



THE X CONCEPT FOR OUR FILTERS

Protect the performance of your system with MYclean.

Quality and efficiency are fundamental for MP Filtri:

this exclusive new filter element possesses polygon shape geometry and specific seal that ensures only original spare parts can be used - ensuring correct operation and higher system reliability.

MFBX series

with  MFX Filter Element



- **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.



The products identified as MFBX are protected by:

- Italian Patent n° 102014902261205
- Canadian Patent n° 2,937,258
- European Patent n° 3 124 092 B1
- US Patent n° 20170030384 A1

TOGETHER WITH  , AS OPTION, MFBX SERIES CAN BE PROVIDED WITH

zerospark®
THE ANTI-STATIC FILTERS

THE Z CONCEPT FOR OUR FILTERS

Zerospark® is a specialist solution designed to solve the problem of electrostatic discharge inside hydraulic filters. Caused by the electrical charge build-up due to the passage of oil through the filters, this can result in damage to filter elements, oils and circuit components. It can even cause fire hazards in environments where flammable materials are present.



MFBX 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

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
Polyamide: MFBX 020-030-100
Aluminium: MFBX 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

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	-	-

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
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.

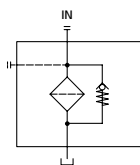
The reference fluid has a kinematic viscosity of 30 mm²/s (cSt) and a density of 0.86 kg/dm³.

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:							
MFBX020 MFBX100 MFBX190						MFBX100							
MFBX030 MFBX180						2							
Filter featuring  Filter Element						V							
						1							
						A10							
						H							
						E							
						P01							
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				•	-	-							
Bypass valve													
E 3 bar													
B 1.75 bar													
Executions													
Base													
P01						Z01 * MP Filtri standard							
Pxx						Zxx * Customized							

* Not for Mxx filter media

* Not for Mxx filter media

FILTER ELEMENT

Element series and size						Configuration example 1: MFX180 2 M25 H V P01						
MFX020 MFX100 MFX030 MFX180						Configuration example 2: MFX100 1 A10 N B E P01						
Filter Element with MY CLEAN feature												
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												
B NBR												
V FPM												
Bypass valve												
E 3 bar												
- 1.75 bar												
Executions												
Base			zerospark®									
P01			Z01 *			MP Filtri standard						
Pxx			Zxx *			Customized						
* Not for Mxx filter media												

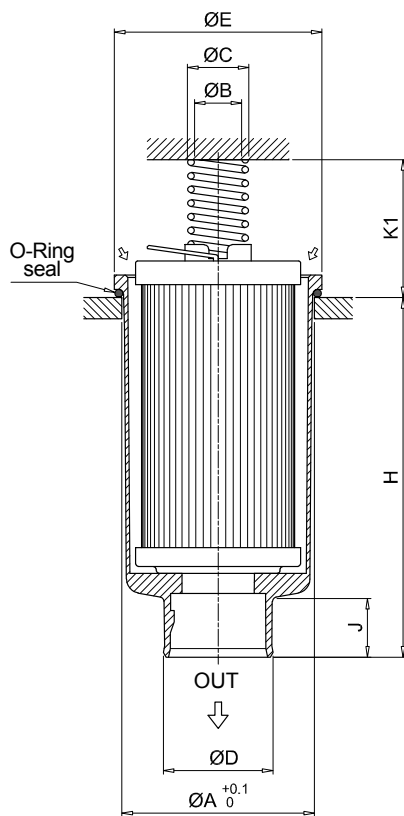
* Not for Mxx filter media

ACCESSORIES

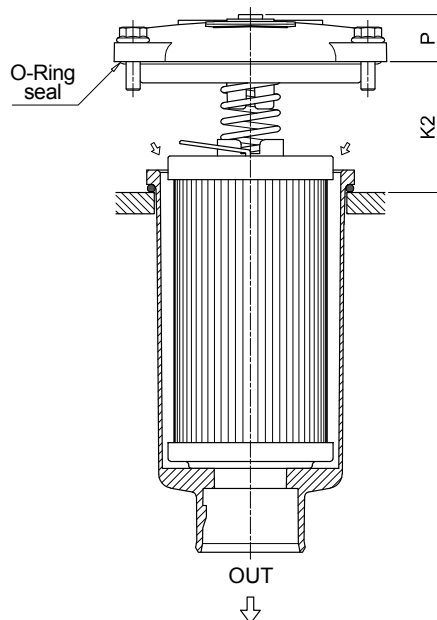
See page 268-269

	MFBX020	MFBX030	MFBX100	MFBX180	MFBX190
TE Extension tube	•	•	•	•	•
DFS Diffuser with fast lock connection	-	-	•	-	-

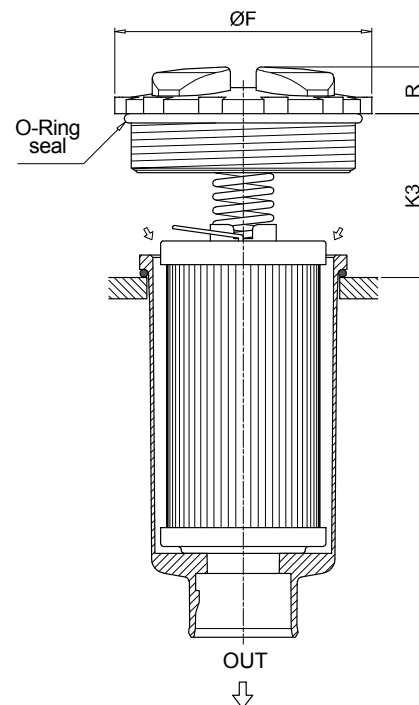
MFBX



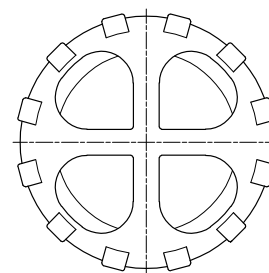
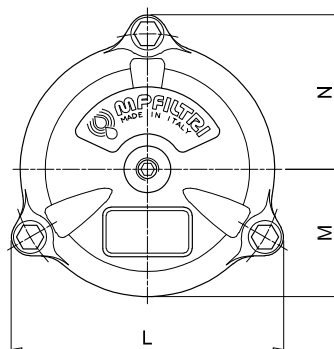
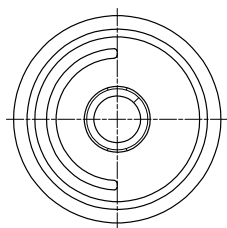
Version 1



Version 2



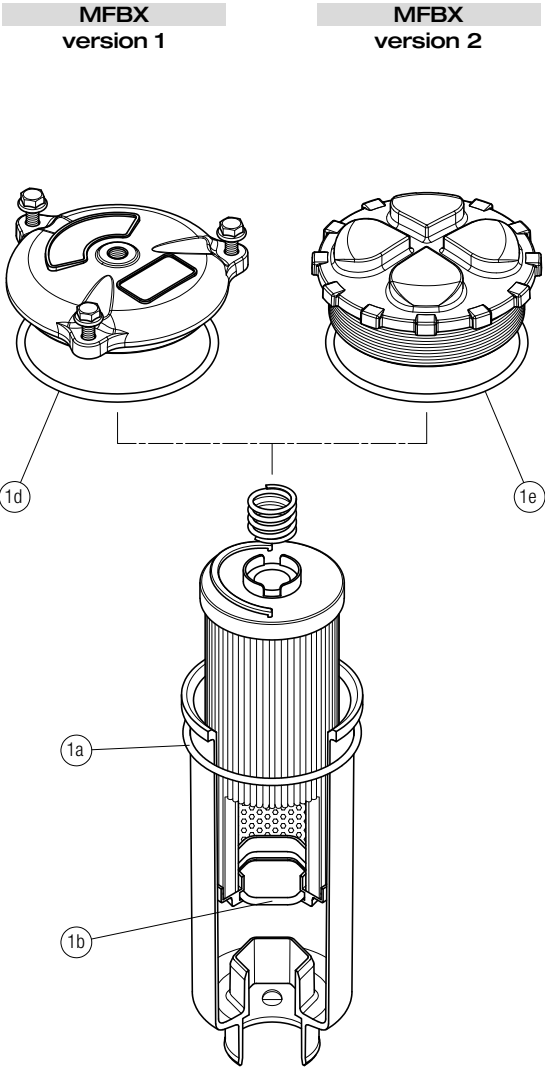
Version 3



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	-
100	1	80.5	20	26	47	88	111	109	24	58	55	69	116	54	66	20	20
	2	80.5	20	26	47	88	111	154	24	58	55	69	116	54	66	20	20
	3	80.5	20	26	47	88	111	232	24	58	55	69	116	54	66	20	20
	4	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

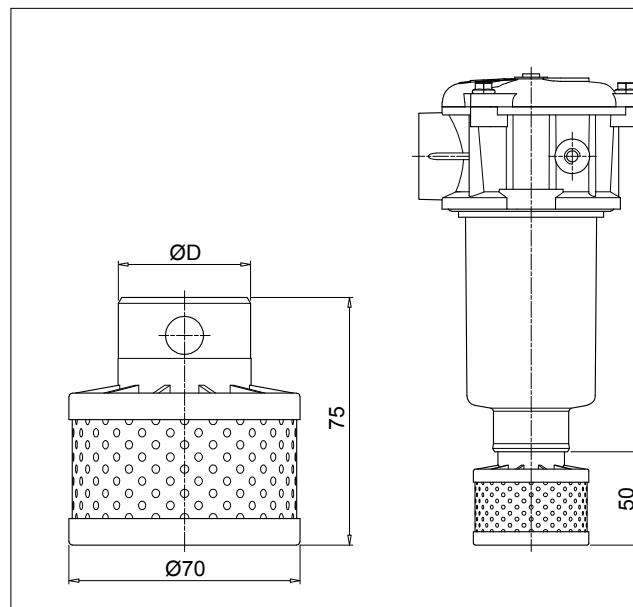
Order number for spare parts



Q.ty: 1 pc.		
Item: 1 (1a ÷ 1d)		
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

Accessories

DIFFUSER WITH FAST LOCK CONNECTION

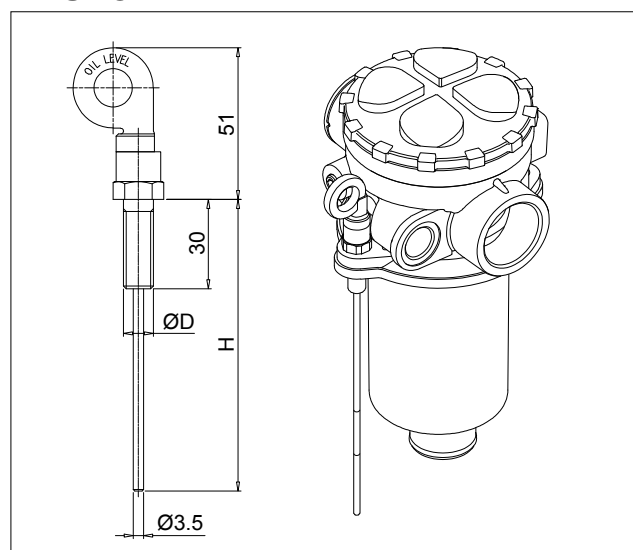


Configuration example: **DFS** **32** **A** **075**

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

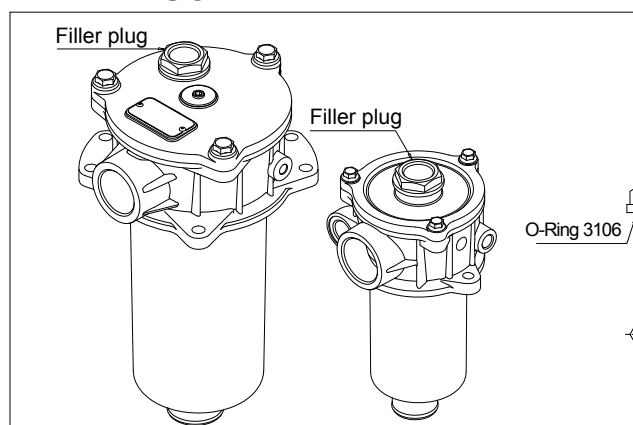
Fastening

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	400	450	500	600
MPF MPFX			30			1	•	-	-	-	-	266	316	366	416	466	516	566	-
MPF	100	104	110	1	-	•	-	-	-	-	-	275	325	375	425	475	525	575	-
				2	-	-	-	-	-	-	-	322	372	422	472	522	572	622	-
				3	-	-	•	-	-	-	-	400	450	500	550	600	650	700	-
				4	-	-	-	-	-	-	-	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 MPFX	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 MPTX	025	027	029	1	-	-	-	-	-	-	•	597	-	697	-	797	-	897	997
				2	•	-	-	-	-	-	-	278	328	378	428	478	528	578	-
				3	-	-	-	-	-	-	-	342	392	442	492	542	592	642	-
				4	-	-	-	-	-	-	-	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	- •