

**As per NFPA T 3.10.5.1**

- Max Working Pressure: 8 bar
- Test Pressure: 12 bar
- Burst Pressure: 16 bar

**Working Temperature** -25°C to 100°C

**Materials**

- Cover: Aluminium
- Head: Aluminium
- Bowl: Nylon - Carbon Steel
- Seal: Buna-N / Viton

**Max Flow** 600 l/min

Part n°	R1	R2	Size	Cartridge	ØB	ØC	ØD	ØP	E	F	G	I	L	N	O
FR1-10	1/2" BSP	M6	10	R-1-10	66,5	62	24	67,5	22	83	54	51	20,5	89	7
FR1-20	1/2" BSP	M8	20	R-1-20	87,5	80	27,5	88,5	27	106	73	67	28,5	115	8,5
FR1-21	3/4" BSP	M8	21	R-1-20	87,5	80	27,5	88,5	27	106	73	67	28,5	115	8,5
FR1-22	3/4" BSP	M8	22	R-1-22	87,5	80	27,5	88,5	27	151	73	67	28,5	115	8,5
FR1-23	1" BSP	M8	23	R-1-22	87,5	80	27,5	88,5	27	151	73	67	28,5	115	8,5
FR1-40	1" BSP	M10	40	R-1-40	129	111	40	130	36	230	87	95	35,5	175	11
FR1-41	1"1/4 BSP	M10	41	R-1-40	129	111	40	130	36	230	87	95	35,5	175	11
FR1-61	2" BSP	M10	61	R-1-60	174	151	64	175	41	238	108	119	41	220	11
FR1-64	2" BSP	M10	64	R-1-64	174	151	64	175	41	298	108	119	41	220	11

## FRT SERIES

Tank top return filters

Return filter for the tank lid mounting. Filter element with inbuilt bypass valve. Flow rates up to 900 l/min. Range of accessories available.



### HOUSING

tested according to NFPA T3.10.5.1\*, ISO 10771\*, ISO 3968

**PRESSURE:** Max operating: 8 bar  
Burst: 16 bar

**CONNECTIONS:** G 1/2" ÷ G 2"

**MATERIALS:** Cover and head: aluminium alloy  
Bowl: PA6 reinforced  
Seal: NBR (FKM on request)

**BYPASS VALVE:** Inbuilt in the filter element  
B version 1,7 bar  
C version 3 bar

### ELEMENT

tested according to ISO 11170, 2941, 2942, 2943, 3724, 3968, 16889, 16908, 23181

**FILTER MEDIA:** Inorganic microfiber  
G06 - G10 - G15 - G25 - G40  
Paper: C10 - C25  
Synthetic: M05 - M10 - M15  
Metal wire mesh: T60

**COLLAPSE PRESSURE:** 10 bar

**TEMPERATURE RANGE:** -30°C +100°C

**FLUID COMPATIBILITY:** Full with HH-HL-HM-HV  
HETG-HEES (acc. to ISO 6743/4).



## PRESSURE DROP ( $\Delta p$ ) INFORMATION FOR FILTER SIZING

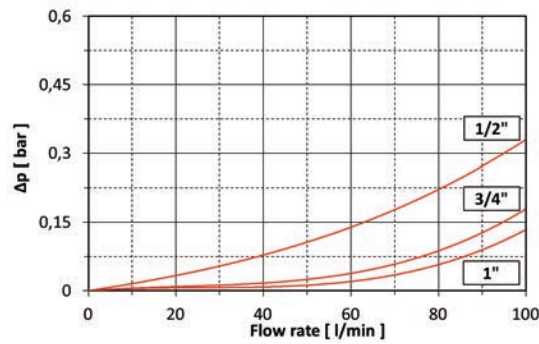
The total Delta P through a filter assembly is given from Housing  $\Delta p$  + Element  $\Delta p$ .  
The max recommended total  $\Delta p$  for return filters is 0,4 – 0,6 bar with clean element.

N.B. All the reported data have been obtained at our laboratory, according to specification ISO3968 with mineral oil having 32 cSt viscosity at 40°C and density 0,875 kg/dm<sup>3</sup>.

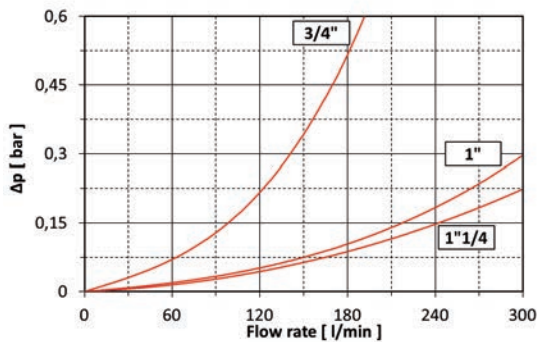
## HOUSING PRESSURE DROP

The housing  $\Delta p$  is given by the curve of the considered model and port, in correspondence of the flow rate value.

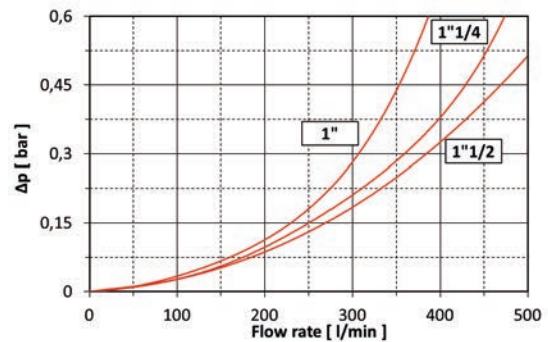
FRT 20-22



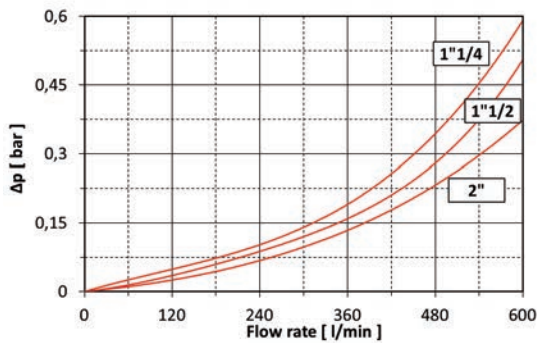
FRT 30-31



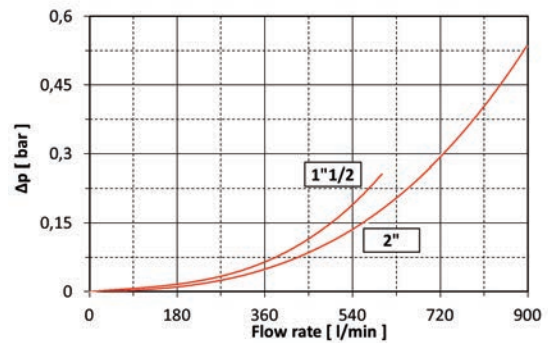
FRT 40-43-45



FRT 50-51



FRT 60-64-66



## ACCESSORIES

These accessories fit all our standard models and must be ordered separately.



### A EXTENSION TUBE

The flow from the filter must come out below the oil level to avoid possible generation of free air or foam. When necessary an extension tube can be fitted onto the knobs of the bowl end.

for size 20 to 45

ET2250	extension tube 250 mm long
ET2500	extension tube 500 mm long

for size 50 to 66

ET4200	extension tube 200 mm long
ET4500	extension tube 500 mm long

### B CONNECTION TUBE

Connection tube is the necessary device between filter bowl and extension tubes (ET2250 / ET2500 / ET4200 / ET4500) and/or diffuser (DF040 / DF065). Its plug and play option makes it easy to install and versatile.

for size 20 to 45

CT2250	connection tube 250 mm long
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for size 50 to 66

CT4200	connection tube 200 mm long
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### C DIFFUSER

Diffuser is an effective way to reduce foaming and turbulence normally caused by return lines. Plug and play option to be directly installed on the filter bowl or to connection tube (CT2250/CT4200). Installation of a diffuser in the hydraulic tank is an easy way to ensure the reliability of the overall system.

Diffuser must always be installed below the minimum oil level.

for size 20 to 45

DF040	diffuser Ø 40 mm
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for size 50 to 66

DF065	diffuser Ø 65 mm
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## USER TIPS

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- 1 FILTER HEAD
- 2 FILTER BOWL
- 3 FILTER ELEMENT
- 4 SPRING
- 5 INDICATOR PORT
- 6 SEAL KIT
- 7 SCREWS
- 8 COVER

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### SPARE SEALS KIT

	NBR	FKM
FRT-20/22/30/31	06.021.00171	06.021.00175
FRT-40/43/45	06.021.00172	06.021.00176
FRT-50/51/60/64/66	06.021.00173	06.021.00177

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### COVER SCREW TIGHTENING TORQUE

M6	10 Nm
M8	25 Nm

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### INDICATOR TIGHTENING TORQUE

10 Nm
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