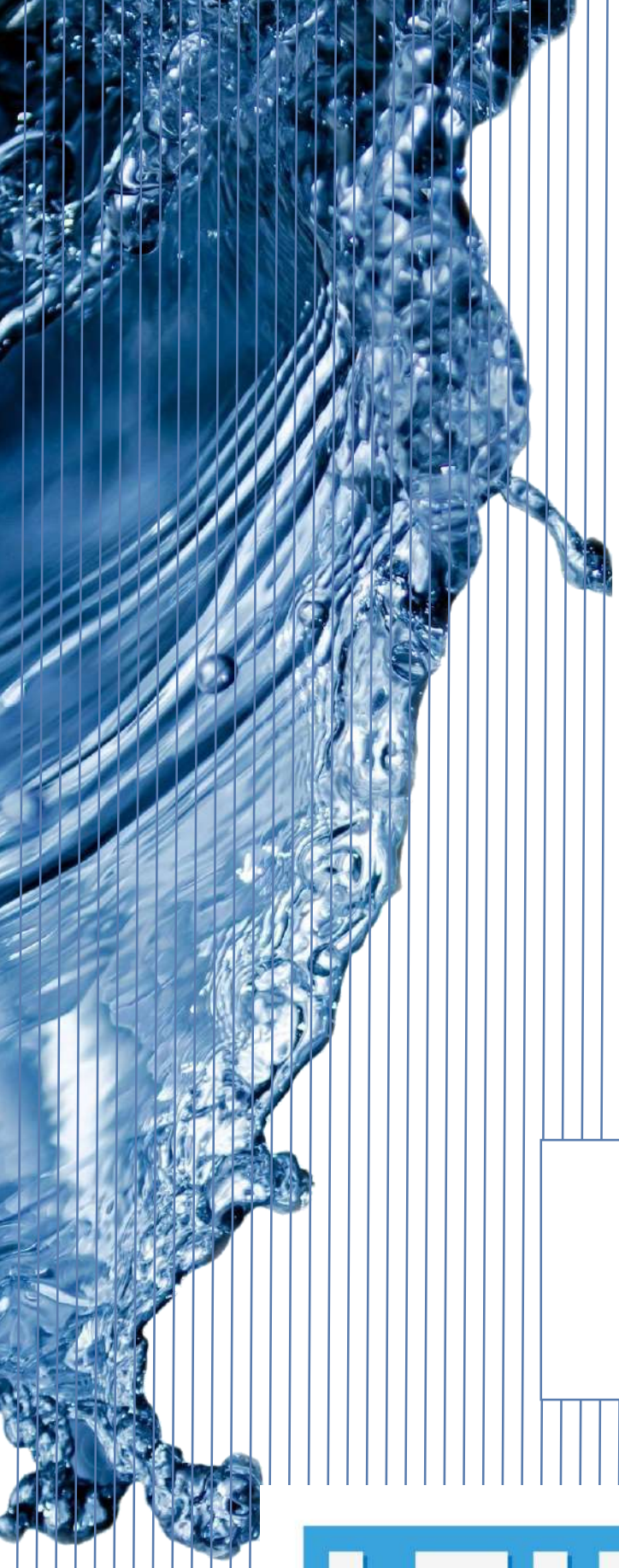


UFI FILTERS

FOF

LTH

HYDRAULIC
COMPONENTS
& FLUID CONTAMINATION
CONTROL

FOF
OFF-LINE FILTERS

DESCRIPTION

Off-line filter, inside to outside filtration

MATERIALS

Head and covers: Aluminum alloy
Bowl: Steel
Element Holder: Polyamide FOF2
Aluminum Alloy FOF3 and FOF4
Seals: NBR Nitrile
FKM Fluoroelastomer on request
Indicator housing: Brass

PRESSURE

Max. working: 1 MPa (10 bar)
Collapse, differential for the filter element (ISO 2941):
3 MPa (30 bar)

BYPASS VALVE

Setting: 170 kPa (1,7 bar) ± 10%

FLOW RATE

Qmax 1500 l/min

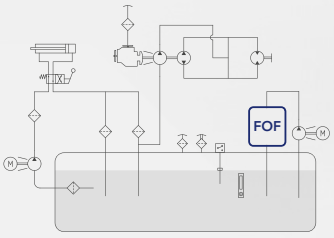
WORKING TEMPERATURE

From -25° to +110° C

COMPATIBILITY (ISO 2943)

Full with fluids: HH-HL-HM-HV-HTG
(according to ISO 6743/4)
For fluids different than the above mentioned, please contact our Customer Service

HYDRAULIC DIAGRAM



Is this datasheet the latest release? Please check on our website

FOF
OFF-LINE FILTERS

ORDERING AND OPTION CHART

F	O	F	COMPLETE FILTER FAMILY						FILTER ELEMENT FAMILY	E	R	F
			SIZE & LENGTH	24	34	36	41	44	SIZE & LENGTH			
			PORT TYPE									
			B = BSP thread	B	-	-	-	-				
			N = NPT thread	N	-	-	-	-				
			S = SAE thread	S	-	-	-	-				
			F = SAE flange 3000 psi	F	F	F	F	F				
			PORT SIZE									
			12 = 1" 1/2	12	-	-	-	-				
			16 = 2"	-	16	16	-	-				
			20 = 2"1/2	-	20	20	-	-				
			24 = 3"	-	-	-	24	24				
			32 = 4"	-	-	-	32	32				
			BYPASS VALVE									
			W = without bypass	W	W	W	W	W				
			F = 170 kPa (1,7 bar)	F	F	F	F	F				
			SEALS						SEALS			
			N = NBR Nitrile	N	N	N	N	N				
			F = FKM Fluoroelastomer	F	F	F	F	F				
			FormulaUFI MEDIA						FormulaUFI MEDIA			
			FA = FormulaUFI.MICRON 5 $\mu m_{(c)}$ β>1.000	FA	FA	FA	FA	FA				
			FB = FormulaUFI.MICRON 7 $\mu m_{(c)}$ β>1.000	FB	FB	FB	FB	FB				
			FC = FormulaUFI.MICRON 12 $\mu m_{(c)}$ β>1.000	FC	FC	FC	FC	FC				
			FD = FormulaUFI.MICRON 21 $\mu m_{(c)}$ β>1.000	FD	FD	FD	FD	FD				
			CC = FormulaUFI.CELL 10 µm β>2	CC	CC	CC	CC	CC				
			ME = FormulaUFI.WEB 60 µm	ME	ME	ME	ME	ME				
			WR = FormulaUFI.H2O (*)	WR	WR	WR	WR	WR				
			CLOGGING INDICATOR**									
			03 = port, plugged	03	03	03	03	03				
			5B = visual differential 130 kPa (1,3 bar)	5B	5B	5B	5B	5B				
			6B = electrical differential 130 kPa (1,3 bar)	6B	6B	6B	6B	6B				
			7B = indicator 6E with LED	7B	7B	7B	7B	7B				
			T0 = elect. diff. 130 kPa (1,3 bar) with thermostat 30°C	T0	T0	T0	T0	T0				
			ACCESSORIES									
			W = without accessory	W	W	W	W	W				
			M = magnetic core	M	M	M	M	M				
			ACCESSORIES									
			W = without accessory	W	W	W	W	W				
			B = mounting brackets	B	B	B	B	B				

* FormulaUFI.H2O, water removal media, for further details see “Hydro dry” chapter

** When the filter is ordered with FKM seals, the first digit of the indicator code is a letter (please see Clogging Indicator Chapter for further details)

SPARE PARTS

FILTER HOUSING	FILTER ELEMENT	CLOGGING INDICATOR	ACCESSORY
			
B O F	E R F		

SPARE SEAL KIT

	NBR	FKM
FOF24	521.0101.2	521.0102.2
FOF34 - 36	521.0103.2	521.104.2
FOF41 - 44	521.0105.2	521.0106.2

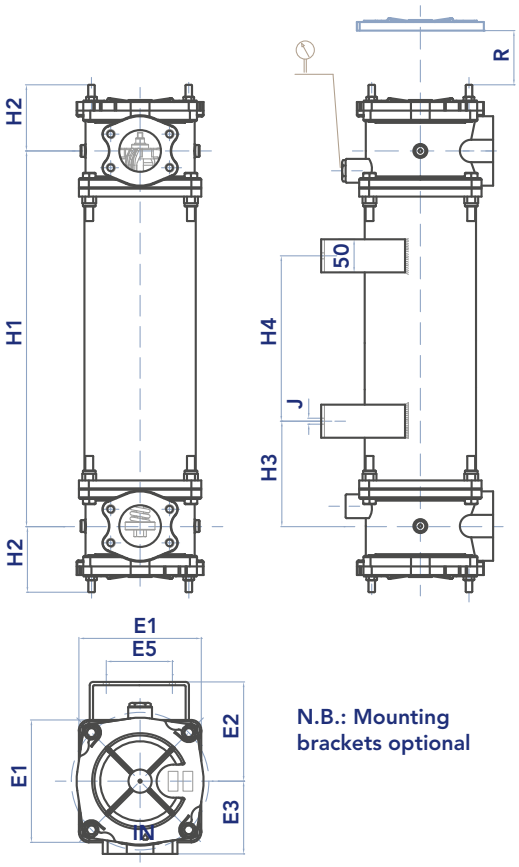
SPARE SPRING

FOF24	008.0269.1
FOF34 - 36	008.0275.1
FOF41 - 44	008.0283.1

FOF
OFF-LINE FILTERS

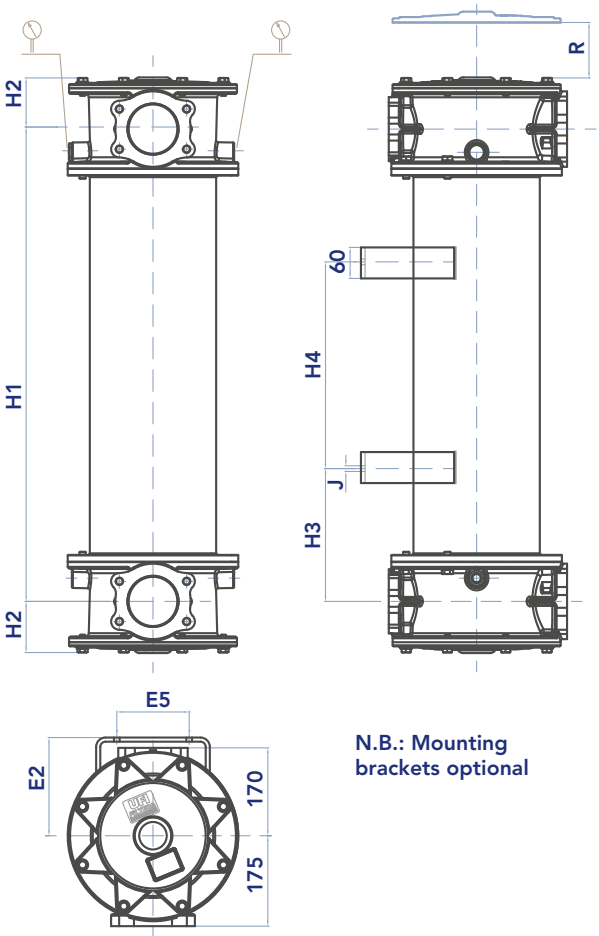
INSTALLATION DRAWING

FOF 24 - 34 - 36



N.B.: Mounting brackets optional

FOF 41 - 44



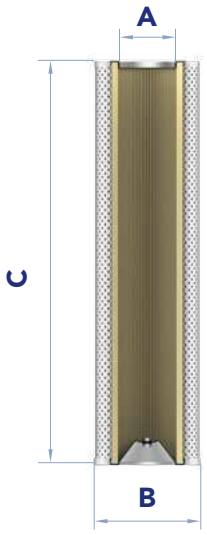
N.B.: Mounting brackets optional

FILTER HOUSING

	PORT SIZE	E1	E2	E3	E5	H1	H2	H3	H4	J	R	kg
FOF24	1" 1/2	150	132	90	70	513	93	130	250	9	580	18,0
FOF34	2" - 2" 1/2	185	150	110	100	568	82	135	250	9	620	22,0
FOF36	2" - 2" 1/2	185	150	110	100	770	82	165	250	9	820	27,9
FOF41	3" - 4"	-	190	-	140	420	99	160	100	11	600	38,4
FOF44	3" - 4"	-	190	-	140	1180	99	340	500	11	1360	66,4

FILTER ELEMENT

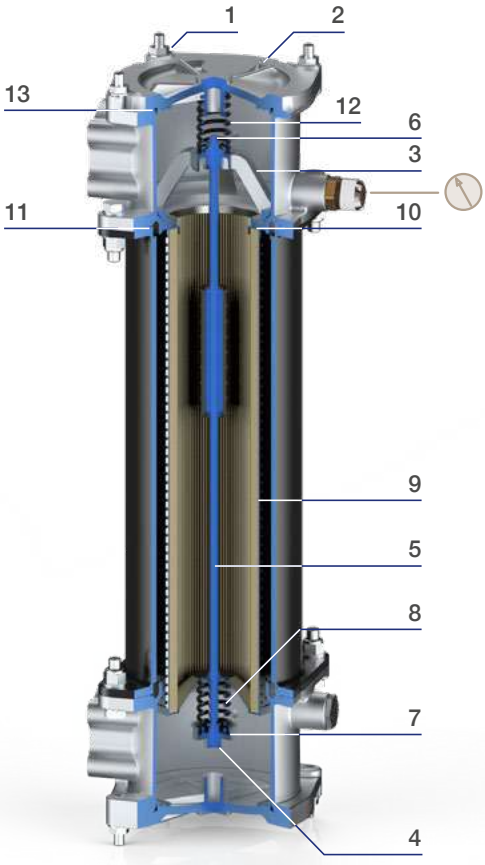
	A	B	C	Kg	AREA (cm²) Media F+	Media CC	Media ME	Media WR
ERF24	72	106	465	1,50	9.700	11.800	3.670	6.749
ERF34	92	126	480	2,20	12.800	15.400	5.250	8.682
ERF36	92	126	680	3,00	18.200	19.500	7.700	12.330
ERF41	157	203	330	3,90	17.900	22.100	6.400	13.520
ERF44	157	203	1090	13,00	60.000	74.000	21.800	22.422



The used filter elements cannot be cleaned and are classified as “Dangerous waste material”. They must be disposed according to local laws by authorized Companies.
Verify that the Company you choose has the expertise and authorization to dispose this type of waste material.

MAINTENANCE

1) Stop the system and verify there is no pressure in the filter.
2) Loosen the nuts (1) on the cover (2). N.B. it is not necessary to disassemble the nuts, use the slots on the cover.
3) Turn the cover (2) clockwise and remove it.
4) Extract the filter element using the handle (3).
5) At the bottom of the element, unscrew the nut (4) from the tie-rod (5) locking the nut (6) with a wrench to prevent rotation of the tie-rod. Remove the spring holder washer (7) and the spring (8).
6) Remove the dirty filter element (3) using the handle.
   N.B. The exhausted filter elements and the oil dirty filter parts are classified “Dangerous waste material” and must be disposed of according to the local laws, by authorized Companies.
7) Verify the filter element part number on the filter label or in the ordering and option chart. Use only original spare parts.
8) Check the correct positioning and the condition of the O-ring (10) between the handle and the element. Clean and lubricate with oil. If damaged, check the seal kit part number in the catalogue or contact the customer care service.
9) Insert the clean element (9) on the tie-rod (5) handling with care.
10) Assembly the spring (8), the spring holder (7) and screw the nut (4) on the tie-rod (5) until it stops.
11) Check the correct position and the condition of handle O-ring gasket (11). Clean and lubricate with oil. If damaged, check the seal kit part number in the catalogue or contact the customer care service.
12) Replace the filter element assembly (with the handle) into the housing with the upper spring (12).
13) Check the correct positioning and the condition of the O-ring gasket (13) of the cover (2) and lubricate with oil. If damaged, verify the seal kit part number in the catalogue or contact the customer care service.
14) Position the cover (2) and tighten the nuts (1) until it stops.



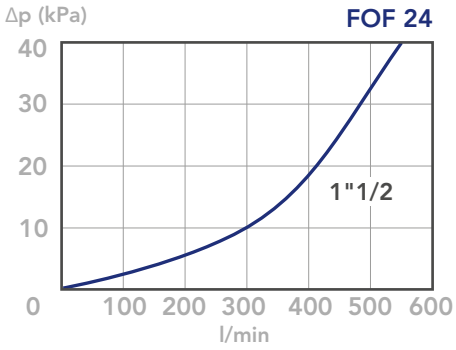
Accessories:
Clogging indicator.
If damaged, unscrew and replace it (check the part number in the ordering and option chart).
Apply a thread-sealing and screw until tight. N.B. An overtightening can damage the thread.

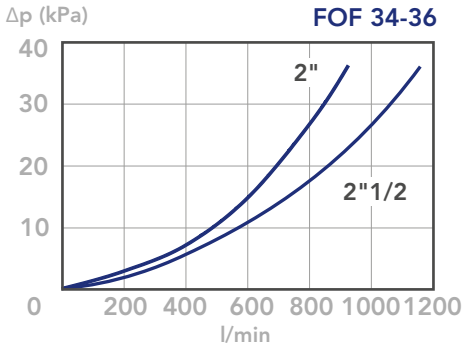
FOF
OFF-LINE FILTERS

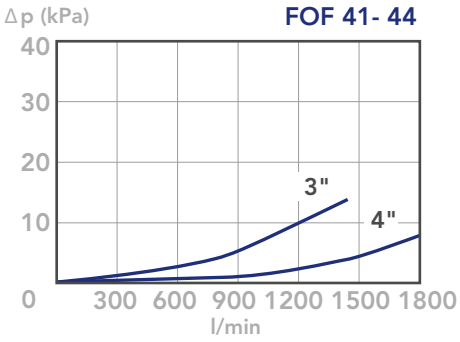
PRESSURE DROP CURVES (ΔP)

The “Assembly Pressure Drop (Δp)” is obtained by adding the pressure drop values of the Filter Housing and of the Clean Filter Element corresponding to the considered Flow Rate and it must be lower than 50 kPa (0,5 bar) and should never exceed 1/3 of the bypass valve setting.

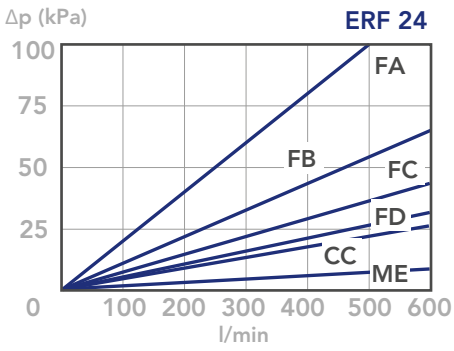
FILTER HOUSING PRESSURE DROP
(mainly depending on the port size)

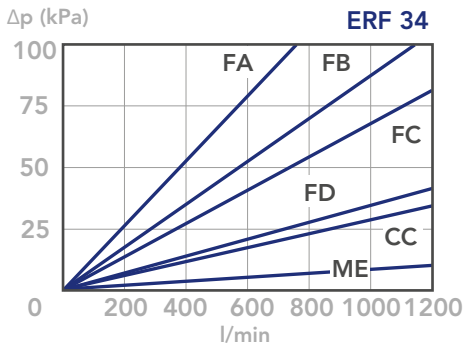


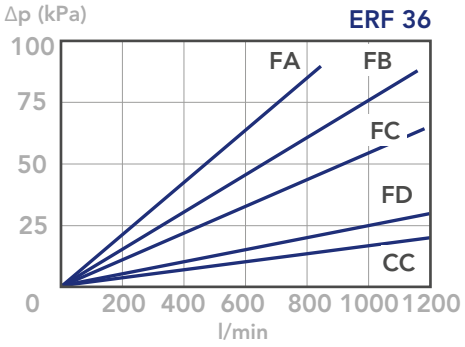


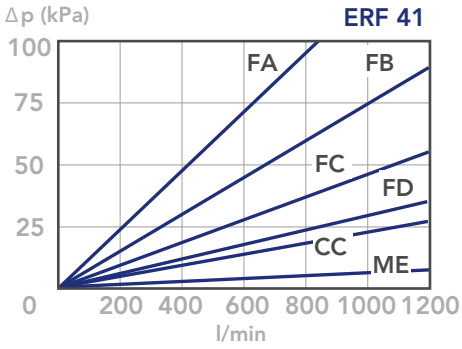


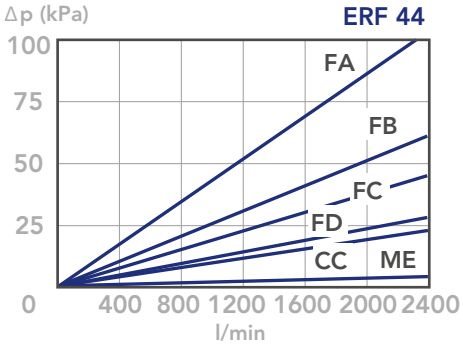
CLEAN FILTER ELEMENT PRESSURE DROP WITH F+, CC AND ME MEDIA
(depending both on the internal diameter of the element and on the filter media)





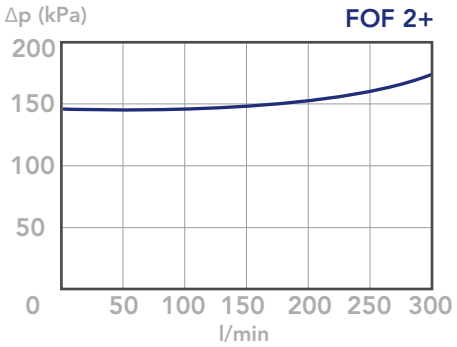


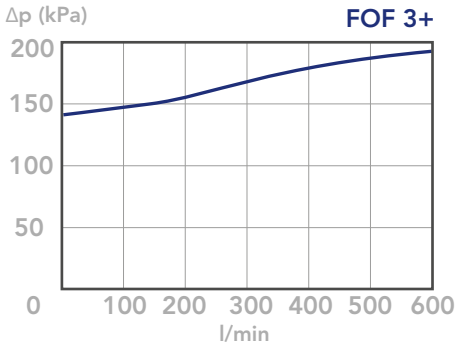


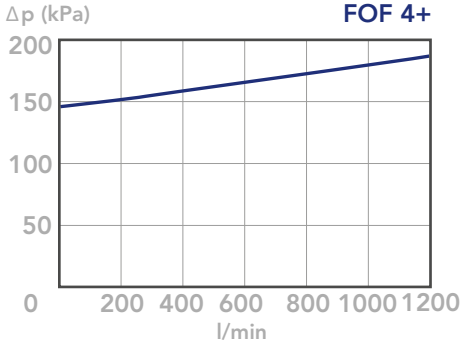


BYPASS VALVE PRESSURE DROP

When selecting the filter size, these curves must be taken into account if it is foreseen that any flow peak is to be absorbed by the bypass valve, it also must be of proper configuration to avoid pressure peaks. The valve pressure drop is directly proportional to fluid specific gravity.







N.B.

All the curves have been obtained with mineral oil having a kinematic viscosity 30 cSt and specific gravity 0,86 kg/dm3; for fluids with different features, please consider the factors described in the first part of this catalogue. All the curves are obtained from test done at the UFI FILTERS HYDRAULICS Laboratory, according to the specification ISO 3968. In case of discrepancy, please check the contamination level, viscosity and features of the fluid in use.

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