FILTREC®

FD3 SERIES

In line high pressure filters

Inline filters for operating pressure up to 110 bar, flow rate up to 80 l/min.

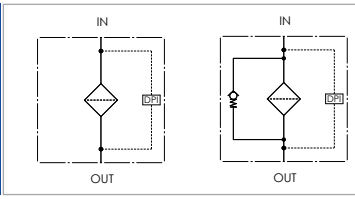
Available with or without bypass, indicator port is a standard option to fit a visual or electrical differential indicator.

HOUSING	tested according to NFPA T3.10.5.1,ISO 10771, ISO3968
PRESSURE:	Max operating: 110 bar Burst: 330 bar
CONNECTION:	G 1/2"
MATERIALS:	Head: anodized aluminium alloy Bowl: anodized aluminium alloy Seal: NBR (FKM on request)
BYPASS VALVE:	No bypass or 6 bar setting

ELEMENT	tested according to ISO 11170, 2941, 2942, 2943, 3724, 3968,16889, 16908, 23181
FILTER MEDIA:	Inorganic microfiber: G01 - G03 - G06 - G10 - G15 - G25 Paper: C10
COLLAPSE PRESSURE:	21 bar

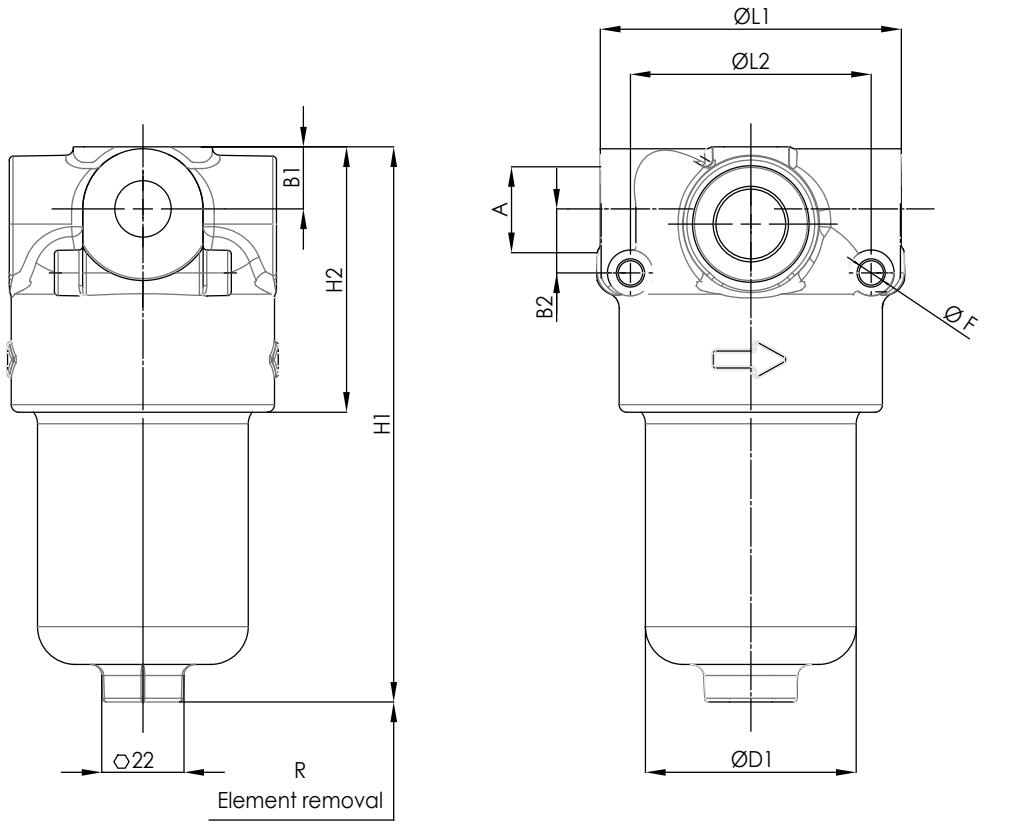
TEMPERATURE RANGE:	with NBR seal is from -30 °C to +100 °C with FKM seal (OPTION) is from -25 °C to +120 °C
FLUID COMPATIBILITY:	Full with HH-HL-HM-HV HETG-HEES (acc. to ISO 6743/4). For use with other fluid please contact Filtrec Customer Service (info@filtrec.it).

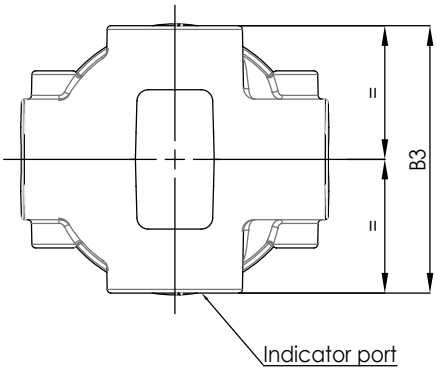
HYDRAULIC SYMBOL



OVERALL DIMENSIONS

F-D3-1x





NOMINAL SIZE

MODEL	A	B1	B2	B3	D1	F	H1	H2	L1	L2	R	WEIGHT
FD3-10	G 1/2"	16	17	72	56	6,5	147	70	80	64	90	2,4 Kg
FD3-11							236					2,6 Kg

ORDERING INFORMATION

	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.
	F	**D3**	**10**	**G10**	**A**	**B**	**B3**	**D**	**W**	**EX5**
SPARE ELEMENT		**D3**	**10**	**G10**	**A**					

1. FILTER	F		
2. SERIES	D3		
3. FILTER SIZE	10-11		
4. FILTER MEDIA	000	no element	
	G01	glassfiber $ß_{4\mu m(c)} > 1.000$	
	G03	glassfiber $ß_{5\mu m(c)} > 1.000$	
	G06	glassfiber $ß_{7\mu m(c)} > 1.000$	
	G10	glassfiber $ß_{12\mu m(c)} > 1.000$	
	G15	glassfiber $ß_{17\mu m(c)} > 1.000$	
	G25	glassfiber $ß_{22\mu m(c)} > 1.000$	
	C10	paper $ß_{10\mu m(c)} > 2$	
5. ELEMENT COLLAPSE	A	21 bar	
6. SEALS	B	NBR	
	V	FKM	
7. CONNECTIONS	B3	G 1/2"	
8. BYPASS VALVE	0	no by-pass	
	D	6 bar	
9. INDICATOR PORT OPTION	T	with metal plug	
	W	with plastic plug	when using an indicator
10. INDICATOR	000	no indicator	
	VX5	differential visual 5 bar	
	EX5	differential electric 5 bar	
	VEXF5	differential visual-electric 5 bar	
	VX8	differential visual 8 bar	
	EX8	differential electric 8 bar	recommended for no bypass option
	VEXF8	differential visual-electric 8 bar	

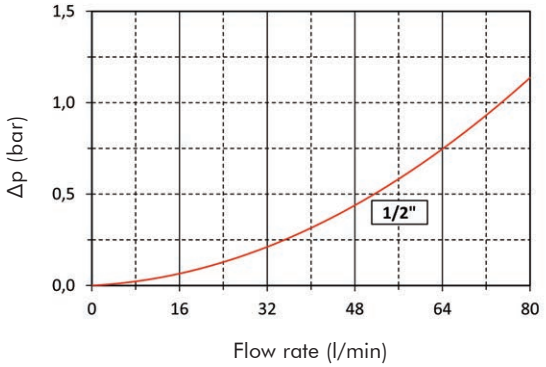
PRESSURE DROP (Δp) INFORMATION FOR FILTER SIZING

The total Delta P through a filter assembly is given from Housing Δp + Element Δp.
This ideally should not exceed 1,0 bar and 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/dm^3.

HOUSING PRESSURE DROP

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

FD3



ELEMENT PRESSURE DROP

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: 20 l/min with D310G10A and oil viscosity 46 cSt: (20 x 19,29) / 1000 x (46/32) = 0,55 bar

	G01	G03	G06	G10	G15	G25	C10
D310	88,57	62,00	41,14	19,29	14,14	9,70	8,57
D311	35,71	25,00	15,43	19,00	6,43	4,20	2,86

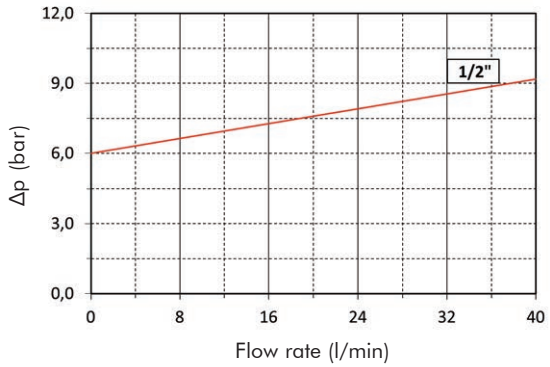
EXAMPLE OF TOTAL Δp CALCULATION

FD3G10ABB3DWV05 with **20** l/min and oil **46** cSt:
Housing Δp 0,1 bar + element Dp 0,55 bar (20 x 19,29/1000 x 46/32) = total assembly Δp 0,65 bar

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.

FD3



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USER TIPS

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

INDICATOR TIGHTENING TORQUE	
VX5/EX5	50 Nm

SPARE SEAL KIT PART NUMBER (7)		
	NBR	FKM
FD3	06.021.00147	06.021.00148

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, an arrow shows on the 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 shoul 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 (5).
4. Fit a new FILTREC element (5), 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 (7) 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.