



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 0.8 MPa (8 bar) - Flow rate up to 700 l/min



Description

Technical data

Return filter Bowl assembly

Maximum working pressure up to 0.8 MPa (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

Pressure

- Test pressure: 1.2 MPa (12 bar)
- Min. Burst pressure: 2.4 MPa (24 bar)
- Pulse pressure fatigue test: 1 000 000 cycles with pressure from 0 to 0.8 MPa (8 bar)

Bypass valve

- Opening pressure 0.175 MPa (1.75 bar) $\pm 10\%$
- Opening pressure 0.3 MPa (3 bar) $\pm 10\%$

Filter element features

Filter MFBX		Filter element MFX	
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
<i>Please see ordering code tables to check element Δp series availability based on filter features.</i>			
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

MFBX filters are provided for vertical mounting

Weights [kg] and volumes [dm³]

Filter series	Weights [kg]					Volumes [dm ³]				
	Length	10	20	30	40	Length	10	20	30	40
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]

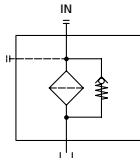
Filter series	Length	Filter element design - D series					Filter element design - D series		
		A0003	A0006	A0010	A0016	A0025	M0025 M0060 M0090	P0010	P0025
MFBX 020	10	7	10	23	28	42	59	51	54
	20	17	20	45	48	56	72	64	67
	30	21	24	50	55	59	76	74	75
MFBX 030	10	7	10	24	29	47	84	60	66
MFBX 100	10	18	20	53	56	65	153	87	96
	20	28	38	65	75	95	158	111	123
	30	48	55	125	135	169	289	224	251
	40	79	89	180	185	198	306	264	289
MFBX 180	10	127	148	235	243	278	441	285	299
	20	231	262	358	382	388	472	404	412
MFBX 190	20	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.

Filter series	17 / 30 - with bypass 1.75 / 3.0 bar
MFBX 020-030-100-180-190	

Hydraulic diagram

Designation & Ordering code

COMPLETE FILTER

Series		Example 1:	MFBX	030	10	A0025	D	V	17	NN000	0	ON	CF	P01	NN
MFBX	Filter featuring  Filter Element	Example 2:	MFBX	190	20	Z0010	D	A	30	NN000	0	ON	NN	P01	NN

Size	
020	180
030	190
100	

Length	020	030	100	180	190
10	•	•	•	•	-
20	•	-	•	•	•
30	•	-	•	-	-
40	-	-	•	-	-

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

	Z0003 Antistatic in. microf.	3 µm
	Z0006 Antistatic in. microf.	6 µm
	Z0010 Antistatic in. microf.	10 µm
	Z0016 Antistatic in. microf.	16 µm
	Z0025 Antistatic in. microf.	25 µm

Element Δp

D 10 bar

Seals and treatments

A NBR

V FPM

Bypass

17 With bypass 1.75 bar

30 With bypass 3.0 bar

Connections

NN000 Without connections

Additional connections

0 Without additional connections

Connections for clogging indicators

ON Without connections

Additional features

	020	030	100	180	190
NN Without additional features	•	•	•	•	•
CF With flanged cover	-	•	•	•	•
CT With threaded cover	•	-	•	-	-

Execution

P01 Standard catalogue item

Certificates

NN None

ACCESSORIES

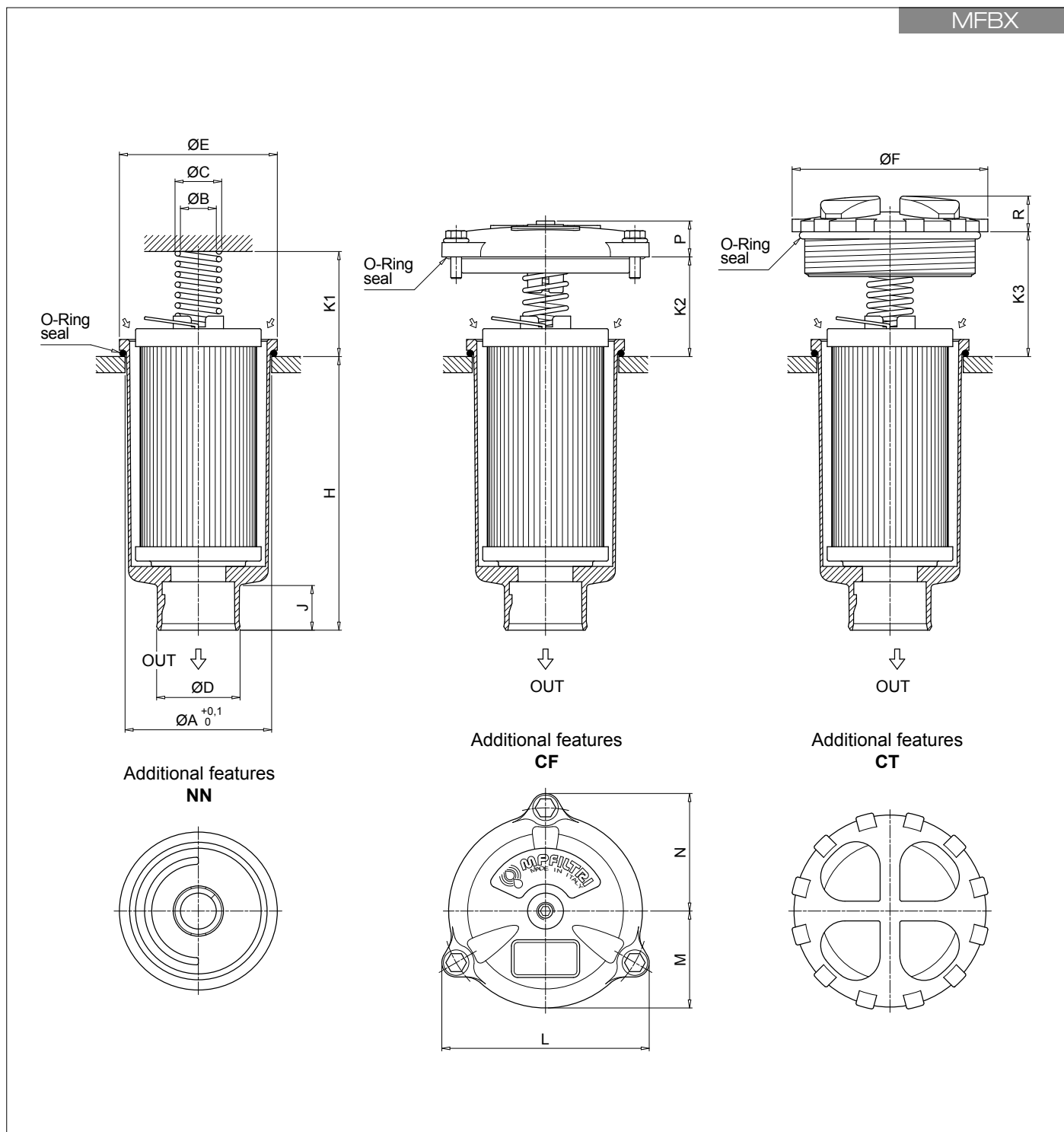
See page 270

TE Polyamide extension tube

DFS Diffuser with fast lock connection (only for MFBX 100)

FILTER ELEMENT											
Series		Example 1: MFX 030 10 A0025 D V 17 NN P01 NN									
MFX Filter element with MYCLEAN feature		Example 2: MFX 180 20 Z0010 D A 30 NN P01 NN									
Size											
020	MFBX 020										
030	MFBX 030										
100	MFBX 100										
180	MFBX 180 MFBX 190										
Length		020	030	100	180						
10		•	•	•	•						
20		•	-	•	•						
30		•	-	•	-						
40		-	-	•	-						
Filtration rating (filter media)											
MYCLEAN	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								
zerospark	Z0003	Antistatic in. microf.	3 µm								
	Z0006	Antistatic in. microf.	6 µm								
	Z0010	Antistatic in. microf.	10 µm								
	Z0016	Antistatic in. microf.	16 µm								
	Z0025	Antistatic in. microf.	25 µm								
Element Δp											
D	10 bar										
Seals and treatments											
A	NBR										
V	FPM										
Bypass											
17	With bypass 1.75 bar										
30	With bypass 3.0 bar										
Additional features											
NN	Without additional features										
Execution											
P01	Standard catalogue item										
Certificates											
NN	None										

Dimensions



Filter size	Filter length	ØA [mm]	ØB [mm]	ØC [mm]	ØD [mm]	ØE [mm]	ØF [mm]	H [mm]	J [mm]	K1 [mm]	K2 [mm]	K3 [mm]	L [mm]	M [mm]	N [mm]	P [mm]	R [mm]
020	10	52	20.5	26	32	56	75	111	24	42	-	36	-	-	-	-	18
	20	52	20.5	26	32	56	75	175	24	42	-	36	-	-	-	-	18
	30	52	20.5	26	32	56	75	214	24	42	-	36	-	-	-	-	18
030	10	60.5	20	25.5	32	68	-	93	21	33	35	-	92	42	52	18	-
	10	80.5	20	26	47	88	111	107	24	48	48	58	116	54	66	20	20
	20	80.5	20	26	47	88	111	154	24	48	48	58	116	54	66	20	20
	30	80.5	20	26	47	88	111	232	24	48	48	58	116	54	66	20	20
100	40	80.5	20	26	47	88	111	334	24	48	48	58	116	54	66	20	20
	10	112.5	26	33.5	47	121	-	236	31	58	58	-	159	76	95	21	-
180	20	112.5	26	33.5	47	121	-	450	31	58	58	-	159	76	95	21	-
	20	112.5	26	33.5	50	121	-	456	38	58	58	-	159	76	95	21	-
190	20	112.5	26	33.5	50	121	-	456	38	58	58	-	159	76	95	21	-

MFBX

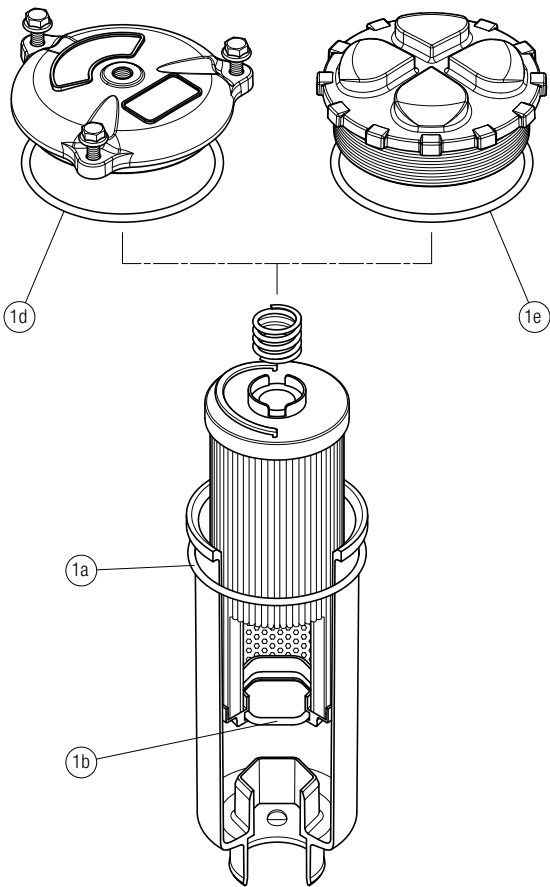
Additional features

CF

With flanged cover

CT

With threaded cover



Q.ty: 1 pc.		
Item: 1 (1a ÷ 1d)		
Filter series	Seal Kit code number	
	NBR	FPM
MFBX 020	AK021000796	AK021000797
MFBX 030	AK021000798	AK021000799
MFBX 100	AK021000800	AK021000801
MFBX 180-190	AK021000802	AK021000803