

# HPB series

Maximum working pressure up to 42 MPa (420 bar) - Flow rate up to 300 l/min



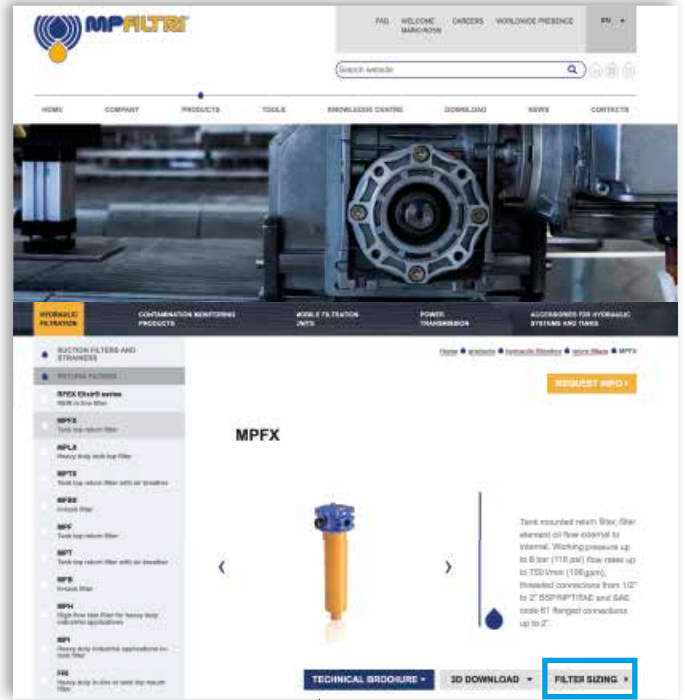
# TYPICAL FILTER SIZING Selection Software

## Step ①

Select "FILTER SIZING SOFTWARE" after login

OR

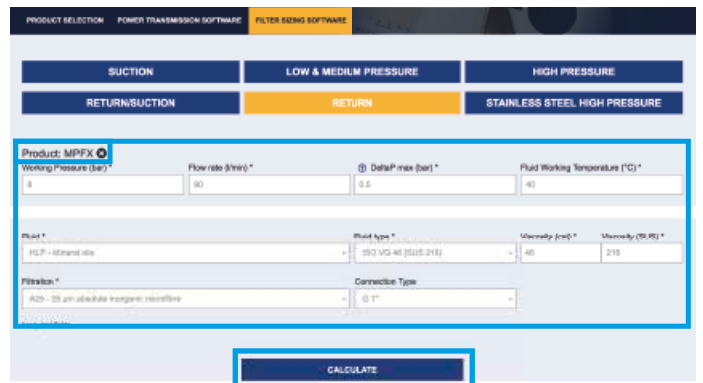
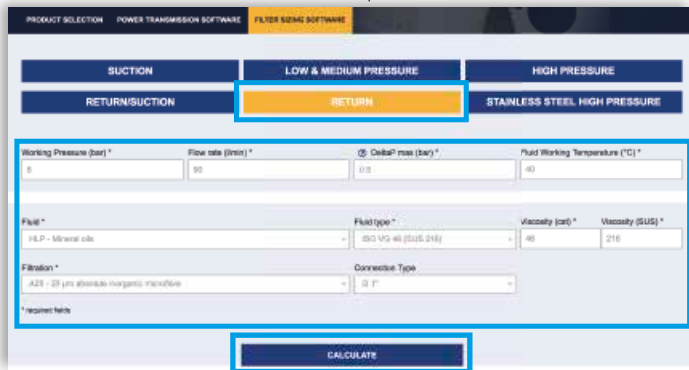
Select "FILTER SIZING" after login from a product page



Choose the type of filter family.  
Enter the main data for sizing the filter  
then push CALCULATE.

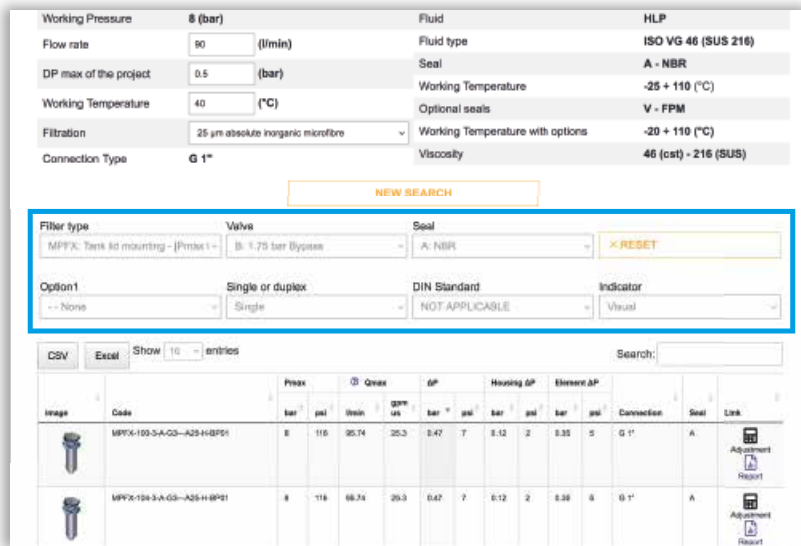
## Step ②

Enter the main data for sizing the filter  
then push CALCULATE.



## Step ③

Select the desired options to choose the appropriate filter type for the application.



## Step 4

Choose the most suitable filter from the proposed list.

Image	Code	Peak bar	Qmax psi	Qmax m³/min	Qmax gpm us	AP bar	AP psi	Housing AP bar	Housing AP psi	Element AP bar	Element AP psi	Connection	Seal	Link
	MPFX-103-3-A-Q3-A25-H-BPFI	8	116	25.74	25.3	0.47	7	0.12	2	0.33	5	G 1"	A	<a href="#">Adjustment</a> <a href="#">Report</a>
	MPFX-104-3-A-Q3-A25-H-BPFI	8	116	25.74	25.3	0.47	7	0.12	2	0.33	5	G 1"	A	<a href="#">Adjustment</a> <a href="#">Report</a>

## Step 5

It is possible to change the filter modifying every parameter.



### A SAVE YOUR FILTER'S REPORT



### B MANUAL EDIT



SAVE IN YOUR ARCHIVE  
typing your reference data and then SAVE AS PDF



A new browser window displays the pdf

see **A**

Close the report window



By clicking your WELCOME button, the SHOW REPORTS is displayed: select it to see your filters list.

## Description

### High Pressure Bowl Kit

**Maximum working pressure up to 42 MPa (420 bar)**  
**Flow rate up to 300 l/min**

HPB is a range of high pressure bowl kits for protection of sensitive components in high pressure hydraulic systems in the mobile machines. They are directly integrated in the control blocks.

#### Available features:

- Fine filtration rating, to get a good cleanliness level into the system
- Low collapse filter element "N", for use with blocks provided with bypass valve
- High collapse filter element with external support "S", for use with blocks not provided with the bypass valve

## Technical data

### Filter housing materials

- Housing: Phosphatized steel

### Pressure

- Test pressure: 63 MPa (630 bar)
- Burst pressure: 126 MPa (1260 bar)
- Pulse pressure fatigue test: 1 000 000 cycles with pressure from 0 to 42 MPa (420 bar)

### Δp element type

- Microfibre / Wire mesh filter elements - series N: 20 bar
- Microfibre / Wire mesh filter elements - series S: 210 bar
- Fluid flow through the filter element from OUT to IN

### Seals

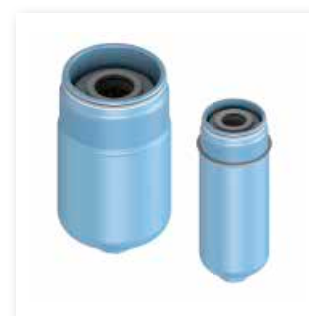
- Standard NBR series A
- Optional FPM series V

### Temperature

From -25 °C to +110 °C

### Note

HPB filters are provided for vertical mounting



## Weights [kg] and volumes [dm<sup>3</sup>]

Filter series	Weights [kg]					Volumes [dm <sup>3</sup> ]						
	Length	1	2	3	4	5	Length	1	2	3	4	5
<b>HPB 050</b>		1.10	1.50	1.90	2.40	3.50		0.30	0.45	0.60	0.80	1.20
<b>HPB 150</b>		2.90	4.90	6.30	-	-		0.45	0.85	1.10	-	-

## FILTER ASSEMBLY SIZING Flow rates [l/min]

Filter series	Length	Filter element design - N Series						Filter element design - S Series				
		A03	A06	A10	A16	A25	M25	A03	A06	A10	A16	A25
<b>HPB 050</b>	<b>1</b>	42	43	79	82	106	147	29	39	57	59	74
	<b>2</b>	52	57	85	96	121	149	45	49	76	88	114
	<b>3</b>	66	69	97	106	130	150	58	61	89	99	125
	<b>4</b>	83	89	113	115	134	152	74	80	106	108	129
	<b>5</b>	107	110	130	134	141	154	93	95	111	121	139
<b>HPB 150</b>	<b>1</b>	81	88	156	163	179	295					
	<b>2</b>	142	145	227	230	236	312					
	<b>3</b>	170	180	242	245	263	315					

### Maximum flow rate for a complete pressure filter with a pressure drop $\Delta p = 1.5$ bar.

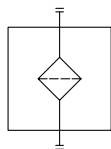
The reference fluid has a kinematic viscosity of 30 mm<sup>2</sup>/s (cSt) and a density of 0.86 kg/dm<sup>3</sup>.

For different pressure drop or fluid viscosity we recommend to use our selection software available on [www.mpfiltri.com](http://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	Style S
<b>HPB 050</b>	•
<b>HPB 150</b>	•

### Hydraulic symbols



## Designation & Ordering code

### COMPLETE FILTER

Series and size **HPB050** Configuration example: **HPB050** **3** **A** **A10** **N** **P01**

Length **1** | **2** | **3** | **4** | **5** |

Seals **A** NBR  
**V** FPM

Filtration rating (filter media)		
<b>A03</b>	Inorganic microfiber	3 µm
<b>A06</b>	Inorganic microfiber	6 µm
<b>A10</b>	Inorganic microfiber	10 µm
<b>A16</b>	Inorganic microfiber	16 µm
<b>A25</b>	Inorganic microfiber	25 µm
<b>M25</b>	Wire mesh	25 µm

Element Δp	
<b>N</b>	20 bar
<b>S</b>	210 bar

Execution	
<b>P01</b>	MP Filtri standard
<b>Pxx</b>	Customized

### FILTER ELEMENT

Element series and size **HP050** Configuration example: **HP150** **3** **A10** **A** **N** **P01**

Element length **1** | **2** | **3** | **4** | **5** |

Seals **A** NBR  
**V** FPM

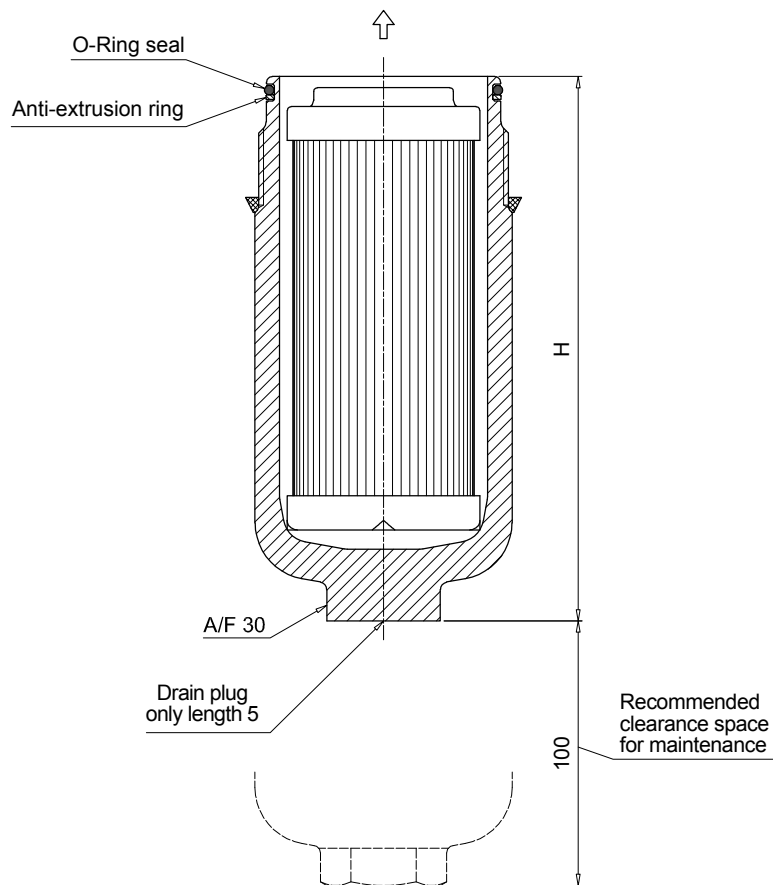
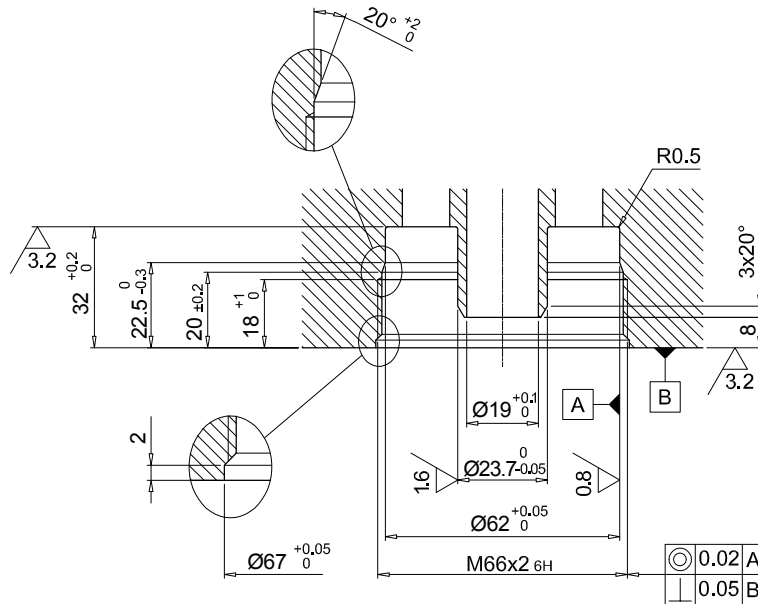
Filtration rating (filter media)		
<b>A03</b>	Inorganic microfiber	3 µm
<b>A06</b>	Inorganic microfiber	6 µm
<b>A10</b>	Inorganic microfiber	10 µm
<b>A16</b>	Inorganic microfiber	16 µm
<b>A25</b>	Inorganic microfiber	25 µm
<b>M25</b>	Wire mesh	25 µm

Seals	
<b>A</b>	NBR
<b>V</b>	FPM

Element Δp	
<b>N</b>	20 bar
<b>S</b>	210 bar

Execution	
<b>P01</b>	MP Filtri standard
<b>Pxx</b>	Customized

HPB050	
Filter length	H [mm]
1	107
2	144
3	186
4	234
5	356



## Designation & Ordering code

### COMPLETE FILTER

Series and size **HPB150** Configuration example: **HPB150** **3** **A** **A10** **N** **P01**

Length **1** | **2** | **3** |

Seals **A** NBR  
**V** FPM

Filtration rating (filter media)		
<b>A03</b>	Inorganic microfiber	3 µm
<b>A06</b>	Inorganic microfiber	6 µm
<b>A10</b>	Inorganic microfiber	10 µm
<b>A16</b>	Inorganic microfiber	16 µm
<b>A25</b>	Inorganic microfiber	25 µm
<b>M25</b>	Wire mesh	25 µm

Element Δp	
<b>N</b>	20 bar

Execution	
<b>P01</b>	MP Filtri standard
<b>Pxx</b>	Customized

### FILTER ELEMENT

Element series and size **HP150** Configuration example: **HP050** **3** **A10** **A** **N** **P01**

Element length **1** | **2** | **3** |

Seals **A** NBR  
**V** FPM

Filtration rating (filter media)		
<b>A03</b>	Inorganic microfiber	3 µm
<b>A06</b>	Inorganic microfiber	6 µm
<b>A10</b>	Inorganic microfiber	10 µm
<b>A16</b>	Inorganic microfiber	16 µm
<b>A25</b>	Inorganic microfiber	25 µm
<b>M25</b>	Wire mesh	25 µm

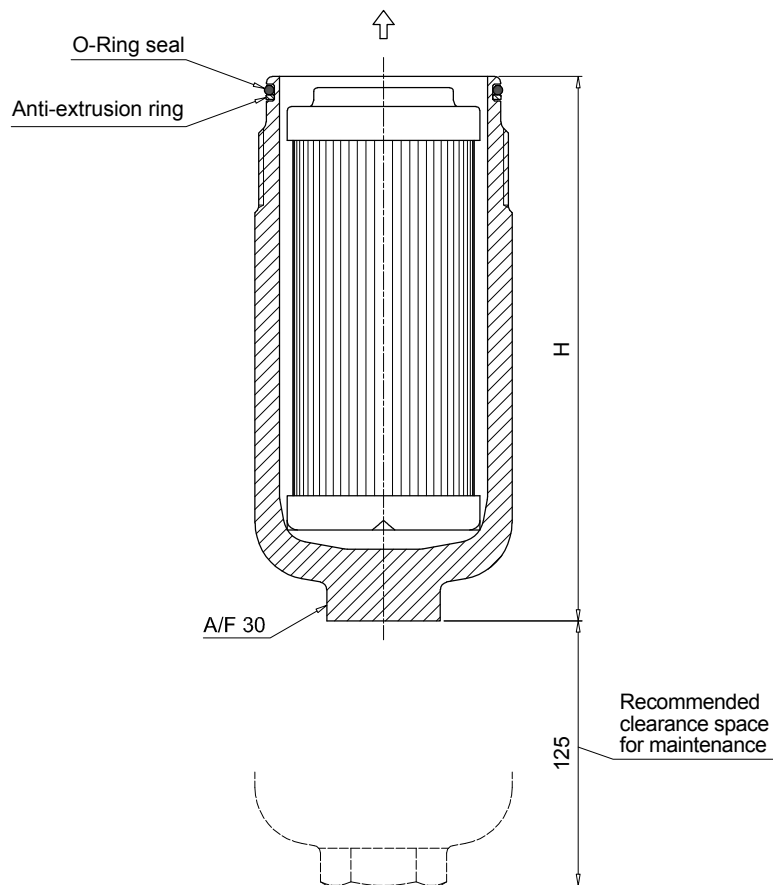
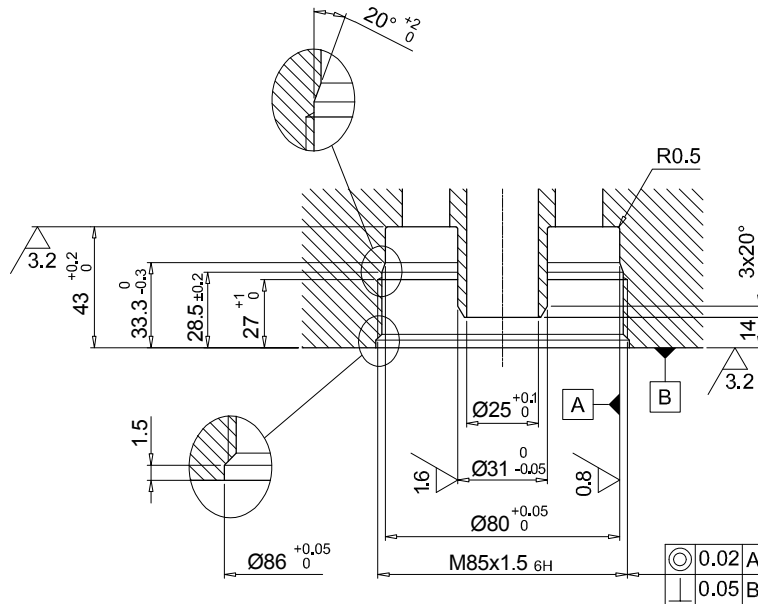
Seals	
<b>A</b>	NBR
<b>V</b>	FPM

Element Δp	
<b>N</b>	20 bar

Execution	
<b>P01</b>	MP Filtri standard
<b>Pxx</b>	Customized



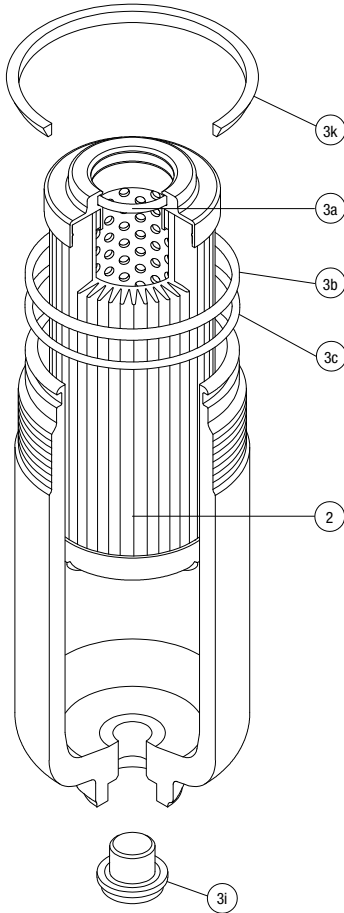
HPB150	
Filter length	H [mm]
1	161
2	271
3	346



# HPB SPARE PARTS

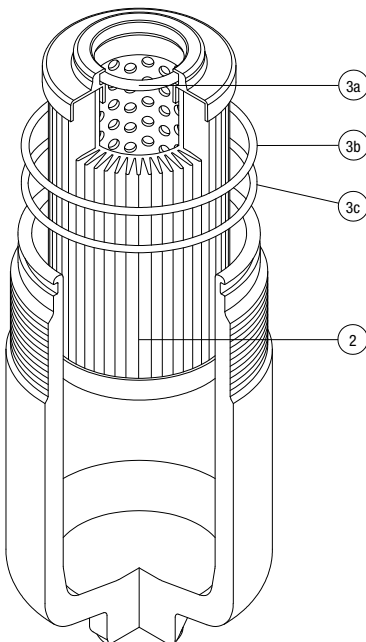
Order number for spare parts

## HPB 050



<b>Item:</b>	Q.ty: 1 pc. <b>2</b>	Q.ty: 1 pc. <b>3</b> (3a ÷ 3i)
<b>Filter series</b>	<b>Filter element</b>	<b>Seal Kit code number</b>
		<b>NBR</b> <b>FPM</b>
<b>HPB 050</b>	See order table	02050813                      02050823

## HPB 150



<b>Item:</b>	Q.ty: 1 pc. <b>2</b>	Q.ty: 1 pc. <b>3</b> (3a ÷ 3c)
<b>Filter series</b>	<b>Filter element</b>	<b>Seal Kit code number</b>
		<b>NBR</b> <b>FPM</b>
<b>HPB 150</b>	See order table	02050816                      02050826