ø D | L  | L1 | A Screw         | B Split washer | C O-Ring                  |
|-------------|--|-----|----|----|-----------------|----------------|---------------------------|
| B           | 2 1/2" SAE 3000 psi/M<br>2 1/2" SAE 3000 psi/UNC | 75  | 90 | 15 | M12<br>1/2" UNC | Ø 12           | O-R 177<br>Ø 74,71 x 3,53 |

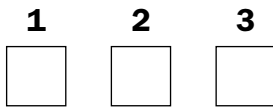
| Flange Size | Flange description                       | Ø D | L  | L1 | A Screw         | B Split washer | C O-Ring                   |
|-------------|--|-----|----|----|-----------------|----------------|----------------------------|
| C           | 3" SAE 3000 psi/M<br>3" SAE 3000 psi/UNC | 89  | 95 | 19 | M16<br>5/8" UNC | Ø 16           | O-R 4325<br>Ø 82,14 x 3,53 |

| Flange Size | Flange description                       | Ø D | L   | L1 | A Screw         | B Split washer | C O-Ring                    |
|-------------|--|-----|-----|----|-----------------|----------------|-----------------------------|
| D           | 4" SAE 3000 psi/M<br>4" SAE 3000 psi/UNC | 114 | 100 | 19 | M16<br>5/8" UNC | Ø 16           | O-R 4425<br>Ø 105,50 x 3,53 |

## Ordering information

Hose Barb

**C1**



Example: C1

**B      A      P01**

### 1 - Flange size

|          |                     |
|----------|---------------------|
| <b>A</b> | 2" SAE 3000 PSI     |
| <b>B</b> | 2 1/2" SAE 3000 PSI |
| <b>C</b> | 3" SAE 3000 PSI     |
| <b>D</b> | 4" SAE 3000 PSI     |

### 2 - Seals

|          |     |
|----------|-----|
| <b>A</b> | NBR |
| <b>V</b> | FPM |

### 3 - Option

|            |                    |
|------------|--------------------|
| <b>P01</b> | MP Filtri standard |
|------------|--------------------|

# Ordering information SF2 500

## Filter assembly SF2

|                     |                          |                          |                          |                          |                          |                          |
|---------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
|                     | <b>1</b>                 | <b>2</b>                 | <b>3</b>                 | <b>4</b>                 | <b>5</b>                 | <b>7</b>                 |
|                     | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| <b>Example: SF2</b> | <b>500</b>               | <b>A</b>                 | <b>F1</b>                | <b>S</b>                 | <b>M90</b>               | <b>P01</b>               |

## Filter element SF

|                    |                          |                          |                          |                          |
|--------------------|--------------------------|--------------------------|--------------------------|--------------------------|
|                    | <b>1</b>                 | <b>5</b>                 | <b>6</b>                 | <b>7</b>                 |
|                    | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| <b>Example: SF</b> | <b>510</b>               | <b>M90</b>               | <b>N</b>                 | <b>P01</b>               |

### 1 - Style

| Filter     | Filter element |
|------------|----------------|
| <b>500</b> | <b>510</b>     |
| <b>501</b> | <b>510</b>     |
| <b>503</b> | <b>503</b>     |
| <b>504</b> | <b>504</b>     |
| <b>505</b> | <b>505</b>     |
| <b>510</b> | <b>510</b>     |
| <b>535</b> | <b>535</b>     |
| <b>540</b> | <b>540</b>     |

### 2 - Filter seals & Treatment

|          |  |
|----------|--|
| <b>A</b> | NBR  |
| <b>V</b> | FPM  |
| <b>W</b> | NBR, Filter body anodized. Filter element compatible with fluid HFA, HFB, HFC (only for filter element type Mxx) |
| <b>Z</b> | FPM, Filter body anodized. Filter element compatible with fluid HFA, HFB, HFC (only for filter element type Mxx) |

### 3 - Connections

#### SF2 500 - 505

| Type       | A                   |
|------------|---------------------|
| <b>F1</b>  | 2" SAE 3000 psi/M   |
| <b>F2</b>  | 2" SAE 3000 psi/UNC |
| <b>C1*</b> | Hose barb/M         |
| <b>C2*</b> | Hose barb/UNC       |

#### SF2 501 - 510

| Type       | A                       |
|------------|-------------------------|
| <b>F1</b>  | 2 1/2" SAE 3000 psi/M   |
| <b>F2</b>  | 2 1/2" SAE 3000 psi/UNC |
| <b>C1*</b> | Hose barb/M             |
| <b>C2*</b> | Hose barb/UNC           |

#### SF2 503 - 535

| Type       | A                   |
|------------|---------------------|
| <b>F1</b>  | 3" SAE 3000 psi/M   |
| <b>F2</b>  | 3" SAE 3000 psi/UNC |
| <b>C1*</b> | Hose barb/M         |
| <b>C2*</b> | Hose barb/UNC       |

#### SF2 504 - 540

| Type       | A                   |
|------------|---------------------|
| <b>F1</b>  | 4" SAE 3000 psi/M   |
| <b>F2</b>  | 4" SAE 3000 psi/UNC |
| <b>C1*</b> | Hose barb/M         |
| <b>C2*</b> | Hose barb/UNC       |

\* Flange C1/C2 mounted.

### 4 - Option

|          |  |
|----------|--|
| <b>S</b> | Without microswitch - without handwheel                            |
| <b>C</b> | With microswitch - without handwheel (505 - 510 - 535 - 540)       |
| <b>D</b> | With microswitch - with Nylon handwheel (500 - 501 - 503 - 504)    |
| <b>K</b> | With microswitch - with Steel handwheel (500 - 501 - 503 - 504)    |
| <b>M</b> | Without microswitch - with Nylon handwheel (500 - 501 - 503 - 504) |

### 5 - Filter element

|             |                           |                    |
|-------------|---------------------------|--------------------|
| <b>M25</b>  | Wire mesh 25 µm           | Nominal Filtration |
| <b>M60</b>  | Wire mesh 60 µm           |                    |
| <b>M90</b>  | Wire mesh 90 µm           |                    |
| <b>M250</b> | Wire mesh 250 µm          |                    |
| <b>P10</b>  | Resin - Impregnated paper | Nominal Filtration |
| <b>P25</b>  | Resin - Impregnated paper |                    |

### 6 - Filter element seals

|           |  |
|-----------|--|
| <b>N</b>  | NBR  |
| <b>V</b>  | FPM  |
| <b>W*</b> | NBR (only for filter element type wire mesh) |
| <b>Z*</b> | FPM (only for filter element type wire mesh) |

### 7 - Option

|            |                    |
|------------|--------------------|
| <b>P01</b> | MP Filtri standard |
|------------|--------------------|

\* Compatible with fluid HFA, HFB, HFC

**For Clogging Indicator:**  
See page 318

**MP Filtri** - The filter functions as described in this bulletin are valid exclusively for original MP Filtri filter elements and replacement parts. All rights reserved.

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