



### DESCRIPTION

Ecofriendly in-out tank top return filter

#### MATERIALS

Head and cover: Aluminum alloy Diffusor: Zinc plated steel Element support: Aluminum alloy Magnetic core: Syntherized magnetic material 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): 1 MPa (10 bar)

#### **BYPASS VALVE**

Setting: 170 kPa (1,7 bar)  $\pm$  10%

#### **FLOW RATE**

Qmax 1200 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



ufihyd.com



# **ORDERING AND OPTION CHART**

G	R	F	COMPLETE FILTER FAMILY			FILTER ELEMENT FAMILY	I	R	F
			SIZE & LENGTH	34	36	SIZE & LENGTH			
			PORT TYPE						
			F = SAE flange 3000 psi	F	F				
			P = SAE flange 3000 psi, double port	Р	Р				
			PORT SIZE						
			16 = 2"	16	16				
			20 = 2"1/2	20	20				
			DA = 2"1/2 + 2"	DA	DA				
			D7 = 2" + 1" 1/2	D7	D7				
		F	BYPASS VALVE			7			
			F = 170 kPa (1,7 bar)	F	F				
			SEALS			SEALS			
			N = NBR Nitrile	N	Ν				
			F = FKM Fluoroelastomer	F	F				
			FormulaUFI MEDIA			FormulaUFI MEDIA			
			FA = FormulaUFI.MICRON 5 μm(c) β>1.000	FA	FA				
			FB = FormulaUFI.MICRON 7 μm(c) β>1.000	FB	FB				
			FC = FormulaUFI.MICRON 12 μm(c) β>1.000	FC	FC				
			FS = FormulaUFI.MICRON 16 μm(c) β>1.000	FS	FS				
			FD = FormulaUFI.MICRON 21 μm(c) β>1.000	FD	FD				
			FE = FormulaUFI.MICRON 30 μm(c) β>1.000	FE	FE				
			CLOGGING INDICATOR *			_			
			05 = nr. 2 x 1/8" ports, plugged	05	05				
			30 = manometer, scale 0 - 600 kPa (0 - 6 bar)	30	30				
			P4 = SPDT, pressure switch	P4	P4				
			03 = port for differential indicator, plugged	03	03				
			5B = visual differential 130 kPa (1,3 bar)	5B	5B				
			6B = electrical differential 130 kPa (1,3 bar)	6B	6B				
			7B = indicator 6B with LED	7B	7B				
			T0 = elect. diff. 130 kPa (1,3 bar) with thermostat 30°C	TO	TO	* \\//bacatlaa filtaa		مسطم	wool
			ACCESSORIES		with EKM and	IS (	Jrae ho	firet	
			W = without accessory	W	W	digit of the ind	io, i icato	or ci	nde
			F = with diffusor	F	F	is a letter			500
			ACCESSORIES			(please see Clo	oggiı	ng	
			W = without accessory	W	W	Indicator Chap	ter f	or	
			M = magnetic core	М	Μ	further details)			



#### **SPARE PARTS**





### **INSTALLATION DRAWING**



ALT BURNE

#### **FILTER HOUSING**

	D1	D2	D2a	D3	D4	H1	H2	H3	H4	H5	H6	R	Kg
GRF34	2" - 2"1/2	2" - 2"1/2	1"1/2 - 2"	126	165,5	545	530	155	55	14	460	620	9,10
GRF36	2" - 2"1/2	2" - 2"1/2	1"1/2 - 2"	126	165,5	800	735	155	55	14	700	820	9,80



#### **FILTER ELEMENT**

	A	В	с	Kg	AREA (cm²) Media F+
IRF34	90	120,8	480	0,75	10.810
IRF36	90	120,8	680	1,10	15.410



### 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 (9).

N.B. The exhausted filter elements and the dirty filter components are classified "Dangerous waste material" and must be disposed of according to the local laws, by authorized Companies.

- 7) Check the filter element part number on the filter label or in the ordering and option chart. Use only original spare parts.
- 8) Insert the clean element (9) in the perforated pipe (10) until it stops on lower cap (10a).
- 9) Assembly the spring (8), the spring holder (7) and screw the nut (4) on the tie-rod (5) until it stops.
- 10) 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.
- 11) Replace the filter element assembly (with the handle) into the housing with the upper spring (12).
- 12) Check the correct positioning and the condition of the O-ring gasket (13) of the cover(2) and lubricate with oil. If damaged, check the seal kit part number in the catalogue or contact the customer care service.
- 13) 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).

Indicators with thread M20x1,5: Lubricate the O-ring gaskets and tighten until it stops, with a tightening torque of 40 Nm +5/0.

Indicators with conical thread 1/8": Apply a thread-sealing and screw until tight. N.B. An over-tightening can damage the thread.





## **PRESSURE DROP CURVES (ΔP)**

The "Assembly Pressure Drop  $(\Delta p)$ " is obtained by adding the pressure drop values of the Filter Housing and of the Clean Filter Element corresponding to the considered Flow

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

Rate and it must be lower than 50 kPa (0,5 bar) and should never exceed 1/3 of the bypass valve setting.

#### 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.



Ap (kPa) GFR 3+ 20 150 100 50 0 100 200 300 400 500 600 I/min

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





# 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.