



Medium Pressure Filters

# 130 Eco Series

MAX 1000 l/min - 30 bar

FEATURING  
**EC GLASS III**



# 130 Eco Series

## Features & Benefits

Features	Advantages	Benefits
Modular filter system	Sizing and performance can be optimised	Best filter for every lube application
Duplex type systems with selecting valve	Element change during operation	Continuous filtration
Bypass assembly in the filter cover	Sediment and other particles at the bottom are away from the flow entering the system	No contamination passing into the system if filter in bypass
Large filtration area	High dirt holding capacity	Long element life
Air bleed valve	Easy air removal after element change	Protects bearings and other sensitive components
Two indicator locations, visual indicator as standard	Easy to detect when element replacement needed	Reliable filtration
Coreless Ecoglass III replacement elements	No metal content in element	Environmentally friendly disposal by incineration
	Reduced overall weight of 50%	
	Easy compaction of used elements	Lower disposal costs
	Conversion kits available: new bowl with permanent core	Retrofit coreless design to housings already installed

## Typical Applications

- Paper production plants
- Steel mills
- Aluminium mills
- Industrial power packs
- Lubrication systems
- Power generation

### The Parker Filtration 130 Eco Series Medium Pressure Filters.

These high flow return filters are ideal for industrial applications on hydraulic or lubrication systems with pressures up to 30 bar and flows up to 1000 l/min in single units. Multiple filter systems with pressures up to 16 bar and flows up to 1400 l/min.

The ability to bank multiple filters together in a “duplex” format enables continuous filtration during element changes.



## Specification

### Pressure ratings:

Maximum allowable operating pressure:

Single filters 30 bar.

Filter systems 16 bar.

Filter housing pressure pulse fatigue tested: 10<sup>6</sup> pulses 0-25 bar.

### Construction:

Eco-element does not include any metal parts and is supported by Eco-adaptor. Conventional elements can be used without removing the Eco-adaptor.

### Connections:

#### Single unit connections:

Flanges SAE 2" 3000-M, SAE 2 1/2" 3000-M or with adaptor threads G1 1/2 or G2.

#### Dual unit connections:

Flanges SAE 3" 3000-M or with adaptor threads G1 1/2 or G2.

#### Parallel unit and filter system assembly connections:

DN80/PN16 or DN100/PN16. Assembly of two, four six or eight filters to the same system by using L-bore valve assembly (only one side in use).

### Filter housing:

Material aluminium.

### Seal material:

Nitrile or Fluoroelastomer.

### Operating temperature range:

-20°C to +100°C.

### Bypass valve:

Opening pressure 3.5 bar.

### Filter element:

#### Degree of filtration:

Determined by Multipass-test according to ISO 16889.

#### Flow fatigue characteristics:

Filter media is supported so that the optimal fatigue life is achieved (ISO 3724).

### Ecoglass III:

Supported with plastic net, end cap material reinforced composite. No metal parts. Collapse rating 10 bar (ISO 2941).

Filter element can only be used together with reusable FEA Eco-adaptor. Note: Ecoglass III contributes to ISO 14001 quality.

Also available with Microglass III elements. Contact Parker Filtration for details.

### Visual indicator:

Includes M3, full part number FMUM3KVMU12H as standard.

### Optional Indicators (mounted to lower indicator port):

- electrical T1.

- electronic F1 (PNP).

- electronic F2 (NPN).

For indicator details see catalogue section 6.

### Fluid compatibility:

Suitable for use with mineral and vegetable oils, and some synthetic oils. For other fluids, please consult Parker Filtration.

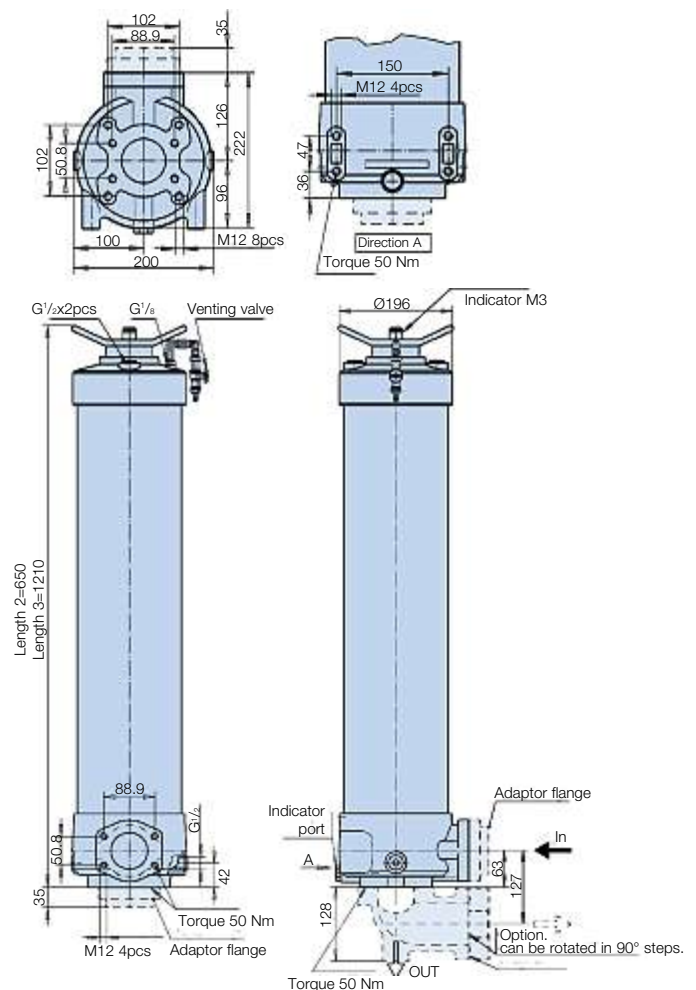
## Installation Details

### Single Assemblies 130M

Connection options	
Body flange	SAE 2" 3000-M
	SAE 2 1/2" 3000-M
Adaptor flange	G1 1/2
	G2
	SAE 3" 3000-M (90° elbow)

Weights (kg)	Length 2	Length 3
Single	24.5	32.5
Dual D2	70.2	86.2
Parallel P2	75.2	91.2
System S2	111.0	127.0
System S9	204.0	236.0
System S6	261.2	309.2
System S8	341.4	705.4

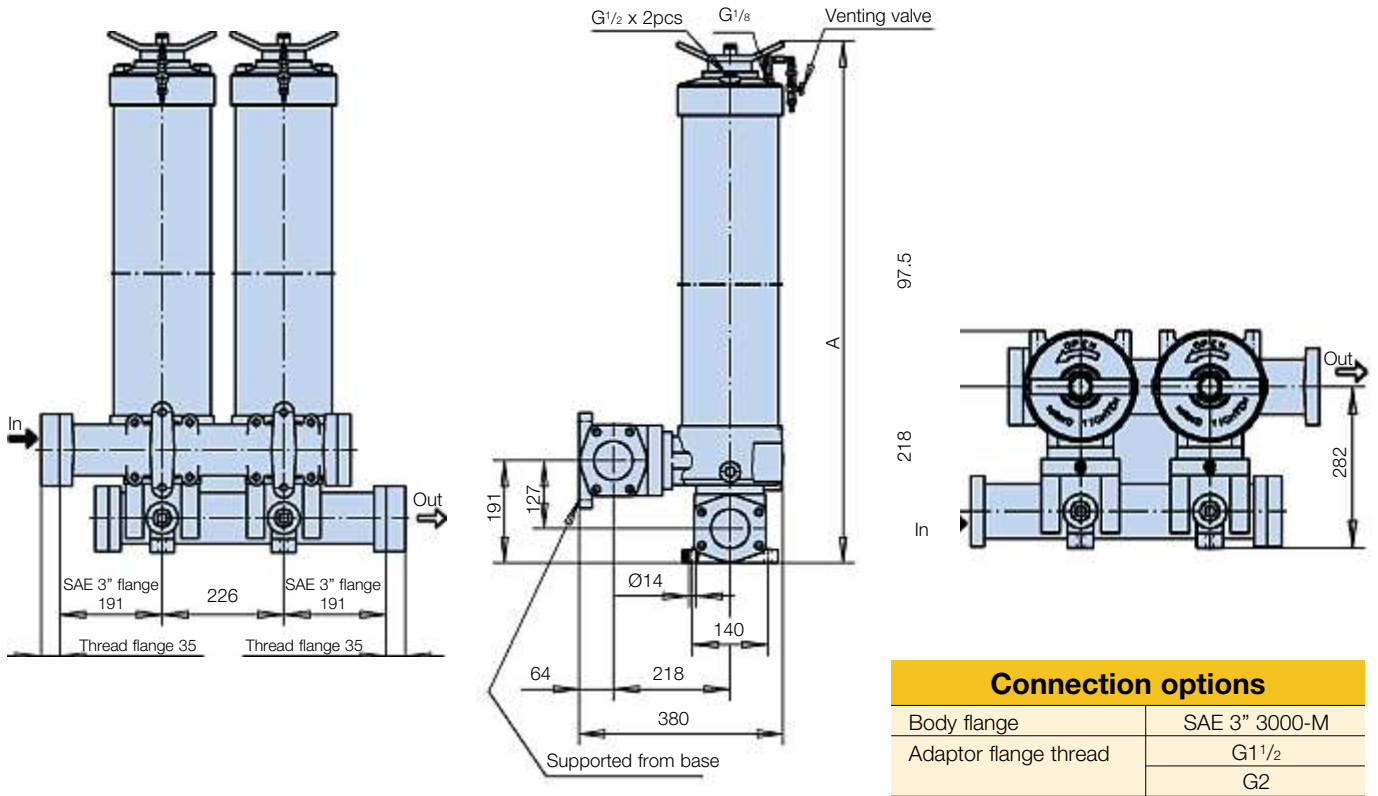
Dimensions in mm



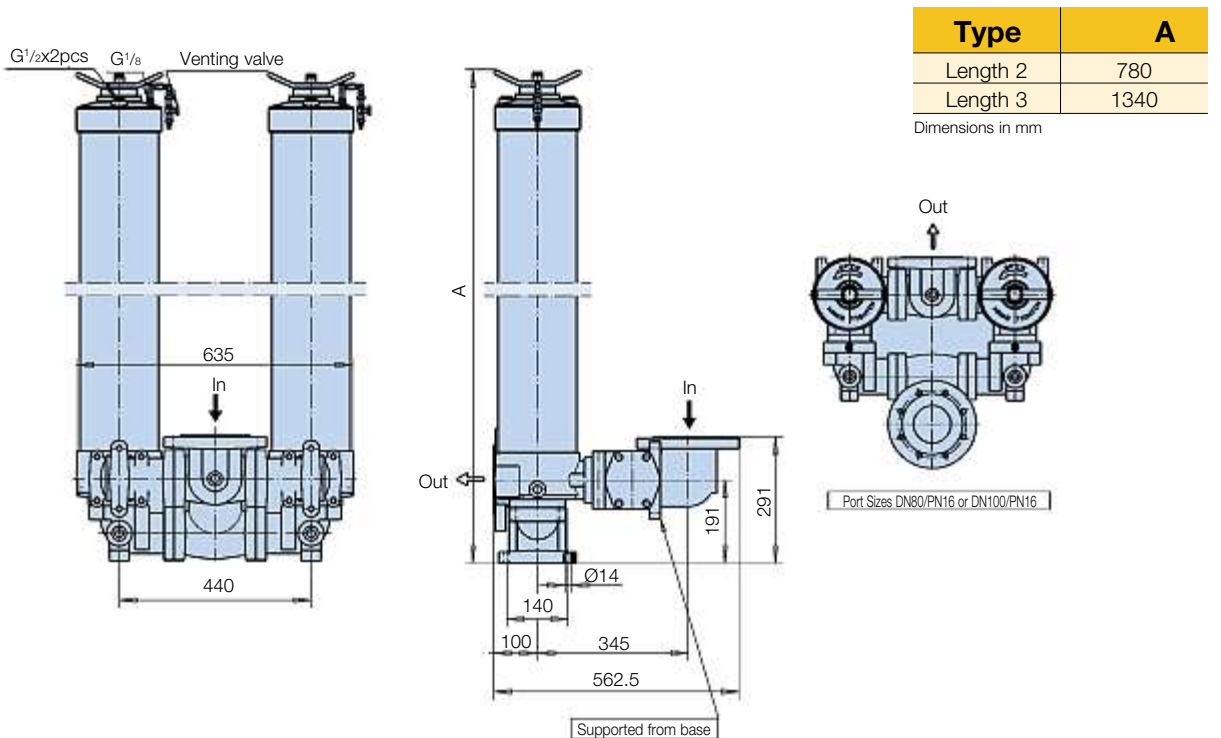
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## Dual System 130D

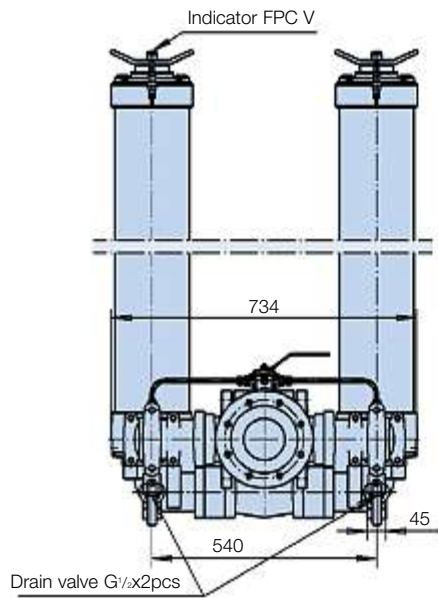


## Parallel System 130N

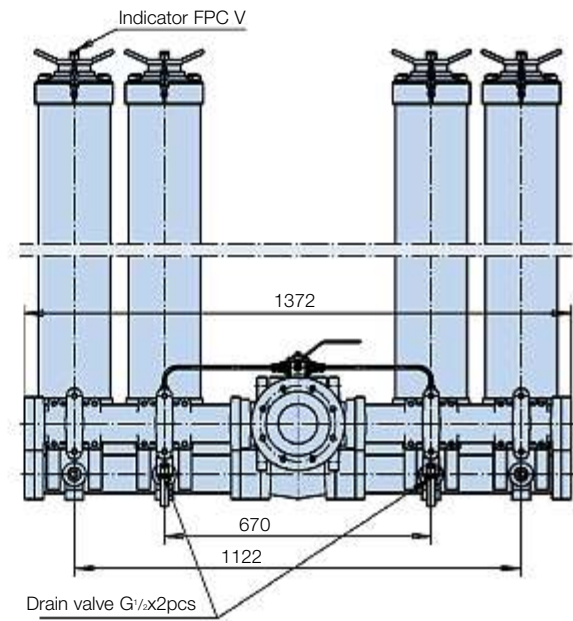




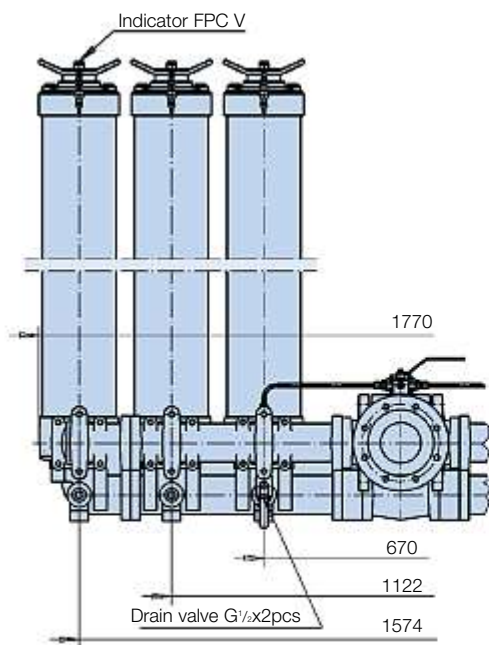
### 130S System 1+1 units



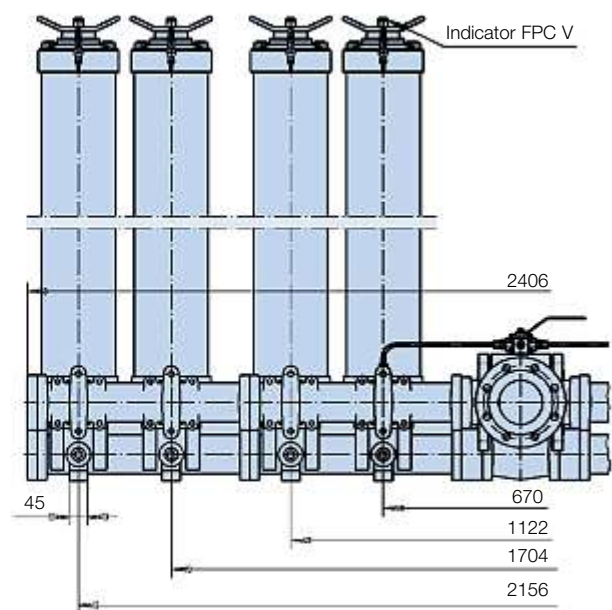
### 130S System 2+2 units



### 130S System 3+3 units

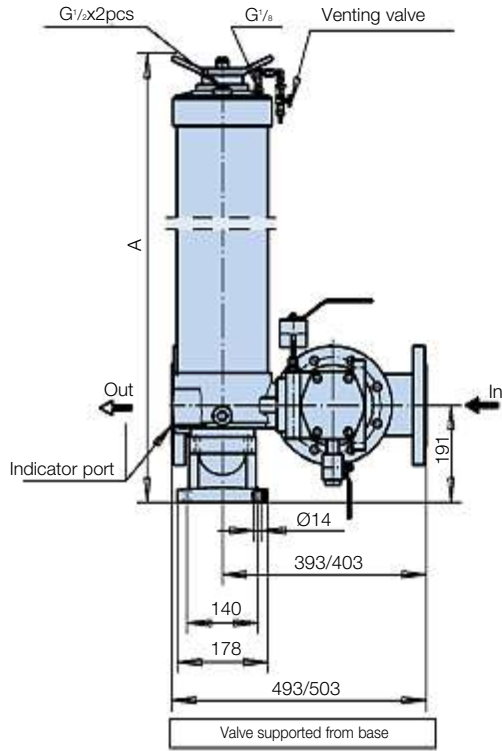


### 130S System 4+4 units



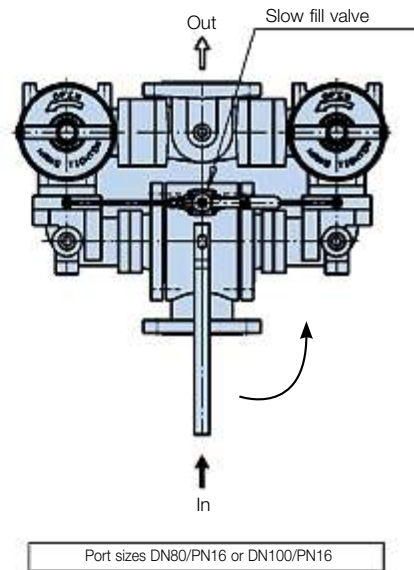
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## Valve Assembly Connection - T-Model

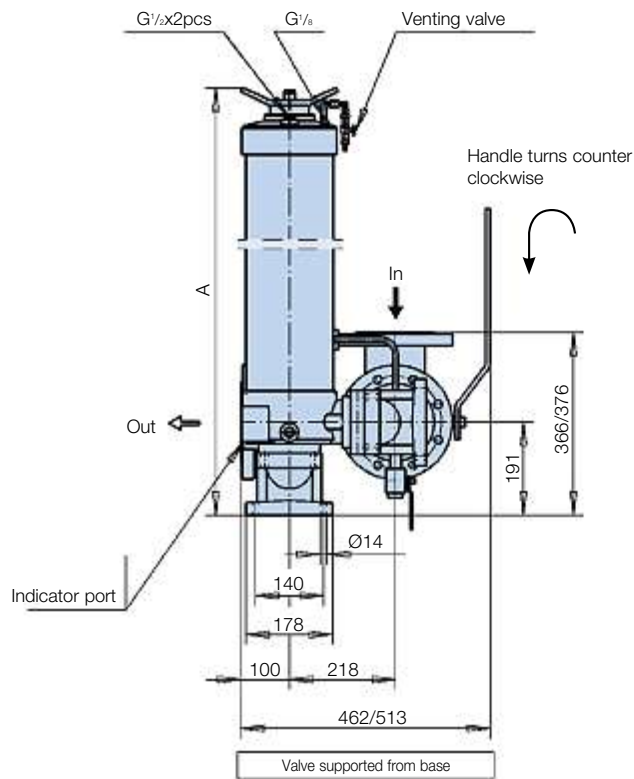


Type	A
Length 2	780
Length 3	1340

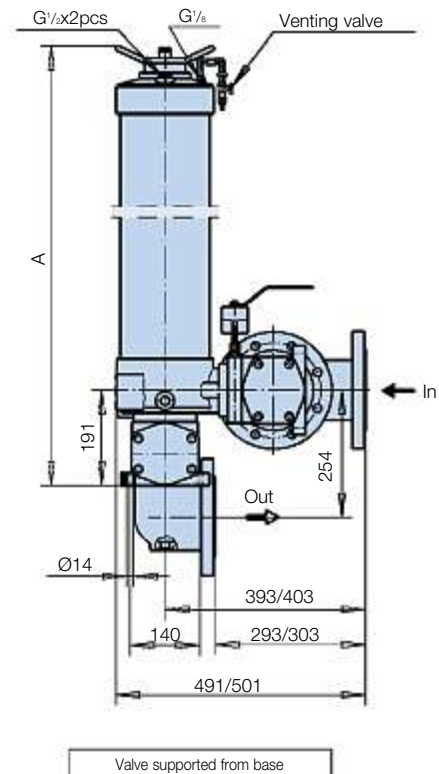
Dimensions in mm



## L-Model



## C-Model



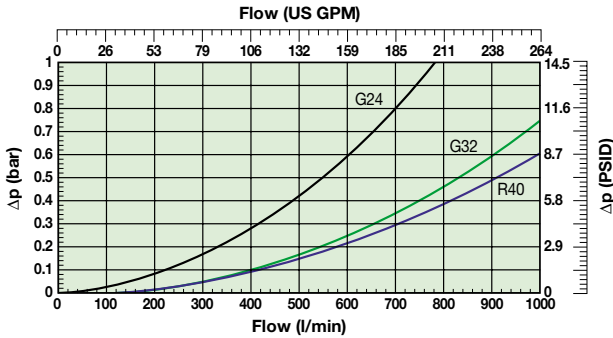
## Pressure Drop Curves

The recommended level of the initial pressure drop is max 0.8 bar.

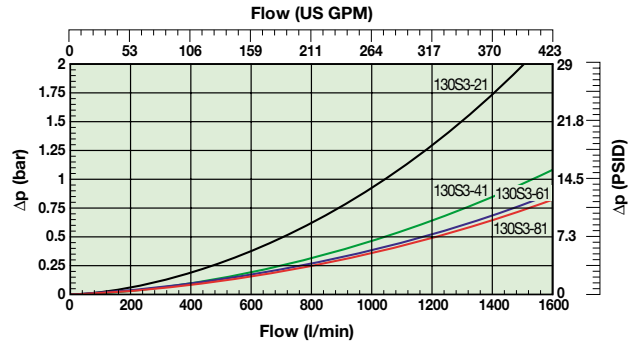
If the medium used has a viscosity different from 30 cSt, pressure drop over the filter can be estimated as follows:

The total  $\Delta p$  = housing  $\Delta p_h$  + (element  $\Delta p_e \times \text{working viscosity}/30$ ).

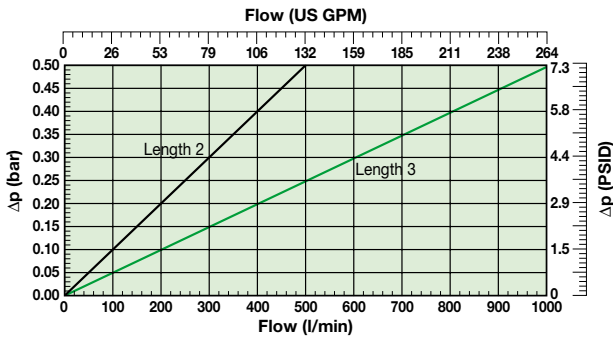
### 130M Eco Single Empty Housing



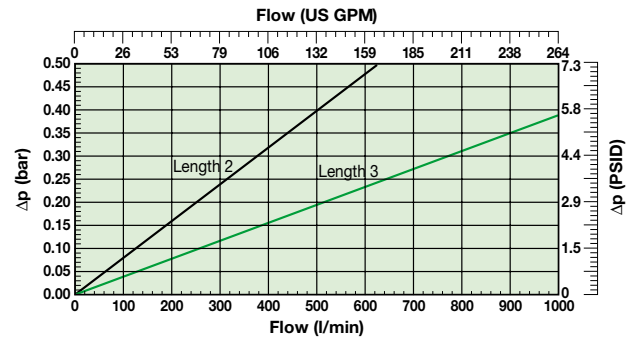
### 130S Eco System Empty Housing



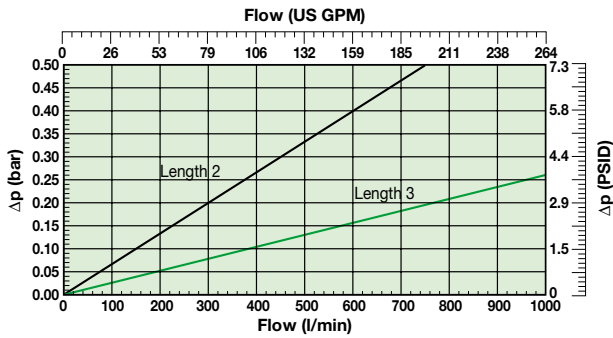
### 130 Elements 02QE



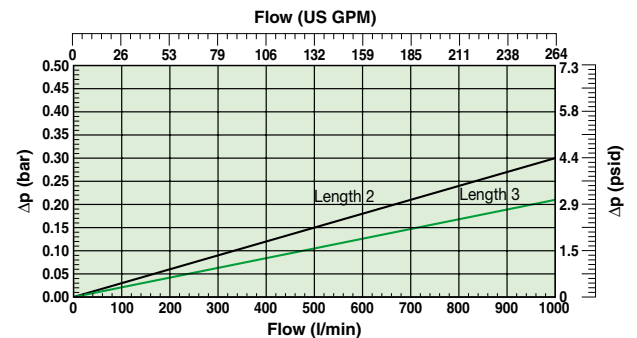
### 130 Elements 05QE



### 130 Elements 10QE



### 130 Elements 20QE



## Ordering Information

### Standard products table

Part numbers	Supersedes	Flow (l/min)	Model number	Element length	Media rating (μ)	Seals	Indicator	Bypass settings	Ports	Replacement elements	Supersedes
<b>130M210QEBM3KR401</b>	FF1302.QE10.BA35.SL40	700	130M	Length 2	10	Nitrile	Visual	3.5 bar	SAE flange 2 1/2" 3000-M	<b>938723Q</b>	FC1302.QE10.BK
<b>130M220QEBM3KR401</b>	FF1302.QE20.BA35.SL40	800	130M	Length 2	20	Nitrile	Visual	3.5 bar	SAE flange 2 1/2" 3000-M	<b>938724Q</b>	FC1302.QE20.BK
<b>130M310QEBM3KR401</b>	FF1303.QE10.BA35.SL40	950	130M	Length 3	10	Nitrile	Visual	3.5 bar	SAE flange 2 1/2" 3000-M	<b>938727Q</b>	FC1303.QE10.BK
<b>130M320QEBM3KR401</b>	FF1303.QE20.BA35.SL40	1000	130M	Length 3	20	Nitrile	Visual	3.5 bar	SAE flange 2 1/2" 3000-M	<b>938728Q</b>	FC1303.QE20.BK

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

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## Ordering Information (cont.)

### Product configurator

#### Configurator example, single unit:

Box 1 <b>130M</b>	Box 2 <b>3</b>	Box 3 <b>10QE</b>	Box 4 <b>B</b>	Box 5 <b>M3</b>	Box 6 <b>K</b>	Box 7 <b>R40</b>	Box 8 <b>1</b>
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#### Configurator example, 2+2 system:

Box 1 <b>130S</b>	Box 2 <b>3</b>	Box 3 <b>10QE</b>	Box 4 <b>B</b>	Box 5 <b>M3</b>	Box 6 <b>K</b>	Box 7 <b>D100</b>	Box 8 <b>41</b>
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Code	
Model	Code
Single unit	<b>130M</b>
Dual unit	<b>130D</b>
Parallel unit	<b>130N</b>
System	<b>130S</b>

Filter type	
Length	Code
Length 2	<b>2*</b>
Length 3	<b>3</b>

\* = This option is semi standard on single units (130M) only

Degree of filtration			
Element media	Glass fibre		
	Media code		
Ecoglass III element	<b>02QE*</b>	<b>05QE</b>	<b>10QE</b> <b>20QE</b>

\* = This option is semi standard on single units (130M) only  
Filter assemblies with Microglass III elements are available by request

Seal type	
Seal material	Code
Nitrile	<b>B</b>
Fluoroelastomer	V

Indicator	
	Code
Visual indicator	<b>M3</b>
Electrical indicator	T1
Electronic 4 LED, PNP, N.O.	F1
Electronic 4 LED, NPN, N.O.	F2

Visual M3 indicator always as standard  
Other indicator options are additional and the indicator must be mounted to lower indicator port.

Bypass valve		
Bypass valve	Indicator	Code
3.5 bar	2.5 bar	<b>K</b>

Filter connection					
Connections	Code	130M	130D	130N	130S
Thread G1½	<b>G24</b>	<b>S</b>	x	-	-
Thread G2	<b>G32</b>	<b>S</b>	x	-	-
SAE flange 2" 3000-M	R32	x	-	-	-
SAE flange 2½" 3000-M	<b>R40</b>	<b>S</b>	-	-	-
SAE flange 3" 3000-M	<b>R48</b>	-	<b>S</b>	-	-
DN80 flange	<b>D80</b>	-	-	<b>S</b>	<b>S</b>
DN100 flange	<b>D100</b>	-	-	<b>S</b>	<b>S</b>

Availability: **S** = standard option  
x = non-standard, ask for availability  
- = not available

Options	
Options	Code
130M: standard	<b>1</b>
130D: 2 units	<b>21</b>
3 units	31
130N: 1+1 units: L-port	<b>21</b>
2+2 units: L-port	41
130S: 1+1 units: T-port	<b>21</b>
2+2 units: T-port	<b>41</b>
3+3 units: T-port	<b>61</b>
4+4 units: T-port	<b>81</b>
1+1 units: L-port	27
2+2 units: L-port	47
3+3 units: L-port	67
4+4 units: L-port	87

Replacement elements with nitrile seals		
Media	Length 2	Length 3
02QE	<b>938721Q</b>	<b>938725Q</b>
05QE	<b>938722Q</b>	<b>938726Q</b>
10QE	<b>938723Q</b>	<b>938727Q</b>
20QE	<b>938724Q</b>	<b>938728Q</b>

Replacement Microglass III elements with nitrile seals		
Media	Length 2	Length 3
02Q	938733Q	938737Q
05Q	938734Q	938738Q
10Q	938735Q	938739Q
20Q	938736Q	938740Q

Nominal flow (l/min) at viscosity 30 cSt				
Single unit 130M		Connection size		
Filter length	Media	G24	G32	R40
Length 2	02QE	400	500	500
	05QE	500	600	600
	10QE	550	650	700
	20QE	600	750	800
Length 3	02QE	550	750	800
	05QE	600	800	850
	10QE	630	900	950
	20QE	650	950	1000

### 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: Standard items are in stock, semi standard items are available within four weeks

Degree of filtration						Code
Average filtration beta ratio $\beta$ (ISO 16889) / particle size $\mu\text{m}$ [c]						
$\beta_x(c)=2$	$\beta_x(c)=10$	$\beta_x(c)=75$	$\beta_x(c)=100$	$\beta_x(c)=200$	$\beta_x(c)=1000$	Metal free Ecoglass III
% efficiency, based on the above beta ratio ( $\beta_x$ )						
<b>50.0%</b>	<b>90.0%</b>	<b>98.7%</b>	<b>99.0%</b>	<b>99.5%</b>	<b>99.9%</b>	<b>02QE*</b>
N/A	N/A	N/A	N/A	N/A	4.5	<b>05QE</b>
N/A	N/A	4.5	5	6	7	<b>10QE</b>
N/A	6	8.5	9	10	12	<b>20QE</b>
6	11	17	18	20	22	