FH250 SERIES

In line high pressure filters

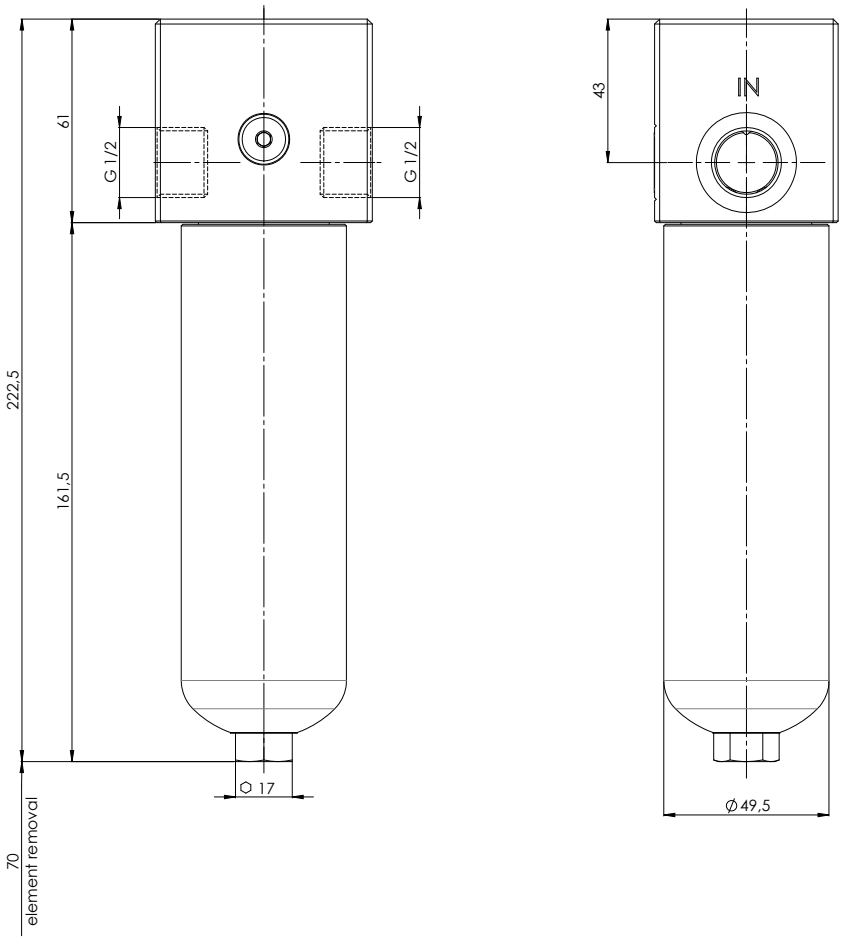
Inline filters for operating pressure up to 250 bar.
Flow rate up to 50 l/min

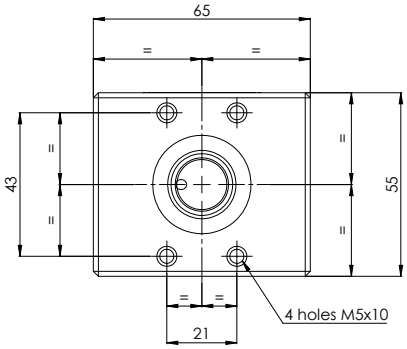
HOUSING	tested according to NFPA T3.10.5.1, ISO 10771, ISO 3968
PRESSURE:	Max operating: up to 250 bar Fatigue pressure test, over 10^6 cycles from zero to max working pressure. Burst: over 500 bar
CONNECTIONS:	G 1/2"
MATERIALS:	Head: anodized aluminium alloy Bowl: anodized aluminium alloy Seal: NBR (FKM on request)
BYPASS VALVE:	6 bar

ELEMENT	tested according to ISO 11170, 2941, 2942, 2943, 3724, 3968,16889, 16908, 23181
FILTER MEDIA:	inorganic microfiber: G01-G03-G06-G10-G15-G25
COLLAPSE PRESSURE:	210 bar

TEMPERATURE RANGE:	with NBR seal from -30 °C to +100 °C with FKM seal (OPTION) from -25 °C to +120 °C
FLUID COMPATIBILITY:	Full with HH-HL-HM-HV HETG-HEES (acc. to ISO 6743/4). For use with other fluid please contact Filtrec Customer Service (info@filtrec.it).

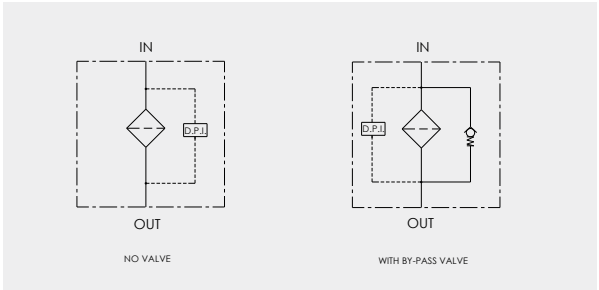
OVERALL DIMENSIONS





WEIGHT: 1,1 Kg

VALVES OPTION



ORDERING INFORMATION

	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.	12.
	FH250	**D1**	**08**	**G10**	**B**	**B**	**B3**	**D**	**W**	**E05**	**A**	**0**
SPARE ELEMENT		**D1**	**08**	**G10**	**B**							

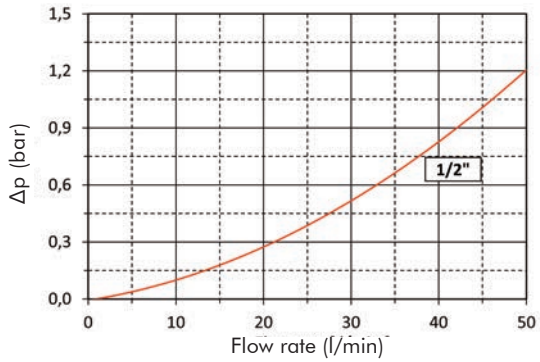
1. FILTER SERIES	FH250		
2. FILTER ELEMENT SERIES	D1		
3. FILTER SIZE	08		
4. FILTER MEDIA	000	no element	
	G01	glassfiber $ß_{4\mu m(c)} \geq 1.000$	
	G03	glassfiber $ß_{5\mu m(c)} \geq 1.000$	
	G06	glassfiber $ß_{7\mu m(c)} \geq 1.000$	
	G10	glassfiber $ß_{12\mu m(c)} \geq 1.000$	
	G15	glassfiber $ß_{17\mu m(c)} \geq 1.000$	
	G25	glassfiber $ß_{22\mu m(c)} \geq 1.000$	
5. ELEMENT COLLAPSE	B	210 bar	
6. SEALS	*B	NBR	
*omitted for spare element	V	FKM (option)	
7. CONNECTIONS	B3	G 1/2	
8. BYPASS VALVE	D	6 bar	
9. INDICATOR PORT OPTION	S	upper differential indicator seat with metallic cap	
	W	upper differential indicator seat with plastic cap	
10. INDICATOR	000	no indicator	
(F) digit for FKM seal option ***LC24**=Led connector (see clogging indicators catalogue)	V05 (VF5)	differential visual 5 bar	
	E05 (EF5)	differential electrical 5 bar	
	E05L (EF5L)	differential electric 5 bar + *LC24	
	V08 (VF8)	differential visual 8 bar	
	E08 (EF8)	differential electrical 8 bar	recommended for no by-pass option
	E08L (EF8L)	differential electric 8 bar + *LC24	
11. CORROSION PROTECTION	A	anodized (standard)	
12. OPTION	0	standard	

PRESSURE DROP (Δp) INFORMATION FOR FILTER SIZING

The total Delta P through a filter assembly is given from Housing Δp + Element Δp.
This ideally should never exceed 1/3 of the set value of the by-pass valve.
N.B. All the reported data have been obtained at our laboratory, according to specification ISO3968 with mineral oil having 32 cSt viscosity and density 0,875 Kg/dm³.

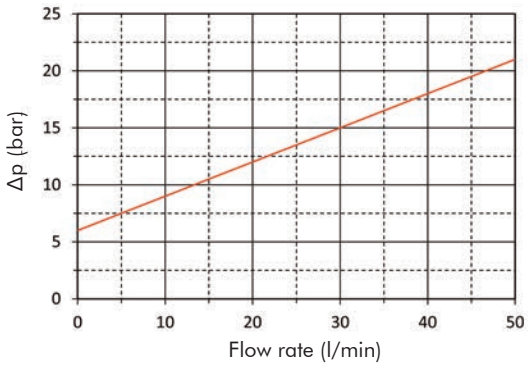
HOUSING PRESSURE DROP

The housing Δp is given by the curve of the considered model and port, in correspondence of the flow rate value.



BYPASS VALVE PRESSURE DROP

The bypass valve Δp is given by the curve of the considered model and setting, in correspondence of the flow rate value.



N.B. All the reported data have been obtained at our laboratory, according to specification ISO3968 with mineral oil having 32 cSt viscosity and density 0,875 Kg/dm³.

ELEMENT PRESSURE DROP (filter elements 210 bar collapse)

The element Δp (bar) is given by the flow rate (l/min) multiplied by the factor in the table here below corresponding to the selected media and divided by 1000.
If the oil has a viscosity Vx different than 32 cSt a corrective factor Vx/32 must be applied.
Example: 25 l/min with D108G10B and oil viscosity 46 cSt: (25 x 34,76)/1000 x (46/32) = 1,25 bar

	G01B	G03B	G06B	G10B	G15B	G25B
D108	120,86	83,59	57,25	34,76	24,65	15,93

EXAMPLE OF TOTAL Δp CALCULATION

FH250D108G10BBB3DWE05A0 with **25** l/min and oil **46** cSt :
Housing Δp 0,4 bar + element Δp 1,25 bar (25 x 34,76)/1000 x (46/32) = total assembly Δp 1,65 bar

USER TIPS

1. FILTER HEAD
2. INDICATOR PORT
3. FIXING HOLES
4. FILTER ELEMENT
5. SEAL KIT
6. FILTER BOWL
7. IDENTIFICATION LABEL
8. BYPASS VALVE

INDICATOR TIGHTENING TORQUE

50 Nm

SPARE SEAL KIT PART NUMBER (5)

	NBR	FKM
FH250 D1-08	06.021.00317	06.021.00318

BOWL TIGHTENING TORQUE

screw up filter bowl till end

WARNING

⚠ Make sure that Personal Protective Equipment (PPE) is worn during installation and maintenance operation.

DISPOSAL OF FILTER ELEMENT

⚠ The used filter elements and the filter parts dirty of oil are classified as "Dangerous waste material": they must be disposed according to the local laws by authorized Companies.

INSTALLATION

⚠ 1. The IN and OUT ports must be connected to the hoses in the correct flow direction "IN" and "OUT" labels are marked on filter head (1).
2. The filter housing should be preferably mounted with the bowl (6) downward.
3. Secure to the frame the filter head (1) using the threaded fixing holes (3).
4. Verify that no tension is present on the filter after mounting.
5. Enough space must be available for filter element replacement.
6. The visual clogging indicator must be in a easily viewable position.
7. When a electrical indicator is used, make sure that it is properly wired.

⚠ 8. Never run the system with no filter element fitted.

9. Keep in stock a spare FILTREC filter element for timely replacement when required.
10. Filter housing should be earthed.

OPERATION

⚠ 1. The filter must work within the operating conditions of pressure, temperature and compatibility given in the first page of this data sheet.
2. The filter element must be replaced as soon as the clogging indicator signals at working temperature (in cold start conditions, oil temperature lower than 30°C, a false alarm can be given due to oil viscosity).
3. If no clogging indicator is mounted, replace the element according to the system manufacturer's recommendations.

MAINTENANCE

⚠ 1. Make sure that the system is switched off and there is no residual pressure in the filter.
2. Unscrew the bowl (6) by turning it anti-clockwise and remove it.
3. Remove the dirty element (4).
4. Fit a new FILTREC element (4), verifying the part number, particularly concerning the micron rating; open its plastic protection on the open end side and insert it onto the spigot in the filter head, then remove completely the plastic protection.
5. Clean carefully the bowl; check the O-rings (5) conditions and replace if necessary.
6. Lubricate the bowl's thread (6) and screw it by hand in the filter head (1) by turning it clockwise.
7. Screw in the bowl to stop.

⚠ 8. The used filter elements cannot be cleaned and re-used.

FILTREC®

www.filtrec.com

Technical information may change without notice

CT96-02/25