



EFRL Series

EVOTEK Return Filters

Product Description

- Operating pressure up to 16 bar
- 990 l/min max. flow rate
- installation in Tank-top
- application in Waste management trucks, Mobile cranes, Power packs, Wheeled loaders and 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 1-½" and SAE24

Flange Connections in SAE DN40/ SAE DN65/ SAE DN90 for 3000psi

Flow Rate:

max. 990 l/min

Operating Pressure:

max. 16bar

Burst Pressure:

min. 48 bar

Element Collapse Pressure:

10 bar

By-pass Opening Pressure:

$\Delta p = 4 \text{ bar} \pm 10\%$

Material

Seals:

NBR or FPM (-25°C to 100°C)

Filter Head:

Aluminium

Filter Bowl:

Aluminium

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

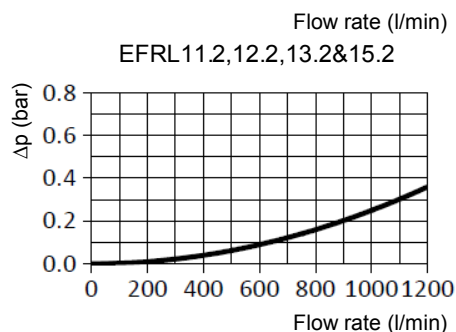
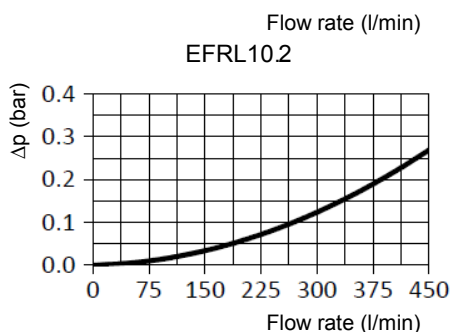
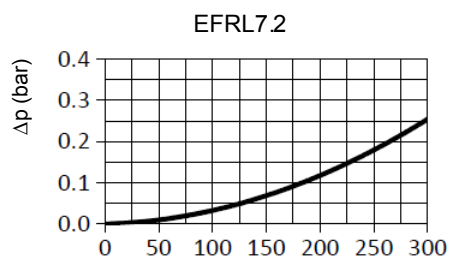
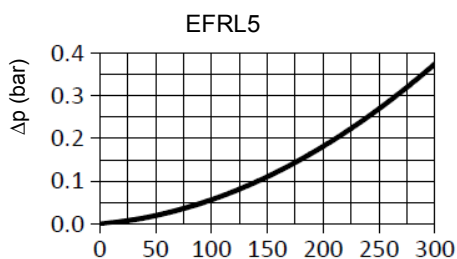
ISO3968 Pressure Drop vs. Flow Rate

ISO16889 Multi-Pass Test

EFRL Return Filter Series

Pressure Drop Graphs (Δp)

Pressure Drop of Filter Housing only

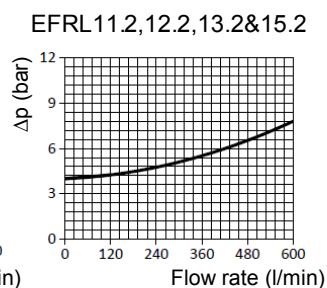
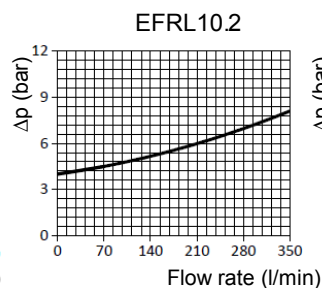
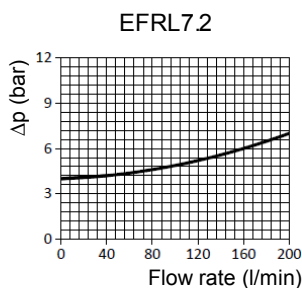
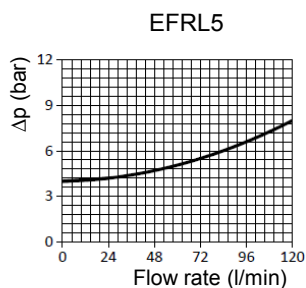


Graph of oil flow velocity

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



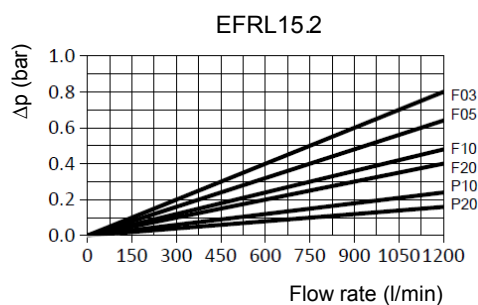
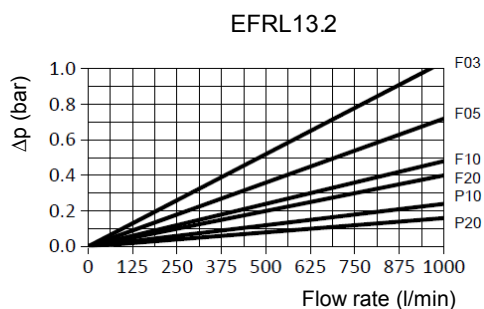
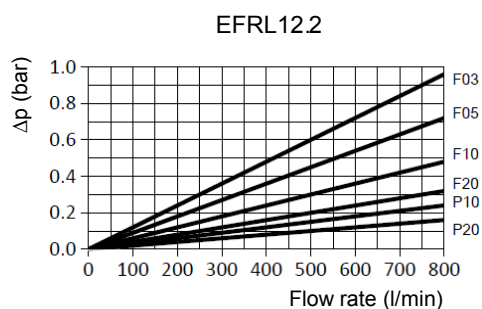
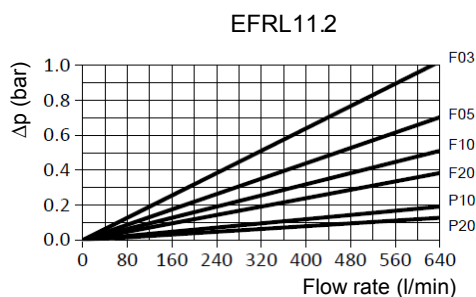
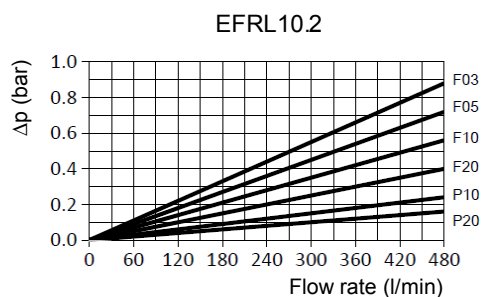
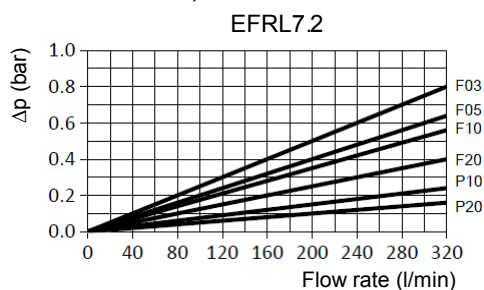
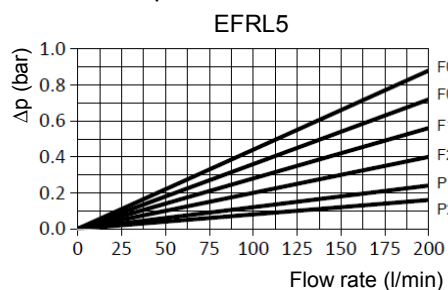
Pressure drop graph on by-pass valve



EFRL Return Filter Series

Pressure Drop Graphs (Δp)

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



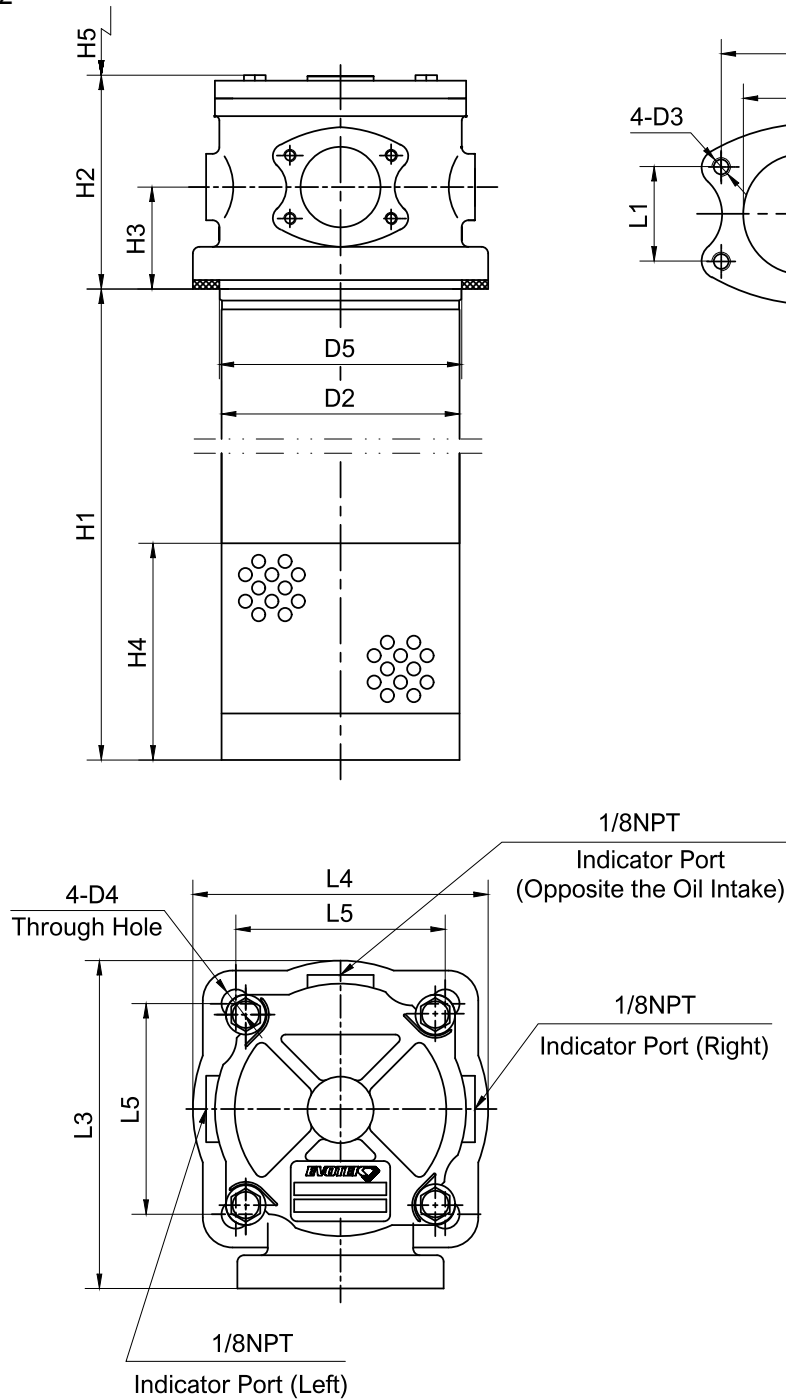
EFRL Return Filter Series

Technical Drawings and Dimension

EFRL5,7.2&10.2

RETURN FILTERS

EFRL



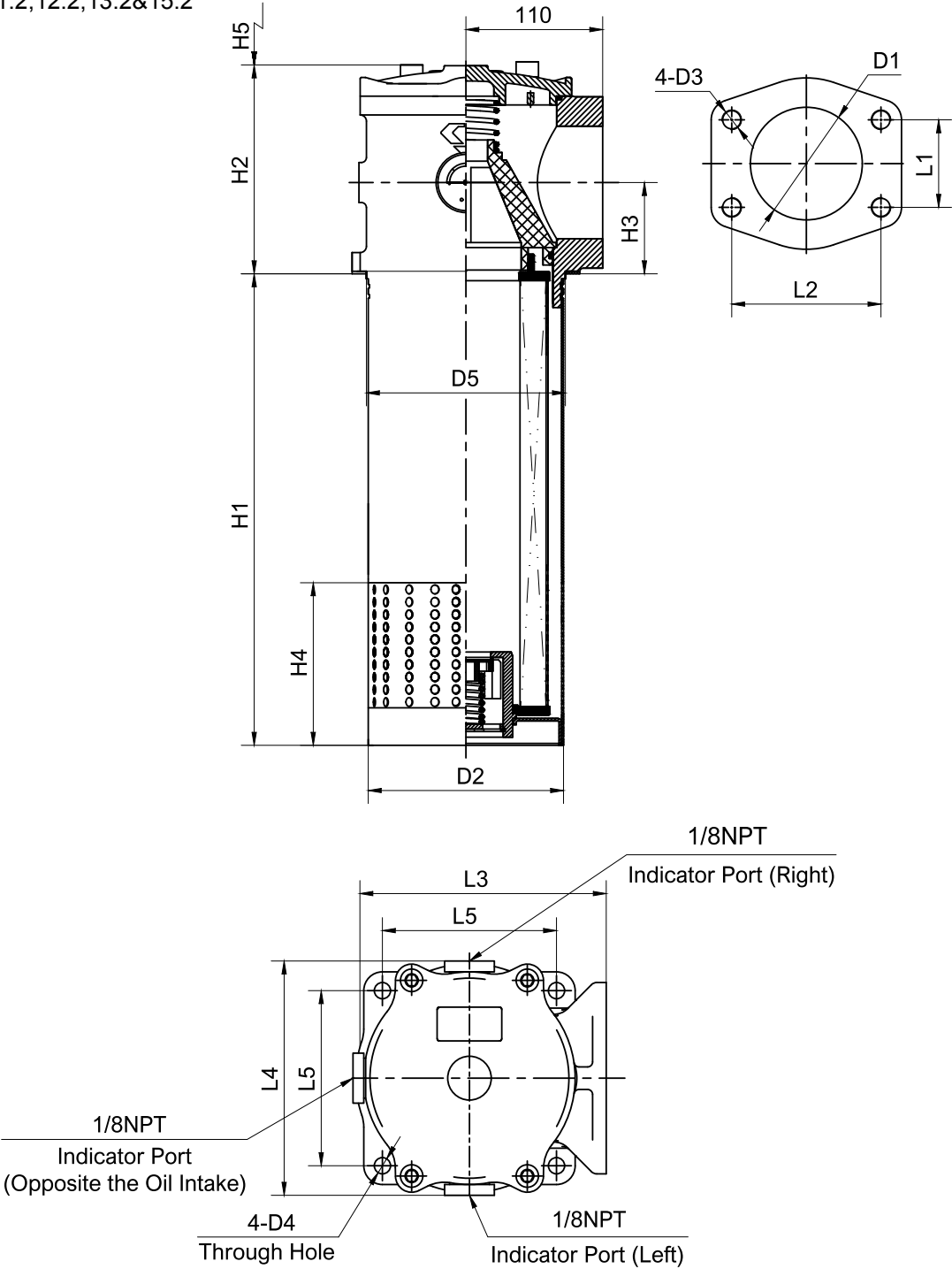
Threaded Connection Ports

Connection Port (BSP/NPT/SAE)		Height													
inch		mm													
Type	D1	D2	D3	D4	D5	H1	H2	H3	H4	H5	L1	L2	L3	L4	L5
EFRL5	1½",SAE24	104	-	13	110	319	102	42	80	380	-	-	152	134	95
EFRL7.2	SAE DN 40 3000psi	104	M12	13	110	419	102	42	80	480	35.7	69.9	152	134	95
EFRL10.2	SAE DN 65 3000psi	124	M12	13	130	463	127	55	90	524	50.8	88.9	169	158	110

EFRL Return Filter Series

Technical Drawings and Dimension

EFRL11.2,12.2,13.2&15.2



Threaded Connection Ports

Connection Port
(BSP/NPT/SAE)
inch

Height
mm

Type	D1	D2	D3	D4	D5	H1	H2	H3	H4	H5	L1	L2	L3	L4	L5
EFRL11.2	SAE DN 90 3000psi	154	M16	13	160	462	164	70	100	569	69.9	120.6	206	192	140
EFRL12.2						488				595					
EFRL13.2						598				705					
EFRL15.2						779				886					

EFRL Return Filter Series

Order Codes

Filter Assembly Series	A	B	C	D	-	E	-	F	Element Series	A	D	E
EFRL	12.2	FK	10	B	-	P10	-	R35	EERL	12	B	P10

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		D Seal	
5	160 l/min	B	NBR
7.2	250 l/min	V	FPM
10.2	400 l/min		
11.2	500 l/min		
12.2	660 l/min		
13.2	850 l/min		
15.2	990 l/min		
B Connection Ports		E Media Material Filtration Collapse Pressure	
A24	SAE24	P10	Cellulose 10µm 10 bar
BF	BSP 1-½ "	P20	Cellulose 20µm 10 bar
FE	SAE DN40 (3000psi)	F03	Fiberglass 5µm 10 bar
FG	SAE DN65 (3000psi)	F05	Fiberglass 7µm 10 bar
FK	SAE DN90 (3000psi)	F10	Fiberglass 12µm 10 bar
		F20	Fiberglass 21µm 10 bar
		W25	Wire Mesh 25µm 10 bar
		W60	Wire Mesh 60µm 10 bar
		W90	Wire Mesh 90µm 10 bar
		W125	Wire Mesh 125µm 10 bar
C By-pass Valve		F Indicator Connection	
10	4 bar	0	No
X	Special	PA	0~10bar Pressure gauge 1/8NPT Thread
		R35	3.5 bar Pressure Switch 1/8NPT Thread