

# RF2 series

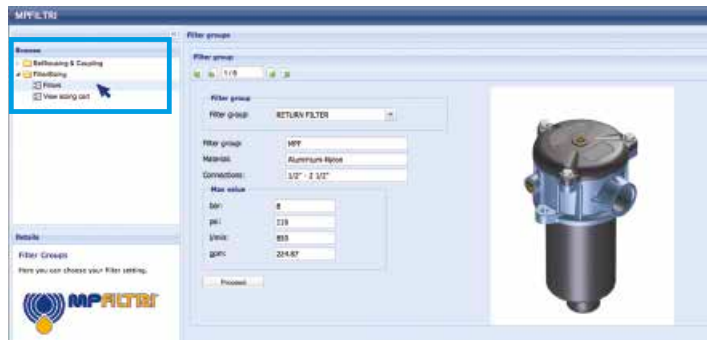
Maximum working pressure up to 2 MPa (20 bar) - Flow rate up to 615 l/min



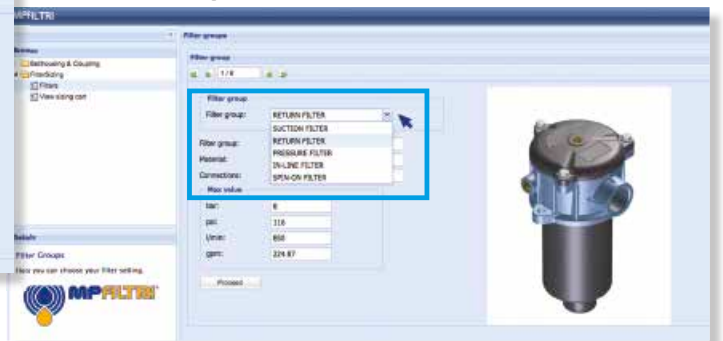


# TYPICAL FILTER SIZING Selection Software

**Step 1** Select "FILTERS"



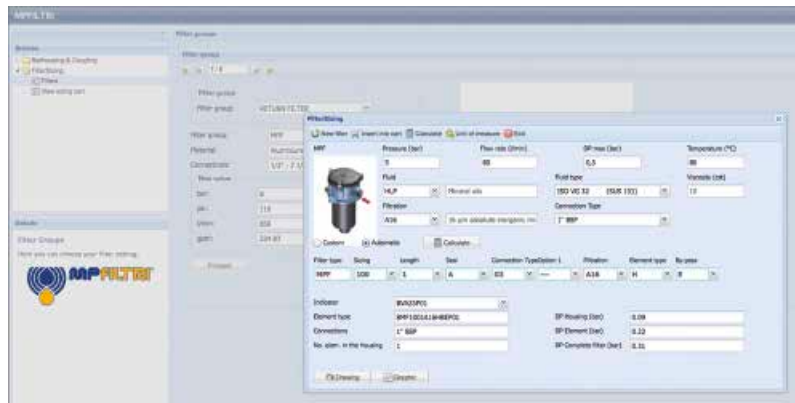
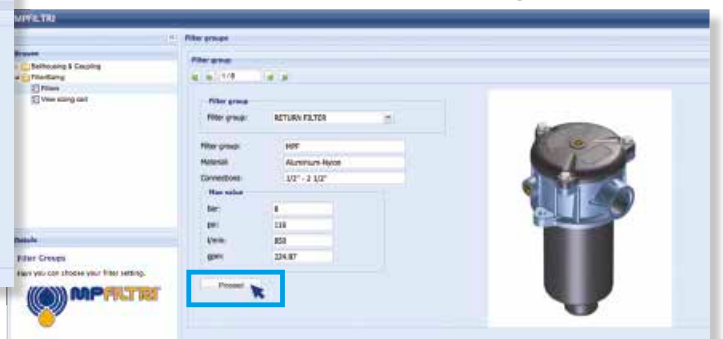
**Step 2** Choose filter group (Return Filter, Pressure Filter, etc.)



**Step 3** Choose filter type (MPF, MPT, etc.) in function of the max working pressure and the max flow rate



**Step 4** Push "PROCEED"



**Step 5**

Insert all application data to calculate the filter size following the sequence:

- working pressure
- working flow rate
- working pressure drop
- working temperature
- fluid material and fluid type
- filtration media
- connection type

**Step 6**

Push "CALCULATE" to have result; in case of any mistake, the system will advice which parameter is out of range to allow to modify/adjust the selection



**Step 7**

Download PDF Datasheet "Report.aspx" pushing the button "Drawing"



## Description

## Technical data

### Return filter

**Maximum working pressure up to 2 MPa (20 bar)**  
**Flow rate up to 615 l/min**

RF2250 and RF2350 are ranges of return filters for side tank mounting with integrated shut-off valve for protection of the reservoir against the system contamination.

They are placed below the minimum oil level, directly connected to the return line of the system.

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 350 l/min
- Bypass valve, to relieve excessive pressure drop across the filter media
- Magnetic filter, to hold the ferrous particles
- Visual, electrical and electronic clogging indicators

#### Common applications:

- Compact mobile machines
- Compact 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 175 kPa (1.75 bar)  $\pm$ 10%

### $\Delta p$ element type

- Microfibre filter elements - series CU: 10 bar
- Fluid flow through the filter element from OUT to IN

### Seals

- Standard NBR series A
- Optional FPM series V

### Temperature

From -25 °C to +110 °C

### Note

RF2 250-350 filters mounting, see the drawings on page 235 and following



## Weights [kg] and volumes [dm<sup>3</sup>]

Filter series	Weights [kg]		Volumes [dm <sup>3</sup> ]	
	Length	1	Length	1
<b>RF2 250</b>		2.6		2.0
<b>RF2 350</b>		2.8		2.0

Filter series	Length	Filter element design - N Series							
		A03	A06	A10	A16	A25	M25 M60 M90	P10	P25
<b>RF2 250</b>	<b>1</b>	148	184	278	307	447	615	447	485
<b>RF2 350</b>	<b>1</b>	148	184	278	307	447	615	447	485

### Maximum flow rate for a complete return filter with a pressure drop $\Delta p = 0.5$ bar.

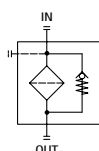
The reference fluid has a kinematic viscosity of 30 mm<sup>2</sup>/s (cSt) and a density of 0.86 kg/dm<sup>3</sup>.

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.

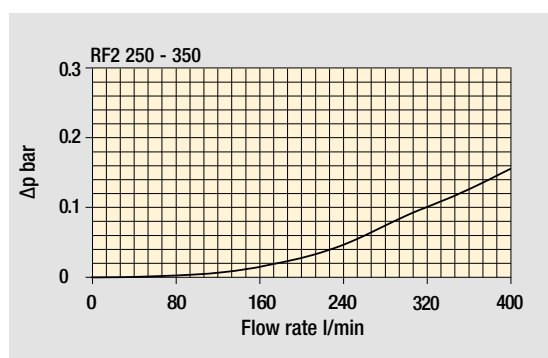
Filter series	Style B - E
<b>RF2 250</b>	•
<b>RF2 350</b>	•

Hydraulic symbols

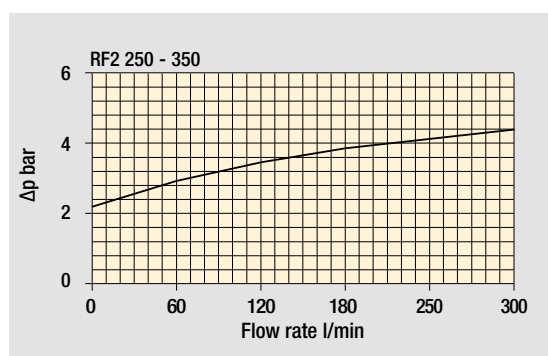


Pressure drop

Filter housings  $\Delta p$  pressure drop



Bypass valve 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.

# RF2 RF2250 - RF2350

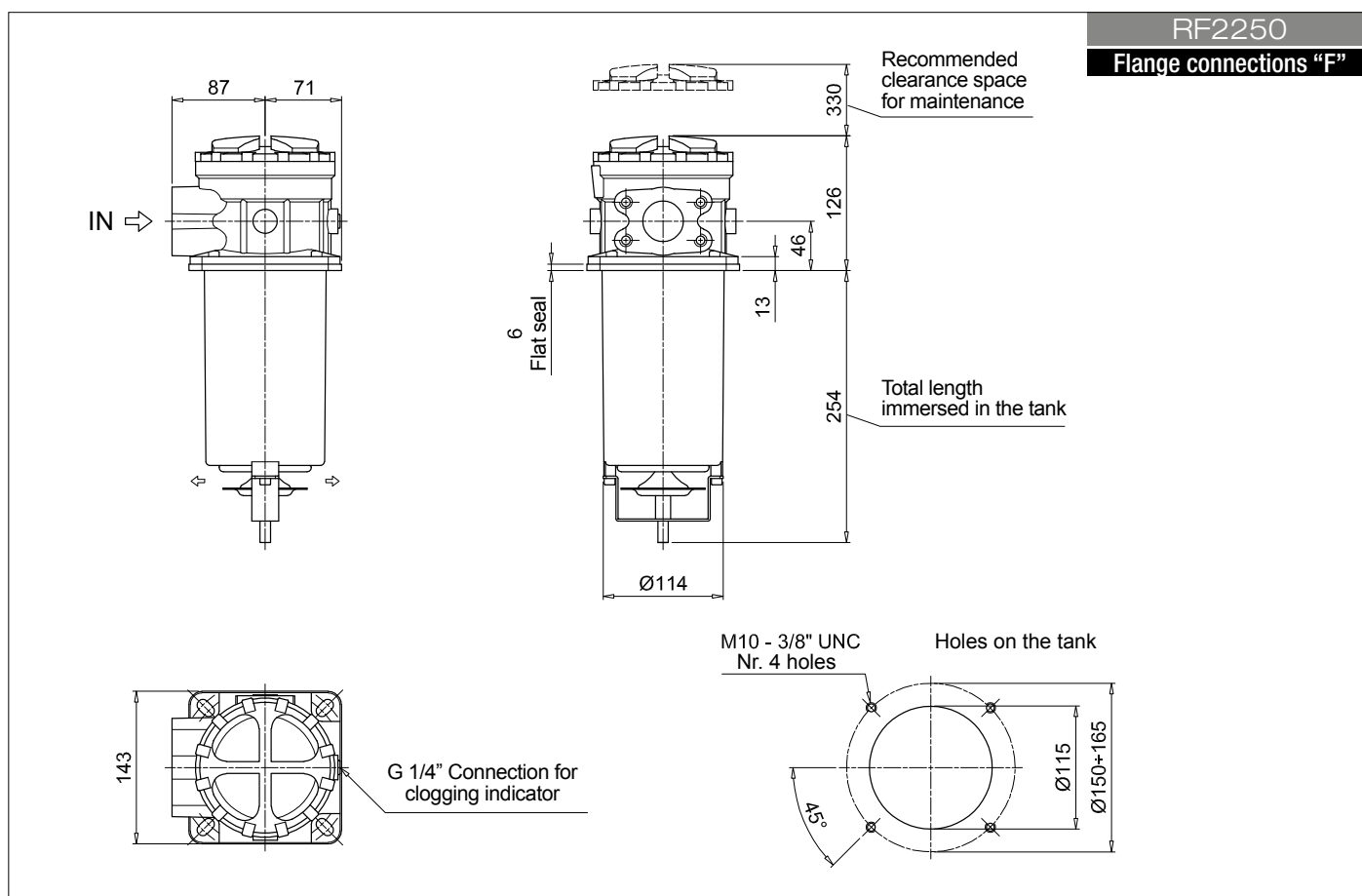
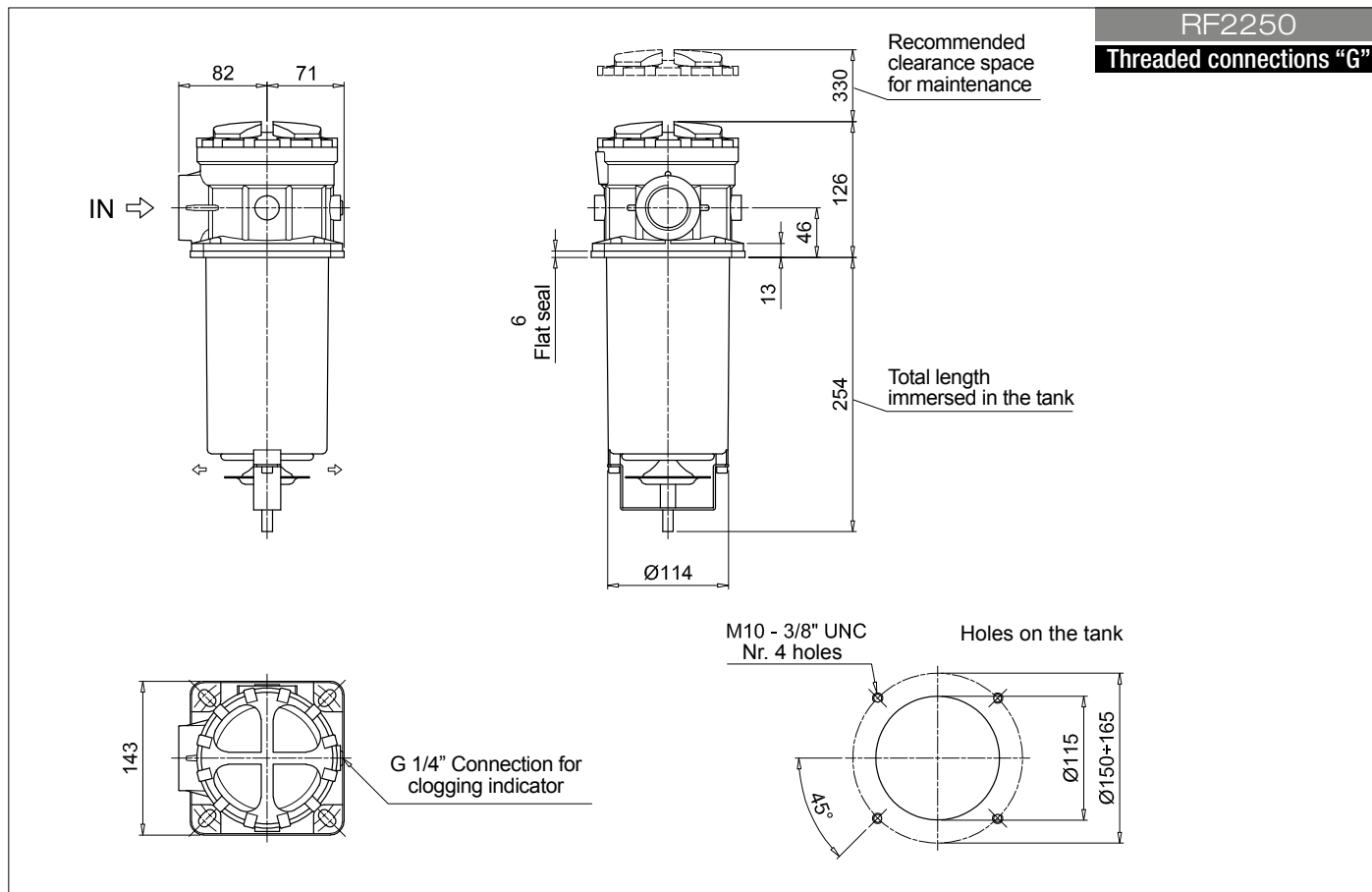
## Designation & Ordering code

### COMPLETE FILTER

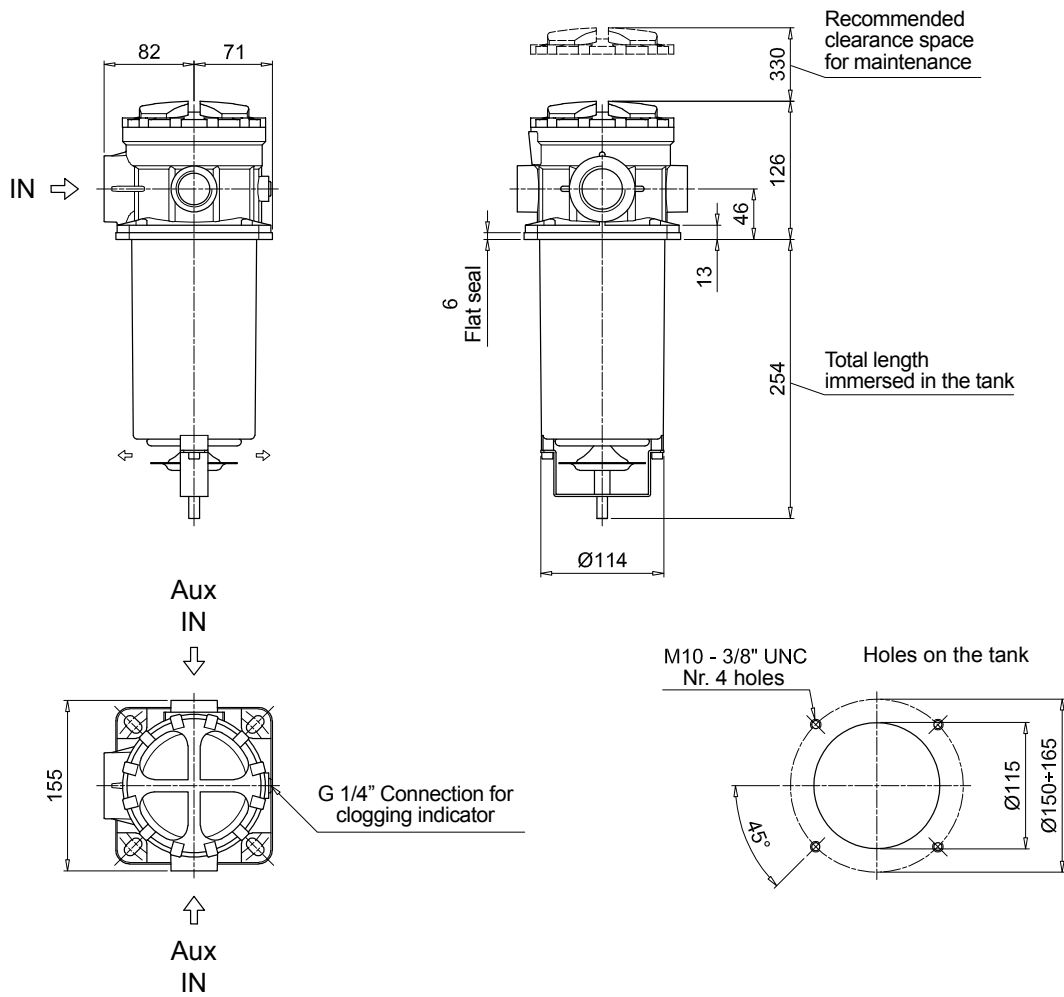
<b>Series and size</b>				Configuration example 1: <b>RF2250</b> <b>W</b> <b>F2</b> <b>E</b> <b>M25</b> <b>P01</b>					
<b>RF2250</b>				Configuration example 2: <b>RF2350</b> <b>A</b> <b>G1</b> <b>B</b> <b>A25</b> <b>P01</b>					
<b>RF2350</b>									
				Filtration rating					
<b>Seals and treatments</b>				<b>Axx</b>	<b>Mxx</b>	<b>Pxx</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>				<b>Aux (only RF2350)</b>		<b>Mxx</b>	<b>Pxx</b>		
<b>G1</b>	G 1 1/2"			G 1"		•	•		
<b>G2</b>	1 1/2" NPT			-		•			
<b>G3</b>	SAE 24 - 1 7/8" - 12 UN			SAE 16 - 1 5/16" - 12 UN		•	•		
<b>G4</b>	G 1 1/4"			-		•			
<b>G5</b>	1 1/4" NPT			-		•			
<b>G6</b>	SAE 20 - 1 5/8" - 12 UN			-		•			
<b>G7</b>	G 1"			-		•			
<b>G8</b>	1" NPT			-		•			
<b>G9</b>	SAE 16 - 1 5/16" - 12 UN			-		•			
<b>F1</b>	1 1/2" SAE 3000 psi/M			-		•			
<b>F2</b>	1 1/2" SAE 3000 psi/UNC			-		•			
<b>Bypass valve</b>									
<b>B</b>	1.75 bar								
<b>E</b>	3 bar								
<b>Filtration rating (filter media)</b>									
<b>A03</b>	Inorganic microfiber	3 µm		<b>M25</b>	Wire mesh	25 µm			
<b>A06</b>	Inorganic microfiber	6 µm		<b>M60</b>	Wire mesh	60 µm			
<b>A10</b>	Inorganic microfiber	10 µm		<b>M90</b>	Wire mesh	90 µm			
<b>A16</b>	Inorganic microfiber	16 µm		<b>P10</b>	Resin impregnated paper	10 µm			
<b>A25</b>	Inorganic microfiber	25 µm		<b>P25</b>	Resin impregnated paper	25 µm			
				Execution					
				<b>P01</b> MP Filtri standard					
				<b>Pxx</b> Customized					

### FILTER ELEMENT

<b>Element series and size</b>				Configuration example 1: <b>CU250</b> <b>M25</b> <b>W</b> <b>P01</b>					
<b>CU250</b>				Configuration example 2: <b>CU250</b> <b>A25</b> <b>N</b> <b>P01</b>					
<b>Filtration rating (filter media)</b>									
<b>A03</b>	Inorganic microfiber	3 µm		<b>M25</b>	Wire mesh	25 µm			
<b>A06</b>	Inorganic microfiber	6 µm		<b>M60</b>	Wire mesh	60 µm			
<b>A10</b>	Inorganic microfiber	10 µm		<b>M90</b>	Wire mesh	90 µm			
<b>A16</b>	Inorganic microfiber	16 µm		<b>P10</b>	Resin impregnated paper	10 µm			
<b>A25</b>	Inorganic microfiber	25 µm		<b>P25</b>	Resin impregnated paper	25 µm			
<b>Seals and treatments</b>				Filtration rating					
				<b>Axx</b>	<b>Mxx</b>	<b>Pxx</b>			
<b>N</b>	NBR			•	•	•			
<b>V</b>	FPM			•	•	•			
<b>W</b>	NBR head anodized	filter element compatible with fluids HFA-HFB-HFC		•	•				
<b>Z</b>	FPM head anodized	filter element compatible with fluids HFA-HFB-HFC		•	•				
				Execution					
				<b>P01</b> MP Filtri standard					
				<b>Pxx</b> Customized					

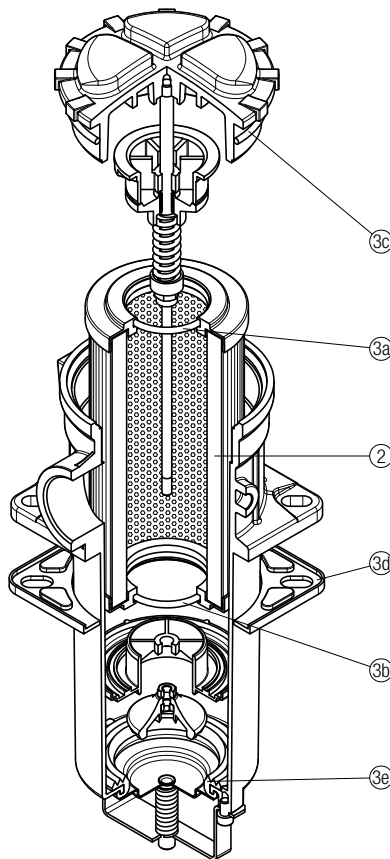


### RF2350





RF2 250 - 350



Item:	Q.ty: 1 pc. 2	Q.ty: 1 pc. 3 (3a ÷ 3e)
Filter series	Filter element	Seal Kit code number NBR FPM
RF2 250	See order table	02050586 02050587
RF2 350		