

MFB series

BOWL ASSEMBLY

Maximum working pressure up to 800 kPa (8 bar) - Flow rate up to 700 l/min



Description

Technical data

Return filter Bowl assembly

Maximum working pressure up to 800 kPa (8 bar)

Flow rate up to 700 l/min

MFB is a range of return filter kits for protection of the reservoir against the system contamination.

They are directly integrated in the moulded reservoir in immersed or semi-immersed position to save space into the tank.

Treaded or flanged covers can be provided.

The filter output must be always immersed into the fluid to avoid aeration or foam generation into the reservoir.

Available features:

- Fine filtration rating, to get a good cleanliness level into the reservoir
- Bypass valve integrated into the filter element, to relieve excessive pressure drop across the filter media
- Extension tube, to be used in deep reservoirs (sold as separate item)
- Diffuser, to reduce the risk of aeration, foaming and noise (sold as separate item)

Common applications:

Mobile machines

Bowl assembly materials

- Cover
Polyamide: MFB 020-030-100
Aluminium: MFB 180-190

- Bowl: Polyamide

Filter element materials

- Caps: Polyamide
- Spring: Spring steel

Bypass valve

- Opening pressure 175 kPa (1.75 bar) $\pm 10\%$
- Opening pressure 300 kPa (3 bar) $\pm 10\%$

Δp element type

- Microfibre filter elements - series H: 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

MFB filters are provided for vertical mounting

Weights [kg] and volumes [dm³]

Filter series	Weights [kg]					Volumes [dm ³]				
	Length	1	2	3	4	Length	1	2	3	4
MFB 020		0.25	0.35	0.40	-		0.10	0.15	0.20	-
MFB 030		0.25	-	-	-		0.15	-	-	-
MFB 100		0.50	0.60	0.75	0.95		0.35	0.50	0.80	1.10
MFB 180		1.60	2.40	-	-		1.50	2.90	-	-
MFB 190		-	2.40	-	-		-	3.00	-	-

Flow rates [l/min]

Filter series	Length	Filter element design - H series					Filter element design - N series		
		A03	A06	A10	A16	A25	M25 M60 M90	P10	P25
MFB 020	1	7	10	23	28	42	59	51	54
	2	17	20	45	48	56	72	64	67
	3	21	24	50	55	59	76	74	75
MFB 030	1	7	10	24	29	47	84	60	66
MFB 100	1	18	20	53	56	65	153	87	96
	2	28	38	65	75	95	158	111	123
	3	48	55	125	135	169	289	224	251
	4	79	89	180	185	198	306	264	289
MFB 180	1	127	148	235	243	278	441	285	299
	2	231	262	358	382	388	472	404	412
MFB 190	2	261	305	489	528	546	696	583	598

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.

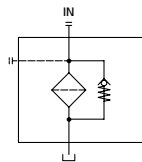
For different pressure drop or fluid viscosity we recommend to use our selection software available on www.mpfiltri.com.

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 symbols

Filter series	Style 1 connection
MFB 020	•
MFB 030	•
MFB 100	•
MFB 180	•
MFB 190	•



MFB MFB020 - MFB030 - MFB100 - MFB180 - MFB190

Designation & Ordering code

COMPLETE FILTER

Series and size						Configuration example 1: MFB100 1 A 2 A10 H E P01							
MFB020 MFB030 MFB100 MFB180 MFB190						Configuration example 2: MFB180 2 V 1 M25 N B P01							
Filter element with private spigot													
Length	MFB020	MFB030	MFB100	MFB180	MFB190								
1	•	•	•	•	-								
2	•	-	•	•	•								
3	•	-	•	-	-								
4	-	-	•	-	-								
Seals													
A NBR													
V FPM													
Version													
1	Without cover	•	•	•	•								
2	With flanged cover type MPF	-	•	•	•								
3	With threaded cover type MPT	•	-	•	-								
Filtration rating (filter media)													
A03	Inorganic microfiber	3 µm	M25	Wire mesh	25 µm								
A06	Inorganic microfiber	6 µm	M60	Wire mesh	60 µm								
A10	Inorganic microfiber	10 µm	M90	Wire mesh	90 µm								
A16	Inorganic microfiber	16 µm	P10	Resin impregnated paper	10 µm								
A25	Inorganic microfiber	25 µm	P25	Resin impregnated paper	25 µm								
Element Δp						Filter media							
N	10 bar		Axx	Mxx	Pxx	-	•	•					
H	10 bar		•	-	-								
								Bypass valve		Execution			
								E	3 bar	P01	MP Filtri standard		
								B	1.75 bar	Pxx	Customized		

FILTER ELEMENT

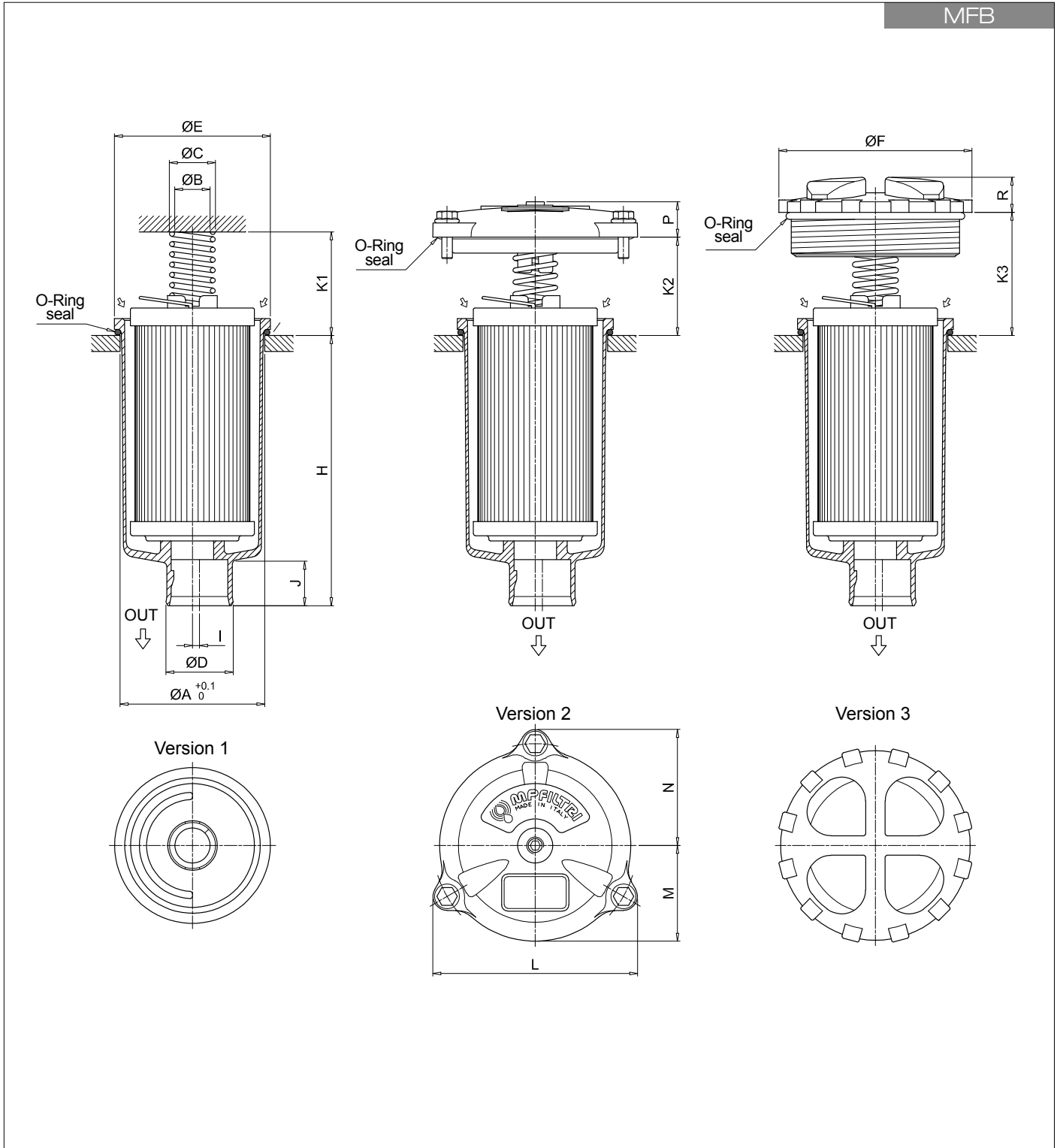
Element series and size						Configuration example 1: MF100 1 A10 H B E P01							
MF020 MF030 MF100 MF180 MF190						Configuration example 2: MF180 2 M25 N V P01							
Filter element with private spigot													
Element length	MF020	MF030	MF100	MF180	MF190								
1	•	•	•	•	-								
2	•	-	•	•	•								
3	•	-	•	-	-								
4	-	-	•	-	-								
Filtration rating (filter media)													
A03	Inorganic microfiber	3 µm	M25	Wire mesh	25 µm								
A06	Inorganic microfiber	6 µm	M60	Wire mesh	60 µm								
A10	Inorganic microfiber	10 µm	M90	Wire mesh	90 µm								
A16	Inorganic microfiber	16 µm	P10	Resin impregnated paper	10 µm								
A25	Inorganic microfiber	25 µm	P25	Resin impregnated paper	25 µm								
Element Δp						Filter media							
N	10 bar		Axx	Mxx	Pxx	-	•	•					
H	10 bar		•	-	-								
								Seals		Bypass valve		Execution	
								B	NBR	E	3 bar	P01	MP Filtri standard
								V	FPM	-	1.75 bar	Pxx	Customized

ADDITIONAL FEATURES

See page 268

	MFB020	MFB030	MFB100	MFB180	MFB190
TE	Extension tube	•	•	•	•
DFS	Diffuser with fast lock connection	-	-	•	-

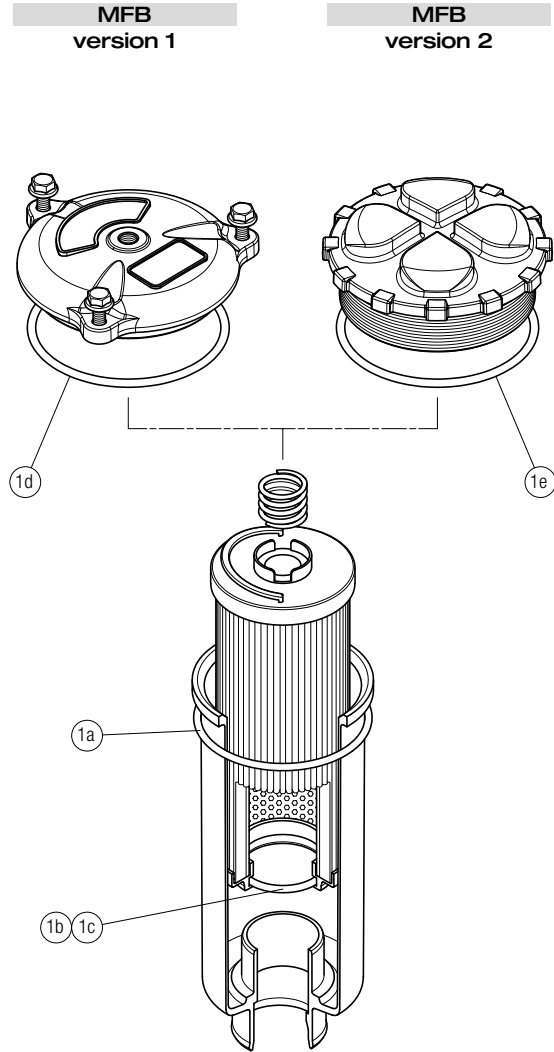
MFB



Filter size	Filter Length	ø A [mm]	ø B [mm]	ø C [mm]	ø D [mm]	ø E [mm]	ø F [mm]	H [mm]	I [mm]	J [mm]	K1 [mm]	K2 [mm]	K3 [mm]	L [mm]	M [mm]	N [mm]	P [mm]	R [mm]
020	1	52	20.5	26	32	56	75	111	0	24	42	-	36	-	-	-	-	18
	2	52	20.5	26	32	56	75	175	0	24	42	-	36	-	-	-	-	18
	3	52	20.5	26	32	56	75	214	0	24	42	-	36	-	-	-	-	18
030	1	60.5	20	25.5	32	68	-	92	3	21	33	35	-	92	42	52	18	-
	1	80.5	20	26	38	88	111	107	4	24	58	55	69	116	54	66	20	20
	2	80.5	20	26	38	88	111	154	4	24	58	55	69	116	54	66	20	20
	3	80.5	20	26	47	88	111	232	0	24	58	55	69	116	54	66	20	20
100	4	80.5	20	26	47	88	111	334	2.5	24	58	55	69	116	54	66	20	20
	1	112.5	26	33.5	47	121	-	234	0	31	58	58	69	159	76	95	21	-
	2	112.5	26	33.5	47	121	-	447	0	31	58	58	69	159	76	95	21	-
	2	112.5	26	33.5	50	121	-	454	0	38	58	58	69	159	76	95	21	-

MFB SPARE PARTS

Order number for spare parts



Item: Q.ty: 1 pc.		
1 (1a ÷ 1e)		
Filter series	Seal Kit code number	
	NBR	FPM
MFB 020	02050572	02050573
MFB 030	02050574	02050575
MFB 100	02050555	02050556
MFB 180	02050576	02050577
MFB 190	02050578	02050579