

MFBX series

BOWL ASSEMBLY

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





THE NEW FILTER CONCEPT

MPFX
MPLX
MPTX
MFBX
MFX
series

NEW FILTER ELEMENT WITH EXCLUSIVE INTERFACE CONNECTION

- **Protects the machine from improper use of non-original products.**
- **Safety of constant quality protection & reliability**

With exclusive filter element you are sure that only MP Filtri filter elements can be used, ensuring the best cleaning level of the oil due to the use of originals filter elements.



Filter element featuring our UNIQUE end cap with polygonal design.



UNIQUE polygonal spigot fitting within the filter bowl.

The products identified as MPFX, MPLX, MPTX, MFBX and MFX are protected by:

Italian Patent n° 102014902261205

Canadian Patent n° 2,937,258

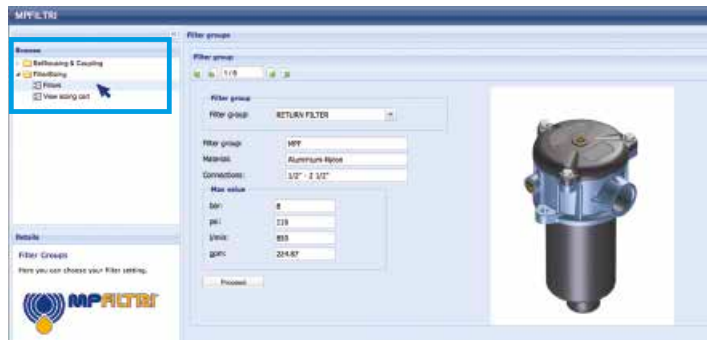
and by the following patent applications:

European Patent n° 16181725.9

US Patent Pending n° 15/224,337

TYPICAL FILTER SIZING Selection Software

Step 1 Select "FILTERS"



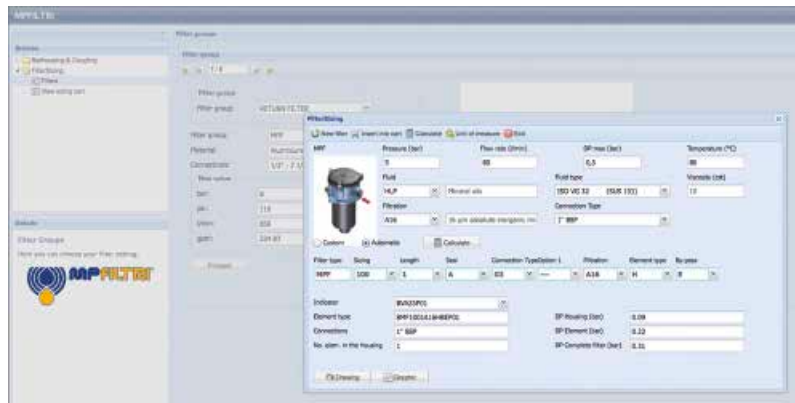
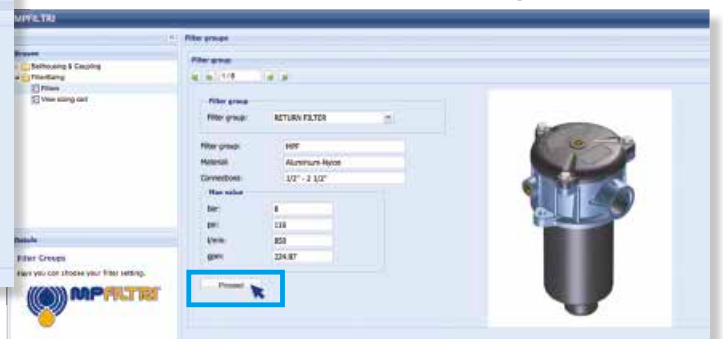
Step 2 Choose filter group (Return Filter, Pressure Filter, etc.)



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



Step 4 Push "PROCEED"



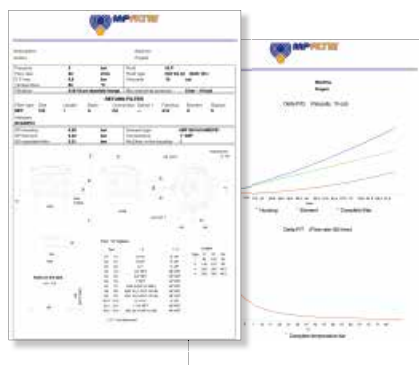
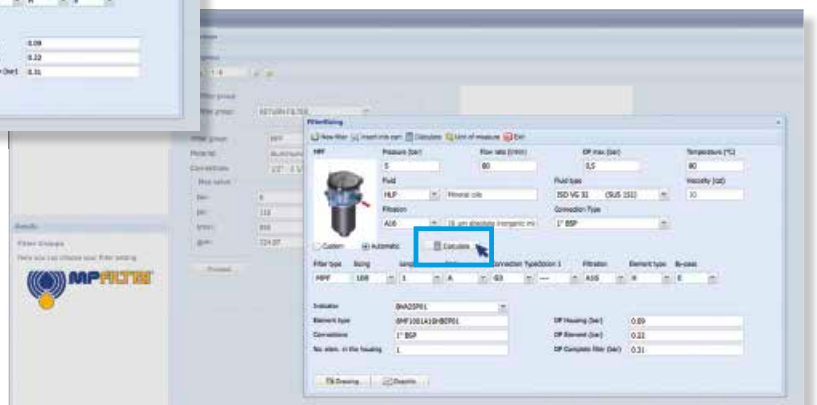
Step 5

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 Bowl assembly

Maximum working pressure up to 800 kPa (8 bar)

Flow rate up to 700 l/min

MFBX 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)
- MyClean interface connection, to protect the product against non-original spare parts
- External protective wrap, to optimize the flow through the element and to save the element efficiency against non-proper handling

Common applications:

Mobile machines

Bowl assembly materials

- Cover
Nylon: MFBX 020-030-100
Aluminium: MFBX 180-190

- Bowl: Nylon

Filter element materials

- Caps: Nylon
- 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

MFBX 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
MFBX 020		0.25	0.35	0.40	-		0.10	0.15	0.20	-
MFBX 030		0.25	-	-	-		0.15	-	-	-
MFBX 100		0.50	0.60	0.75	0.95		0.35	0.50	0.80	1.10
MFBX 180		1.60	2.40	-	-		1.50	2.90	-	-
MFBX 190		-	2.40	-	-		-	3.00	-	-

Filter series	Length	Filter element design - H series					Filter element design - N series		
		A03	A06	A10	A16	A25	M25 M60 M90	P10	P25
MFBX 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
MFBX 030	1	7	10	24	29	47	84	60	66
MFBX 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
MFBX 180	1	127	148	235	243	278	441	285	299
	2	231	262	358	382	388	472	404	412
MFBX 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.

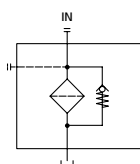
The reference fluid has a kinematic viscosity of 30 mm²/s (cSt) and a density of 0.86 kg/dm³.

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
MFBX 020	•
MFBX 030	•
MFBX 100	•
MFBX 180	•
MFBX 190	•



Designation & Ordering code

COMPLETE FILTER

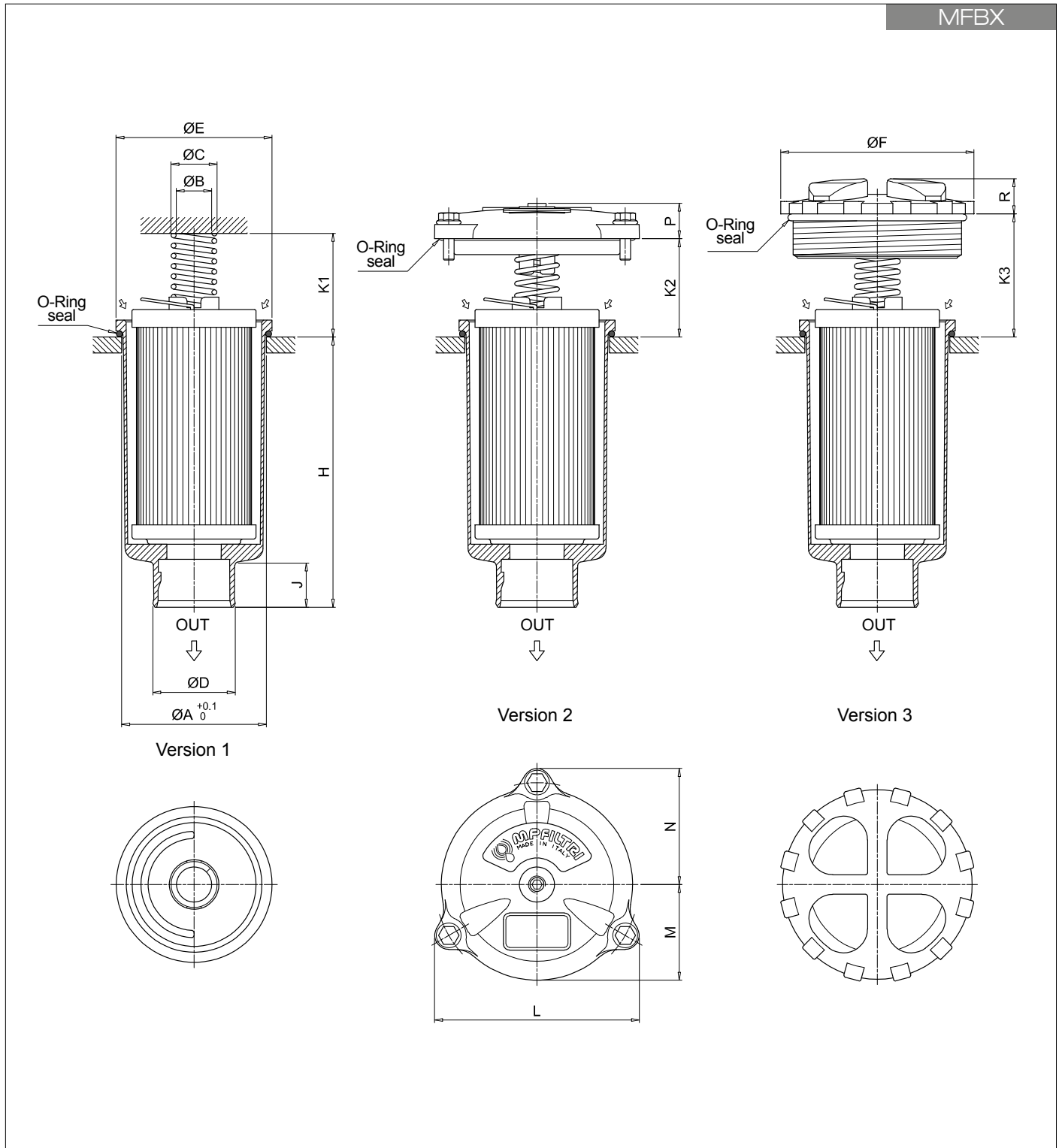
Series and size						Configuration example 1: MFBX100 1 A 2 A10 H E P01								
MFBX020 MFBX030 MFBX100 MFBX180 MFBX190						Configuration example 2: MFBX180 2 V 1 M25 N B P01								
Filter element with private spigot														
Length	MFBX020	MFBX030	MFBX100	MFBX180	MFBX190									
1	•	•	•	•										
2	•		•	•	•									
3	•		•											
4			•											
Seals														
A NBR														
V FPM														
Version	MFBX020	MFBX030	MFBX100	MFBX180	MFBX190									
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												
						Filter media								
Element Δp						Axx			Mxx			Pxx		
N 10 bar									•			•		
H 10 bar						•								
W 10 bar, compatible with fluids HFA, HFB and HFC						•			•					
									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: MFX180 2 M25 H V P01									
MFX020 MFX030 MFX100 MFX180						Configuration example 2: MFX100 1 A10 N B E P01									
Filter element with private spigot															
Element length	MFX020	MFX030	MFX100	MFX180	MFX190										
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		

ACCESSORIES

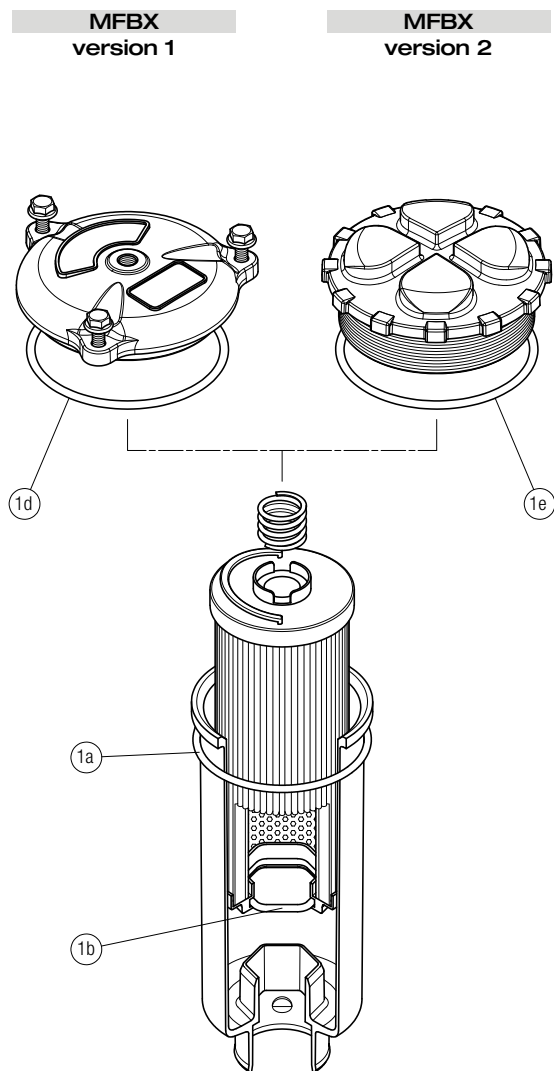
Additional features											page	
						MFBX020	MFBX030	MFBX100	MFBX180	MFBX190		
TE Extension tube						•	•	•	•	•		248
DFS Diffuser with fast lock connection								•				249



Filter size	Filter Length	ø A [mm]	ø B [mm]	ø C [mm]	ø D [mm]	ø E [mm]	ø F [mm]	H [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	24	42	-	36	-	-	-	-	18
	2	52	20.5	26	32	56	75	175	24	42	-	36	-	-	-	-	18
	3	52	20.5	26	32	56	75	214	24	42	-	36	-	-	-	-	18
030	1	60.5	20	25.5	32	68	-	93	21	33	35	-	92	42	52	18	-
	2	80.5	20	26	47	88	111	109	24	58	55	69	116	54	66	20	20
100	1	80.5	20	26	47	88	111	154	24	58	55	69	116	54	66	20	20
	2	80.5	20	26	47	88	111	232	24	58	55	69	116	54	66	20	20
	3	80.5	20	26	47	88	111	334	24	58	55	69	116	54	66	20	20
180	1	112.5	26	33.5	47	121	-	234	31	58	69	-	159	76	95	21	-
	2	112.5	26	33.5	47	121	-	447	31	58	69	-	159	76	95	21	-
190	2	112.5	26	33.5	50	121	-	454	38	58	69	-	159	76	95	21	-

MFBX SPARE PARTS

Order number for spare parts



Item: 1 (1a ÷ 1d) Q.ty: 1 pc.		
Filter series	Seal Kit code number	
	NBR	FPM
MFBX 020	02050713	02050714
MFBX 030	02050715	02050716
MFBX 100	02050717	02050718
MFBX 180-190	02050719	02050720