

MFB series

BOWL ASSEMBLY

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



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.

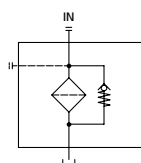
For different pressure drop or fluid viscosity we recommend to use our selection software available on www.mpfiltri.com.

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

MFB020 | MFB030 | MFB100 | MFB180 | MFB190

Filter element with private spigot

Length

MFB020MFB030MFB100MFB180MFB190

1••••-

2•-•••

3•-•- -

4--•- -

Seals

A NBR

V FPM

Version

MFB020MFB030MFB100MFB180MFB190

1 Without cover•••••

2 With flanged cover type MPF--••••

3 With threaded cover type MPT•-•- -

Filtration rating (filter media)

A03 Inorganic microfiber 3 µm

A06 Inorganic microfiber 6 µm

A10 Inorganic microfiber 10 µm

A16 Inorganic microfiber 16 µm

A25 Inorganic microfiber 25 µm

M25 Wire mesh 25 µm

M60 Wire mesh 60 µm

M90 Wire mesh 90 µm

P10 Resin impregnated paper 10 µm

P25 Resin impregnated paper 25 µm

Element Δp

AxxMxxPxx

N 10 bar-••

H 10 bar•- -

Configuration example 1:

MFB1001AV2A10HP01

Configuration example 2:

MFB1802VM25NBP01

Bypass valve

E 3 bar

B 1.75 bar

Execution

P01 MP Filtri standard

Pxx Customized

FILTER ELEMENT

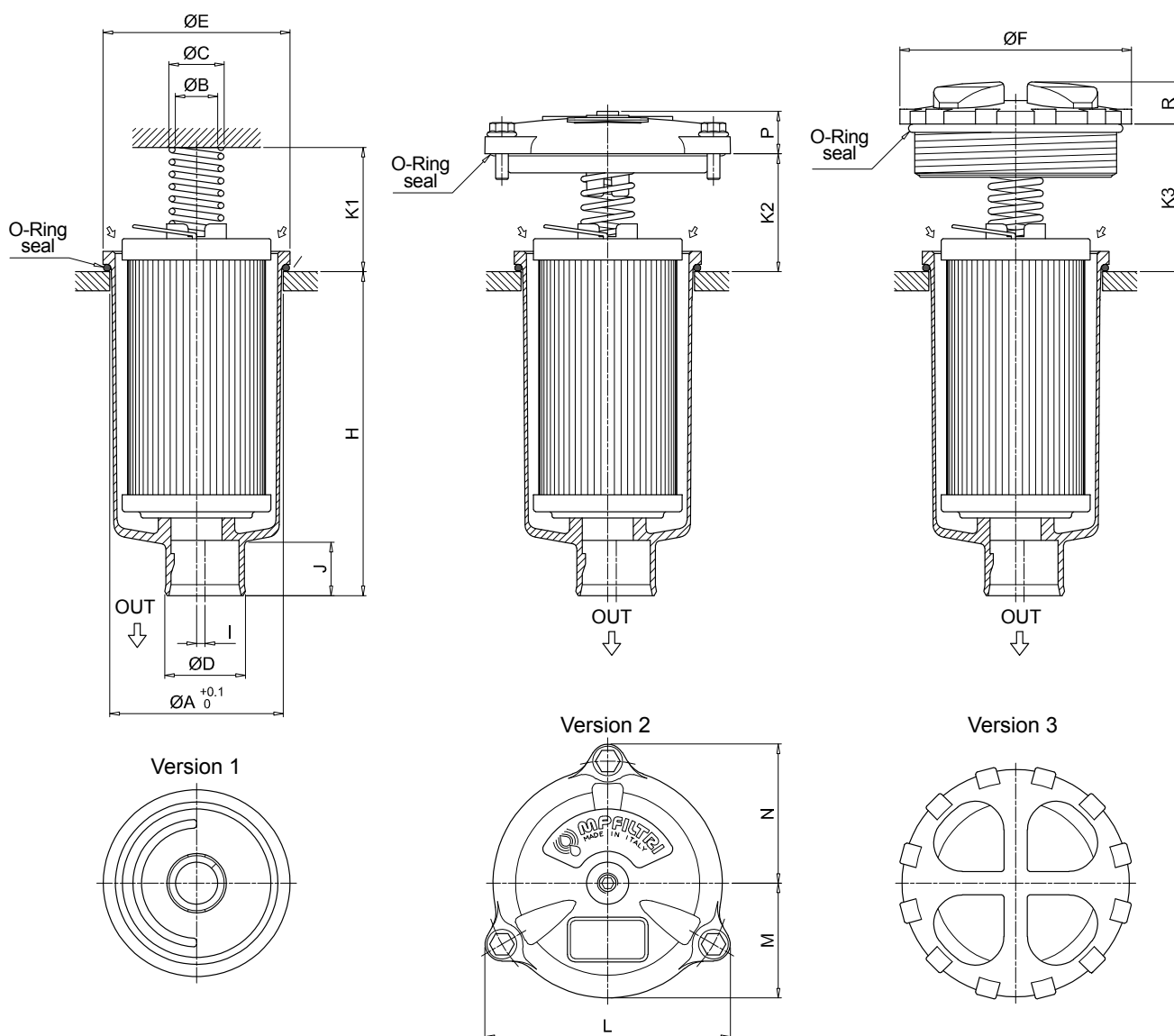
Element series and size						Configuration example 1:						
MF020	MF030	MF100	MF180	MF190		MF180	1	A10	H	B	E	P01
Filter element with private spigot						Configuration example 2:						
Element length	MF020	MF030	MF100	MF180	MF190		2	M25	N	V		P01
1	•	•	•	•	-							
2	•	-	•	•	•							
3	•	-	•	-	-							
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							
Filter media												
Element Δp			Axx	Mxx	Pxx							
N	10 bar		-	•	•							
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	-	-	•	-	-

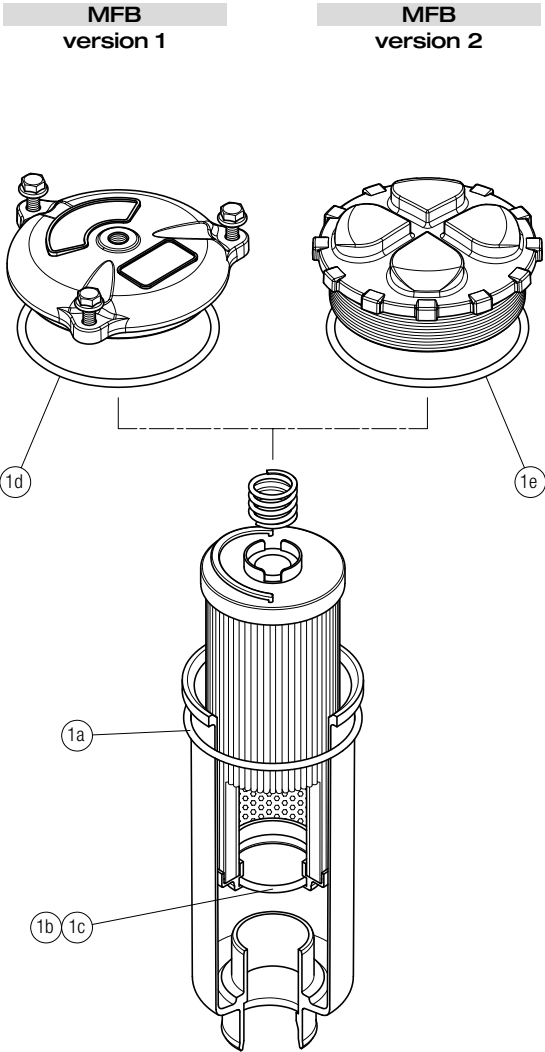
MFB



Filter size	Filter Length	$\varnothing A$ [mm]	$\varnothing B$ [mm]	$\varnothing C$ [mm]	$\varnothing D$ [mm]	$\varnothing E$ [mm]	$\varnothing F$ [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	-
100	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
	4	80.5	20	26	47	88	111	334	2.5	24	58	55	69	116	54	66	20	20
180	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	-
190	2	112.5	26	33.5	50	121	-	454	0	38	58	58	69	159	76	95	21	-

MFB SPARE PARTS

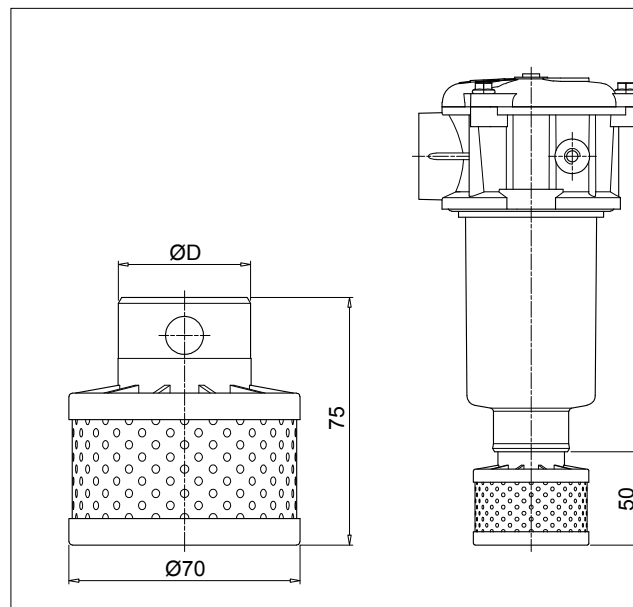
Order number for spare parts



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

Accessories

DIFFUSER WITH FAST LOCK CONNECTION

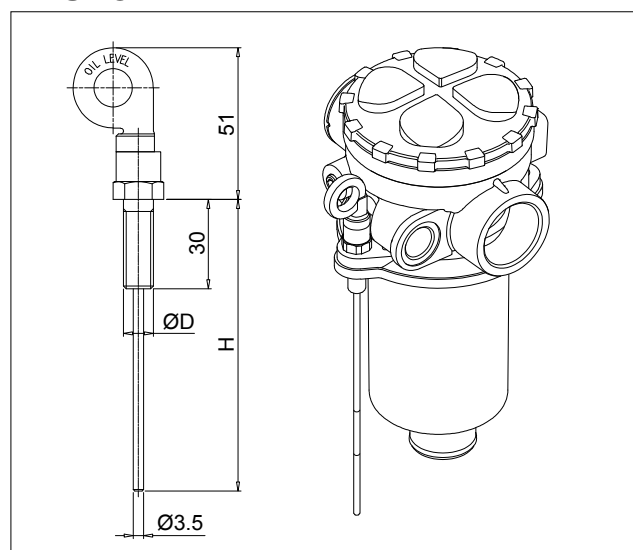


Configuration example: **DFS** **32** **A** **075**

Series	Size	Ø D [mm]	Version	Length
DFS	32	32	A Standard	075 Standard
	40	40		

Filter series	Filter size	Filter Length	DFS32	DFS40		
MPF	100	104	110	1	•	
		2	•	-		
		3	-	•		
		4	-	•		
MPFX	100	104	110	1	•	
		2	•	-		
		3	-	•		
		4	-	•		
MPT	110	114	116	120	1	•
		2	•	-		
		3	-	•		
		4	-	•		
MPTX	110	114	116	120	1	•
		2	•	-		
		3	-	•		
		4	-	•		

DIPSTICK



Materials

- Screw: phosphatized steel
- Stick: phosphatized steel
- Handle: Polyamide

Technical data

Working temperature: from -25 °C to +110 °C

Configuration example: **DPT** **20** **M10** **A** **P01**

Series	Length	H [mm]
DPT	15	134
	20	184
	25	234
	30	284
	35	334

Seals

A	NBR
V	FPM

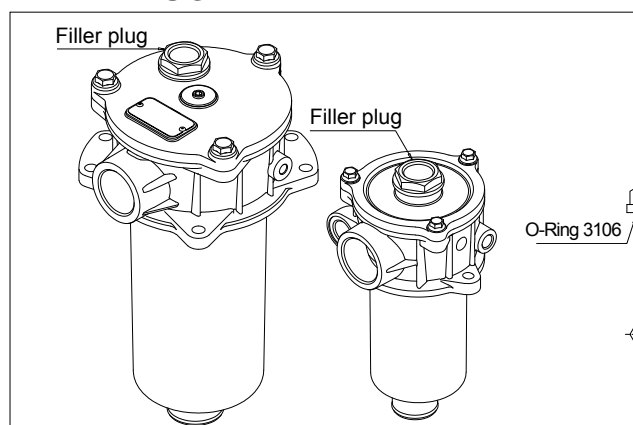
Fastening

M8	Fastening with screws Ø D = M8
M10	Fastening with screws Ø D = M10

Execution

P01	MP Filtri standard
Pxx	Customized

FILLER PLUG



Materials

- Body: Polyamide
- Seal: NBR

Technical data

Tightening torque: 15 N·m

O-Ring 3106

M30x1.5

A/F 34

For any further information, please, contact our commercial dept.

POLYAMIDE EXTENSION TUBE

H1 - Total
length
immersed
in the tank

Conf. example: **TE** **40** **A** **250**

Series	TE
Size	Ø D [mm]
25	25
32	32
40	40
51	51
62	62

Material
A Polyamide

Length	H [mm]	25-32-40	51-62
200	200	•	•
250	250	•	-
300	300	•	•
350	350	•	-
400	400	•	•
450	450	•	-
500	500	•	•
600	600	-	•

COMPATIBILITY TABLE																	
Filter series	Filter size			Filter length	TE25	TE32	TE40	TE51	TE62	Tube length							
										200	250	300	350 H1 [mm]	400	450	500	600
MPF	30			1	•	-	-	-	-	266	316	366	416	466	516	566	-
MPF	100	104	110	2	-	•	-	-	-	275	325	375	425	475	525	575	-
				3	-	-	•	-	-	322	372	422	472	522	572	622	-
				4	-	-	-	-	-	400	450	500	550	600	650	700	-
				5	-	-	-	-	-	502	552	602	652	702	752	802	-
MPFX	100	104	110	1	-	-	-	-	-	277	327	377	427	477	527	577	-
				2	-	-	•	-	-	322	372	422	472	522	572	622	-
				3	-	-	-	-	-	400	450	500	550	600	650	700	-
				4	-	-	-	-	-	502	552	602	652	702	752	802	-
MPF	181	182	184	1	-	-	-	-	-	410	460	510	560	610	660	710	-
				2	-	-	-	-	-	623	673	723	773	823	873	923	-
MPFX	191	192	194	2	-	-	-	•	-	620	-	720	-	820	-	920	1020
				1	-	-	-	-	•	352	-	452	-	552	-	652	752
				2	-	-	-	-	•	411	-	511	-	611	-	711	811
				3	-	-	-	-	•	459	-	559	-	659	-	759	859
MPT	110	114	116	120	1	-	-	-	-	•	597	-	697	-	797	-	897
					2	-	-	-	-	•	597	-	697	-	797	-	897
					3	-	-	-	-	•	597	-	697	-	797	-	897
					4	-	-	-	-	•	597	-	697	-	797	-	897
MPTX	025	027	029	031	1	•	-	-	-	-	278	328	378	428	478	528	578
					2	•	-	-	-	-	342	392	442	492	542	592	642
					3	•	-	-	-	-	380	430	480	530	580	630	680
MPT	110	114	116	120	1	-	•	-	-	-	273	323	373	423	473	523	573
					2	-	-	•	-	-	320	370	420	470	520	570	620
					3	-	-	-	•	-	396	446	496	546	596	646	696
					4	-	-	-	•	-	498	548	598	648	698	748	798
MPTX	110	114	116	120	1	-	-	-	•	-	273	323	373	423	473	523	573
					2	-	-	-	•	-	318	368	418	468	518	568	618
					3	-	-	-	•	-	396	446	496	546	596	646	696
					4	-	-	-	•	-	498	548	598	648	698	748	798

STEEL EXTENSION TUBE

Configuration example:

MPF191 2 A F1 A10 H B S60

Length	H1 [mm]
S30	300
S35	350
S40	400
S45	450
S50	500
S60	600
S70	700
S80	800
S90	900

COMPATIBILITY TABLE						
					Ø D [mm]	
Filter series	Filter size				Filter length	
MPF	191	192	194		2	• -
					1	• -
	400	410	450	451	2	- •
					3	
		750			1	- •