



EFRC Series

EVOTEK Return Filters

Product Description

- Operating pressure up to 10 bar
- 800 l/min max. flow rate
- Install on top of tank
- application in waste management trucks, mobile cranes, power packs, wheeled loaders, drilling equipment
- compliant with industry relevant ISO standards(see ISO test below)

Technical Specifications

Application

Tank-top return filter

Port Sizes:

Threaded Connections according to BSP and NPT standard in 1-1/4" and SAE20 Flange Connections in SAE DN40 & SAE DN65 for 3000psi

Flow Rate:

max. 800 l/min

Flow Direction

Inside to out flow direction ,keeping the filter bowl decontaminated and minimizing the risk of re-contamination during element change.

Operating Pressure:

max. 10 bar

Burst Pressure:

min. 30 bar

Element Collapse Pressure:

10 bar

By-pass Opening Pressure:

$\Delta p = 1.5 \text{ bar} + 0.3 \text{ bar}$

Material

Seals:

NBR or FPM (-25°C to 100°C)

Filter Head:

Aluminium

Filter Bowl:

Zinc plated steel

Compatibility:

Suitable for mineral oils, lubrication oils, non-flam fluids, synthetic and rapidly biodegradable oils (for use with water or other fields please contact our technical department)

Tested according to ISO standards:

ISO2941 Collapse/burst resistance

ISO2942 Fabrication integrity

ISO2943 Material compatibility integrity

ISO3723 Method for end load test

ISO3724 Flow fatigue characteristics

ISO3968 Pressure Drop vs. Flow Rate

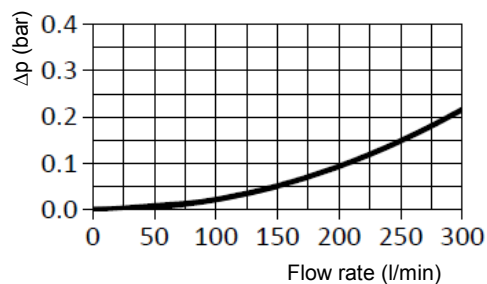
ISO16889 Multi-Pass Test

EFRC Return Filter Series

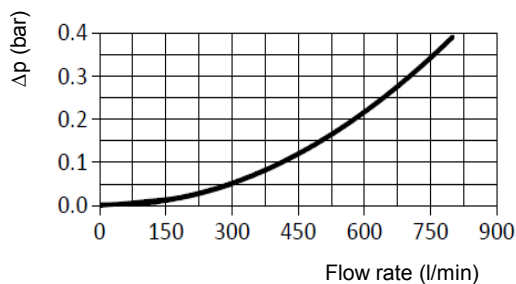
Pressure Drop Graphs (Δp)

Pressure Drop of Filter Housing only

EFRC5, 6, 7



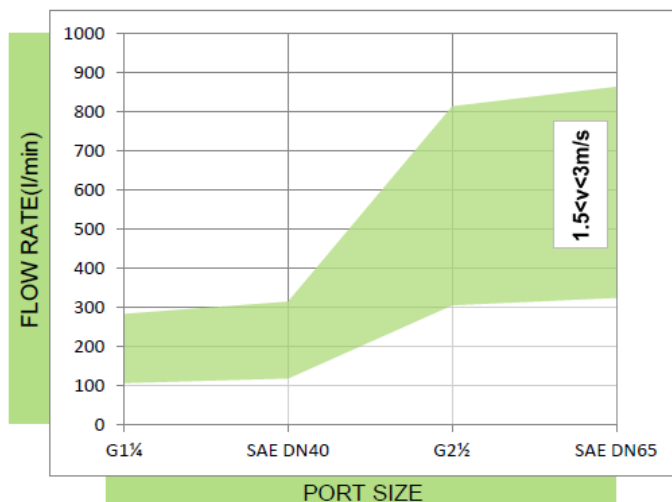
EFRC8, 9, 10, 11



Graph of oil flow velocity

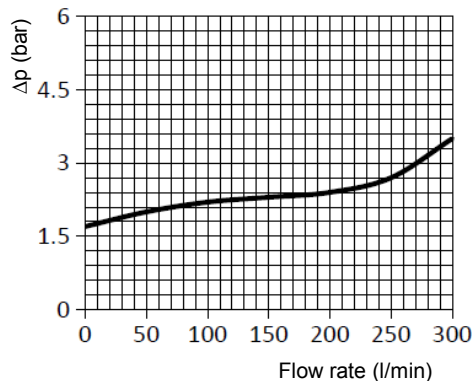
(we recommend to select size of the filter considering range of oil velocity between 1.5 to 3 m/s for return series)

Recommended range

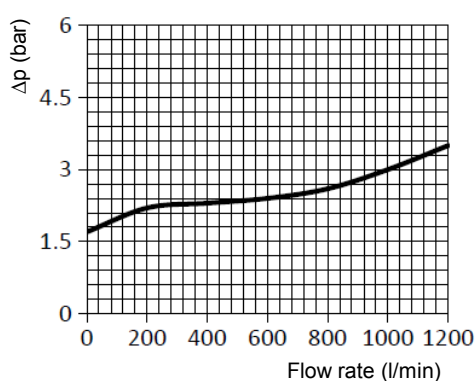


Pressure drop graph on by-pass valve

EFRC5,6,7



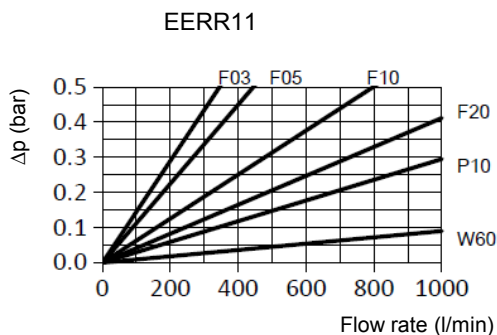
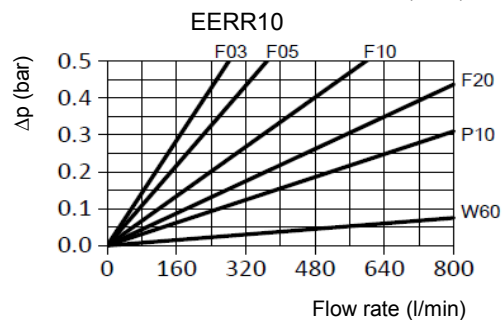
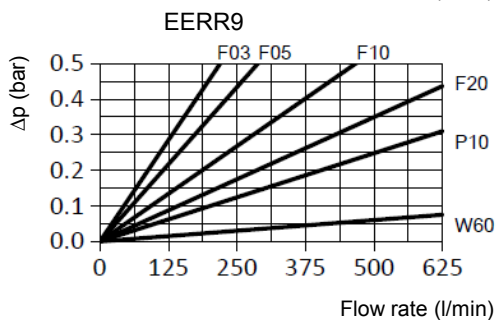
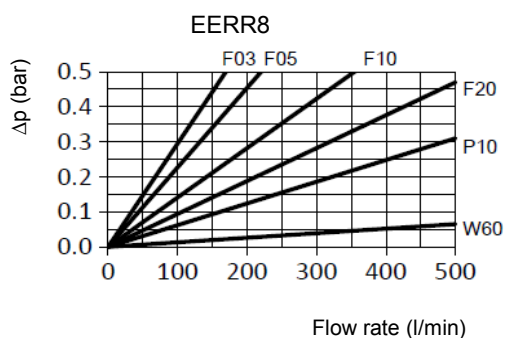
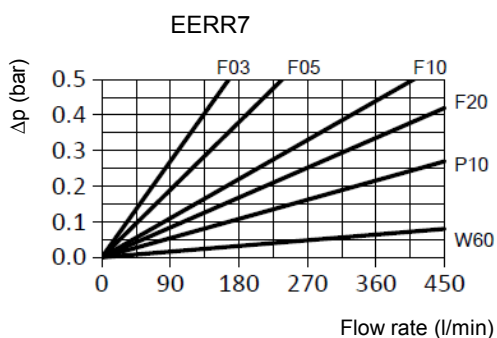
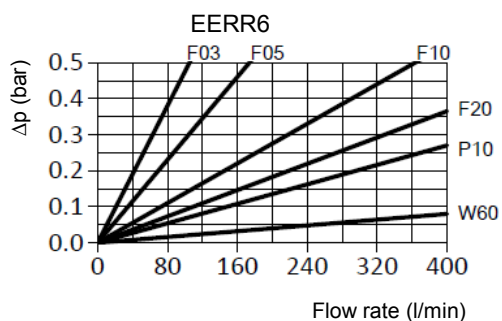
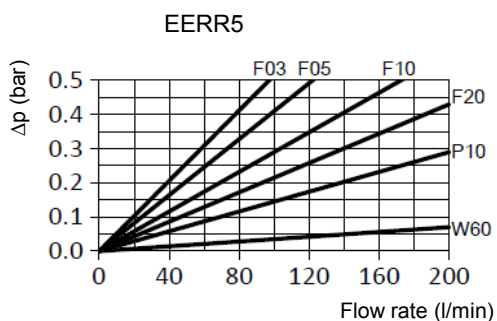
EFRC8,9,10,11



EFRC Return Filter Series

Pressure Drop Graphs (Δp)

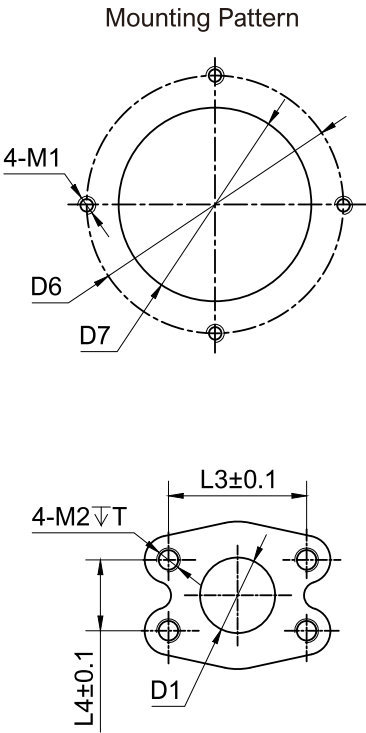
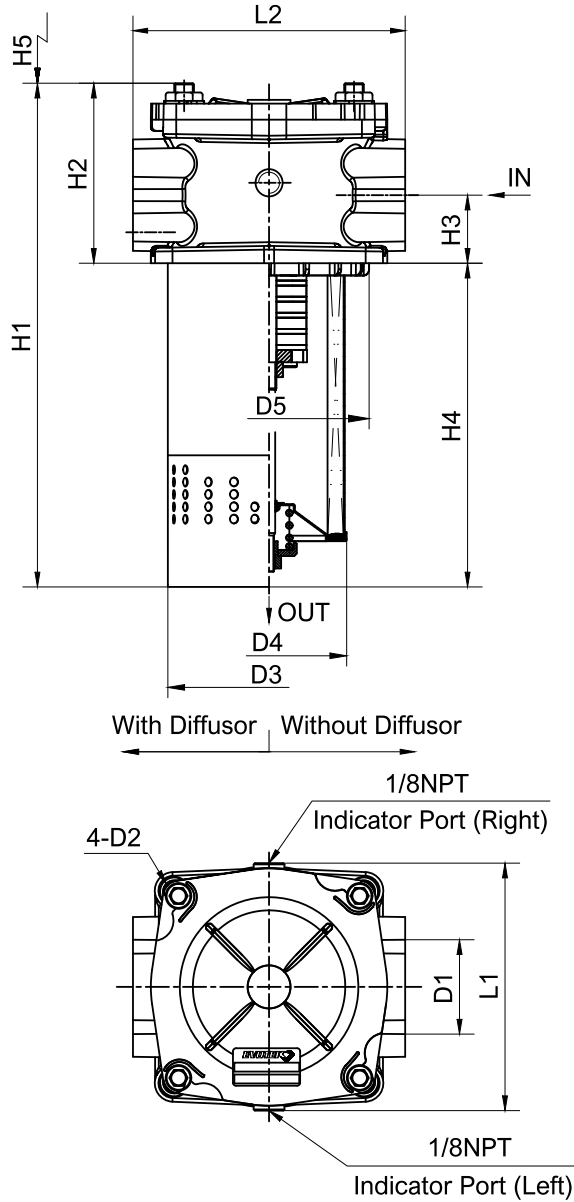
Pressure Drop with Clean Filter Elements (F, P and W filter media)



EFRC Return Filter Series

Technical Drawings and Dimension

EFRC5,6&7



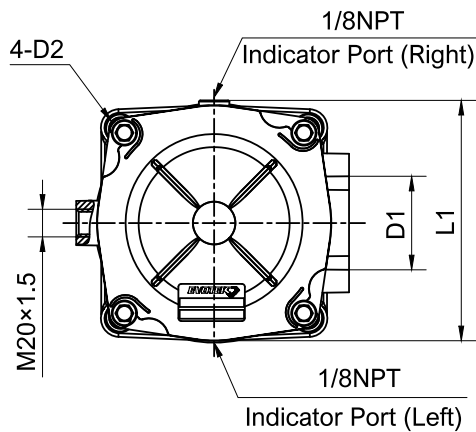
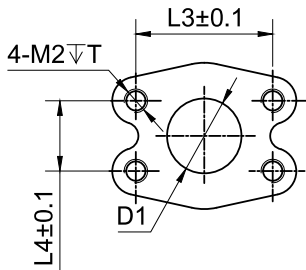
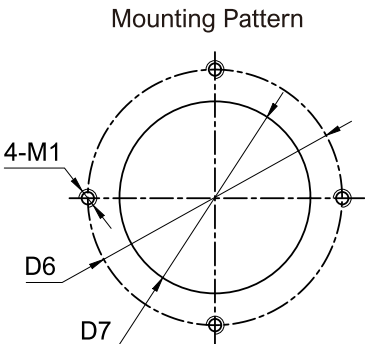
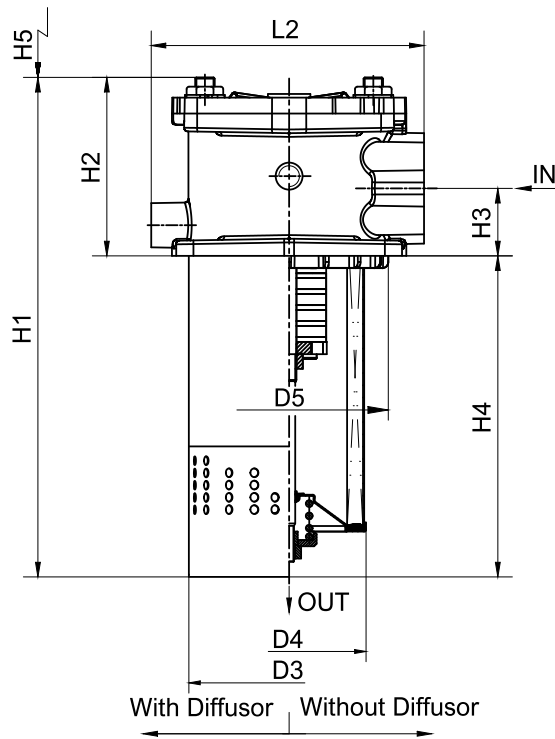
Threaded Connection Ports

Type	Connection Port (BSP/NPT/SAE)								Height								
	inch	mm							mm								
	D1	D2	D3	D4	D5	D6	D7	M	H1	H2	H3	H4	L1	L2	L3	L4	T
EFRC5	1 1/4"								379			250					
EFRC6	SAE 20	11	133	106	130	175	134	M12	449	129	36	320	156	180	69.9	35.7	27
EFRC7	SAE DN40 3000psi								654			525					

EFRC Return Filter Series

Technical Drawings and Dimension

EFRC8,9,10&11



Threaded Connection Ports

Connection Port
(SAE)

Type	D1	mm				D3	D4	D5	D6	D7	M	Height		H1	H2	H3	H4	L1	L2	L3	L4	T
		D2	D3	D4	D5							mm	mm									
EFRC8	SAE DN65 3000psi	13	165.5	126	162.5	215 -220	167	M12	445	155	55	290	193	223	88.9	50.8	30					
EFRC9																						
EFRC10																						
EFRC11																						

EFRC Return Filter Series

Order Codes

Filter Assembly Series	A	B	C	D	-	E	-	F	G	H	Element Series	A	C	E
EFRC	5	BE	B	05	-	F10	-	R13	D	M	EERR	5	B	F10

Select the code for each filter (or element) feature according to your requirements and place it in the sequence (see example above) to create the corresponding product order code.

A Size	Flow Rate
5	200 l/min
6	250 l/min
7	330 l/min
8	500 l/min
9	600 l/min
10	700 l/min
11	800 l/min

B Connection Ports
BE BSP 1-¼"
NE NPT 1-¼"
A20 SAE20
FE SAE DN40 3000psi
FG SAE DN65 3000psi

C Seal
B NBR
V FPM

D By-pass Valve
X Special
05 1.5bar

E Media	Material	Filtration	Collapse Pressure
P10	Cellulose	10µm	10 bar
F05	Fibreglass	7µm	10 bar
F10	Fibreglass	12µm	10 bar
F20	Fibreglass	21µm	10 bar
W25	Wire Mesh	25µm	10 bar
W60	Wire Mesh	60µm	10 bar

F Indicator	Connection
0	No
PZ	0~4bar Axial pressure gauge 1/8NPT Thread
R13	1.3 bar Pressure Switch 1/8NPT Thread
V13	1.3 bar Visual indicator M20*1.5 Thread
E13	1.3 bar Visual /electric indicator M20*1.5 Thread
V13&E13 for EFRC8,9,10&11only	

G Diffusor	
Diffusor	Type
D	With Diffusor
0	Without Diffusor

H Magnet	
M	With Magnet
0	Without Magnet