

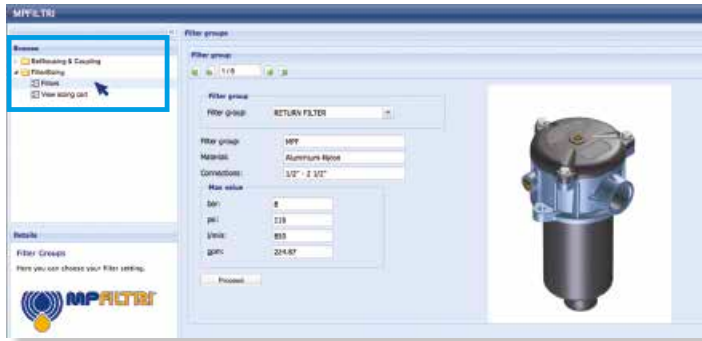
MFB series

BOWL ASSEMBLY

Maximum working pressure up to 800 kPa (8 bar) - Flow rate up to 500 l/min



Step 1 Select "FILTERS"



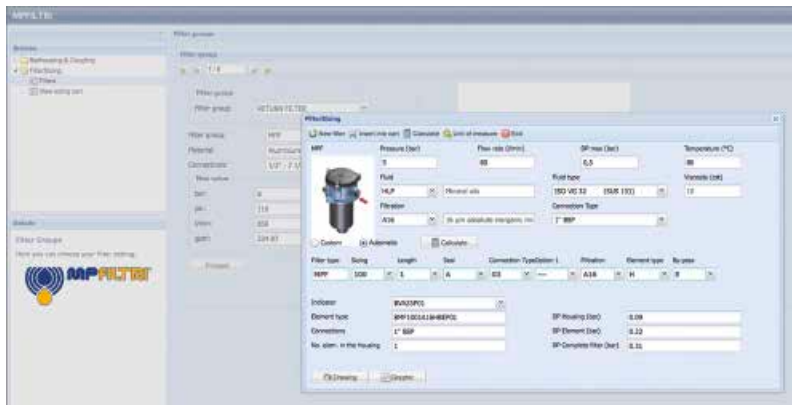
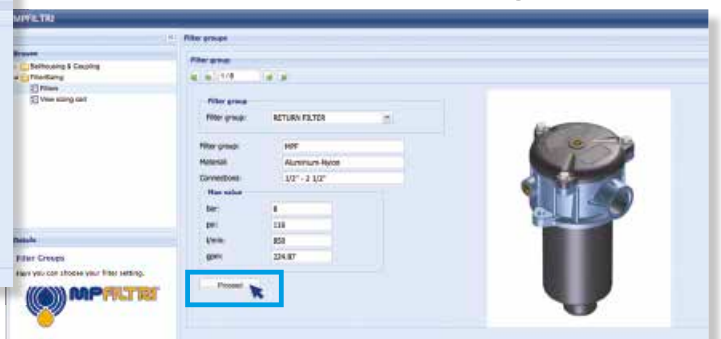
Step 2 Choose filter group (Return Filter, Pressure Filter, etc.)



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



Step 4 Push "PROCEED"



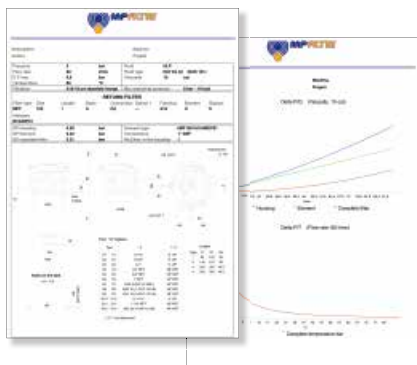
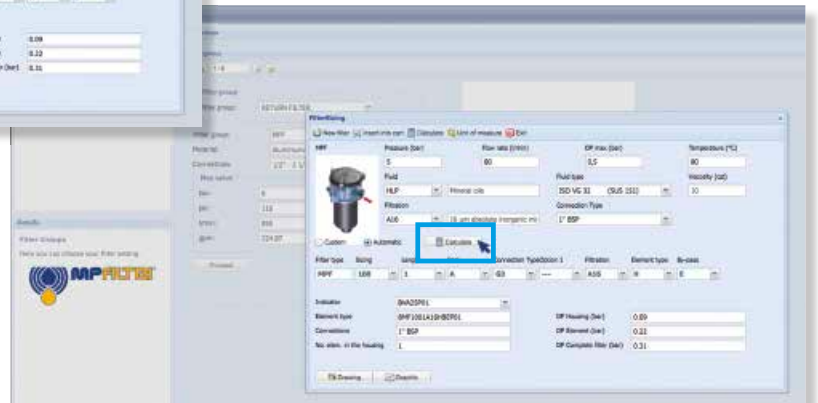
Step 5

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 advise which parameter is out of range to allow to modify/adjust the selection



Step 7

Download PDF  Datasheet "Report.aspx" pushing the button "Drawing"

Return filter Bowl assembly

Maximum working pressure up to 800 kPa (8 bar)

Flow rate up to 500 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
Nylon: MFB 020-030-100
Aluminium: MFB 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

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 | - | - |

| 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.

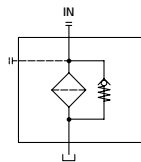
For different pressure drop or fluid viscosity we recommend to use our selection software available on www.mpfiltri.com.

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 | • |



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 | | MFB020 | MFB030 | MFB100 | MFB180 | MFB190 | | | | | |
| 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 | | | | Filter media | | | | | | | |
| | | | | 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 | | |

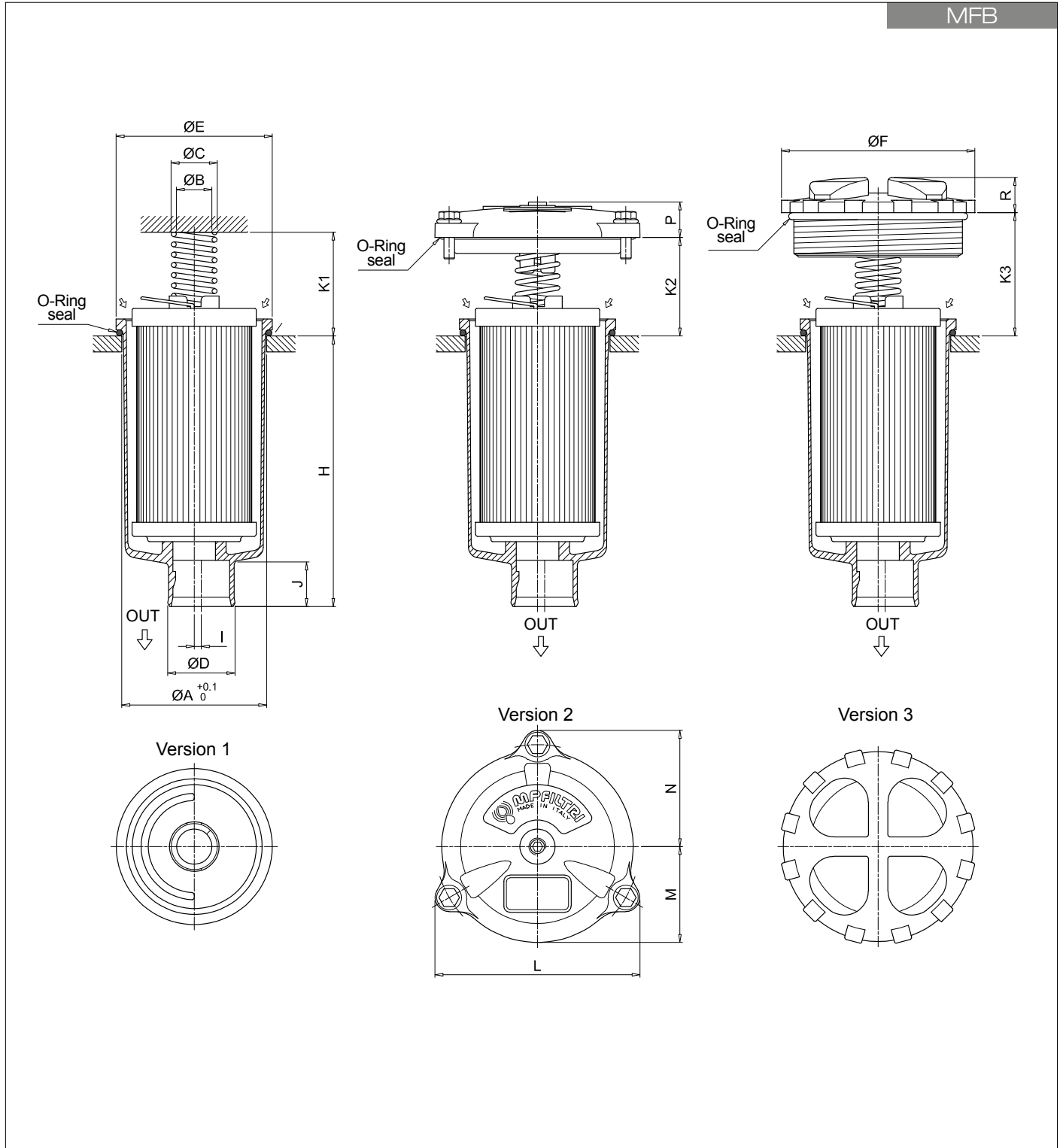
FILTER ELEMENT

| | | | | | | | | | | | | |
|--|-------------------------------|-------|-------|--------------|-------|---|--------------|--|---------------------|--|-------------------------------|--|
| Element series and size | | | | | | Configuration example 1: 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 | | | | | | | | | | | |
| 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 | | | | Filter media | | | | | | | | |
| | | | | 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 | |
| | | MFB020 | MFB030 | MFB100 | MFB180 | MFB190 | | | | | | |
| TE | Extension tube | • | • | • | • | • | | | | | | 248 |
| DFS | Diffuser with fast lock connection | | | • | | | | | | | | 249 |

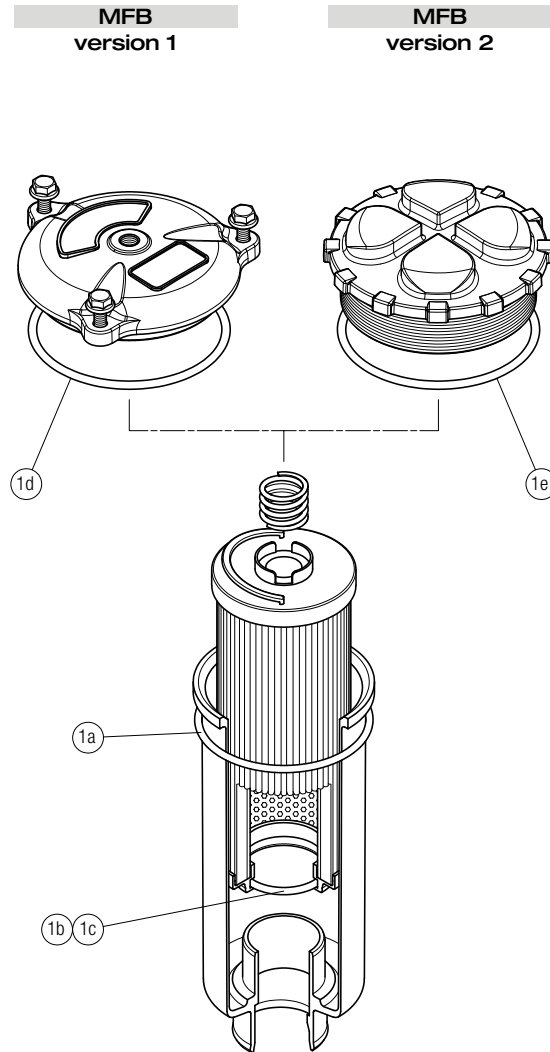
MFB



| 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



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