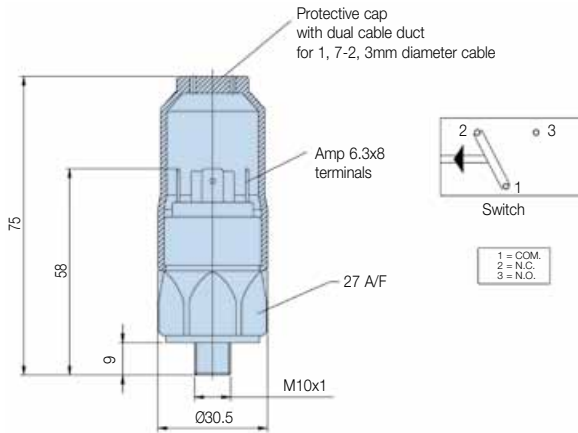


## Indicator Options

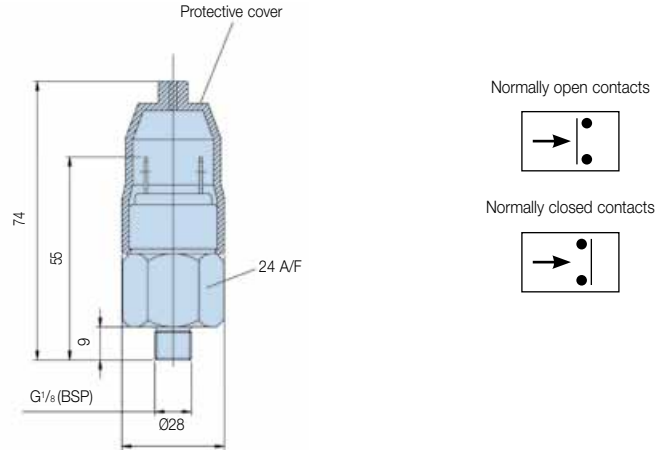
### Indicator PS pressure switch



Specifications	
Elec.rating	42V / 4A
Thread connection	M10x1
Elec.connection	AMP 6.3x0.8 terminals + protective cap
Protection	IP65 (with cap) terminals IP00
Code	FMUS1EBMM10L (Switch)

Indicator Connem / Filter Head Matrix	
Port(s) Filter head	Indicator Thread
2" SAE BGT length 11 and 12	M10
3" SAE BGT Length 13 and larger	M10
1x2"SAE Flanged + 2 x 1 1/4" SAE Flanged for BGT Length 11 and 12	G1/8"
3x1 1/4" SAE Flanges + 1x 1/2" SAE for BGT Length 13 and larger	G1/8"

### Indicator PS NO/NC pressure switch



Specifications	
Elec.rating	42V / 2A
Thread connection	G1/8
Elec.connection	AMP terminal 6.3x0.8
Protection	IP65 (terminal IP00)
Switch type	NO or NC
Code	FMUS2EBMG02L (NO switch) FMUS3EBMG02L (NC switch)

<b>Visual indicator</b>	1.2 bar
M10 code	FMUG1EBPM10L
G1/8 code	FMUG2EBPG02L

## Pressure Drop Curves

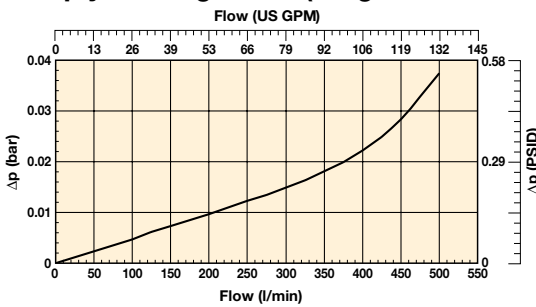
The recommended level of the initial pressure drop for low pressure filters is max 0.5 bar.

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

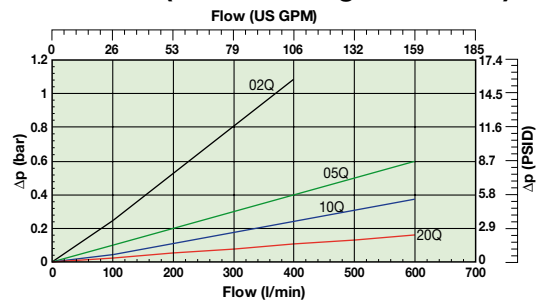
$$\Delta p = (\Delta p_{32} \times \text{viscosity of medium used}) / 32\text{cSt}$$

Filter housing and element pressure drop based on 32cSt fluid viscosity and 0.87 density.

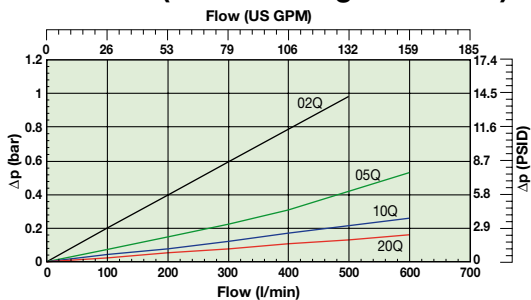
### BGT Empty Housing 2"SAE (Length code 11 and 12)



### BGT390 (Element length code 11)



### BGT500 (Element length code 12)

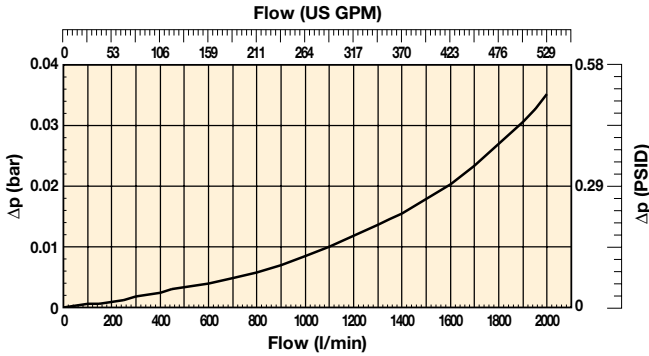


# BGT Series

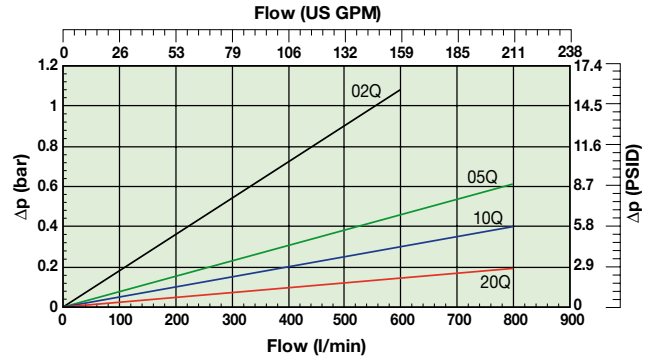
## Tanktop Mounted Return Line Filters

### Pressure Drop Curves (cont.)

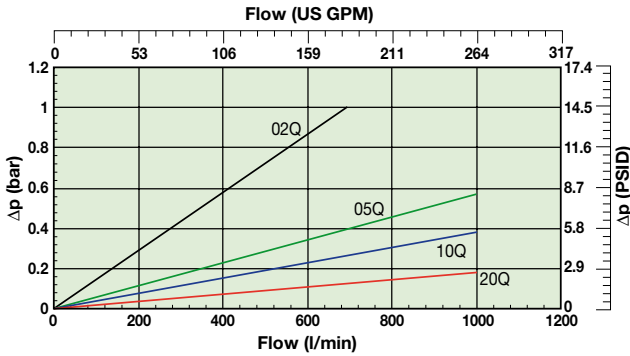
**BGT Empty Housing 3"SAE (Length 13 and larger)**



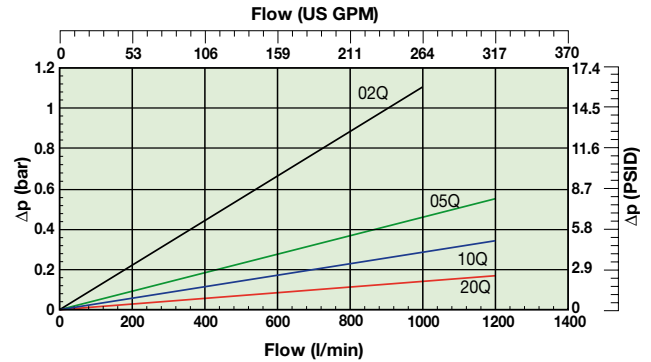
**BGT600 (Element length code 13)**



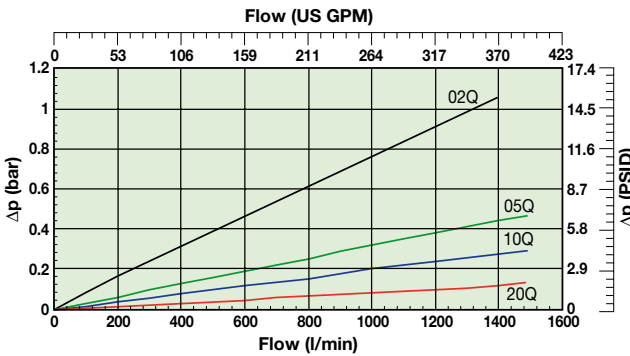
**BGT800 (Element length code 14)**



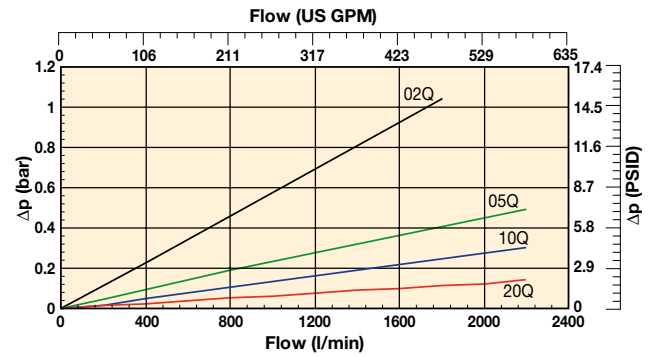
**BGT1000 (Element length code 15)**



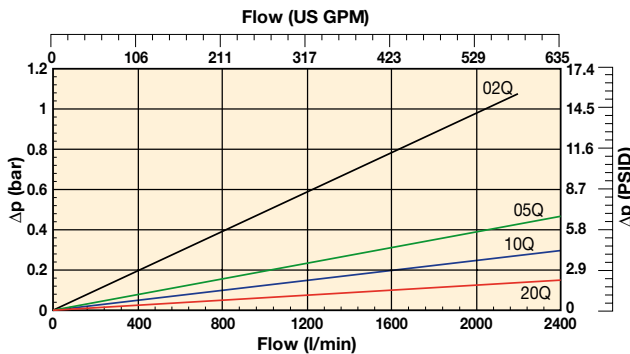
**BGT1500 (Element length code 16)**



**BGT2000 (Element length code 17)**

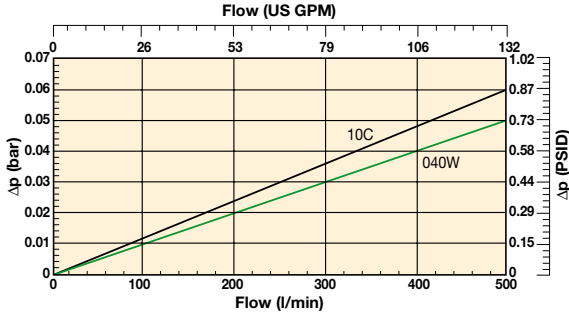


**BGT2400 (Element length code 18)**

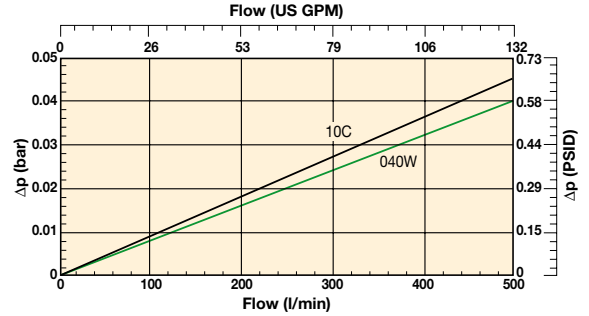


Pressure Drop Curves (cellulose and stainless steel media)

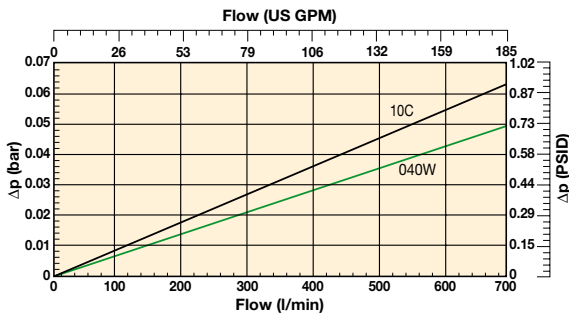
**BGT390 (Element length code 11)**  
Cellulose & Stainless steel media



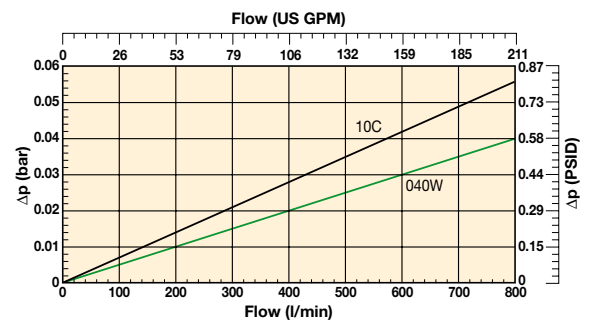
**BGT390 (Element length code 11)**  
Cellulose & Stainless steel media



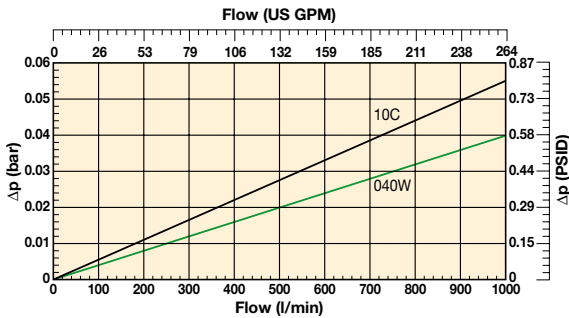
**BGT600 (Element length code 13)**  
Cellulose & Stainless steel media



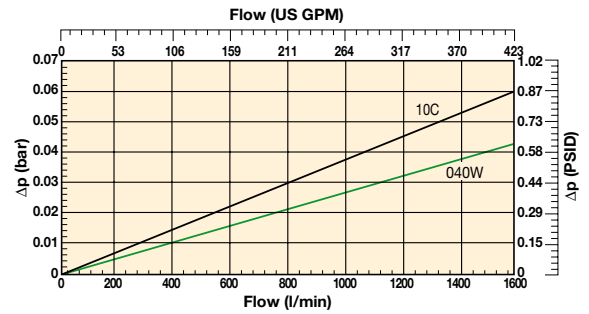
**BGT800 (Element length code 14)**  
Cellulose & Stainless steel media



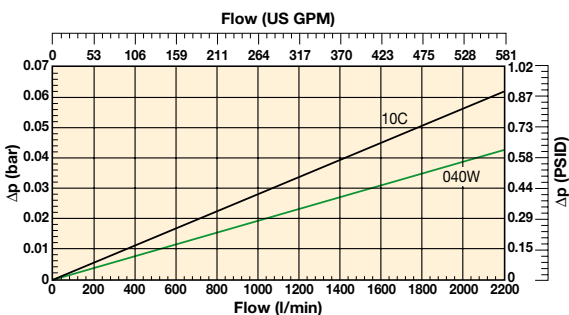
**BGT1000 (Element length code 15)**  
Cellulose & Stainless steel media



**BGT1500 (Element length code 16)**  
Cellulose & Stainless steel media



**BGT2000 (Element length code 17)**  
Cellulose & Stainless steel media



Cellulose and stainless steel media  
 Example: BGT2000 Filter Element Length 17 - cellulose and stainless steel media



# BGT 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>BGT1210QLBPER323</b>	BGTS500-S2 TXWL8C-10 T B15 M	500	BGT500	Length 12	10	Nitrile	Plugged	1.5 Bar (22 Psi)	2"SAE-3000 PSI	Diffuser type T	<b>937859Q</b>	TXWL8L-10
<b>BGT1220QLBPER323</b>	BGTS500-S2 TXWL8C-20 T B15 M	500	BGT500	Length 12	20	Nitrile	Plugged	1.5 Bar (22 Psi)	2"SAE-3000 PSI	Diffuser type T	<b>937868Q</b>	TXWL8L-20
<b>BGT1510QLBPER483</b>	BGTS1000-S3 TXWL12-10 T B15 M	1000	BGT1000	Length 15	10	Nitrile	Plugged	1.5 Bar (22 Psi)	3"SAE-3000 PSI	Diffuser type T	<b>937862Q</b>	TXWL12-10
<b>BGT1520QLBPER483</b>	BGTS1000-S3 TXWL12-20 T B15 M	1000	BGT1000	Length 15	20	Nitrile	Plugged	1.5 Bar (22 Psi)	3"SAE-3000 PSI	Diffuser type T	<b>937865Q</b>	TXWL12-20
<b>BGT1710QBPER483</b>	BGTS2000-S3 TXW14-10 T B15 M	2000	BGT2000	Length 17	10	Nitrile	Plugged	1.5 Bar (22 Psi)	3"SAE-3000 PSI	Diffuser type T	<b>937772Q</b>	TXW14-10B
<b>BGT1720QBPER483</b>	BGTS2000-S3 TXW14-20 T B15 M	2000	BGT2000	Length 17	20	Nitrile	Plugged	1.5 Bar (22 Psi)	3"SAE-3000 PSI	Diffuser type T	<b>937805Q</b>	TXW14-20B

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 examples filter including LEIF® element

Box 1	Box 2	Box 3	Box 4	Box 5	Box 6	Box 7	Box 8
<b>BGT</b>	<b>15</b>	<b>05QL</b>	<b>B</b>	<b>S1</b>	<b>E</b>	<b>R48</b>	<b>C</b>

##### Configurator examples filter including conventional element

Box 1	Box 2	Box 3	Box 4	Box 5	Box 6	Box 7	Box 8
<b>BGT</b>	<b>18</b>	<b>02Q</b>	<b>B</b>	<b>S4</b>	<b>E</b>	<b>3R20</b>	<b>4</b>

Code	Filter type	Degree of filtration					
<b>BGT</b>	<b>Housing</b>	<b>Element media</b>					
	BGT390	<b>Glass fibre</b>					
	BGT500	Microglass III (for disposable elements)					
	BGT600	<b>Cellulose</b>					
	BGT800	Ecoglass III (for LEIF® elements)					
	BGT1000	<b>Wire mesh</b>					
	BGT1500	Abs. rating					
	BGT2000	040W					
	BGT2400	<b>LEIF® element</b>					
			10C	02Q	05Q	<b>10Q</b>	<b>20Q</b>
			02QL	<b>05QL</b>	<b>10QL</b>	<b>20QL</b>	

Seal type	Code
Seal material	<b>B</b>
Nitrile	V
Fluorelastomer	on request
Neoprene	

Indicator	Code
Pressure gauge, setting 1.2 bar, M10x1	<b>G1</b>
Pressure gauge, setting 1.2 bar, G1/4 for dual port head	G2
Pressure switch 42V, 1.2 bar setting, NO/NC, M10x1	<b>S1</b>
Pressure switch 42V, 1.2 bar setting, NO with G1/4 BSP	S2
Pressure switch 42V, 1.2 bar setting, NC with G1/4 BSP	S3
Pressure switch 250V, NO/NC with G1/4	S4
Pressure switch 220V, NO/NC with M10	S5
No indicator, indicator ports not machined	On request
No indicator, indicator port B plugged	<b>P</b>
Other settings for indicators / gauges on request	on request

Bypass valve	Code
Bypass valve	<b>B</b>
0.8 bar	
1.5 bar	<b>E</b>
2.0 bar for BGT-3 series (length 11 and 12)	H
Blocked bypass	X
Other bypass settings	on request

Note: For all dual head ports for BGTS apply G1/4 connection for indicators

Filter connection	Code
Ports	
2" SAE BGT length 11 and 12	<b>R32</b>
3" SAE BGT Length 13 and larger	<b>R48</b>
1x2" SAE Flanged + 2 x 1 1/4" SAE Flanged for BGT Length 11 and 12	R32M
3x1 1/4" SAE Flanges + 1x 1/2" SAE for BGT Length 13 and larger	3R20

Options	Code
Options	
No diffuser required	<b>1</b>
Diffuser type T with perforated plate area	<b>3</b>
Diffuser type P without perforated plate area	4
No magnets	5
Plugged filling port	8
Diffuser type T and no magnets	A
Diffuser type P and no magnets	B
Diffuser type T, no magnets, plugged filling port	C
Diffuser type P, no magnets, plugged filling port	D
Diffuser type T, magnets and filling port	E
Diffuser type P, magnets and filling port	F
Air tight diffuser type T	G
Air tight diffuser type P	H
Other combinations	on request
ATEX certified* (Category 2, non-electrical equipment)	EX

#### 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.

Note 1\*: For ATEX classified filters add EX after the code.

ATEX certified filters with electrical indicator are available on request.

Visual indicators are classified as Category 2, non electrical equipment.

Filter assemblies with EX code will be supplied with a dedicated name plate.

Pls consult Parker Filtration for any questions related to the classification of our products.



## Ordering Information (cont.)

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

Supersedes spare element table					
BGT390	TXWL8A-2	TXWL8A-5	TXWL8A-10	TXWL8A-20	
Part number spare element	937832Q	937843Q	937858Q	937869Q	
BGT500	TXWL8C-2	TXWL8C-5	TXWL8C-10	TXWL8C-20	
Part number spare element	937833Q	937842Q	937859Q	937868Q	
BGT600	TXWL10-2	TXWL10-5	TXWL10-10	TXWL10-20	
Part number spare element	937834Q	937841Q	937860Q	937867Q	
BGT800	TXWL11-2	TXWL11-5	TXWL11-10	TXWL11-20	
Part number spare element	937835Q	937840Q	937861Q	937866Q	
BGT1000	TXWL12-2	TXWL12-5	TXWL12-10	TXWL12-20	
Part number spare element	937836Q	937839Q	937862Q	937865Q	
BGT1500	TXWL13-2	TXWL13-5	TXWL13-10	TXWL13-20	
Part number spare element	937837Q	937838Q	937863Q	937864Q	

Supersedes spare element table						
BGT390	TXX8A-10-B	TXW8A-2-B	TXW8A-5-B	TXW8A-10-B	TXW8A-20-B	ST8A-40-B
Part number spare element	937728	937742Q	937763Q	937778Q	937799Q	937813
BGT500	TXX8C-10-B	TXW8C-2-B	TXW8C-5-B	TXW8C-10-B	TXW8C-20-B	ST8C-40-B
Part number spare element	937729	937741Q	937764Q	937777Q	937800Q	937812
BGT600	TXX10-10-B	TXW10-2-B	TXW10-5-B	TXW10-10-B	TXW10-20-B	ST10-40-B
Part number spare element	937730	937740Q	937765Q	937776Q	937801Q	937811
BGT800	TXX11-10-B	TXW11-2-B	TXW11-5-B	TXW11-10-B	TXW11-20-B	ST11-40-B
Part number spare element	937731	937739Q	937766Q	937775Q	937802Q	937810
BGT1000	TXX12-10-B	TXW12-2-B	TXW12-5-B	TXW12-10-B	TXW12-20-B	ST12-40-B
Part number spare element	937732	937738Q	937767Q	937774Q	937803Q	937809
BGT1500	TXX13-R-10-B	TXW13-R-2-B	TXW13-R-5-B	TXW13-R-10-B	TXW13-R-20-B	ST13-40-B
Part number spare element	937733	937737Q	937768Q	937773Q	937804Q	937808
BGT2000	TXX14-10-B	TXW14-2-B	TXW14-5-B	TXW14-10-B	TXW14-20-B	ST14-40-B
Part number spare element	937734	937736Q	937769Q	937772Q	937805Q	937807
BGT2400	-	TXWH14-2-B	TXWH14-5-B	TXWH14-10-B	TXWH14-20-B	-
Part number spare element		937735Q	937770Q	937771Q	937806Q	

### BGT Series Seal Kits

BGT Filter connection	Nitrile Seal kit
Port(s) Filter head	Part Number
2" SAE BGT length 11 and 12	2049010017
3" SAE BGT Length 13 and larger	2049010023
1x2" SAE Flanged + 2 x 1 1/2" SAE Flanged for BGT Length 11 and 12	918045048
3x1 1/2" SAE Flanges + 1x 1/2" SAE for BGT Length 13 and larger	2049010020

# Clearing the way for a greener future



Image courtesy of  
Johnston Sweepers

## ENVIRONMENTALLY-FRIENDLY FILTRATION SOLUTIONS

Trust Parker to provide you with a range of 'green' filter products that impact positively on the environment. With the new E-Series your customers benefit from a solution that's smarter, safer and more responsible when it comes to filtration.

By significantly reducing waste levels, the E-Series is designed to increase the lifespan of hydraulic machinery. The Suction Return filter series features *LEIF*<sup>®</sup> elements that can be crushed and incinerated. By reducing bulk for disposal and recycling the material, this cost-effective solution contributes to a safer, cleaner environment.

Through Parker's advanced Laser CM technology, all vehicle operators can monitor fluid contamination on-site through a simple two minute test. This accurate monitoring method helps prevent catastrophic failure in critical systems instantly.

When it comes to filtration solutions you can rely on - the future is Parker.

Enjoy the benefits of 'green' filtration, email [filtrationinfo@parker.com](mailto:filtrationinfo@parker.com)

# IN-AGB Series

In-Tank Mounted Return Line Filters

Max. 2400 l/min



## Flow from inside to out

### Designed for in-built filtration

The IN-AGB Series features a quick response bypass construction with low hysteresis, magnetic pre-filtration and a high dirt-holding capacity. Flow rates from 30 l/min to 2400 l/min. *LEIF*<sup>®</sup> elements available up to 1500 l/min. A low cost, high performance filter.



## Contact Information:

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

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

## Product Features:

- IN-AGB features a bypass construction with low hysteresis.
- Magnetic pre-filtration and a high dirt-holding capacity.
- Wide range of diffusers including airtight options.
- Flow from inside to out.
- Flow rates from 30 l/min to 2400 l/min.
- Patented *LEIF*<sup>®</sup> elements safeguard filtration quality.

# IN-AGB Series

## In-Tank Mounted Return Line Filters

### Features & Benefits

Features	Advantages	Benefits
Filter integrated in tank	Compact low cost solution Filter protected by reservoir	Suitable for extreme heavy duty applications or hazardous environments No tank top parts contributes to improved esthetical design
LEIF® elements	Element safeguards the use of genuine parts	Guaranteed quality of filtration Contributes to ISO 14001 certification
Magnetic pre-filtration	Removes ferrous particles, even during bypass conditions	Improved fluid cleanliness levels Extended element life time
In-to-Out filtration	All captured contamination retains inside the element	No recontamination of system during change of elements
High level of customisation	Dedicated system-matched solutions can be easily made available	Improved integration of filter in system combined with lower initial system costs
Quick response bypass with low hysteresis	Reduction of bypass period due to low hysteresis Only a small part of the total flow is bypassing the element	Improved protection of system
Standard or customised funnel	Ensures that oil enters the tank under the oil level	Significant reduction of oil foaming

### Typical Applications

- Agricultural machines
- Articulated dump trucks
- Forestry equipment
- Wheeled loaders
- Lubrication systems
- Excavators

### The Parker Filtration IN-AGB In-Tank Mounted Return Line Filters.

The low-cost, high-performance return line IN-AGB filter features Q3 filter media, a bypass construction with low hysteresis, magnetic pre-filtration and a high dirt-holding capacity. The range is capable of handling flow rates from 30 l/min up to 2400 l/min. LEIF® elements are available for flow rates up to 1500 l/min, meeting the most stringent demands for environmentally-friendly filtration and offering protection against poor quality pirate elements.





## Specification

### Assembly:

Inside tank.

### Seal material:

Nitrile, fluoroelastomer, neoprene.

### Operating temperature range:

Seal material Nitrile: -40° to +100°C.

Seal material Fluoroelastomer: -20° to +100°C.

### Bypass setting:

0.8/1.5 and 2.0 bar.

Other settings on request.

### 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.

### Filtration media:

Microglass III, Ecoglass III for *LEIF*<sup>®</sup> elements

Also available 10µm Cellulose and 40µm stainless steel mesh.

### Element burst rating:

10 bar (ISO 2941).

### Options:

Diffuser type P (straight pipe, no perforated plate area)

Diffuser type T (with closed diffuser end cap and with perforated plate area, recommended when oil entry in reservoir is close to the reservoir bottom or to ensure oil entry under the reservoir oil level)

### Magnetic pack:

Standard.

**Note:** IN-AGB 2-400 and 2-500 are standard supplied without magnets.

### Filter element:

*LEIF*<sup>®</sup> element with reusable metal element sleeve.

Optional conventional style element with steel end caps.

The *LEIF*<sup>®</sup> element is patented and safeguards the use of genuine parts.

**Note:** *LEIF*<sup>®</sup> element can be used with mineral and HEES type oils.

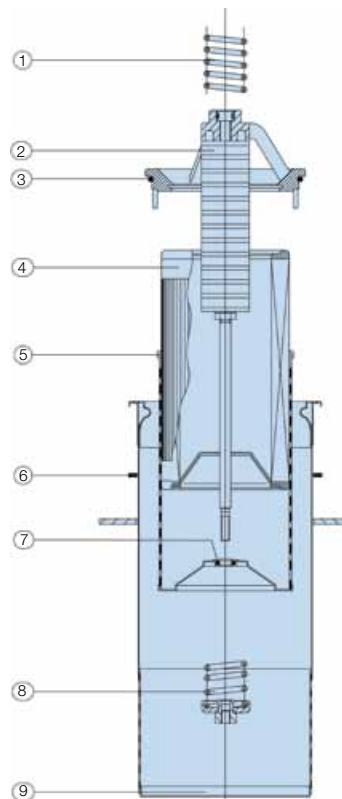
For other fluids consult Parker Filtration.

*LEIF*<sup>®</sup> contributes to ISO 14001 quality standards.

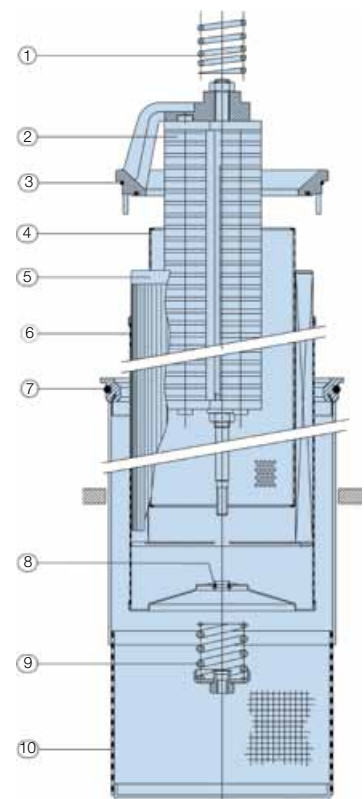
Insert-AGB <i>LEIF</i> <sup>®</sup> 1-3 series		
Ref.	No.	Description
1	1	Top-spring
2	1	Insert
3	1	Insert-seal
4	1	<i>LEIF</i> <sup>®</sup> Element
5	1	Sleeve
6	1	Gasket
7	1	O-ring
8	1	Bypass set
9	1	Diffuser

Insert-AGB <i>LEIF</i> <sup>®</sup> 4 series		
Ref.	No.	Description
1	1	Top-spring
2	1	Insert
3	1	Insert-seal
4	1	Inner sleeve
5	1	<i>LEIF</i> <sup>®</sup> -element
6	1	Outer sleeve
7	1	O-ring
8	1	O-ring
9	1	Bypass set
10	1	Diffuser

1-3 Series



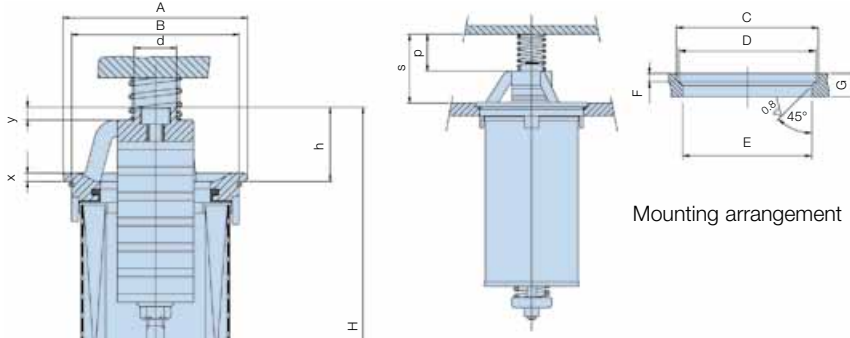
4 Series



# IN-AGB Series

## In-Tank Mounted Return Line Filters

### Specification (cont.)

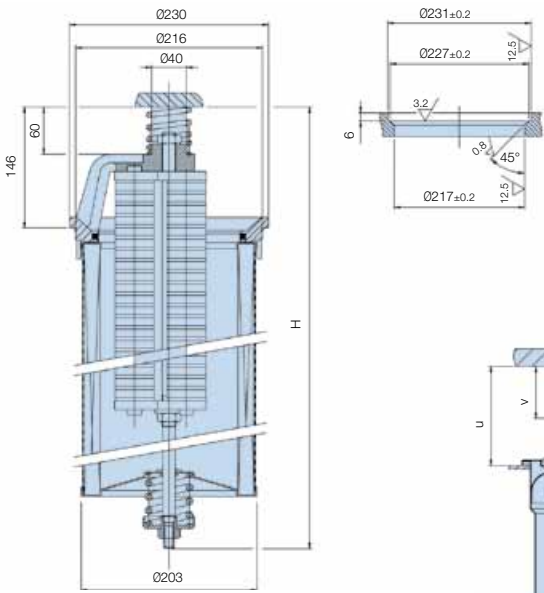


Mounting arrangement

	INAGB Length	Type	A	B	H	h	d	x	y	s	p	C	D	E	F	G
1 Series	0	IN30	87	79	122	35	20	4	6	45	20	88	85	80	4	12
	2	IN60	87	79	173	35	20	4	6	45	20	88	85	80	4	12
	3	IN90	87	79	217	35	20	4	6	45	20	88	85	80	4	12
	4	IN120	87	79	267	35	20	4	6	45	20	88	85	80	4	12
	5	IN125	87	79	381	35	20	4	6	45	20	88	85	80	4	12
2 Series	6	IN170	125	116	284	48	25	5	8	77	42	126	122	117	5	15
	7	IN230	125	116	360	48	25	5	8	77	42	126	122	117	5	15
	8	IN300	125	116	559	48	25	5	8	77	42	126	122	117	5	15
	9	IN400	125	116	579	48	25	5	8	77	42	126	122	117	5	15
	10	IN500	125	116	599	48	25	5	8	77	42	126	122	117	5	15
3 Series	11A	IN270	150	138	325	62	30	7	12	100	55	151	149	139	5	18
	11	IN390	150	138	407	62	30	7	12	100	55	151	149	139	5	18
	12	IN500	150	138	599	62	30	7	12	100	55	151	149	139	5	18

Dimensions in mm

without diffuser



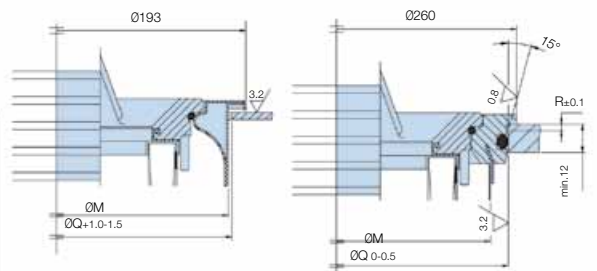
without diffuser

INAGB Length	Type	H
13	IN600	543
14	IN800	653
15	IN1000	758
16	IN1500	1038
17	IN2000	1303
18	IN2400	1303

Dimensions in mm

IN-AGB 3

IN-AGB 4



	INAGB Length	Type	K	L	M	U	V	Q	R
3 Series	11A	IN270	324	110	175	106	55	178	
	11	IN390	364	110	175	106	55	178	
	12	IN500(3)	554	125	175	106	55	178	
4 Series	13	IN600	445	183	239	145	60	250.5	2.5
	14	IN800	555	183	239	145	60	250.5	2.5
	15	IN1000	660	183	239	145	60	250.5	2.5
	16	IN1500	940	183	239	145	60	250.5	2.5
	17	IN2000	1220	183	239	145	60	250.5	2.5
	18	IN2400	1220	183	239	145	60	250.5	2.5

Dimensions in mm

with diffuser



## Pressure Drop Curves

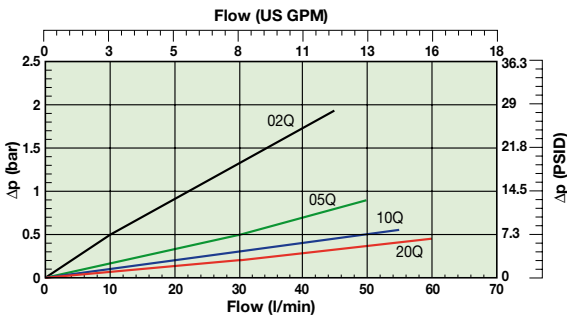
The recommended level of the initial pressure drop for low pressure filters is max 0.5 bar.

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

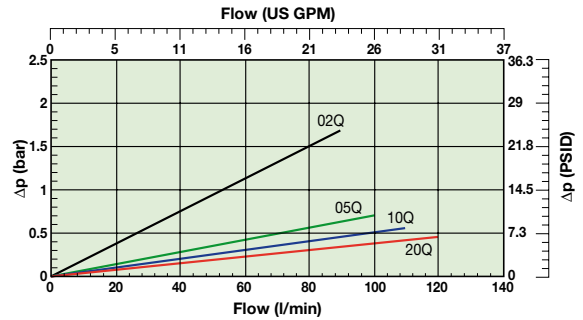
$$\Delta p = (\Delta p_{32} \times \text{viscosity of medium used}) / 32\text{cSt}$$

Filter housing and element pressure drop based on 32cSt fluid viscosity and 0.87 density.

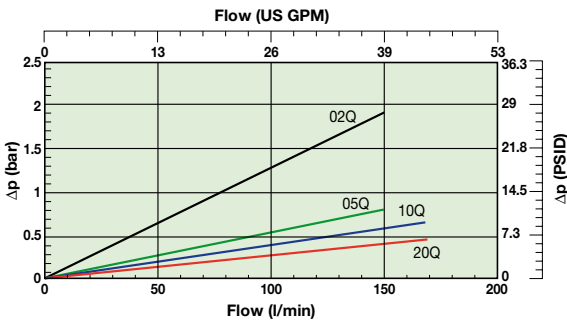
**IN30 (Element length code 0)**



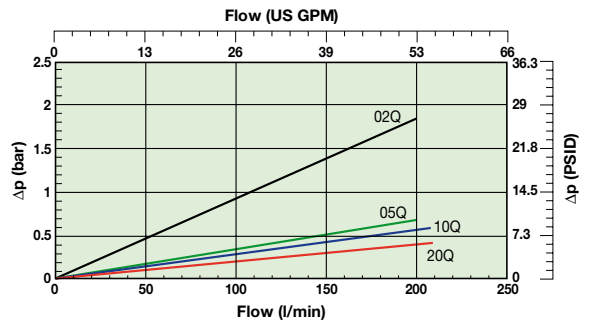
**IN60 (Element length code 2)**



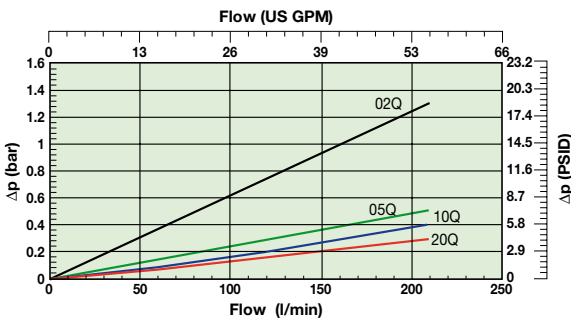
**IN90 (Element length code 3)**



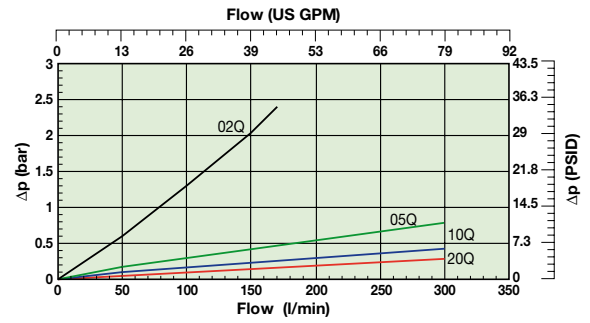
**IN120 (Element length code 4)**



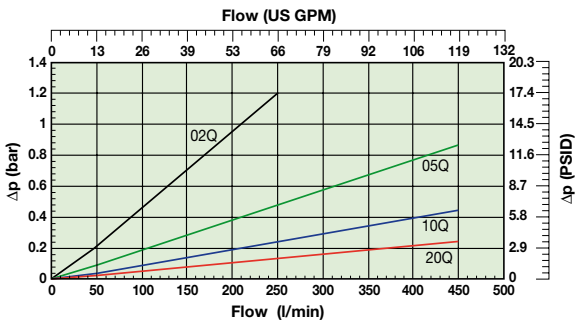
**IN150 (Element length code 5)**



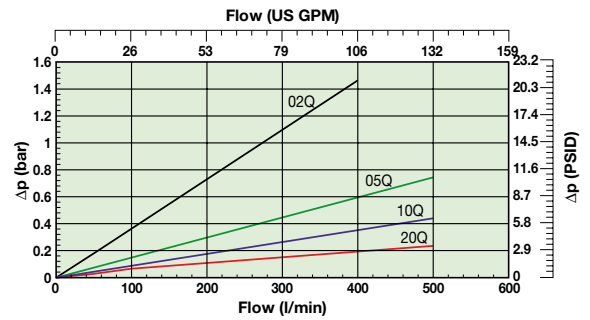
**IN170 (Element length code 6)**



**IN230 (Element length code 7)**



**IN300 (Element length code 8)**

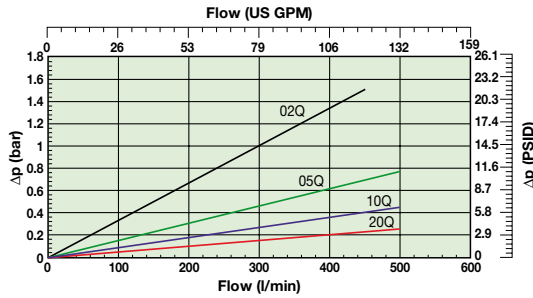


# IN-AGB Series

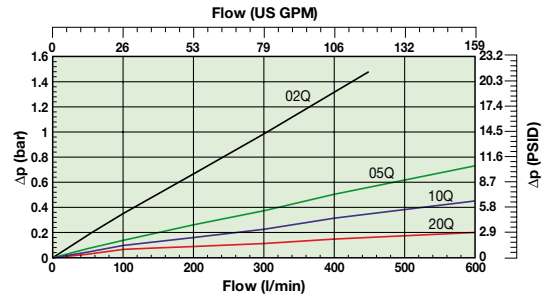
## In-Tank Mounted Return Line Filters

### Pressure Drop Curves (cont.)

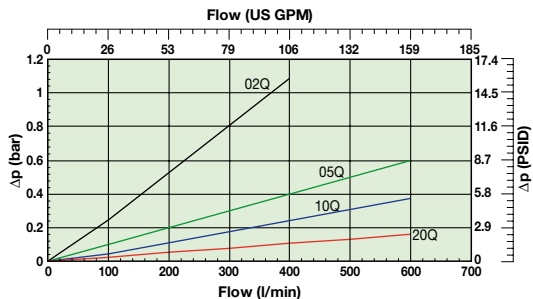
**IN400 (Element length code 9)**



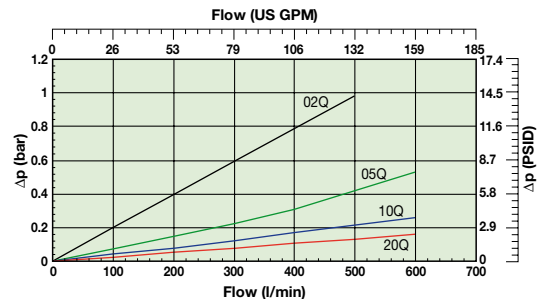
**IN500 (Element length code 10)**



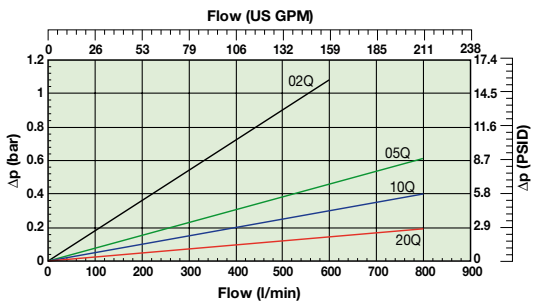
**IN390 (3)(Element length code 11)**



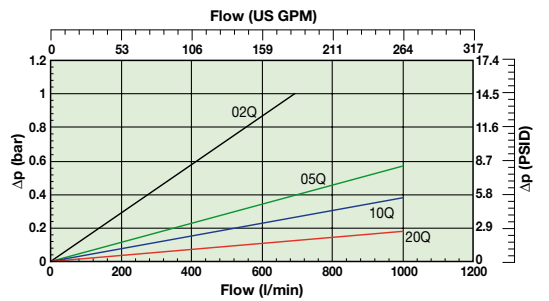
**IN500 (3) (Element length code 12)**



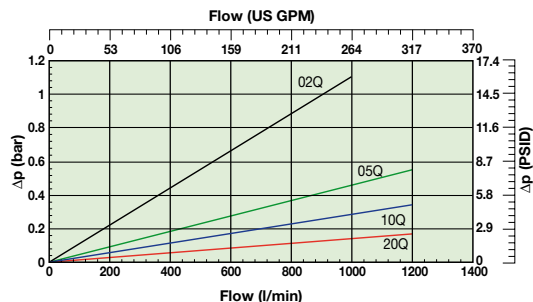
**IN600 (Element length code 13)**



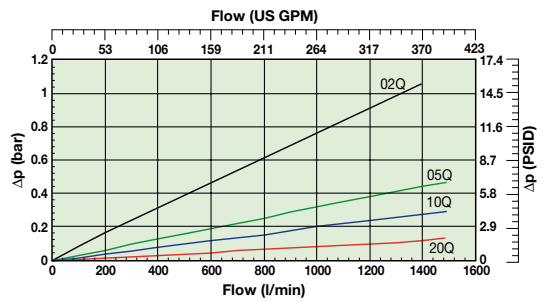
**IN800 (Element length code 14)**



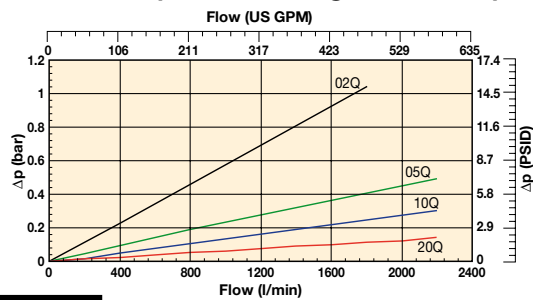
**IN1000 (Element length code 15)**



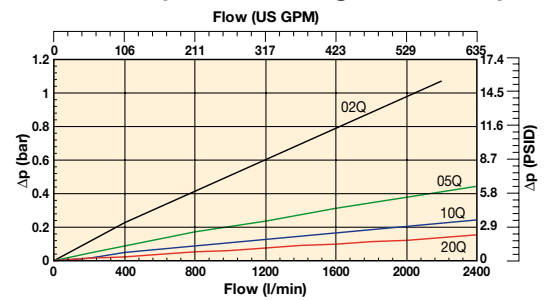
**IN1500 (Element length code 16)**



**IN2000 (Element length code 17)**

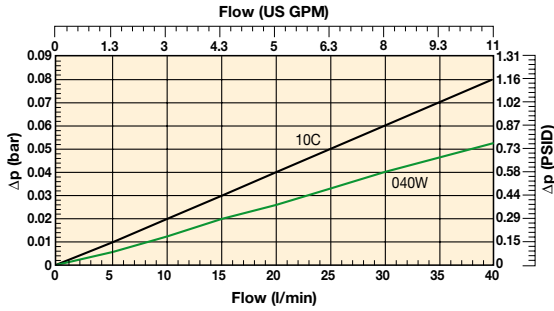


**IN2400 (Element length code 18)**

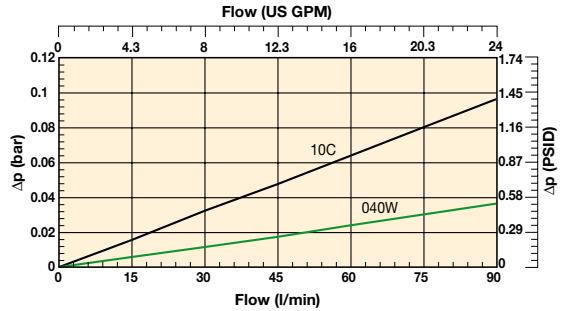


Pressure Drop Curves (cellulose and stainless steel media)

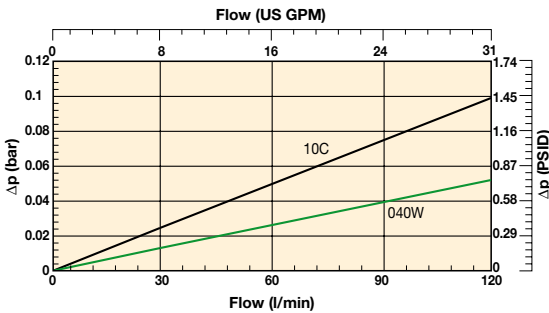
**IN30 (Element length code 0)**  
Cellulose & Stainless steel media



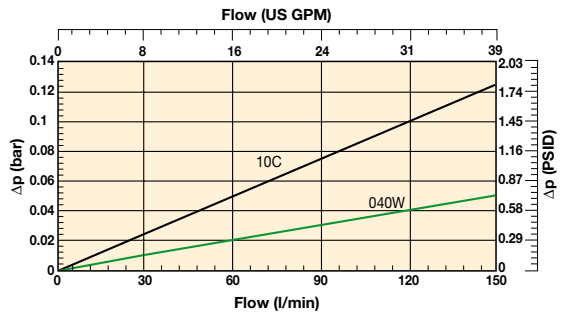
**IN60 (Element length code 2)**  
Cellulose & Stainless steel media



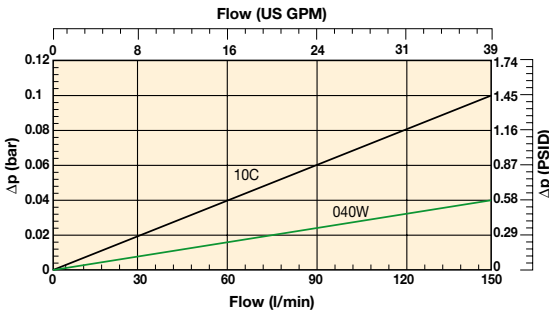
**IN90 (Element length code 3)**  
Cellulose & Stainless steel media



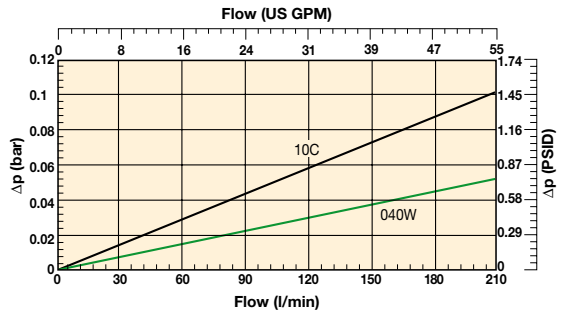
**IN120 (Element length code 4)**  
Cellulose & Stainless steel media



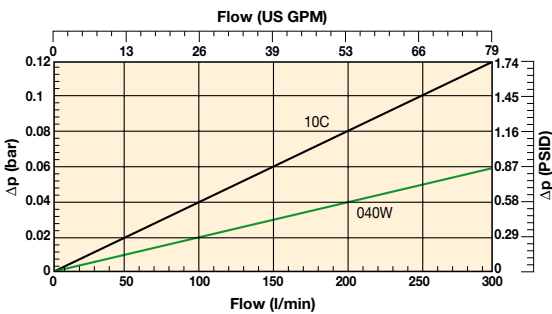
**IN150 (Element length code 5)**  
Cellulose & Stainless steel media



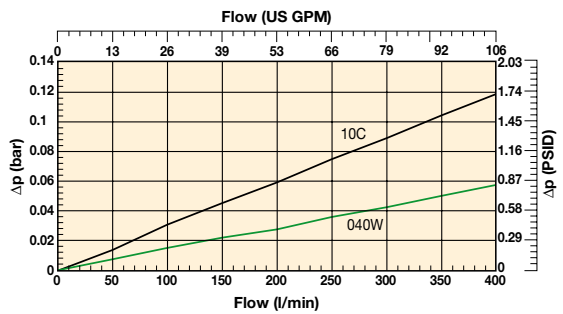
**IN170 (Element length code 6)**  
Cellulose & Stainless steel media



**IN230 (Element length code 7)**  
Cellulose & Stainless steel media



**IN300 (Element length code 8)**  
Cellulose & Stainless steel media



Cellulose and stainless steel media  
Example: IN300 Filter Element Length 8 - Cellulose and stainless steel media

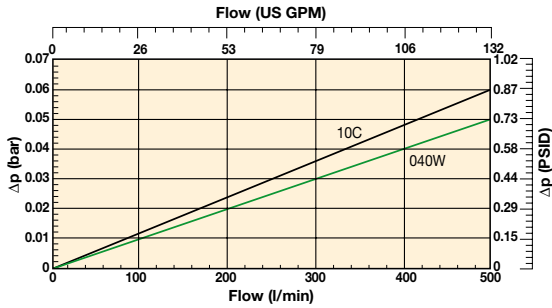


# IN-AGB Series

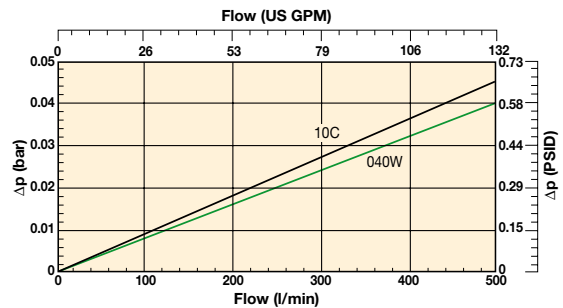
## In-Tank Mounted Return Line Filters

Pressure Drop Curves (cellulose and stainless steel media)

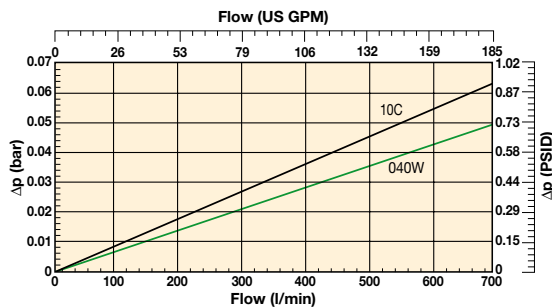
**IN390 (Element length code 11)**  
Cellulose & Stainless steel media



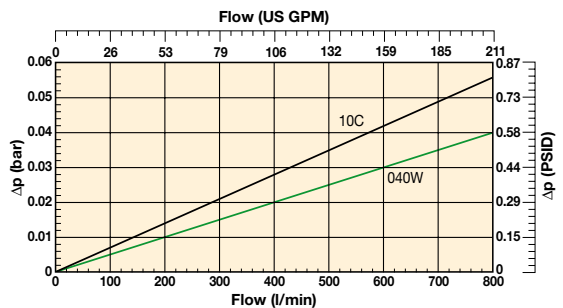
**IN500 (Element length code 12)**  
Cellulose & Stainless steel media



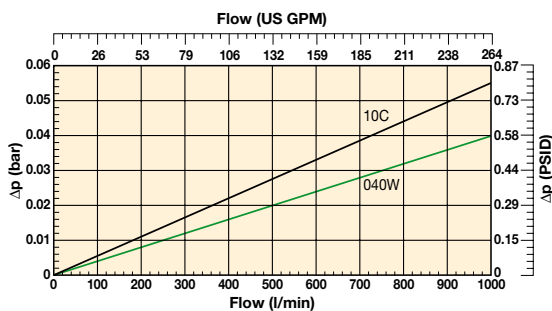
**IN600 (Element length code 13)**  
Cellulose & Stainless steel media



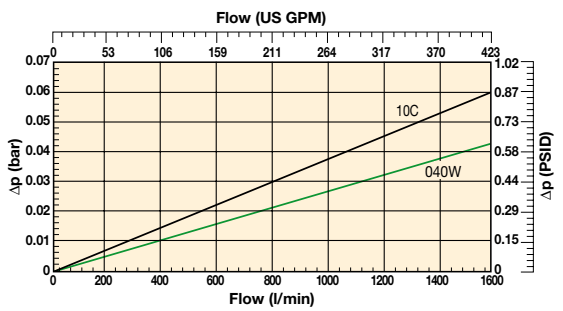
**IN800 (Element length code 14)**  
Cellulose & Stainless steel media



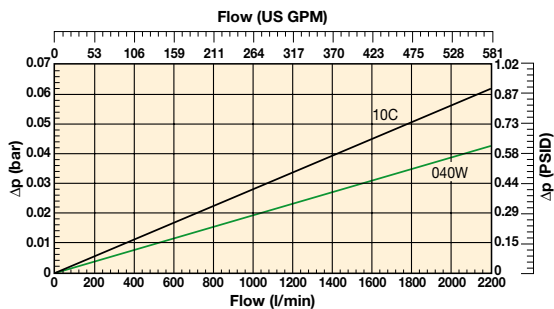
**IN1000 (Element length code 15)**  
Cellulose & Stainless steel media



**IN1500 (Element length code 16)**  
Cellulose & Stainless steel media



**IN2000 (Element length code 17)**  
Cellulose & Stainless steel media



Cellulose and stainless steel media  
Example: IN300 Filter Element Length 8 - Cellulose and stainless steel media



# 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
IN310QLBNEXX1	IN90-TXWL3-10B15	90	IN90	Length 3	10	Nitrile	NA	1.5 Bar (22 Psi)	NA	None	937878Q	TXWL3-10
IN320QLBNEXX1	IN90-TXWL3-20 B15	90	IN90	Length 3	20	Nitrile	NA	1.5 Bar (22 Psi)	NA	None	937877Q	TXWL3-20
IN510QLBNEXX1	IN125-TXWL3E-10 B15	125	IN125	Length 5	10	Nitrile	NA	1.5 Bar (22 Psi)	NA	None	937852Q	TXWL3E-10
IN520QLBNEXX1	IN125-TXWL3E-20 B15	125	IN125	Length 5	20	Nitrile	NA	1.5 Bar (22 Psi)	NA	None	937875Q	TXWL3E-20
IN610QLBNEXX1	IN170-TXWL4-10 B15	170	IN170	Length 6	10	Nitrile	NA	1.5 Bar (22 Psi)	NA	None	937853Q	TXWL4-10
IN620QLBNEXX1	IN170-TXWL4-20 B15	170	IN170	Length 6	20	Nitrile	NA	1.5 Bar (22 Psi)	NA	None	937874Q	TXWL4-20
IN810QLBNEXX1	IN300-TXWL5A-10 B15	300	IN300	Length 8	10	Nitrile	NA	1.5 Bar (22 Psi)	NA	None	937855Q	TXWL5A-10
IN820QLBNEXX1	IN300-TXWL5A-20 B15	300	IN300	Length 8	20	Nitrile	NA	1.5 Bar (22 Psi)	NA	None	937872Q	TXWL5A-20
IN1210QLBNEXX3	IN500-TXWL8C-10 T B15	500	IN500	Length 12	10	Nitrile	NA	1.5 Bar (22 Psi)	NA	Diffuser type T	937859Q	TXWL8C-10
IN1220QLBNEXX3	IN500-TXWL8C-20 T B15	500	IN500	Length 12	20	Nitrile	NA	1.5 Bar (22 Psi)	NA	Diffuser type T	937868Q	TXWL8C-20
IN1510QLBNEXX3	IN1000-TXWL12-10 T B15	1000	IN1000	Length 15	10	Nitrile	NA	1.5 Bar (22 Psi)	NA	Diffuser type T	937862Q	TXWL12-10
IN1520QLBNEXX3	IN1000-TXWL12-20 T B15	1000	IN1000	Length 15	20	Nitrile	NA	1.5 Bar (22 Psi)	NA	Diffuser type T	937865Q	TXWL12-20
IN1710QBNEXX3	IN2000-TXW14-10-B T B15	2000	IN2000	Length 17	10	Nitrile	NA	1.5 Bar (22 Psi)	NA	Diffuser type T	937772Q	TXW14-10B
IN1720QBNEXX3	IN2000-TXW14-20-B T B15	2000	IN2000	Length 17	20	Nitrile	NA	1.5 Bar (22 Psi)	NA	Diffuser type T	937805Q	TXW14-20B

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 filter including LEIF® element

Box 1	Box 2	Box 3	Box 4	Box 5	Box 6	Box 7	Box 8
IN	10	05QL	V	N	H	XXX	1

### Configurator example filter including conventional element

Box 1	Box 2	Box 3	Box 4	Box 5	Box 6	Box 7	Box 8
IN	18	20Q	B	N	H	XXX	3

Box 1

Code	Filter Rating
IN	

Box 2

Insert IN-AGB	Code
IN30	0
IN60	2
IN90	3
IN120	4
IN150	5
IN170	6
IN230	7
IN300	8
IN400	9
IN500	10
IN390(3)	11
IN270(3)	11A
IN500(3)	12
IN600	13
IN800	14
IN1000	15
IN1500	16
IN2000	17
IN2400	18

Box 3

Degree of filtration						
Element media	Glass fibre					Wire mesh
	Microglass III (for disposable elements)					
	Ecoglass III (for LEIF® elements)					
Disposable element	Cellulose	Nom. rating				Abs. rating
		10C	02Q	05Q	10Q	20Q
LEIF® element			02QL	05QL	10QL	20QL

Box 4

Seal type	
Seal material	Code
Nitrile	B
Fluoroelastomer	V
Neoprene	On request

Box 5

Indicator	
	Code
No indicator	N

Box 7

Filter connection	
Ports	Code
No ports applicable	XXX

Box 8

Options	
Options	Code
No diffuser required	1
Diffuser type T with perforated plate area	3
Diffuser type P without perforated plate area	4
No magnets	5
Diffuser type T and no magnets	A
Diffuser type P and no magnets	B
Air tight diffuser type T and no magnets	G
Air tight diffuser type P and no magnets	H

Box 6

Bypass valve	
Bypass valve	Code
0.8 bar	B
1.5 bar	E
2.0 bar for IN-AGB (up to length 12)	H
Blocked bypass	X
Other bypass settings	on request

Note: IN-AGB size 2-400 and 2-500 are standard supplied without magnets

Note: Diffusers are only available for series 3 and 4 (Length 11 to 18)

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



# IN-AGB Series

## In-Tank Mounted Return Line Filters

### Ordering Information (cont.)

Supersedes spare element table				
IN30	TXWL-2	TXWL-5	TXWL-10	TXWL-20
Part number spare element	937822Q	937885Q	937884Q	937883Q
IN60	TXWL2-2	TXWL2-5	TXWL2-10	TXWL2-20
Part number spare element	937823Q	937880Q	937881Q	937882Q
IN90	TXWL3-2	TXWL3-5	TXWL3-10	TXWL3-20
Part number spare element	937824Q	937879Q	937878Q	937877Q
IN120	TXWL3D-2	TXWL3D-5	TXWL3D-10	TXWL3D-20
Part number spare element	937825Q	937850Q	937851Q	937876Q
IN125	TXWL3E-2	TXWL3E-5	TXWL3E-10	TXWL3E-20
Part number spare element	937826Q	937849Q	937852Q	937875Q
IN170	TXWL4-2	TXWL4-5	TXWL4-10	TXWL4-20
Part number spare element	937827Q	937848Q	937853Q	937874Q
IN230	TXWL5-2	TXWL5-5	TXWL5-10	TXWL5-20
Part number spare element	937828Q	937847Q	937854Q	937873Q
IN300	TXWL5A-2	TXWL5A-5	TXWL5A-10	TXWL5A-20
Part number spare element	937829Q	937846Q	937855Q	937872Q
IN400	TXWL5B-2	TXWL5B-5	TXWL5B-10	TXWL5B-20
Part number spare element	937830Q	937845Q	937856Q	937871Q
IN500	TXWL5C-2	TXWL5C-5	TXWL5C-10	TXWL5C-20
Part number spare element	937831Q	937844Q	937857Q	937870Q
IN390	TXWL8A-2	TXWL8A-5	TXWL8A-10	TXWL8A-20
Part number spare element	937832Q	937843Q	937858Q	937869Q
IN500	TXWL8C-2	TXWL8C-5	TXWL8C-10	TXWL8C-20
Part number spare element	937833Q	937842Q	937859Q	937868Q
IN600	TXWL10-2	TXWL10-5	TXWL10-10	TXWL10-20
Part number spare element	937834Q	937841Q	937860Q	937867Q
IN800	TXWL11-2	TXWL11-5	TXWL11-10	TXWL11-20
Part number spare element	937835Q	937840Q	937861Q	937866Q
IN1000	TXWL12-2	TXWL12-5	TXWL12-10	TXWL12-20
Part number spare element	937836Q	937839Q	937862Q	937865Q
IN1500	TXWL13-2	TXWL13-5	TXWL13-10	TXWL13-20
Part number spare element	937837Q	937838Q	937863Q	937864Q

IN-AGB Series Seal Kits	
Part Number	Description
2049010003	NITRILE SEAL KIT IN 0 - 5
2049010045	FLUOROELASTOMER SEAL KIT IN 0 - 5
2049010004	NITRILE SEAL KIT IN 6 - 10
2049010028	FLUOROELASTOMER SEAL KIT IN 6 - 10
2049010005	NITRILE SEAL KIT IN 11 and 12
2049010021	NITRILE SEAL KIT (FUNNEL) IN 11 and 12
2049010029	FLUOROELASTOMER SEAL KIT IN 11 and 12
2049010059	FLUOROELASTOMER SEAL (FUNNEL) KIT IN 11 and 12
2049010006	NITRILE SEAL KIT IN 13 - 18
2049010022	NITRILE SEAL KIT (FUNNEL) IN 13 - 18
2049010030	FLUOROELASTOMER SEAL KIT IN 13 - 18

Supersedes spare element table						
IN30	TXX-10-B	TXW-2-B	TXW-5-B	TXW-10-B	TXW-20-B	ST-40-B
Part number spare element	937720	937752Q	937753Q	937788Q	937789Q	937821
IN60	TXX2-10-B	TXW2-2-B	TXW2-5-B	TXW2-10-B	TXW2-20-B	ST2-40-B
Part number spare element	937721	937751Q	937754Q	937787Q	937790Q	937820
IN90	TXX3-10-B	TXW3-2-B	TXW3-5-B	TXW3-10-B	TXW3-20-B	ST3-40-B
Part number spare element	937722	937750Q	937755Q	937786Q	937791Q	937819
IN120	TXX3D-10-B	TXW3D-2-B	TXW3D-5-B	TXW3D-10-B	TXW3D-20-B	ST3D-40-B
Part number spare element	937723	937749Q	937756Q	937785Q	937792Q	937818
IN125	TXX3E-10-B	TXW3E-2-B	TXW3E-5-B	TXW3E-10-B	TXW3E-20-B	ST3E-40-B
Part number spare element	937724	937748Q	937757Q	937784Q	937793Q	937817
IN170	TXX4-10-B	TXW4-2-B	TXW4-5-B	TXW4-10-B	TXW4-20-B	ST4-40-B
Part number spare element	937725	937747Q	937758Q	937783Q	937794Q	937816
IN230	TXX5-10-B	TXW5-2-B	TXW5-5-B	TXW5-10-B	TXW5-20-B	ST5-40-B
Part number spare element	937726	937746Q	937759Q	937782Q	937795Q	937815
IN300	TXX5A-10-B	TXW5A-2-B	TXW5A-5-B	TXW5A-10-B	TXW5A-20-B	ST5A-40-B
Part number spare element	937727	937745Q	937760Q	937781Q	937796Q	937814
IN390	TXX8A-10-B	TXW8A-2-B	TXW8A-5-B	TXW8A-10-B	TXW8A-20-B	ST8A-40-B
Part number spare element	937728	937742Q	937763Q	937778Q	937799Q	937813
IN500 (3 series)	TXX8C-10-B	TXW8C-2-B	TXW8C-5-B	TXW8C-10-B	TXW8C-20-B	ST8C-40-B
Part number spare element	937729	937741Q	937764Q	937777Q	937800Q	937812
IN600	TXX10-10-B	TXW10-2-B	TXW10-5-B	TXW10-10-B	TXW10-20-B	ST10-40-B
Part number spare element	937730	937740Q	937765Q	937776Q	937801Q	937811
IN800	TXX11-10-B	TXW11-2-B	TXW11-5-B	TXW11-10-B	TXW11-20-B	ST11-40-B
Part number spare element	937731	937739Q	937766Q	937775Q	937802Q	937810
IN1000	TXX12-10-B	TXW12-2-B	TXW12-5-B	TXW12-10-B	TXW12-20-B	ST12-40-B
Part number spare element	937732	937738Q	937767Q	937774Q	937803Q	937809
IN1500	TXX13-R-10-B	TXW13-R-2-B	TXW13-R-5-B	TXW13-R-10-B	TXW13-R-20-B	ST13-40-B
Part number spare element	937733	937737Q	937768Q	937773Q	937804Q	937808
IN2000	TXX14-10-B	TXW14-2-B	TXW14-5-B	TXW14-10-B	TXW14-20-B	ST14-20
Part number spare element	937734	937736Q	937769Q	937772Q	937805Q	937807
IN2400	-	TXWH14-2-B	TXWH14-5-B	TXWH14-10-B	TXWH14-20-B	-
Part number spare element	-	937735Q	937770Q	937771Q	937806Q	-





# Tanktopper Series I, II & III

Tanktop Mounted Return Line Filters  
with Integrated Air Breather

Max. 650 l/min - 10 bar



## When an all-in-one solution matters

### Reduction of reservoir accessories

The Tanktopper Series features an integrated, 10 micron Abs. air breather. Maximum pressure 10 bar. Maximum flow 650 l/min. *LEIF*<sup>®</sup> elements available. An all-in-one, easy-to-mount filter range for more compact tank design.



## Contact Information:

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

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

## Product Features:

- Tanktopper offers a total filtration solution with integrated air breather.
- In-to-Out filtration plus gauge and switch options.
- Maximum pressure 10 bar. Maximum flow 650 l/min.
- Patented *LEIF*<sup>®</sup> elements safeguard filtration quality.

# Tanktopper Series I, II & III

## Tanktop Mounted Return Line Filters with Integrated Air Breather

### Features & Benefits

Features	Advantages	Benefits
Return line filter with integrated airbreather	All in one filter	More compact design, cost reduction due to elimination of loose airbreather
Airbreather equipped with high quality labyrinth	No oil leakage through the airbreather	Improved efficiency of airbreather No oil leakage on the tank / in the environment
Second port and dipstick available	Filler port and level indicator function can be integrated in filter	Significant reduction of reservoir accessories
Airbreather element always supplied with spare return line filter elements	Both filter elements can be replaced during the service event	Improved protection of system due to change of airbreather element
LEIF® elements	Element safeguards the use of genuine parts	Guaranteed quality of filtration Contributes to ISO 14001 certification
Magnetic pre-filtration	Removes ferrous particles, even during bypass conditions	Improved fluid cleanliness levels Extended element life time
In-to-Out filtration	All captured contamination retains inside the element	No recontamination of system during change of elements
Full flow 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	
Standard or customised funnel	Ensures that oil enters the tank under the oil level	Significant reduction of oil foaming

### Typical Applications

#### TPR I

- Fork lift trucks
- Power packs
- Mini excavator

#### TPR II

- Gully-sucker
- Power packs
- Dredging ships

#### TPR III

- Mobile cranes
- Refuse vehicles



### The Parker Filtration Tanktopper Series I, II & III Tanktop Mounted Return Line Filters.

The TPR Series I, II & III offer a total filtration solution. A 10-micron Abs. air breather that is integrated into the filter housing, a magnet column for pre-filtration, 'In-to-Out' filtration, a full-flow bypass with low hysteresis, and the high performance Q3 filter element materials are all proven success factors in efficient return-line filtration for flow rates up to 650 l/min. Several pressure gauges and switches can be applied, combined or not with a dipstick. The all-in-one, easy-to-mount cost-saving TPR solution allows for a more compact tank design.

## Specification

### Operation pressure:

Max. 10 bar.

### Assembly:

Tank top mounted.

### Connections:

Threaded BSP or SAE ports.  
Second return port available for Tanktopper II and Tanktopper III.

### Filter housing:

Aluminium head and co-polymer cover.

### Seal material:

Nitrile, Fluoroelastomer.

### Operation temperature range:

-40 to +80°C.

### Bypass setting:

Opening pressure 0.8, 1.5 or 2.5 bar for Tanktopper I.  
Opening pressure 1.5 bar for Tanktopper II and III.

### Degree of filtration:

Determined by multipass test according to ISO 16889.

### Flow fatigue characteristics:

Filter media is supported so that the optimum fatigue life is achieved.

### Filtration media:

Microglass III, Ecoglass III for *LEIF*® element. Air breather 10 micron Abs. Also available 10µm Cellulose and 40µm stainless steel mesh. (TPR1)

### Element burst rating:

10 bar (ISO 2941).

### Pressure indicator options:

Setting 0.7 or 1.2 bar.  
Other settings on request.  
Visual pressure gauge.  
Electrical pressure switch.

### Options:

Dipstick  
Second port (only for TPR II and III)

### Magnetic pack:

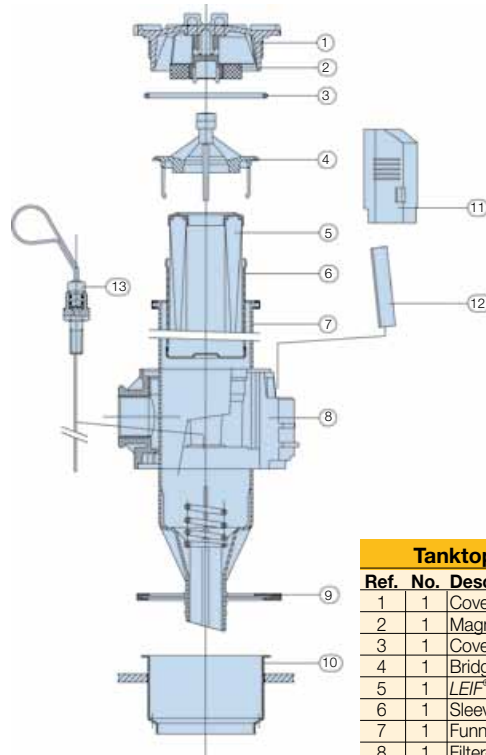
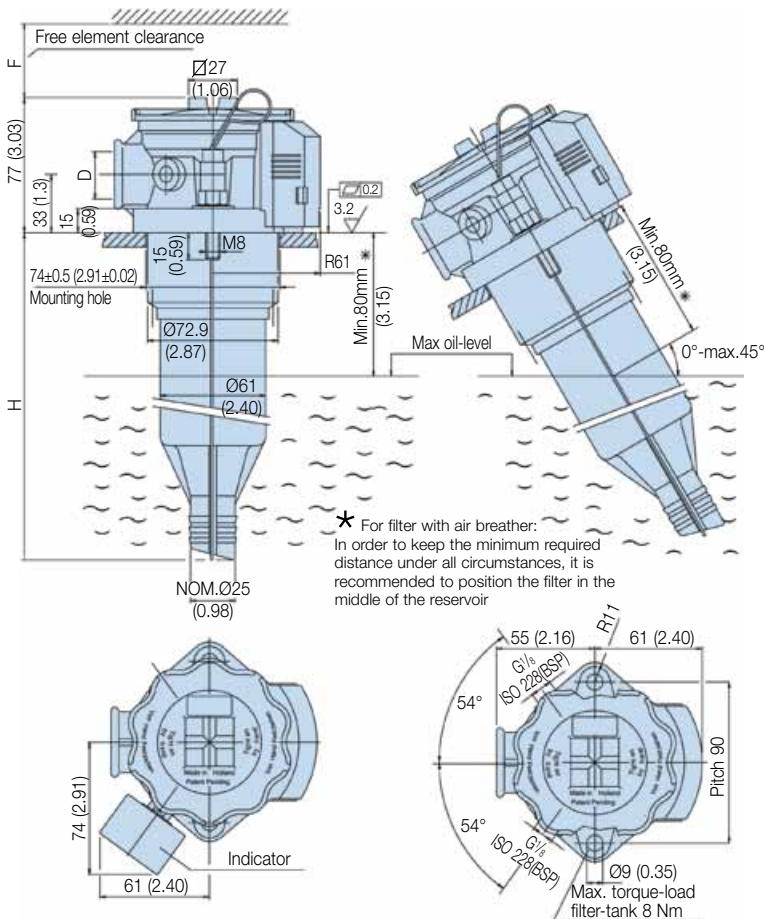
Optional for Tanktopper I.  
Standard for Tanktopper II and III.

### Filter element:

*LEIF*® element with reusable metal element sleeve.  
Conventional style element with steel end caps only optional for Tanktopper I. The *LEIF*® element is patented and safeguards the use of genuine parts.

**Note:** *LEIF*® element can be used with mineral and HEES type oils. For other fluids consult Parker Filtration.  
*LEIF*® contributes to ISO 14001 quality standards

## Tanktopper I (length 1 and 2)



Length		H	F	D
1	TPR1-40	169 (6.65)	160 (6.30)	G <sup>3</sup> / <sub>4</sub> (BSP)
2	TPR1-80	269 (10.60)	260 (10.23)	SAE 12

Dimensions in mm

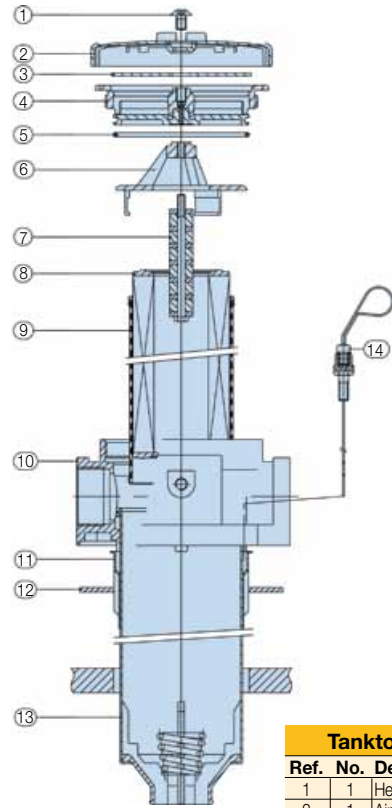
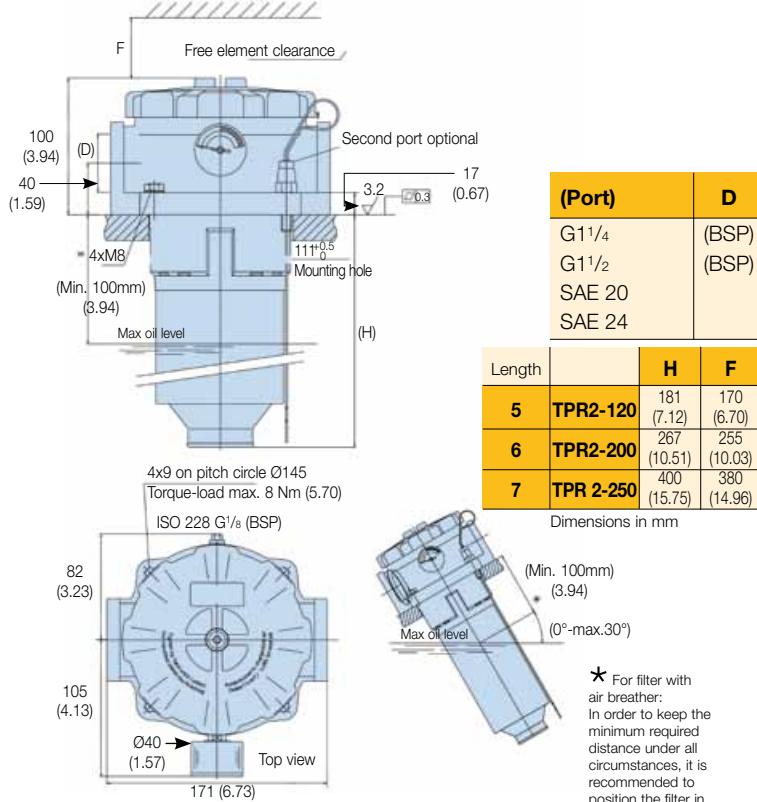
Tanktopper I		
Ref. No.	Description	
1	1	Cover
2	1	Magnet-set
3	1	Cover-seal
4	1	Bridge (blue)
5	1	<i>LEIF</i> ® Element
6	1	Sleeve
7	1	Funnel-assembly
8	1	Filter-housing
9	1	Housing-seal
10	1	Airguide
11	1	Cover airbreather
12	1	Breather-element
13	1	Dipstick assembly

# Tanktopper Series I, II & III

## Tanktop Mounted Return Line Filters with Integrated Air Breather

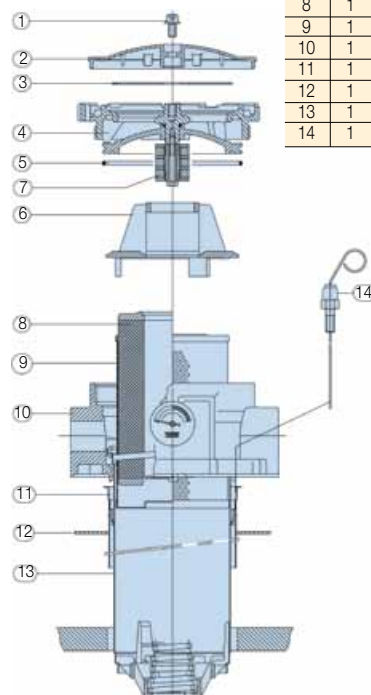
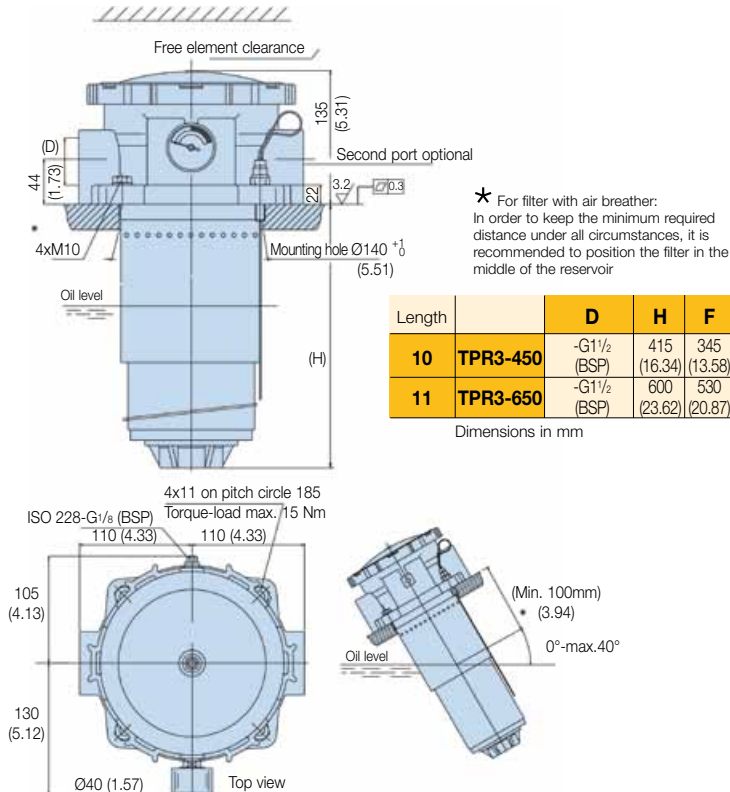
### Specification (cont.)

#### Tanktopper II (length 5, 6 and 7)



Tanktopper II & III	
Ref. No.	Description
1	Hexagon socket bolt M8
2	Air breather cap
3	Air breather filter medium
4	Cover (assembly)
5	Cover seal
6	Bridge
7	Magnet set
8	Element
9	Sleeve
10	Filter house
11	Airguide
12	Tank gasket
13	Funnel
14	Dipstick assembly

#### Tanktopper III (length 10 and 11)



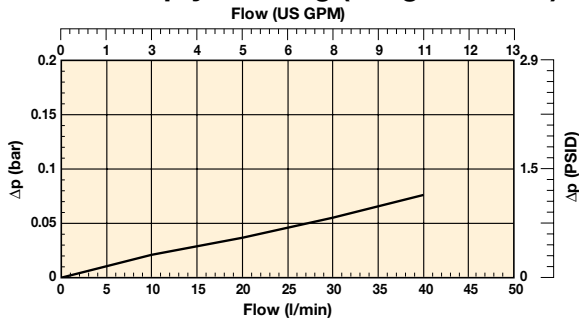
# Tanktopper Series I & II

## Tanktop Mounted Return Line Filters with Integrated Air Breather

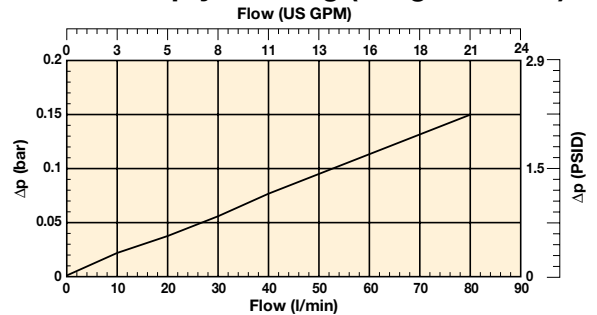
### Pressure Drop Curves - Tanktopper I

Filter housing and element pressure drop based on 32cSt fluid viscosity and 0.87 density.

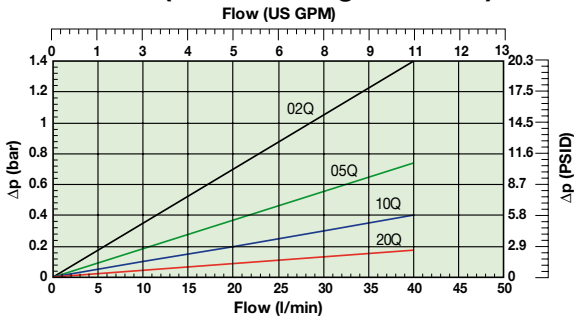
**TPR40 Empty Housing (Length code 1)**



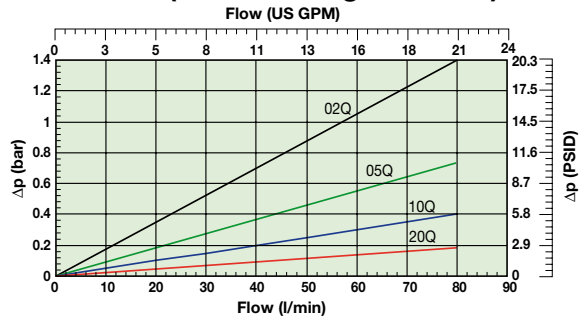
**TPR80 Empty Housing (Length code 2)**



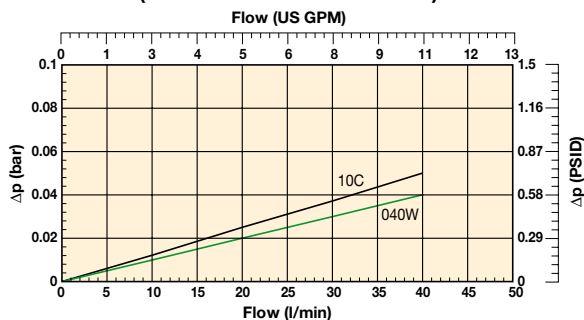
**TPR40 (Element length code 1)**



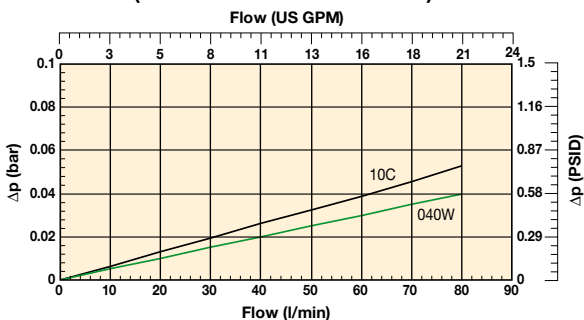
**TPR80 (Element length code 2)**



**TPR40 (Element length code 1)  
(cellulose and stainless steel)**



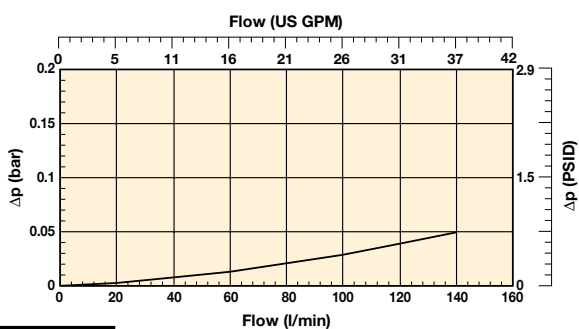
**TPR80 (Element length code 2)  
(cellulose and stainless steel)**



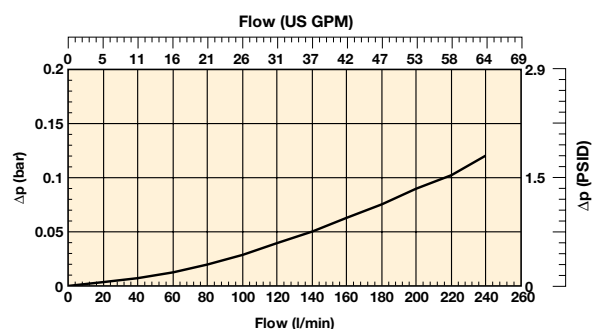
### Pressure Drop Curves - Tanktopper II

Filter housing and element pressure drop based on 32cSt fluid viscosity and 0.87 density.

**TPR II Empty Housing with G1<sup>1</sup>/<sub>4</sub>" ports  
(Length code 5, 6 and 7)**



**TPR II Empty Housing with G1<sup>1</sup>/<sub>2</sub>" ports  
(Length code 5, 6 and 7)**



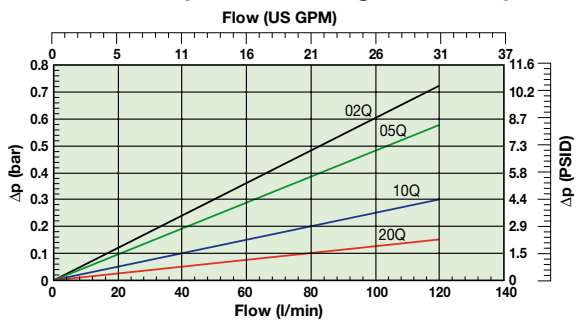
# Tanktopper Series II & III

## Tanktop Mounted Return Line Filters with Integrated Air Breather

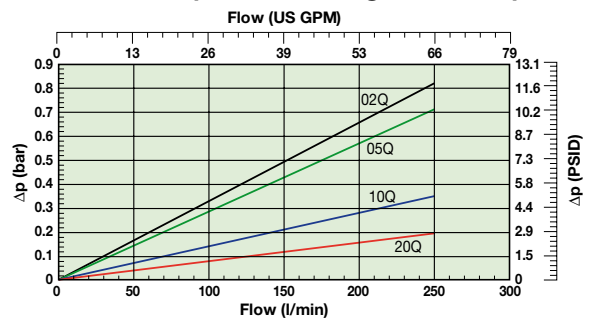
### Pressure Drop Curves - Tanktopper II (cont.)

Filter housing and element pressure drop based on 32cSt fluid viscosity and 0.87 density.

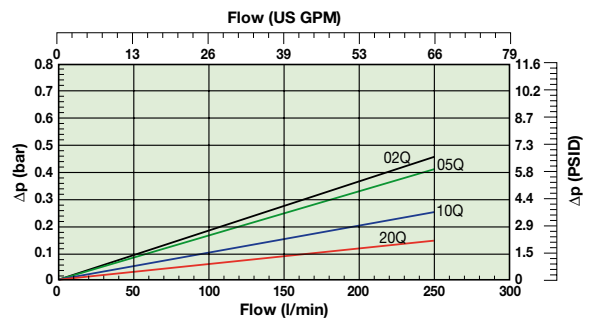
**TPR120 (Element length code 5)**



**TPR200 (Element length code 6)**



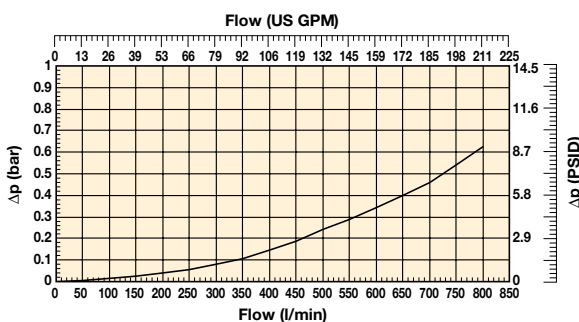
**TPR250 (Element length code 7)**



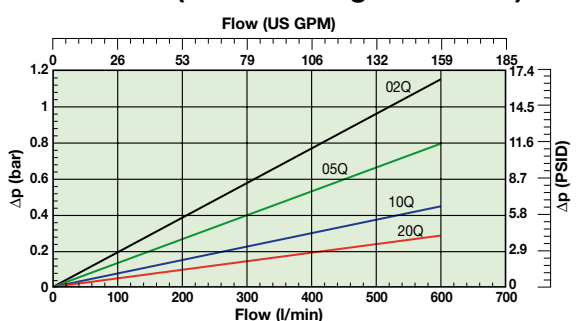
### Pressure Drop Curves - Tanktopper III

Filter housing and element pressure drop based on 32cSt fluid viscosity and 0.87 density.

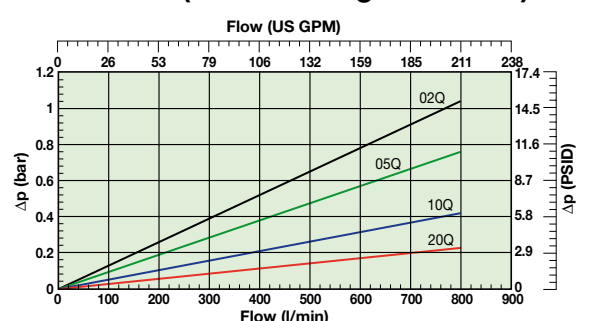
**TPR III Empty Housing with G1½" ports (Length code 10 and 11)**



**TPR450 (Element length code 10)**



**TPR650 (Element length code 11)**



# Tanktopper Series I, II & III

## Tanktop Mounted Return Line Filters with Integrated Air Breather

### 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
TPR110QLBP2EG12E	TPR40-G <sup>1</sup> / <sub>4</sub> PXWL1-10 B15 MM MA	40	TPR40	Length 1	10	Nitrile	Plugged	1.5 Bar (22 Psi)	G <sup>1</sup> / <sub>4</sub>	Magnets	<b>937902Q</b>	PXWL1-10
TPR120QLBP2EG12E	TPR40-G <sup>1</sup> / <sub>4</sub> PXWL1-20 B15 MM MA	40	TPR40	Length 1	20	Nitrile	Plugged	1.5 Bar (22 Psi)	G <sup>1</sup> / <sub>4</sub>	Magnets	<b>937904Q</b>	PXWL1-20
TPR210QLBP2EG12L	TPR80-G <sup>1</sup> / <sub>4</sub> PXWL2-10 AB15 MM MA	80	TPR80	Length 2	10	Nitrile	Plugged	1.5 Bar (22 Psi)	G <sup>1</sup> / <sub>4</sub>	Aluminium funnel, magnets	<b>937903Q</b>	PXWL2-10
TPR220QLBP2EG12L	TPR80-G <sup>1</sup> / <sub>4</sub> PXWL2-20 AB15 MM MA	80	TPR80	Length 2	20	Nitrile	Plugged	1.5 Bar (22 Psi)	G <sup>1</sup> / <sub>4</sub>	Aluminium funnel, magnets	<b>937905Q</b>	PXWL2-20
TPR510QLBP2EG201	TPR120-2G1 <sup>1</sup> / <sub>2</sub> PXWL3-10 B15 MM	120	TPR120	Length 5	10	Nitrile	Plugged	1.5 Bar (22 Psi)	2xG1 <sup>1</sup> / <sub>2</sub>	None	<b>937892Q</b>	PXWL3-10
TPR520QLBP2EG201	TPR120-2G1 <sup>1</sup> / <sub>2</sub> PXWL3-20 B15 MM	120	TPR120	Length 5	20	Nitrile	Plugged	1.5 Bar (22 Psi)	2xG1 <sup>1</sup> / <sub>2</sub>	None	<b>937895Q</b>	PXWL3-20
TPR710QLBP2EG241	TPR250-2G1 <sup>1</sup> / <sub>2</sub> PXWL4A-10 B15 MM	250	TPR250	Length 7	10	Nitrile	Plugged	1.5 Bar (22 Psi)	2xG1 <sup>1</sup> / <sub>2</sub>	None	<b>937894Q</b>	PXWL4A-10
TPR720QLBP2EG241	TPR250-2G1 <sup>1</sup> / <sub>2</sub> PXWL4A-20 B15 MM	250	TPR250	Length 7	20	Nitrile	Plugged	1.5 Bar (22 Psi)	2xG1 <sup>1</sup> / <sub>2</sub>	None	<b>937897Q</b>	PXWL4A-20
TPR1110QLBP2EG241	TPR650-2G1 <sup>1</sup> / <sub>2</sub> PXWL8-10 B15 MM	650	TPR650	Length 11	10	Nitrile	Plugged	1.5 Bar (22 Psi)	2xG1 <sup>1</sup> / <sub>2</sub>	None	<b>937914Q</b>	PXWL8-10
TPR1120QLBP2EG241	TPR650-2G1 <sup>1</sup> / <sub>2</sub> PXWL8-20 B15 MM	650	TPR650	Length 11	20	Nitrile	Plugged	1.5 Bar (22 Psi)	2xG1 <sup>1</sup> / <sub>2</sub>	None	<b>937917Q</b>	PXWL8-20

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

Visual indicator	
Thread connection	G <sup>1</sup> / <sub>8</sub>
Code	FMUG2EBPG02L

Specifications	
Elec.rating	42V / 2A
Thread connection	G <sup>1</sup> / <sub>8</sub>
Elec.connection	AMP terminal 6.3x0.8
Protection	IP65 (terminal IP00)
Switch type	NO or NC
Code	FMUS2EBMG02L (NO switch)
	FMUS3EBMG02L (NC switch)

Normally open contacts



Normally closed contacts



#### Product configurator

##### Configurator example TPR filter

Box 1	Box 2	Box 3	Box 4	Box 5	Box 6	Box 7	Box 8
TPR	2	05QL	B	S2	E	G12	L

Code	Filter type	Degree of filtration						
TPR	<b>Housing</b>	<b>Element media</b>						
	TPR 1-40	Glass fibre						
	TPR 1-80	Microglass III (for disposable elements)						
	TPR 2-120	Cellulose						
	TPR 2-200	Ecoglass III (for LEIF <sup>®</sup> elements)						
	TPR 2-250	Wire mesh						
	TPR 3-450	Nom. rating						
	TPR 3-650	Abs. rating						
		Disposable element (TPR I only)	10C	02Q	05Q	<b>10Q</b>	<b>20Q</b>	040W
		<b>LEIF<sup>®</sup> element (for all TPR Filters)</b>		02QL	<b>05QL</b>	<b>10QL</b>	<b>20QL</b>	

Seal type	
Seal material	Code
Nitrile	<b>B</b>
Fluoroelastomer	on request

Indicator	
Pressure gauge, setting 1.2 bar, G <sup>1</sup> / <sub>8</sub>	<b>G2</b>
Pressure switch 42V, 1.2 bar setting, NO with G <sup>1</sup> / <sub>8</sub>	<b>S2</b>
Pressure switch 42V, 1.2 bar setting, NC with G <sup>1</sup> / <sub>8</sub>	S3
Pressure switch 250V, NO/NC with G <sup>1</sup> / <sub>8</sub>	S4
No indicator, indicator ports not machined	on request
No indicator, indicator port R plugged	on request
No indicator, indicator ports L + R plugged	<b>P2</b>
Other settings for indicators / gauges on request	on request

Bypass valve	
Bypass valve	Code
0.8 bar	B
1.5 bar	<b>E</b>
2.5 bar (TPR 1 Series only)	on request
Other bypass settings	on request

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.

Filter connection	
Ports	Code
G <sup>1</sup> / <sub>4</sub> (BSP) (TPR 1 Series)	<b>G12</b>
SAE12 (TPR 1 Series)	S12
G1 <sup>1</sup> / <sub>2</sub> (BSP) (TPR 2 Series)	G20
2 x ISO 228-G1 <sup>1</sup> / <sub>2</sub> (BSP) (TPR 2 Series)	<b>2G20</b>
SAE 20 (TPR 2 Series)	S20
2 x SAE 20 (TPR 2 Series)	2S20
SAE 24 (TPR 2 Series)	S24
2 x SAE 24 (TPR 2 Series)	2S24
G1 <sup>1</sup> / <sub>2</sub> (BSP) (TPR 2 and 3 Series)	G24
2 x G1 <sup>1</sup> / <sub>2</sub> (BSP) (TPR 2 and 3 Series)	<b>2G24</b>

Options	
Options	Code
Standard	<b>1</b>
Dipstick	<b>6</b>
Aluminium funnel for TPR 1-80	J
Magnets for TPR 1 Series	<b>E</b>
Magnets + Dipstick for TPR 1 Series	K
Magnets + Aluminium Funnel for TPR 80 Series	<b>L</b>
Magnets + Aluminium Funnel + Dipstick for TPR 80 Series	M
Other combinations	on request

Note: Tanktopper I Series are standard supplied with POM type funnel. Aluminium funnel is recommended for heavy duty applications, sensitivity for electrostatically charging or high fluid temperatures. Tanktopper II and III Series are always supplied with metal funnel.

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

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



# Tanktopper Series I, II & III

Tanktop Mounted Return Line Filters  
with Integrated Air Breather

## Ordering Information (cont.)

Degree of filtration						Media code
Average filtration beta ratio $\beta$ (ISO 16889) / particle size $\mu\text{m}$ [c]						
$\beta(x)=2$	$\beta(x)=10$	$\beta(x)=75$	$\beta(x)=100$	$\beta(x)=200$	$\beta(x)=1000$	
% 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	02Q/02QL
N/A	N/A	4.5	5	6	7	05Q/05QL
N/A	6	8.5	9	10	12	10Q/10QL
6	11	17	18	20	22	20Q/20QL

Supersedes spare element table				
TPR 1-40	PXWL1-2	PXWL1-5	PXWL1-10	PXWL1-20
Part number spare element	937898Q	937900Q	937902Q	937904Q
TPR 1-80	PXWL2-2	PXWL2-5	PXWL2-10	PXWL2-20
Part number spare element	937899Q	937901Q	937903Q	937905Q
TPR 2-120	PXWL3-2	PXWL3-5	PXWL3-10	PXWL3-20
Part number spare element	937886Q	937889Q	937892Q	937895Q
TPR 2-200	PXWL4-2	PXWL4-5	PXWL4-10	PXWL4-20
Part number spare element	937887Q	937890Q	937893Q	937896Q
TPR 2-250	PXWL4A-2	PXWL4A-5	PXWL4A-10	PXWL4A-20
Part number spare element	937888Q	937891Q	937894Q	937897Q
TPR 3-250	PXWL6-2	PXWL6-5	PXWL6-10	PXWL6-20
Part number spare element	937906Q	937909Q	937912Q	937915Q
TPR 3-450	PXWL7-2	PXWL7-5	PXWL7-10	PXWL7-20
Part number spare element	937907Q	937910Q	937913Q	937916Q
TPR 3-650	PXWL8-2	PXWL8-5	PXWL8-10	PXWL8-20
Part number spare element	937908Q	937911Q	937914Q	937917Q

Supersedes spare element table						
TPR 1-40	PXX1A-10	PXW1A-2	PXW1A-5	PXW1A-10	PXW1A-20	PS1A-40
Part number spare element	937918	937920Q	937925Q	937930Q	937935Q	937940
TPR 1-80	PXX2A-10	PXW2A-2	PXW2A-5	PXW2A-10	PXW2A-20	PS2A-40
Part number spare element	937919	937921Q	937926Q	937931Q	937936Q	937941
TPR 3-160		PXW5-2	PXW5-5	PXW5-10	PXW5-20	
Part number spare element		937922Q	937927Q	937932Q	937937Q	
TPR 3-250		PXW6-2	PXW6-5	PXW6-10	PXW6-20	
Part number spare element		937923Q	937928Q	937933Q	937938Q	
TPR 3-450		PXW7-2	PXW7-5	PXW7-10	PXW7-20	
Part number spare element		937924Q	937929Q	937934Q	937939Q	

Tank Topper Series Seal Kits	
Part Number	Description
2049010052	NITRILE SEAL KIT TPR1 AG FUNNEL ALU
2049010050	NITRILE SEAL KIT TPR1 AG FUNNEL POM
2049010053	NITRILE SEAL KIT TPR1 NO AG FUNNEL ALU
2049010051	NITRILE SEAL KIT TPR1 NO AG FUNNEL POM
2049010056	NITRILE SEAL KIT TPR2 B
2049010027	NITRILE SEAL KIT TPR3 B
	AG = Air Guide



# Suction Return Series

Tanktop Mounted Suction & Return Line  
Filters - Types SR1 & SR2

Max. 250 l/min - 10 bar



Filters both open  
and closed loop oil  
circuits through one  
filter

## Reduced risk of pump cavitation

SR1 and SR2 are capable of feeding filtered oil under positive pressure to the suction side of the boost pump filtering both open and closed loop oil systems through one filter. Maximum pressure 10 bar. Maximum flow 250 l/min. Use *LEIF*<sup>®</sup> environmentally friendly elements.



## Contact Information:

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

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

## Product Features:

- SR capable of feeding filtered oil under positive pressure to the suction side of the boost pump.
- Filters both open and closed loop oil systems through one filter.
- Maximum pressure 10 bar. Maximum flow 250 l/min.
- SR uses patented *LEIF*<sup>®</sup> elements to safeguard filtration quality.

# Suction Return Series

## Tanktop Mounted Suction & Return Line Filters - Types SR1 & SR2

### Features & Benefits

Features	Advantages	Benefits
Compact design	Less space required to apply SR Series	Improved flexibility during system design
Bypass valve mounted in series with back-pressure valve	Pressurisation of filtered oil for hydrostatic drive ensured during bypass	Lower risk of pump cavitation
LEIF® elements	Element safeguards the use of genuine parts	No direct bypass in the tank reducing the additional risk of oil foaming
Strainer located in filter head	Element safeguards the use of genuine parts	Guaranteed quality of filtration
High level of customisation	Strainer filters all bypass fluid by using a system-matched degree of filtration	Contributes to ISO 14001 certification
Quick response bypass with low hysteresis	Dedicated system-matched solutions can be easily made available	Improved protection of system
Standard or customised funnel	Reduction of bypass period due to low hysteresis	Strainer can be inspected and cleaned during service events
Multiple ports availability	Only a small part of the total flow is bypassing the element	Improved integration of filter in system combined with lower initial system costs
	Ensures that oil enters the tank under the oil level	Improved protection of system
	Flexibility related to suction- and return line hose(s) arrangement	Significant reduction of oil foaming
		More compact solutions can be realised
		The use of manifold blocks can be avoided
		Easy to integrate with cooler circuit

### Typical Applications

Mobile equipment with both open and closed hydraulic circuits. For example:

- Road sweepers
- Road rollers
- Fork lift trucks
- Loading shovels
- Telescopic handlers
- Dump trucks
- Skid steers
- Agricultural harvesting machines
- Mini excavators

### The Parker Filtration Tank Top Mounted Suction & Return Line Filters.

A tank top mounted return filter capable of feeding filtered oil under positive pressure to the suction side of the boost pump, thereby filtering both open and closed loop oil systems through one filter. The Parker SR filters use the LEIF® element for environmental-friendly filtration and offers protection against the use of pirate elements. Several options including integrated suction strainer and dipstick are available.

