



Maximum working pressure up to 42 MPa (420 bar) - Flow rate up to 750 l/min





# FHP GENERAL INFORMATION

### Description

## Technical data

## High Pressure filters

#### In-line

Maximum working pressure up to 42 MPa (420 bar) Flow rate up to 750 I/min

FHP is a range of versatile high pressure filter for protection of sensitive components in high pressure hydraulic systems in the industrial equipment.

They are directly connected to the lines of the system through the hydraulic fittings.

**Available features:** 

- Female threaded connections up to 1 1/2" and flanged connections up to 2", for a maximum return flow rate of 750 l/min
- Fine filtration rating, to get a good cleanliness level into the system
- Bypass valve, to relieve excessive pressure drop across the filter media
- Check valve, to protect the system against reverse flow
- Reverse flow valve, to allow bidirectional flow through the filter housing. The back flow is not filtered. The filter requires the use of internal check valves to direct the flow through the element in one direction and around the element in the other
- Low collapse filter element "N", for use with filters provided with bypass valve
- High collapse filter element "H", for use with filters not provided with bypass valve
- Low collapse filter element with external support "R", for filter element protection against the back pressure caused by the check valve or the reverse flow in filters provided with the bypass valve
- High collapse filter element with external support "S", for filter element protection against the back pressure caused by the check valve or the reverse flow in filters not provided with the bypass valve
- Visual, electrical and electronic differential clogging indicators

#### **Common applications:**

Delivery lines, in any high pressure industrial equipment or mobile machines

#### Filter housing materials - Head: Phosphatized cast iron

- Thead. Thosphalized east non
- Housing: Phosphatized steel
- Bypass valve AISI 316L: FHP 010 - 011 Brass: FHP 065 - 135 Brass / AISI 304: FHP 350 Steel: FHP 500
- Reverse Flow Steel: FHP 350 - FHP 500
- Check valve: 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)

#### **Bypass valve**

- Opening pressure 600 kPa (6 bar) ±10%
- Other opening pressures on request.

#### ∆p element type

- Microfibre filter elements series N: 20 bar
- Microfibre filter elements series R: 20 bar (not available for FHP 010-011 and FHP 500)
- Microfibre filter elements series H: 210 bar
- Microfibre filter elements series S: 210 bar (only for FHP 500)
- Wire mesh filter elements series N: 20 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

Connections FHP 010 - 065 - 135 - 350 - 500: In-line Inlet/Outlet FHP 011: 90° Inlet/Outlet

Note FHP filters are provided for vertical mounting



## Weights [kg] and volumes [dm3]

Filter series	Weights [kg]							Volumes [dm <sup>3</sup> ]					
	Length						Length						
FHP 010 - 011		2.05	2.18	2.64	3.13	) <del>-</del>		0.10	0.12	0.15	0.20	-	
FHP 065		4.26	4.62	5.83	-	100		0.25	0.30	0.50	-	1.00	
FHP 135		7.11	8.71	9.76	-			0.43	0.76	0.97	-	-	
FHP 350		13.95	16.08	18.37	20.85			1.00	1.72	2.49	3.32	: <del></del> :	
FHP 500		27.00	31.17	34.69	46.70	52.5	J	1.71	2.43	3.04	5.18	6.51	



## Designation & Ordering code

HP FHP500

		C	COMPLETE FILTER							
Seri	es and size		Configuration example: F	HP500 4	VA	G1 A	06	S	P	01
FHP	500		a an 1996 - an dae al tar anne-seo an	10 10 10 10 10 10 10 10 10 10 10 10 10 1	10 Eloz 10 Eloz					ak e
Len	ath									
	2 3 4 5			int.						
Valv			11							
S	Without bypass									
B	With bypass 6 bar									
T	With check valve, without bypa									
D	With check valve, with bypass With reverse flow, without bypass									
z	With reverse flow, with bypass									
-	will reverse now, will bypass	o bai	2							
Seal										
A	NBR									
V	FPM									
Con	nections									
G1	G 1 1/2"	F4 2" SAE 3000 psi/UNC								
G2	1 1/2" NPT	F5 1 1/2" SAE 6000 psi/M	11							
G3	SAE 24 - 1 7/8" - 12 UN	F6 1 1/2" SAE 6000 psi/UNC	C							
F1	1 1/2" SAE 3000 psi/M	F7 2" SAE 6000 psi/M	43							
F2	1 1/2" SAE 3000 psi/UNC	F8 2" SAE 6000 psi/UNC	48							
F3	2" SAE 3000 psi/M									
-	1° 1° 17'11 1° 1									
	ation rating (filter media) Inorganic microfiber 3 µm						_			1
	Inorganic microfiber3 μmInorganic microfiber6 μm		alves				Filt	er len	gth	
	Inorganic microfiber 10 µm	Element ∆p S B T N 20 bar •	DVZ Exe P01	cution MP Filtri standard			2	3	4	5
	Inorganic microfiber 16 µm	R 20 bar	• • P02			housing	1997	1.51	•	-
	Inorganic microfiber 25 µm	S 210 bar • •				•	•		. 54	
-	Wire mesh 25 µm	e zrobu	Pxx	2.4 2.2		•	•	•	•	•
-						1.12	2.28	1000		100

		FILT	ER ELEMI	NT				
Element series and size HP500 Element length		_		Configuration exampl	e: HP500	4 A06	A	S P01
1 2 3 4 5								
Filtration rating (filter media	a)		Г					
A03 Inorganic microfiber	3 µm							
A06 Inorganic microfiber	6 µm	Se	als	E	ement ∆p	B	ecution	26
A10 Inorganic microfiber	10 µm	A	NBR	N	20 bar	PO	1 MP F	iltri standard
A16 Inorganic microfiber	16 µm	V	FPM	R	20 bar	Px	x Custo	mized
A25 Inorganic microfiber	25 µm	25		S	210 bar	100		
M25 Wire mesh	25 µm				ne oracań binki	jā:		

A	C	C	E	SS	60	F	1	E	S
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Diffe	rential indicators	page
DEA	Electrical differential indicator	567
DEH	Hazardous area electronic differential indicator	567-568
DEM	Electrical differential indicator	568-569
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T2	Plug	572

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		page
DLE	Electrical / visual differential indicator	570
DTA	Electronic differential indicator	571
DVA	Visual differential indicator	571
DVM	Visual differential indicator	571

FHP500

Dimensions



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