

RFMC250 series

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



Description

Technical data

Return filter

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

RFMC250 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 615 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

Pressure

- Test pressure: 3 MPa (30 bar)
- Min. Burst pressure: 6 MPa (60 bar)
- Pulse pressure fatigue test: 1 000 000 cycles with pressure from 0 to 2 MPa (20 bar)

Bypass valve

Opening pressure 0.175 MPa (1.75 bar) $\pm 10\%$

Filter element features

Filter RFMC		Filter element CUC	
Δp Element type			
Element media	Construction	Δp Series	Δp
A - Microfiber	Standard	D	10 bar
M - Wire mesh	Standard	D	10 bar
P - Paper	Standard	D	10 bar
Please see ordering code tables to check element Δp series availability based on filter features.			
Flow direction 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

RFMC filters mounting, see the drawings on page 265 and following

Weights [kg] and volumes [dm³]

Filter series	Weights [kg]		Volumes [dm ³]	
	Length	10	Length	10
RFMC 250		2.6		2.0

Flow rates [l/min]

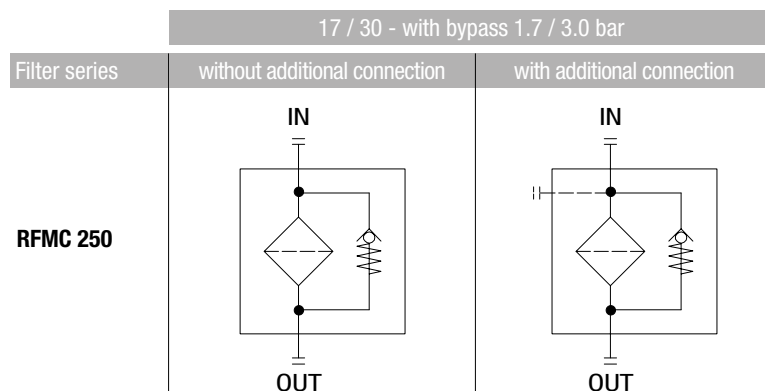
Filter series	Length	Filter element design - D Series							
		A0003	A0006	A0010	A0016	A0025	M0025 M0060 M0090	P0010	P0025
RFMC 250	10	148	184	278	307	447	615	447	485

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

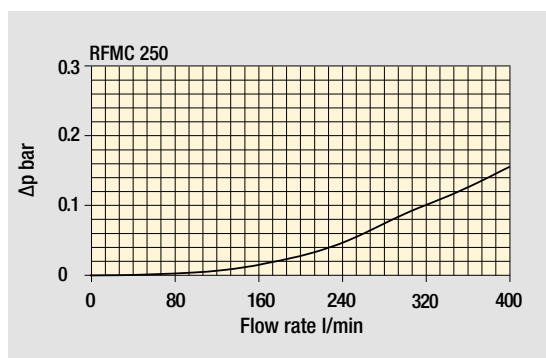
The reference fluid has a kinematic viscosity of 30 mm²/s (cSt) and a density of 0.86 kg/dm³.

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

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.

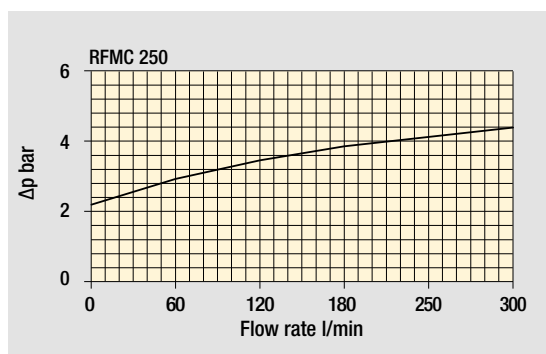


Hydraulic diagram



Pressure drop

Filter housings Δp pressure drop



Bypass valve 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.

RFMC250

Designation & Ordering code

COMPLETE FILTER

Series	Example 1:	RFMC	250	10	A0010	D	A	17	FG034	0	5T	NN	P01	NN
RFMC	Example 2:	RFMC	250	10	M0060	D	V	30	FS016	1	5T	NN	P01	NN

Size	
250	

Length	
10	

Filtration rating (filter media)	
A0003 Inorganic microfiber	3 µm
A0006 Inorganic microfiber	6 µm
A0010 Inorganic microfiber	10 µm
A0016 Inorganic microfiber	16 µm
A0025 Inorganic microfiber	25 µm
M0025 Wire mesh	25 µm
M0060 Wire mesh	60 µm
M0090 Wire mesh	90 µm
P0010 Resin impregnated paper	10 µm
P0025 Resin impregnated paper	25 µm

Seals and treatments	
A NBR	
V FPM	

By-pass valve	
17 With bypass 1.75 bar	
30 With bypass 3.0 bar	

Connections	
FG100 G 1" FN100 1" NPT FS016 SAE 16 - 1 5/16" - 12 UN FE112 1 1/2" SAE 3000 psi/M	
FG114 G 1 1/4" FN114 1 1/4" NPT FS020 SAE 20 - 1 5/8" - 12 UN FF112 1 1/2" SAE 3000 psi/UNC	
FG112 G 1 1/2" FN112 1 1/2" NPT FS024 SAE 24 - 1 7/8" - 12 UN	

Additional connections	
0 Without additional connections	
1 Main connection FG112 G 1" FS024 SAE 16 - 1 5/16" - 12 UN	

Connections for clogging indicator	
5T With rear indicator connection, with metal plug	

Additional features	
NN Without additional features	

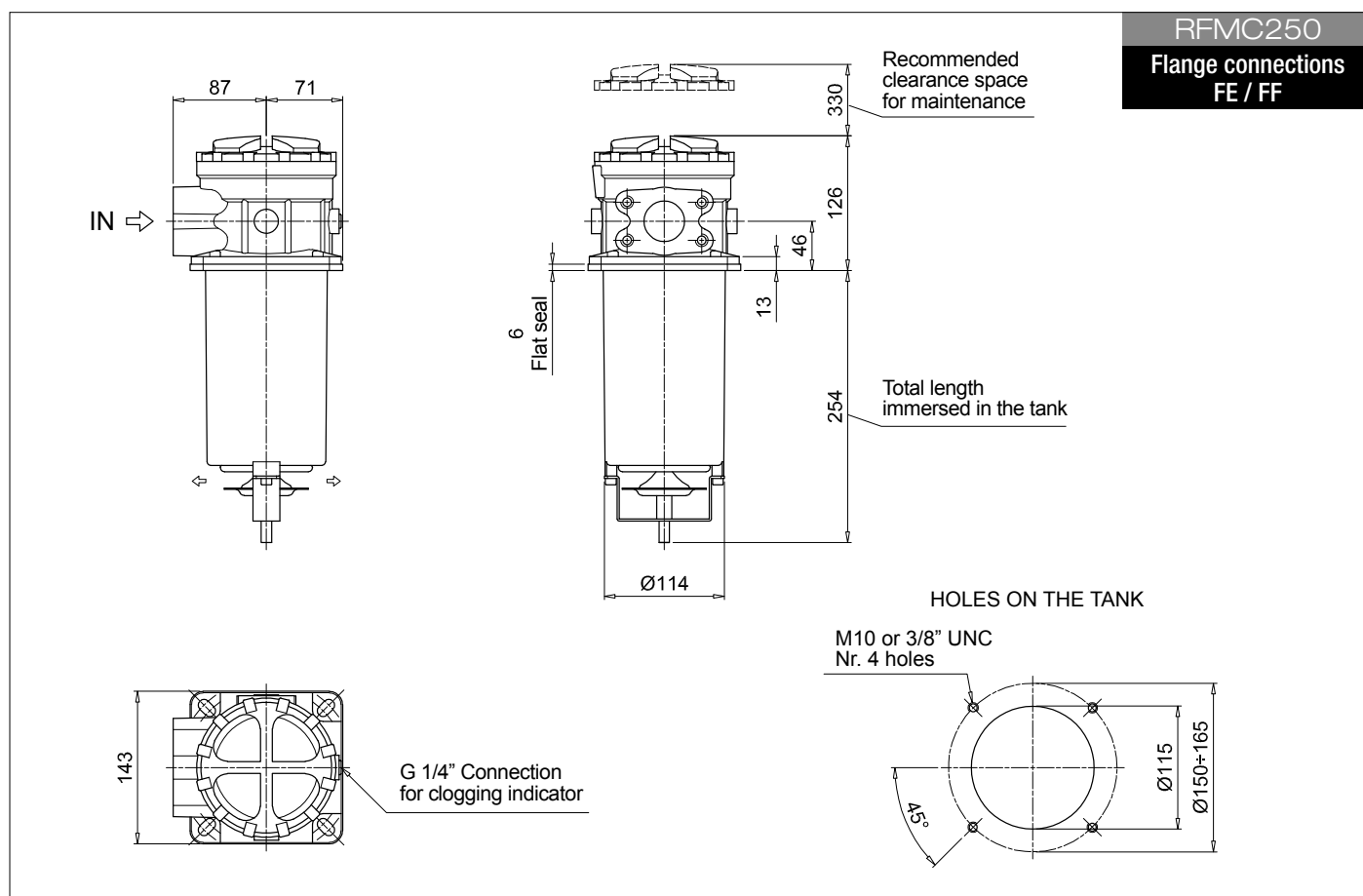
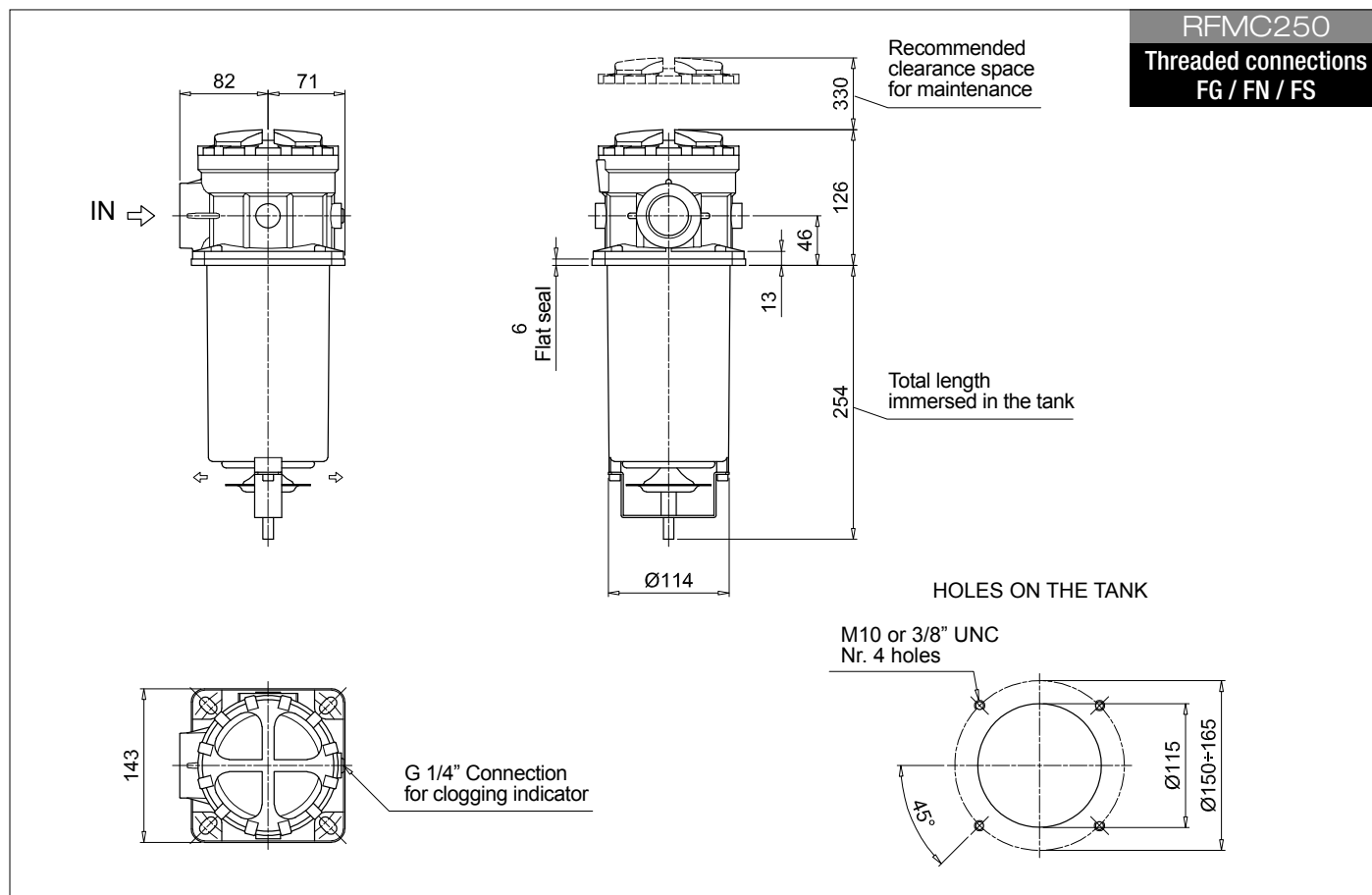
Execution	
P01 Standard catalogue item	

Certificates	
NN None	

FILTER ELEMENT											
Series	Example 1: CUC 250 10 A0010 D A 00 NN P01 NN										
CUC	Example 2: CUC 250 10 M0060 D V 00 NN P01 NN										
Size											
250											
Length											
10											
Filtration rating (filter media)											
A0003	Inorganic microfiber	3 µm									
A0006	Inorganic microfiber	6 µm									
A0010	Inorganic microfiber	10 µm									
A0016	Inorganic microfiber	16 µm									
A0025	Inorganic microfiber	25 µm									
M0025	Wire mesh	25 µm									
M0060	Wire mesh	60 µm									
M0090	Wire mesh	90 µm									
P0010	Resin impregnated paper	10 µm									
P0025	Resin impregnated paper	25 µm									
Element Δp											
D	10 bar										
Seals and treatments											
A	NBR										
V	FPM										
Bypass											
00	Without bypass										
Additional features											
NN	Without additional features										
Execution											
P01	Standard catalogue item										
Certificates											
NN	None										

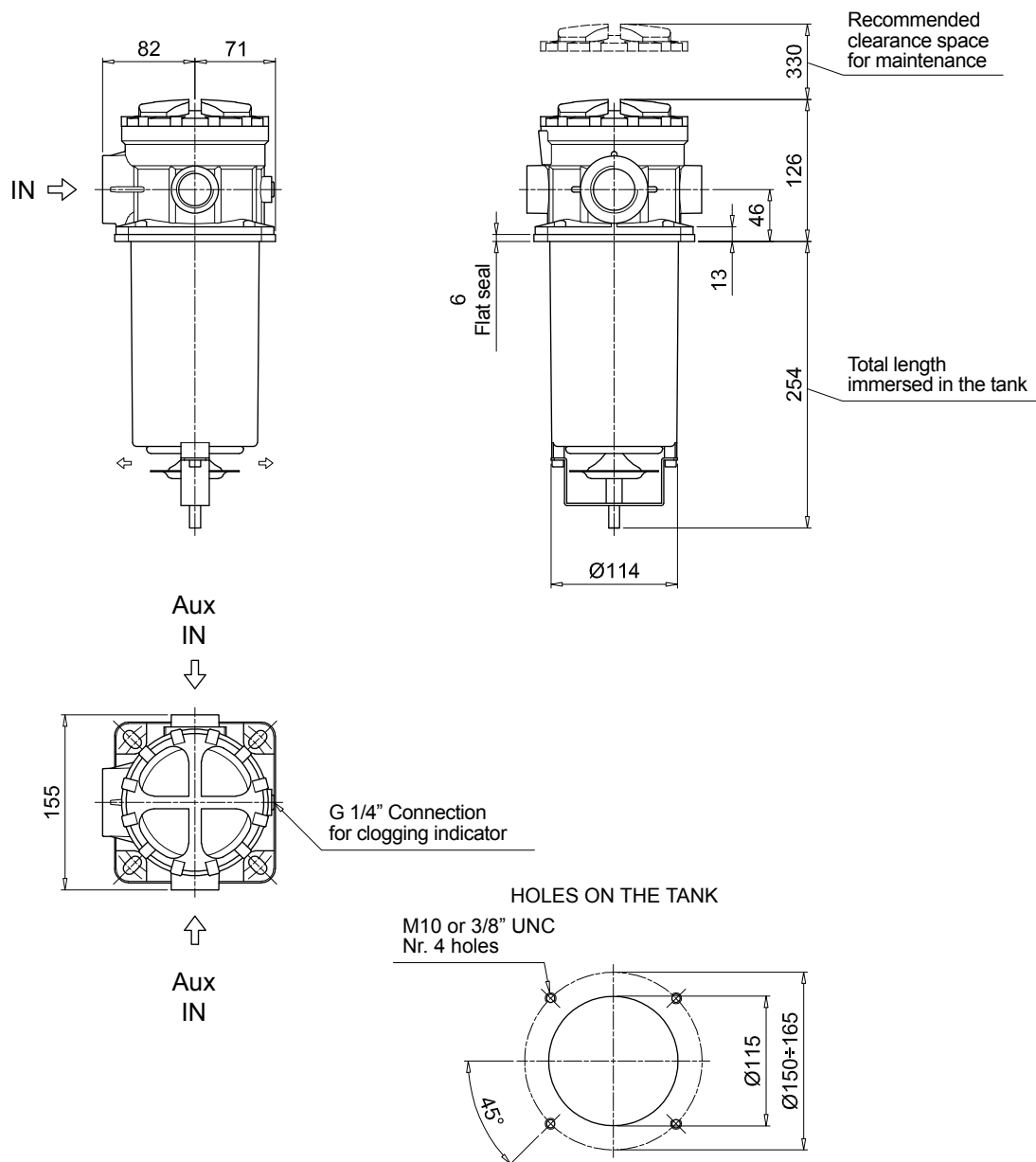
RFMC250

Dimensions



RFMC250

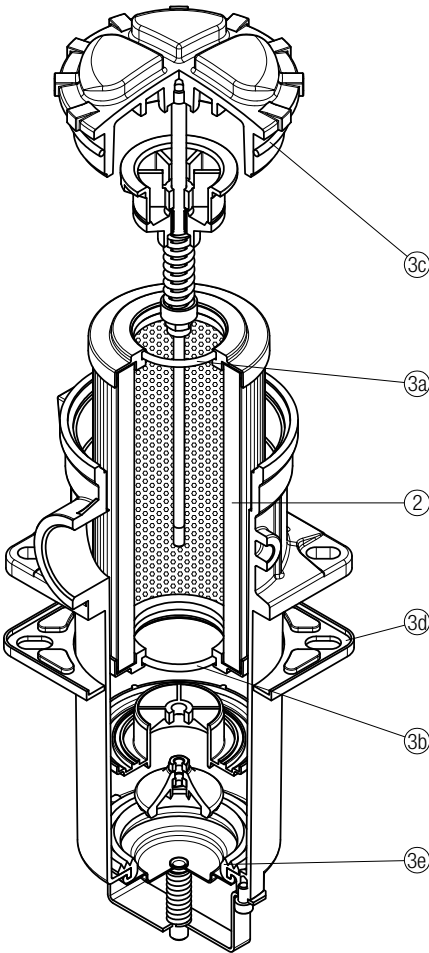
Additional connection "1"



RFMC250 SPARE PARTS

Order number for spare parts

RFMC 250



Q.ty: 1 pc.		Q.ty: 1 pc.	
Item:	2	3	(3a ÷ 3e)
Filter series	Filter element	Seal Kit code number	
		NBR	FPM
RFMC 250	See order table	AK021000375	AK021000376