

Hydraulic Filtration



FHP050 Series High Pressure Filtration

Filter Body:

Head: cast iron (chemical heat treated).
Housing: steel (chemical heat treated).
Bypass valve: steel.

Bypass Valve:

Opening pressure: 6 bar \pm 10%.
Other opening pressures on request.

Elements Type Δ p:

Microfibre filter elements series N: 20 bar.
Microfibre filter elements series H: 210 bar.
Stainless steel mesh elements series N: 20 bar.
Oil flow from exterior to interior.

Seals:

Standard Nitrile (NBR) series A.
Optional FPM series V.


Compatibility:


Bodies compatible with mineral oils to ISO 2943
– aqueous emulsions, synthetic fluids, water/glycol.

Filter elements compatible with mineral oils to ISO 2943
– aqueous emulsions, synthetic fluids, water/glycol.

Nitrile (NBR) seals series A compatible with mineral oils
to ISO 2943 – aqueous emulsions, synthetic fluids,
water/glycol.

V series FPM seals compatible with synthetic
fluids type HS, HFDR, HFDS, HFDU to ISO 2943.

 **Working Temperature:**
-25°C to +110°C

 **Working Pressure:** 420 bar
Test Pressure: 420 bar
Maximum Burst Pressure: 840 bar



1/2" BSP Ports, Length 1			
Part Code	Manufacturer's Code	Micron Rating	Flow Rate Litres per min
1011-0000	FHP0501BACA03NP01	3	30
1011-0001	FHP0501BACA06NP01	6	40
1011-0002	FHP0501BACA10NP01	10	58
1011-0003	FHP0501BACA16NP01	16	60
1011-0004	FHP0501BACA25NP01	25	75

3/4" BSP Ports, Length 1			
Part Code	Manufacturer's Code	Micron Rating	Flow Rate Litres per min
1011-0020	FHP0501BADA03NP01	3	30
1011-0021	FHP0501BADA06NP01	6	40
1011-0022	FHP0501BADA10NP01	10	58
1011-0023	FHP0501BADA16NP01	16	60
1011-0024	FHP0501BADA25NP01	25	75

1/2" BSP Ports, Length 2			
Part Code	Manufacturer's Code	Micron Rating	Flow Rate Litres per min
1011-0005	FHP0502BACA03NP01	3	45
1011-0006	FHP0502BACA06NP01	6	50
1011-0007	FHP0502BACA10NP01	10	78
1011-0008	FHP0502BACA16NP01	16	90
1011-0009	FHP0502BACA25NP01	25	119

3/4" BSP Ports, Length 2			
Part Code	Manufacturer's Code	Micron Rating	Flow Rate Litres per min
1011-0025	FHP0502BADA03NP01	3	45
1011-0026	FHP0502BADA06NP01	6	50
1011-0027	FHP0502BADA10NP01	10	78
1011-0028	FHP0502BADA16NP01	16	90
1011-0029	FHP0502BADA25NP01	25	119

1/2" BSP Ports, Length 3			
Part Code	Manufacturer's Code	Micron Rating	Flow Rate Litres per min
1011-0010	FHP0503BACA03NP01	3	59
1011-0011	FHP0503BACA06NP01	6	62
1011-0012	FHP0503BACA10NP01	10	92
1011-0013	FHP0503BACA16NP01	16	100
1011-0014	FHP0503BACA25NP01	25	130

3/4" BSP Ports, Length 3			
Part Code	Manufacturer's Code	Micron Rating	Flow Rate Litres per min
1011-0030	FHP0503BADA03NP01	3	59
1011-0031	FHP0503BADA06NP01	6	62
1011-0032	FHP0503BADA10NP01	10	92
1011-0033	FHP0503BADA16NP01	16	100
1011-0034	FHP0503BADA25NP01	25	130

1/2" BSP Ports, Length 4			
Part Code	Manufacturer's Code	Micron Rating	Flow Rate Litres per min
1011-0015	FHP0504BACA03NP01	3	75
1011-0016	FHP0504BACA06NP01	6	82
1011-0017	FHP0504BACA10NP01	10	106
1011-0018	FHP0504BACA16NP01	16	112
1011-0019	FHP0504BACA25NP01	25	135

3/4" BSP Ports, Length 4			
Part Code	Manufacturer's Code	Micron Rating	Flow Rate Litres per min
1011-0035	FHP0504BADA03NP01	3	75
1011-0036	FHP0504BADA06NP01	6	82
1011-0037	FHP0504BADA10NP01	10	106
1011-0038	FHP0504BADA16NP01	16	112
1011-0039	FHP0504BADA25NP01	25	135

High Pressure Filters

Technical Data

Filter body

- > Head: Cast iron (chemical heat treated)
- > Housing: Steel (chemical heat treated)
- > Bypass valve : Steel

Pressure

- > Working pressure : 420 bar (42 MPa)
- > Test pressure : 420 bar (42 MPa)
- > Burst pressure : 840 bar (84 MPa)

Temperature

- > From -25 °C to +110 °C

Bypass valve

- > Opening pressure 6 bar \pm 10%
- > Other opening pressures on request

Elements type Δp

- > Microfibre filter elements series N: 20 bar
- > Microfibre filter elements series H: 210 bar
- > Stainless steel mesh elements series N: 20 bar
- > Oil flow from exterior to interior.

Seals

- > Standard Nitrile (NBR) series A
- > Optional FPM series V
- > Nitrile (NBR) seals series A, compatible with:
Mineral oils to ISO 2943 - aqueous emulsions
synthetic fluids, water/glycol.
- > V series FPM seals, compatible with:
Synthetic fluids type HS-HFDR-HFDS-HFDU
To ISO 2943

Compatibility

- > Bodies compatible with:
Mineral oils to ISO 2943 - aqueous emulsions
synthetic fluids, water/glycol.
- > Filter elements compatible with:
Mineral oils to ISO 2943 - aqueous emulsions
synthetic fluids, water/glycol.

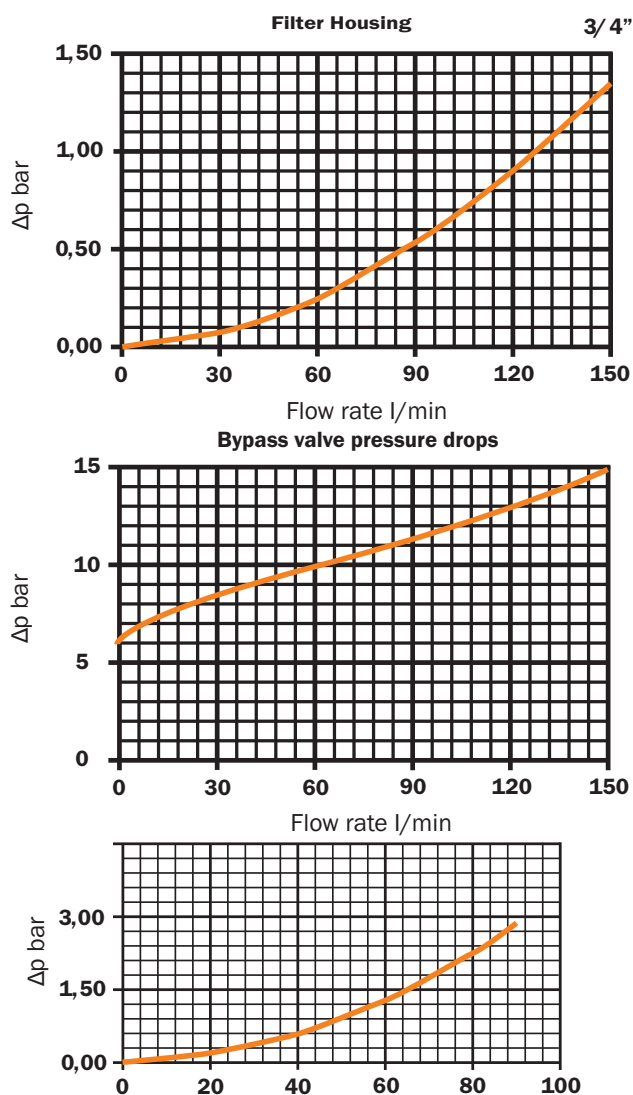
Filter Element Area

Filter element in stainless steel mesh				Length
Type	1	2	3	4
FHP50	450	700	1000	1300
Values expressed in cm^2				

Pressure drops Δp Housing

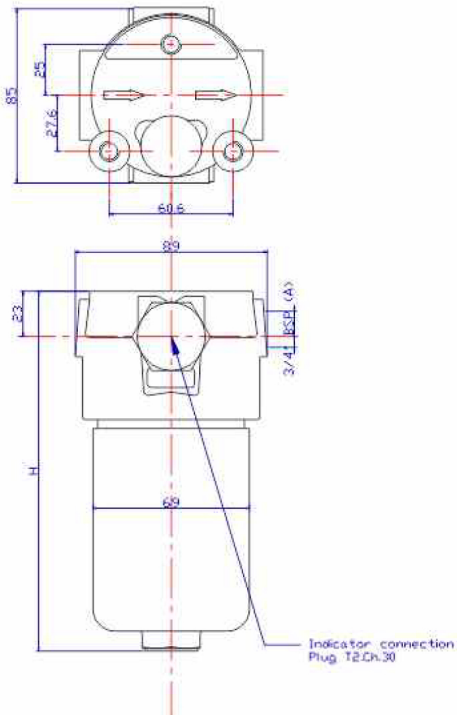
The curves are plotted using mineral oil with density of 0.86 kg/dm^3 to ISO 3968.

Δp varies proportional with density



High Pressure Filters

Technical Data



Standard Indicator



Option P03 with indicator at 90°

Recommended maximum flow rate

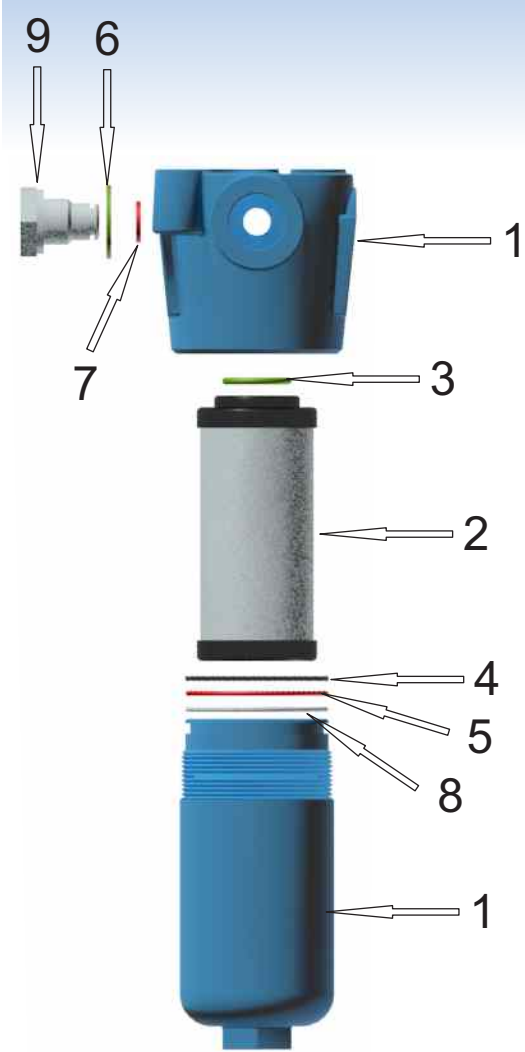
- Pressure drop of complete filter equal to Δp 1.5 bar.
- Oil kinematic viscosity 30 mm²/s (cSt).
- Density 0.86 kg/dm³.
- Connections of filter under test G 3/4".

Filter element type	Flow rate l/min Series N	Flow rate l/min Series H	Filter Length
A03	44	30	1
A06	44	40	
A10	80	58	
A16	82	60	
A25	110	75	
M25	140	-	2
A03	53	45	
A06	58	50	
A10	87	78	
A16	100	90	
A25	125	119	3
M25	140	-	
A03	68	59	
A06	71	62	
A10	100	92	
A16	110	100	4
A25	135	130	
M25	140	-	
A03	85	75	
A06	92	82	
A10	118	106	4
A16	120	112	
A25	135	135	
M25	145	-	

Length	H
1	158
2	195
3	237
4	285

High Pressure Filters

Technical Data

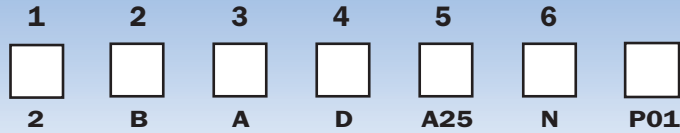


		FHP050 series FILTER 050 1 - 2 - 3 - 4	
1	Filter Head & Housing	C.I (heat treated) Steel(heat treated)	
2	Filter Element		
	Seal kits	NBR	FPM
3	O-Ring for filter element	O-RING Ø 23.67 x 2.62	
4	O-Ring for housing	O-RING Ø 56.82 x 2.62	
5	Anti-extrusion ring	O-RING Ø 56.03 x 2.18	
6	Gasket	(HNBR)	(FPM)
7	O-Ring	O-RING Ø 12.42 x 1.78	
8	Protection seal	TEFLON	
9	Indicator plug	FT2H	FT2V

Ordering Information

Filter assembly FHP050

Example: HP050



1 - Filter lengths

- 1**
- 2**
- 3**
- 4**

2 - Bypass valve

- W** Without bypass
- B** With bypass
- C** Without bypass + check valve
- E** With bypass + check valve

3 - Seals

- A** NBR
- V** FPM

4 - Threaded connections

- A** M18x1.5 ISO 6149
- B** M22x1.5 ISO 6149
- C** G 1/2"
- D** G 3/4"
- E** 1/2" NPT
- F** 3/4" NPT
- G** SAE 8 (3/4" - 16 UNF)
- H** SAE 12 (1 1/16" - 12 UN)

5 - Filter elements

- A03** Inorganic microfibre 3 μ
 - A06** Inorganic microfibre 6 μ
 - A10** Inorganic microfibre 10 μ
 - A16** Inorganic microfibre 16 μ
 - A25** Inorganic microfibre 25 μ
 - M25** Stainless steel mesh 25 μ (N style only)
- } $\beta_x(c) \geq 1000$

6 - Filter elements differential pressure

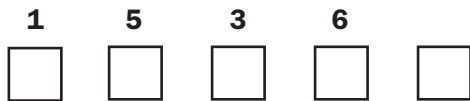
- N** 20 bar
- S** 210 bar

7 - Options

Filter

- P01** Standard threaded connection for indicator
- P02** Without threaded connection for indicator
- P03** Threaded connection for indicator at 90°
- P04** Customer request

Filter element HP 050



Example: HP050