

# ETF Series

Tanktop Mounted Return Line Filters  
max. 175 l/min - 6 bar



## An economic return line filter

### Improved system protection

The ETF Series utilizes a re-inforced co-polymer head equipped with 2 return ports and quick-release cover. Maximum pressure 6 bar. Maximum flow 175 l/min. An economic return line filter that has been used and proven in many hydraulic filtration applications.



## Contact Information: Product Features:

Parker Hannifin  
**Hydraulic Filter Division Europe**

**European Product  
Information Centre**  
**Freephone: 00800 27 27 5374**  
(from AT, BE, CH, CZ, DE, EE, ES,  
FI, FR, IE, IT, PT, SE, SK, UK)  
[filtrationinfo@parker.com](mailto:filtrationinfo@parker.com)

[www.parker.com/hfde](http://www.parker.com/hfde)

- ETF utilizes a re-inforced co-polymer head equipped with 2 return ports.
- Quick-release cover design.
- Flow from inside to out.
- Maximum pressure 6 bar. Maximum flow 175 l/min.
- An economic return line filter for hydraulic systems.

# ETF Series

## Tanktop Mounted Return Line Filters

### Features & Benefits

Features	Advantages	Benefits
Co-polymer head	Compact profile, lightweight and durable	Less weight, smaller envelope and cleaner appearance
Multiple return line ports	Flexibility related to return line hose(s) arrangement	More compact solutions can be realised
Quick release cover	No tools required to release the filter cover	Easy change of filter element
Optional magnetic pre-filtration	Removes ferro particles, even during bypass conditions	Improved fluid cleanliness levels
In-to-Out filtration	All captured contamination retains inside the element	No recontamination of system during change of elements
Quick response bypass with low hysteresis	Reduction of bypass period due to low hysteresis	Improved protection of system
	Only a small part of the total flow is bypassing the element	
Optional funnel	Ensures that oil enters the tank under the oil level	Significant reduction of oil foaming

### Typical Applications

- Lorry mounted cranes
- Agricultural equipment
- Container hook loaders

### The Parker Filtration ETF Series Low Pressure Filters

For tank top mounting installation. The ETF Series utilises a reinforced co-polymer head equipped with two return ports and quick release cover. This filter represents an economic solution for hydraulic systems with nominal flows up to 175 l/min.

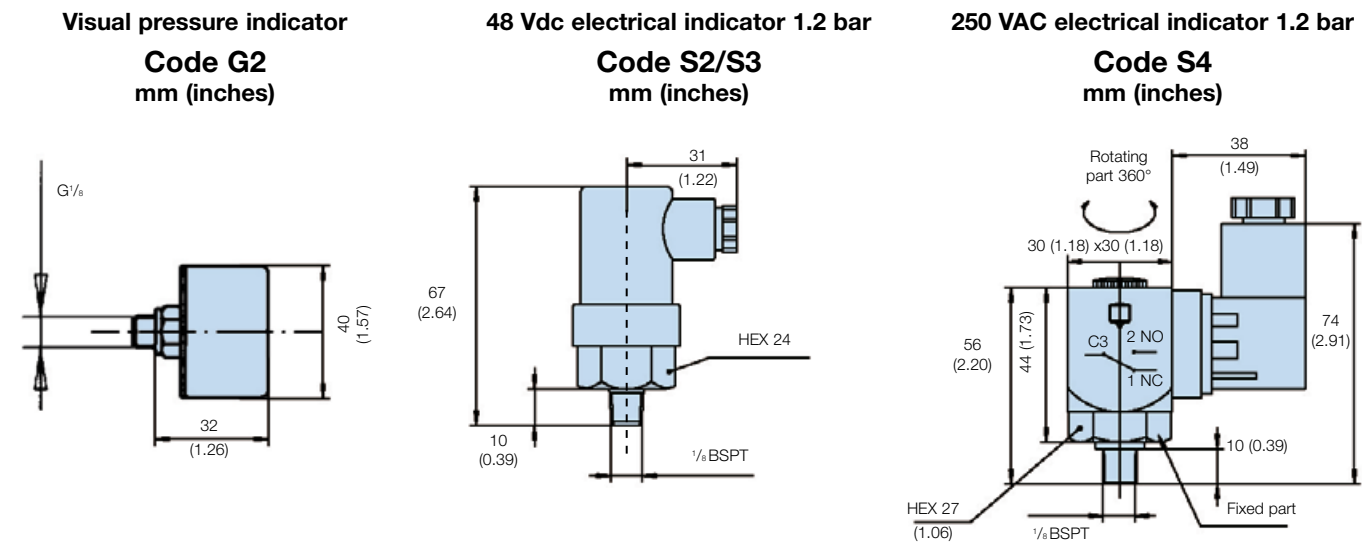






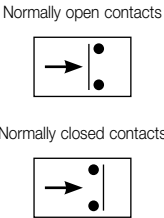
# ETF Series

## Tanktop Mounted Return Line Filters

### Indicator Details



Option	Description	Connection/Voltage	Wiring	Part number						
G2	Visual indicator 1.0 bar	N/A	N/A	FMUG2FBMG02L						
S2/S3	Electrical indicator 1.0 bar	42 Vdc max	 Select <u>either</u> normally open (NO) <u>or</u> normally closed (NC)	FMUS2FBMG02L or FMUS3FBMG02L						
S4	Electrical indicator 1.0 bar	250 VAC max	 <table><tr><td>1</td><td><b>NC</b></td></tr><tr><td>2</td><td><b>NO</b></td></tr><tr><td>3</td><td><b>C</b></td></tr></table>	1	<b>NC</b>	2	<b>NO</b>	3	<b>C</b>	FMUS4FFAG02L
1	<b>NC</b>									
2	<b>NO</b>									
3	<b>C</b>									



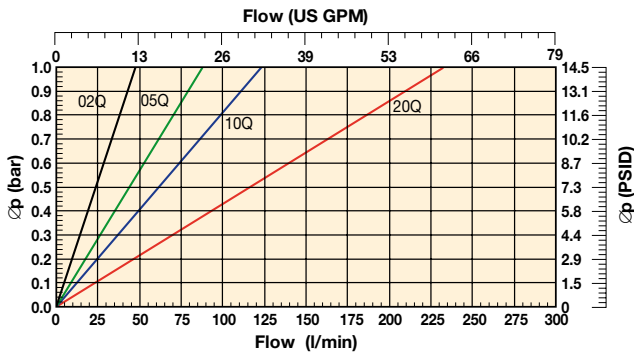
## Pressure Drop Curves

The recommended level of the initial pressure drop for low pressure filters is max 0.5 bar.

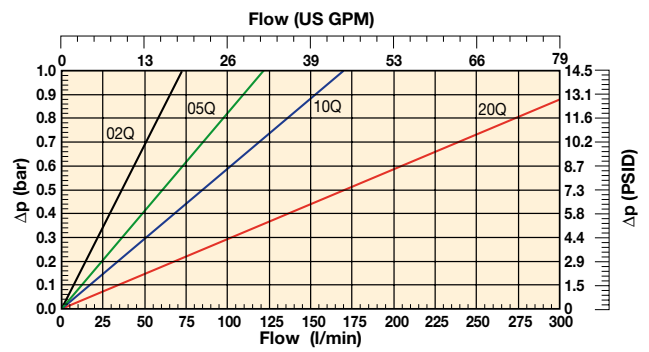
If the medium used has a viscosity different from 32cSt, pressure drop over the filter can be estimated as follows:

$$\Delta p = (\Delta p_{32} \times \text{viscosity of medium used}) / 32\text{cSt}$$

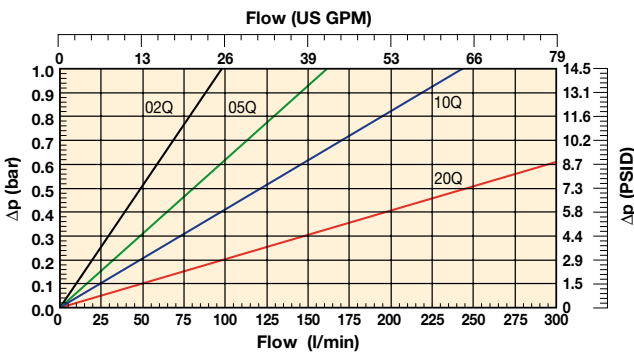
**ETF45 (Element length code 1)**



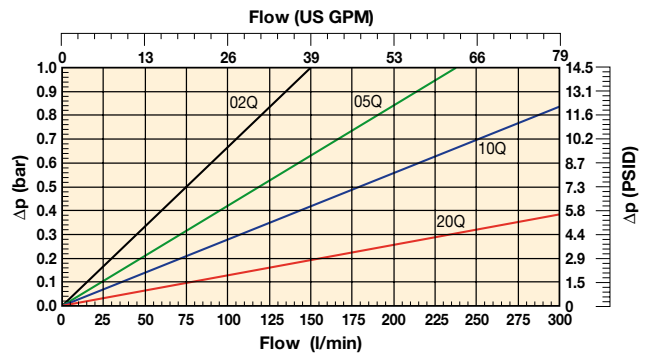
**ETF60 (Element length code 2)**



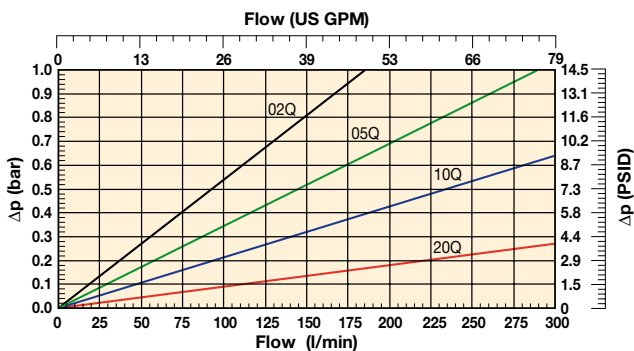
**ETF90 (Element length code 3)**



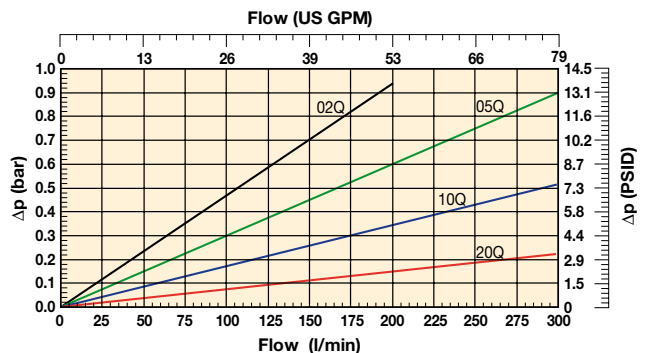
**ETF120 (Element length code 4)**



**ETF140 (Element length code 4A)**



**ETF175 (Element length code 4B)**



Note: All pressure drop curves above show total pressure drop. i.e. they are combined housing and element curves.

# ETF Series

## Tanktop Mounted Return Line Filters

### Ordering Information

#### Standard products table

Part number	Supersedes	Flow (l/min)	Model number	Element length	Media rating (µ)	Seals	Indicator	Bypass settings	Ports	Included options	Replacement elements	Supersedes
<b>ETF210QBP2FG164</b>	FK1230.Q010.BK16.GX16	60	ETF60	Length 2	10	Nitrile	Plugged	1.6 Bar (23 Psi)	2xG1 (one port plugged)	Diffuser type P	<b>937950Q</b>	FC1230.Q010.XS
<b>ETF220QBP2FG164</b>	FK1230.Q020.BK16.GX16	60	ETF60	Length 2	20	Nitrile	Plugged	1.6 Bar (23 Psi)	2xG1 (one port plugged)	Diffuser type P	<b>937951Q</b>	FC1230.Q020.XS
<b>ETF310QBP2FG164</b>	FK1240.Q010.BK16.GX16	90	ETF90	Length 3	10	Nitrile	Plugged	1.6 Bar (23 Psi)	2xG1 (one port plugged)	Diffuser type P	<b>937952Q</b>	FC1240.Q010.XS
<b>ETF320QBP2FG164</b>	FK1240.Q020.BK16.GX16	90	ETF90	Length 3	20	Nitrile	Plugged	1.6 Bar (23 Psi)	2xG1 (one port plugged)	Diffuser type P	<b>937953Q</b>	FC1240.Q020.XS

Note: Filter assemblies ordered from the product configurator below are on extended lead times. Where possible, please make your selection from the table above.

#### Product configurator

##### Configurator example of an ETF Series filter

Box 1	Box 2	Box 3	Box 4	Box 5	Box 6	Box 7	Box 8
<b>ETF</b>	<b>3</b>	<b>10Q</b>	<b>B</b>	<b>S2</b>	<b>F</b>	<b>G16</b>	<b>1</b>

Box 1	Box 2	Box 3																																									
<table><tr><th>Code</th></tr><tr><td>ETF</td></tr></table>	Code	ETF	<table><tr><th colspan="2">Filter type</th></tr><tr><td>Housing</td><td>Code</td></tr><tr><td>ETF 1-45</td><td>1</td></tr><tr><td>ETF 1-60</td><td>2</td></tr><tr><td>ETF 1-90</td><td>3</td></tr><tr><td>ETF 1-120</td><td>4</td></tr><tr><td>ETF 1-140</td><td>4A</td></tr><tr><td>ETF 1-175</td><td>4B</td></tr></table>	Filter type		Housing	Code	ETF 1-45	1	ETF 1-60	2	ETF 1-90	3	ETF 1-120	4	ETF 1-140	4A	ETF 1-175	4B	<table><tr><th colspan="5">Degree of filtration</th></tr><tr><td rowspan="3">Disposable element</td><td colspan="4">Glassfibre media</td></tr><tr><td colspan="4">Microglass III (for disposable elements)</td></tr><tr><td></td><td></td><td></td><td></td></tr><tr><td></td><td>02Q</td><td>05Q</td><td>10Q</td><td>20Q</td></tr></table>	Degree of filtration					Disposable element	Glassfibre media				Microglass III (for disposable elements)									02Q	05Q	10Q	20Q
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Box 7

Filter connection	
Ports	Code
G1"(BSP) (2 ports, one supplied as plugged connection)	<b>G16</b>

Box 8

Options	
Options	Code
No diffuser required	1
Diffuser type P without perforated plate area	<b>4</b>
Diffuser with integrated hose connection	on request
Magnets	on request
Diffuser type P and magnets	on request
Other combinations	on request

Spare elements table

	02Q	05Q	10Q	20Q
ETF1-45	937969Q	937970Q	937948Q	937949Q
ETF1-60	937971Q	937972Q	937950Q	937951Q
ETF1-90	937973Q	937974Q	937952Q	937953Q
ETF1-120	937975Q	937976Q	937954Q	937955Q
ETF1-140	937977Q	937978Q	937956Q	937957Q
ETF1-175	937979Q	937980Q	937981Q	937982Q

Note: ETF filters are standard supplied without magnets and including diffuser type P

Degree of filtration						Media code
Average filtration beta ratio $\beta$ (ISO 16889) / particle size $\mu\text{m}$ [c]						
$\beta x(c)=2$	$\beta x(c)=10$	$\beta x(c)=75$	$\beta x(c)=100$	$\beta x(c)=200$	$\beta x(c)=1000$	
% efficiency, based on the above beta ratio ( $\beta x$ )						
50.0%	90.0%	98.7%	99.0%	99.5%	99.9%	
N/A	N/A	N/A	N/A	N/A	4.5	
N/A	N/A	4.5	5	6	7	02Q
N/A	N/A	4.5	5	6	7	05Q
N/A	6	8.5	9	10	12	10Q
6	11	17	18	20	22	20Q

ETF Series Seal Kit	
Part Number	Description
<b>918045037</b>	NITRILE SEAL KIT ETF 0 -4B

#### Highlights Key (Denotes part number availability)

<b>123</b>	Item is standard
<b>123</b>	Item is standard green option
<b>123</b>	Item is semi standard
123	Item is non standard

Note 1: Part numbers featured with bold highlighted codes will ensure a 'standard' product selection.

Note 2: Alternate displayed part number selection will require you to contact Parker Filtration for availability.

