

HPB series

BOWL KIT

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



INSTALLATION, SERVICE AND MAINTENANCE MANUAL AND SAFETY INSTRUCTIONS



HPB050



HPB150

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

Filter element features

Filter HPB		Filter element HP	
Δp Element type			
Element media	Construction	Δp Series	Δp
A - Microfiber	Standard	N	20 bar
	High Δp with external support	S	210 bar
M - Wire mesh	Standard	N	20 bar
Please see ordering code tables to check element Δp series availability based on filter features.			
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

HPB filters are provided for vertical mounting

Weights [kg] and volumes [dm³]

Filter series	Weights [kg]					Volumes [dm³]						
	Length	1	2	3	4	5	Length	1	2	3	4	5
HPB 050		1.10	1.50	1.90	2.40	3.50		0.30	0.45	0.60	0.80	1.20
HPB 150		2.90	4.90	6.30	-	-		0.45	0.85	1.10	-	-

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
HPB 050	1	42	43	79	82	106	147	29	39	57	59	74
	2	52	57	85	96	121	149	45	49	76	88	114
	3	66	69	97	106	130	150	58	61	89	99	125
	4	83	89	113	115	134	152	74	80	106	108	129
	5	107	110	130	134	141	154	93	95	111	121	139
HPB 150	1	81	88	156	163	179	295					
	2	142	145	227	230	236	312					
	3	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 mm²/s (cSt) and a density of 0.86 kg/dm³.

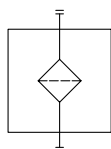
For different pressure drop or fluid viscosity we recommend to use our selection software available on www.mpfiltri.com.

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	Style S
HPB 050	•
HPB 150	•

Hydraulic diagram



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)

Code	Media	Rating
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

Filtration rating

Element	Δp	Axx	M25
N	20 bar	•	•
S	210 bar	•	-

Execution

Code	Description
P01	MP Filtri standard
Pxx	Customized

FILTER ELEMENT

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

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

Filtration rating (filter media)

Code	Media	Rating
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

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

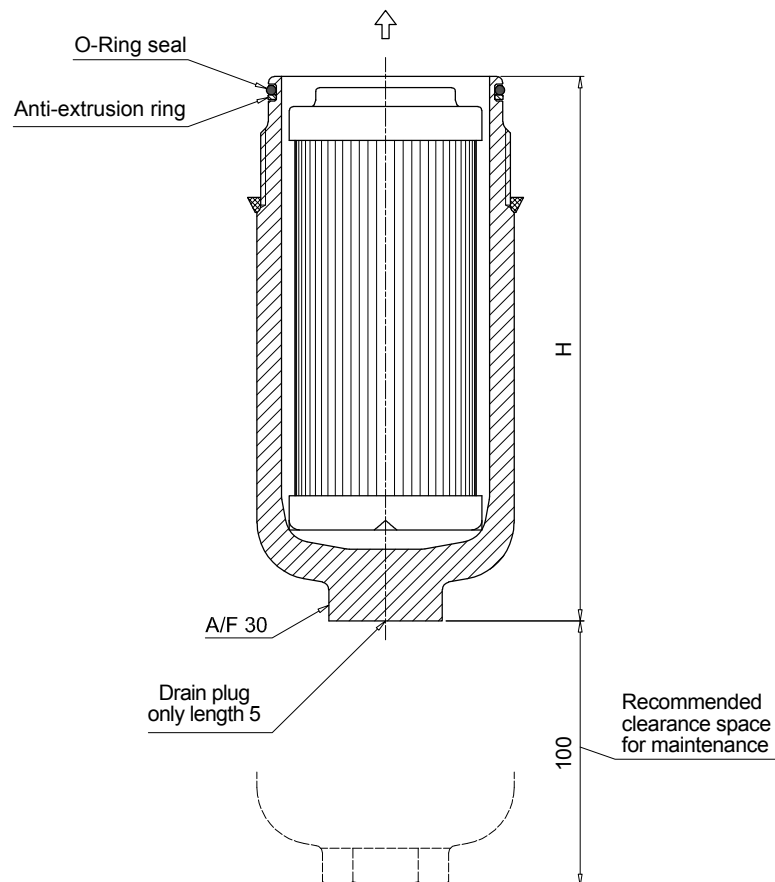
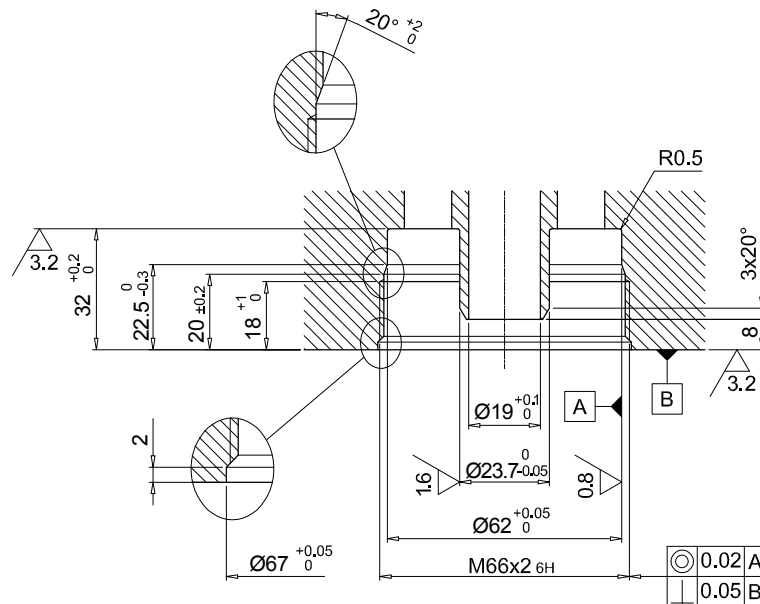
Filtration rating

Element	Δp	Axx	M25
N	20 bar	•	•
S	210 bar	•	-

Execution

Code	Description
P01	MP Filtri standard
Pxx	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)

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

Element Δp **N** 20 bar

Execution **P01** MP Filtri standard
Pxx Customized

FILTER ELEMENT

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

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

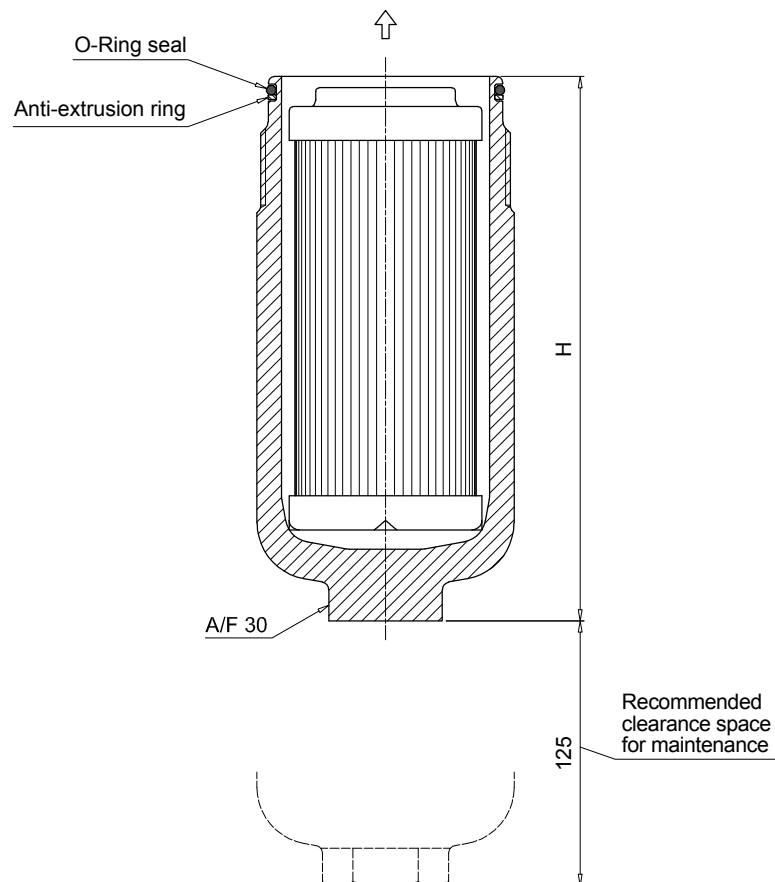
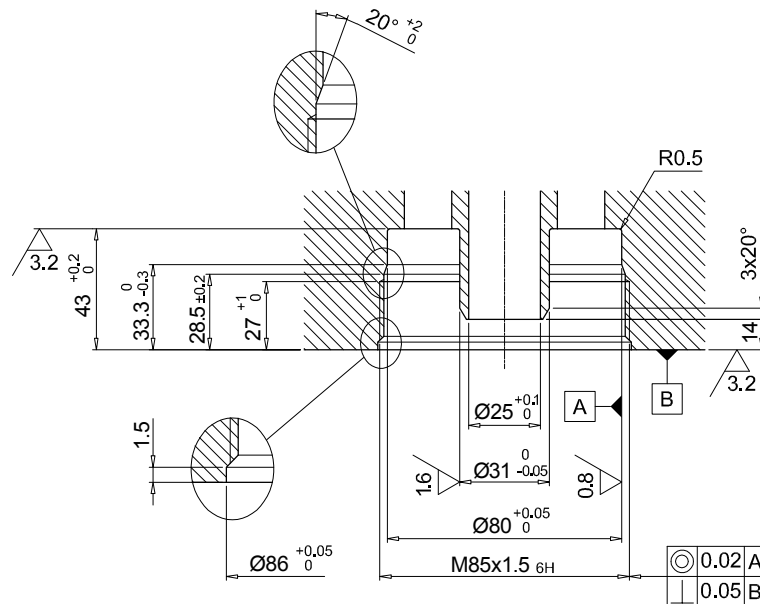
Filtration rating (filter media)

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

Seals **A** NBR
V FPM

Element Δp **N** 20 bar

Execution **P01** MP Filtri standard
Pxx Customized

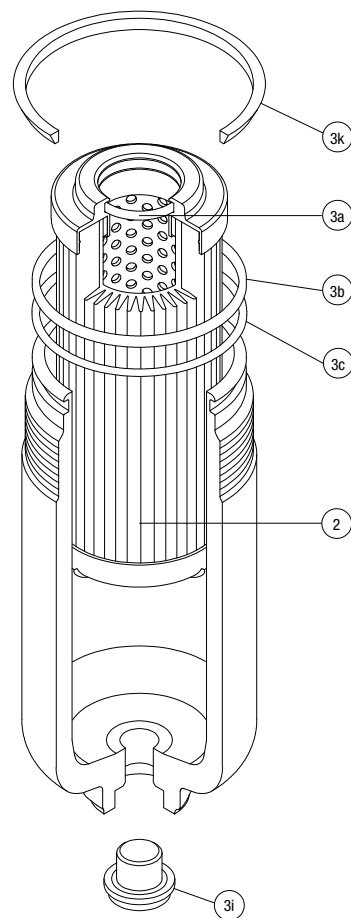


HPB150	
Filter length	H [mm]
1	161
2	271
3	346

HPB SPARE PARTS

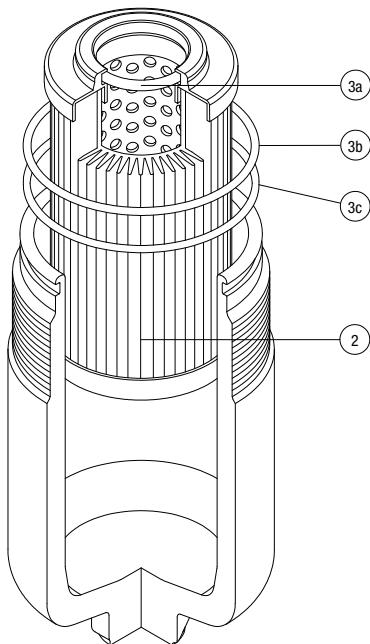
Order number for spare parts

HPB 050



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

HPB 150



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