



In-Tank Mounted Return Line Filters

IN-AGB Series

MAX 2400 l/min

AN INNOVATIVE GREEN
FILTER FEATURING
LEIF®



Low pressure filters

IN-AGB Series

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	Patented 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
Full flow 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:

-40° to +120°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*® elements

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

Element collapse 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® element with reusable metal element sleeve.

Optional conventional style element with steel end caps.

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.

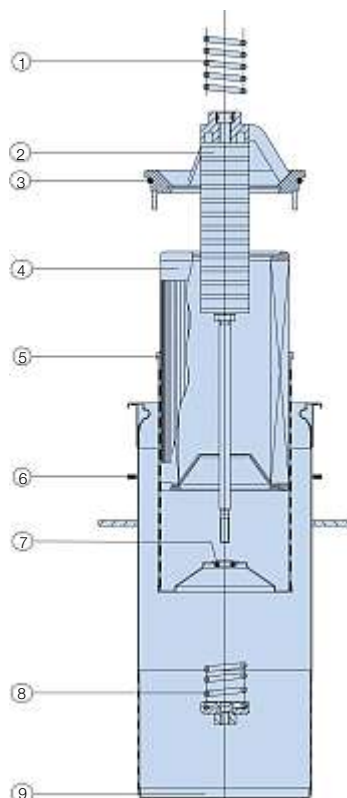
Insert-AGB *LEIF*® 3 series

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

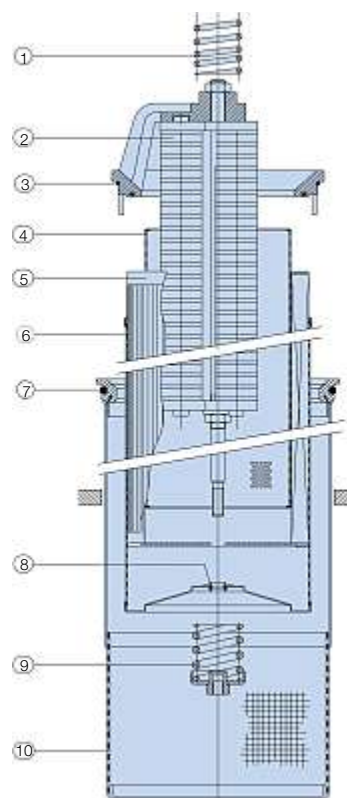
Insert-AGB *LEIF*® 4 series

Ref.	No.	Description
1	1	Top-spring
2	1	Insert
3	1	Insert-seal
4	1	Inner sleeve
5	1	<i>LEIF</i> ®-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



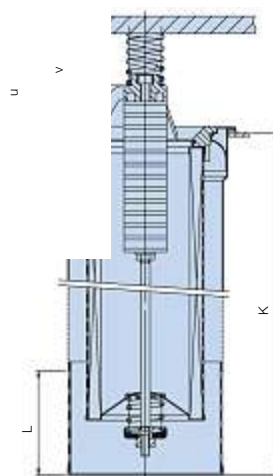
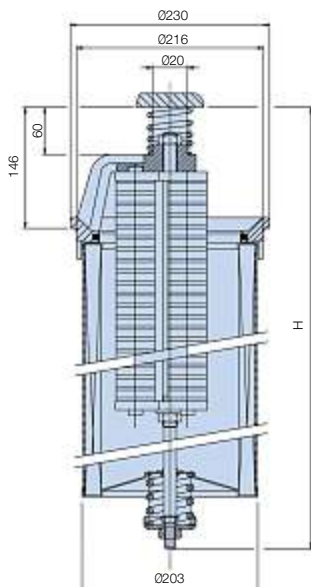
IN-AGB Series

Technical drawing of a vertical piston pump assembly. The drawing shows a cross-section of the pump. Key dimensions are labeled: A (total height), B (height of the upper section), d (diameter of the upper section), h (height of the lower section), x (distance from the bottom to the lower section), and y (distance from the bottom to the upper section). The drawing also shows the internal components, including the piston and the connecting rod.

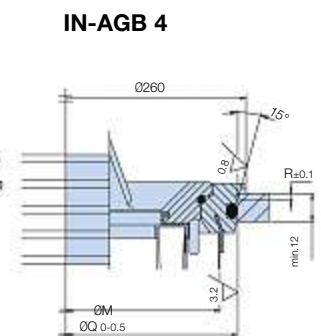
Mounting arrangement

Mounting arrangement

Dimensions in mm



IN-AGB 3



IN-AGB 4

Dimensions in mm

Dimensions in mm

Pressure Drop Curves

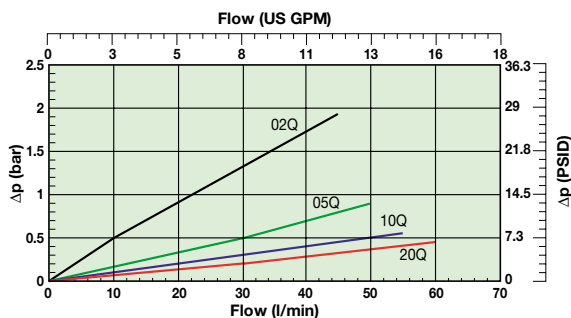
The recommended level of the initial pressure drop for low pressure filters is max 0.5 bar.

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

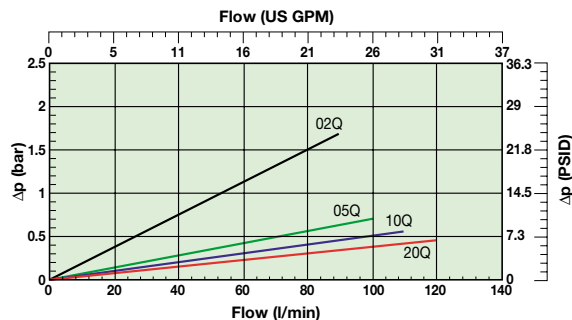
$$\Delta p = (\Delta p_{32} \times \text{viscosity of medium used}) / 32\text{cSt.}$$

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

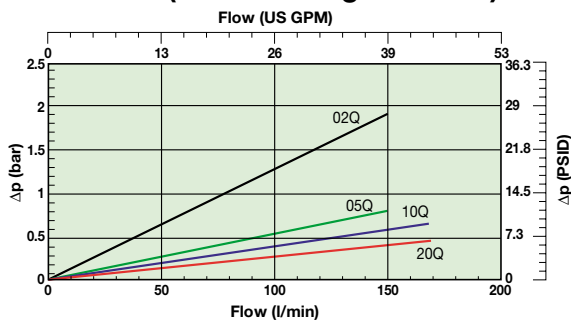
IN30 (Element length code 0)



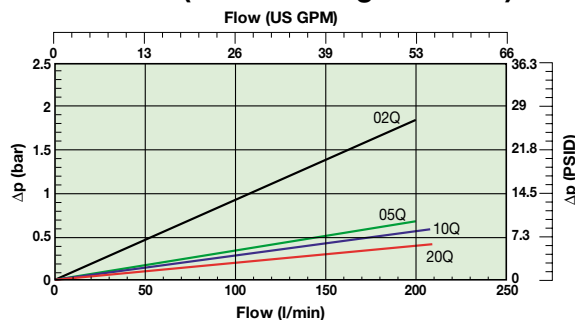
IN60 (Element length code 2)



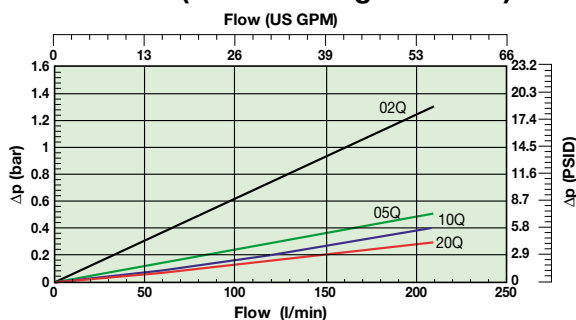
IN90 (Element length code 3)



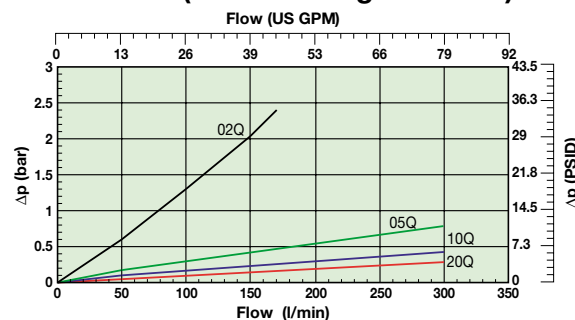
IN120 (Element length code 4)



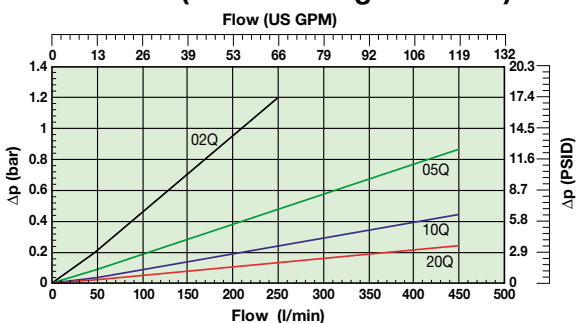
IN125 (Element length code 5)



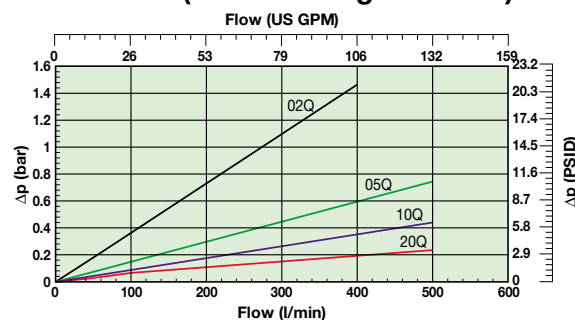
IN170 (Element length code 6)



IN230 (Element length code 7)



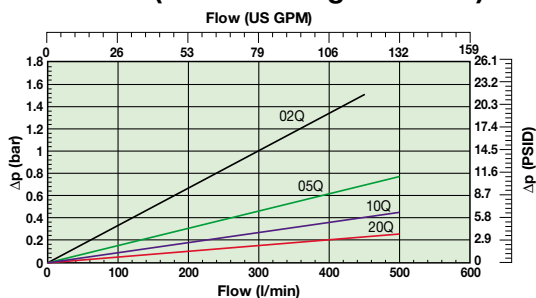
IN300 (Element length code 8)



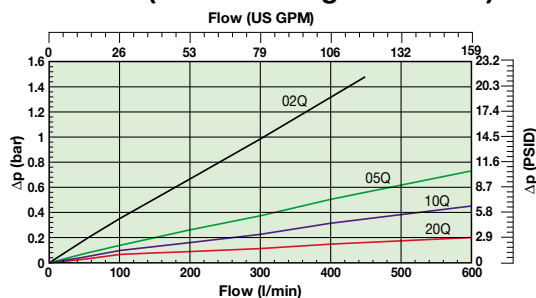
IN-AGB Series

Pressure Drop Curves (cont.)

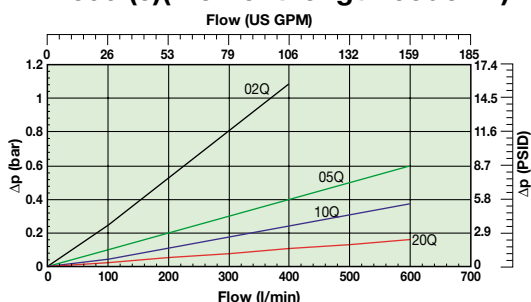
IN400 (Element length code 9)



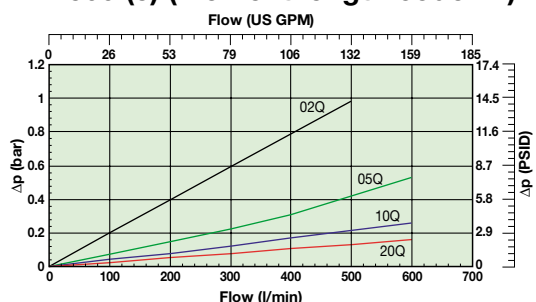
IN500 (Element length code 10)



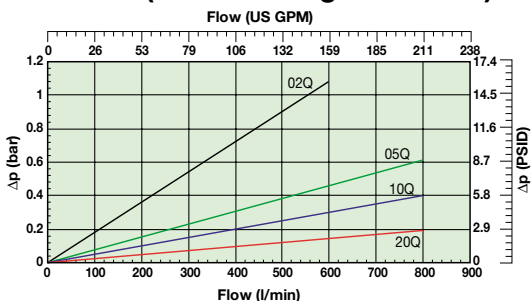
IN390 (3)(Element length code 11)



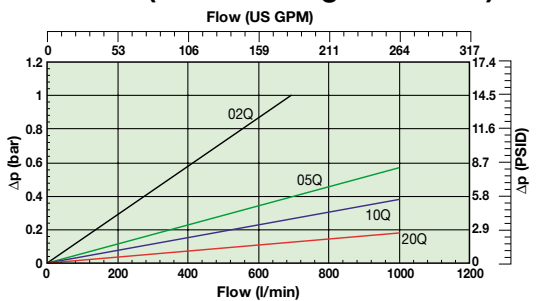
IN500 (3) (Element length code 12)



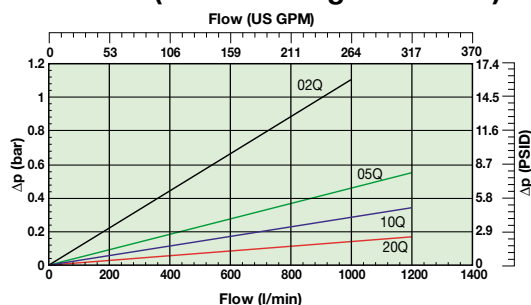
IN600 (Element length code 13)



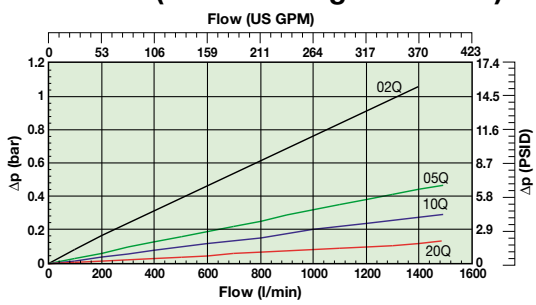
IN800 (Element length code 14)



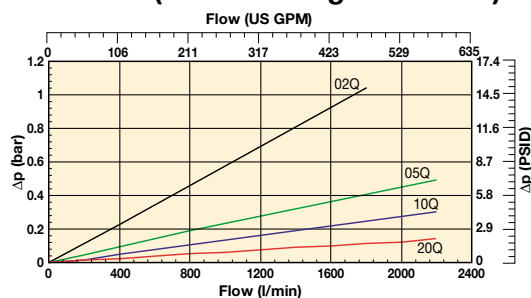
IN1000 (Element length code 15)



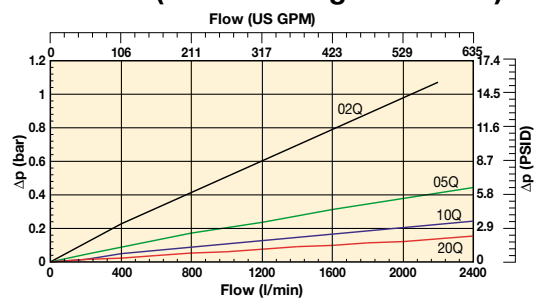
IN1500 (Element length code 16)



IN2000 (Element length code 17)

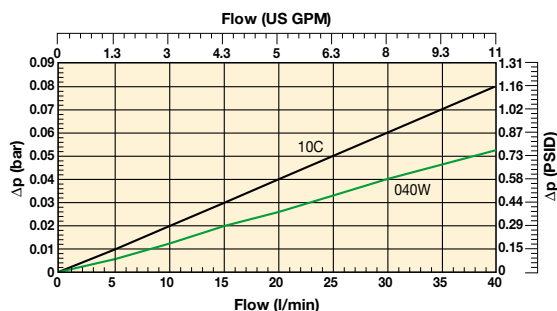


IN1500 (Element length code 18)

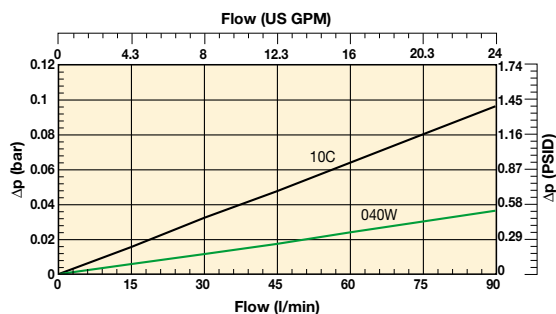


Pressure Drop Curves (cellulose and stainless steel media)

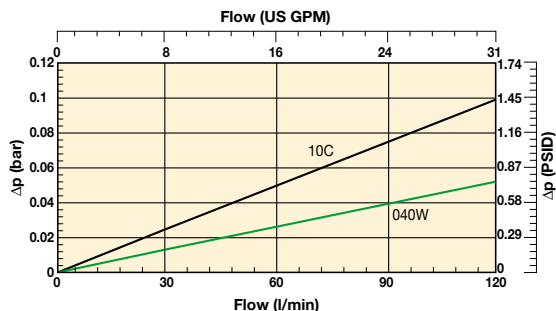
IN30 (Element length code 0)
Cellulose & Stainless steel media



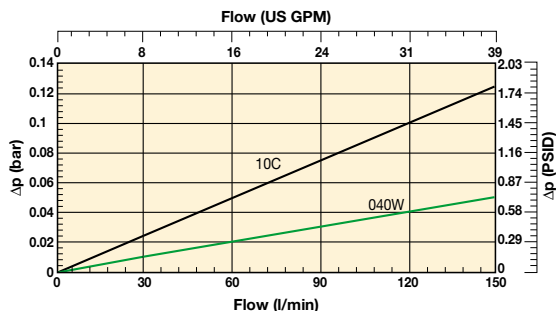
IN60 (Element length code 2)
Cellulose & Stainless steel media



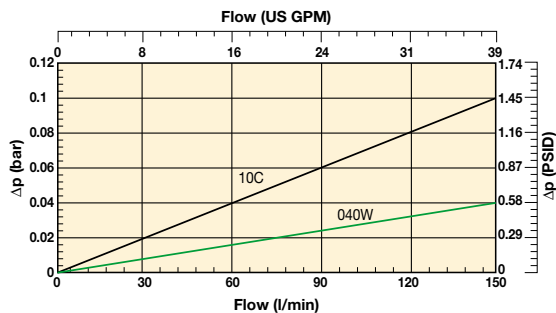
IN90 (Element length code 3)
Cellulose & Stainless steel media



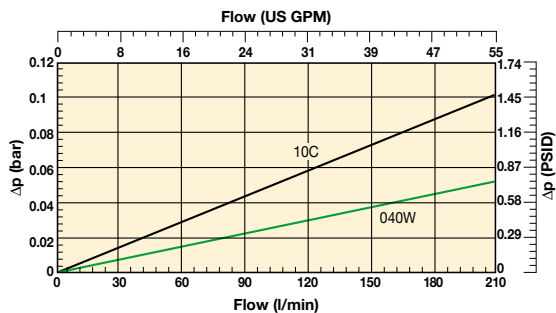
IN120 (Element length code 4)
Cellulose & Stainless steel media



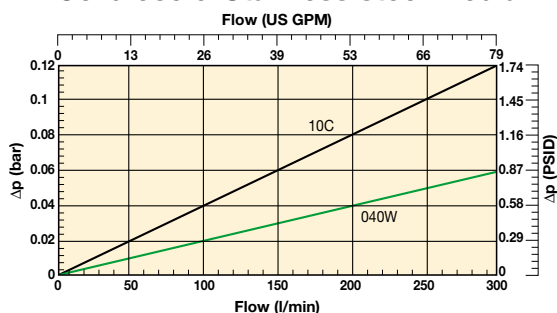
IN125 (Element length code 5)
Cellulose & Stainless steel media



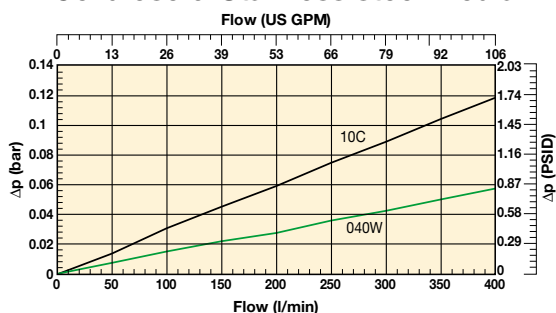
IN170 (Element length code 6)
Cellulose & Stainless steel media



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



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

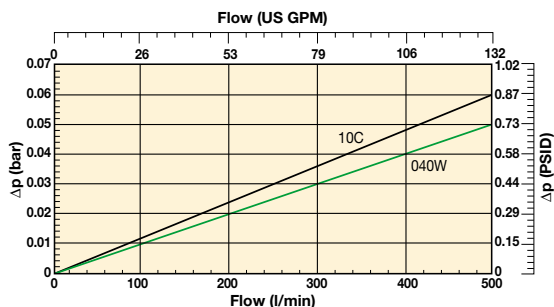


Cellulose and stainless steel media
Example: IN300 Filter Element Length 8 - Cellulose and stainless steel media

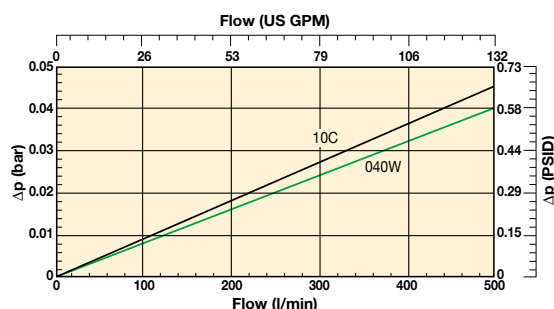
IN-AGB Series

Pressure Drop Curves (cellulose and stainless steel media)

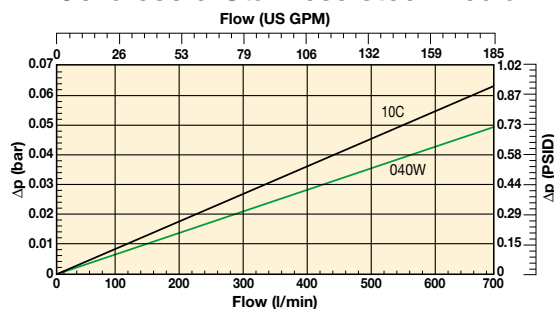
IN390 (Element length code 11)
Cellulose & Stainless steel media



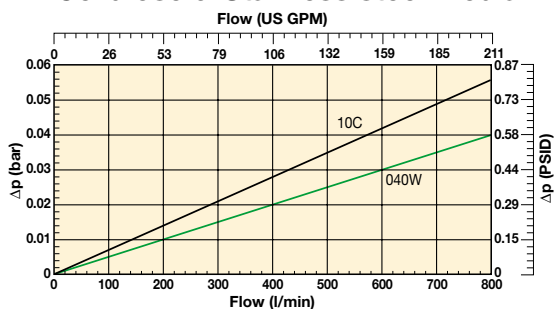
IN500 (Element length code 12)
Cellulose & Stainless steel media



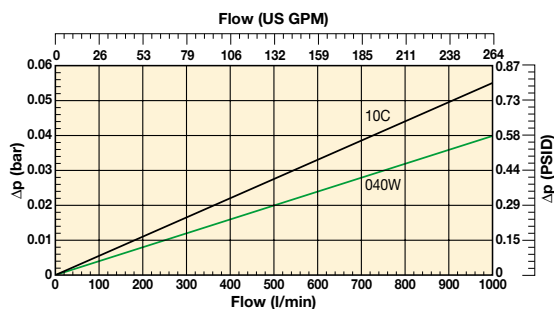
IN600 (Element length code 13)
Cellulose & Stainless steel media



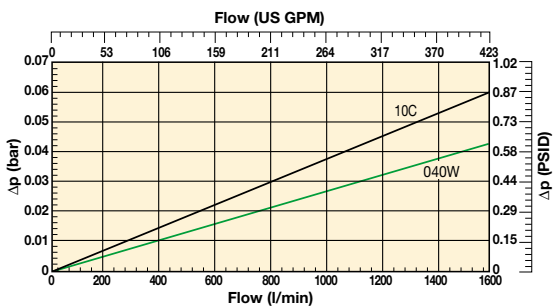
IN800 (Element length code 14)
Cellulose & Stainless steel media



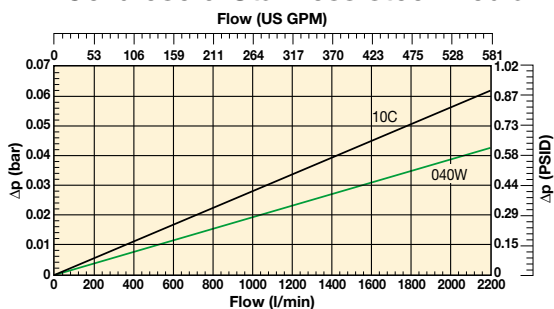
IN1000 (Element length code 15)
Cellulose & Stainless steel media



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
IN310QLBNEXXX1	IN90-TXWL3-10B15	90	IN90	Length 3	10	Nitrile	NA	1.5 Bar (22 Psi)	NA	None	937878Q	TXWL3-10
IN320QLBNEXXX1	IN90-TXWL3-20 B15	90	IN90	Length 3	20	Nitrile	NA	1.5 Bar (22 Psi)	NA	None	937877Q	TXWL3-20
IN510QLBNEXXX1	IN125-TXWL3E-10 B15	125	IN125	Length 5	10	Nitrile	NA	1.5 Bar (22 Psi)	NA	None	937852Q	TXWL3E-10
IN520QLBNEXXX1	IN125-TXWL3E-20 B15	125	IN125	Length 5	20	Nitrile	NA	1.5 Bar (22 Psi)	NA	None	937875Q	TXWL3E-20
IN610QLBNEXXX1	IN170-TXWL4-10 B15	170	IN170	Length 6	10	Nitrile	NA	1.5 Bar (22 Psi)	NA	None	937853Q	TXWL4-10
IN620QLBNEXXX1	IN170-TXWL4-20 B15	170	IN170	Length 6	20	Nitrile	NA	1.5 Bar (22 Psi)	NA	None	937874Q	TXWL4-20
IN810QLBNEXXX3	IN300-TXWL5A-10 T B15	300	IN300	Length 8	10	Nitrile	NA	1.5 Bar (22 Psi)	NA	Diffuser type T	937855Q	TXWL5A-10
IN820QLBNEXXX3	IN300-TXWL5A-20 T B15	300	IN300	Length 8	20	Nitrile	NA	1.5 Bar (22 Psi)	NA	Diffuser type T	937872Q	TXWL5A-20
IN1210QLBNEXXX3	IN500-TXWL8C-10 T B15	500	IN500	Length 12	10	Nitrile	NA	1.5 Bar (22 Psi)	NA	Diffuser type T	937859Q	TXWL8C-10
IN1220QLBNEXXX3	IN500-TXWL8C-20 T B15	500	IN500	Length 12	20	Nitrile	NA	1.5 Bar (22 Psi)	NA	Diffuser type T	937868Q	TXWL8C-20
IN1510QLBNEXXX3	IN1000-TXWL12-10 T B15	1000	IN1000	Length 15	10	Nitrile	NA	1.5 Bar (22 Psi)	NA	Diffuser type T	937862Q	TXWL12-10
IN1520QLBNEXXX3	IN1000-TXWL12-20 T B15	1000	IN1000	Length 15	20	Nitrile	NA	1.5 Bar (22 Psi)	NA	Diffuser type T	937865Q	TXWL12-20
IN1710QBNEXXX3	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
IN1720QBNEXXX3	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	<table><tr><th>Insert IN-AGB</th><th>Code</th></tr><tr><td>IN30</td><td>0</td></tr><tr><td>IN60</td><td>2</td></tr><tr><td>IN90</td><td>3</td></tr><tr><td>IN120</td><td>4</td></tr><tr><td>IN125</td><td>5</td></tr><tr><td>IN170</td><td>6</td></tr><tr><td>IN230</td><td>7</td></tr><tr><td>IN300</td><td>8</td></tr><tr><td>IN400</td><td>9</td></tr><tr><td>IN500</td><td>10</td></tr><tr><td>IN390(3)</td><td>11</td></tr><tr><td>IN500(3)</td><td>12</td></tr><tr><td>IN600</td><td>13</td></tr><tr><td>IN800</td><td>14</td></tr><tr><td>IN1000</td><td>15</td></tr><tr><td>IN1500</td><td>16</td></tr><tr><td>IN2000</td><td>17</td></tr><tr><td>IN2400</td><td>18</td></tr></table>	Insert IN-AGB	Code	IN30	0	IN60	2	IN90	3	IN120	4	IN125	5	IN170	6	IN230	7	IN300	8	IN400	9	IN500	10	IN390(3)	11	IN500(3)	12	IN600	13	IN800	14	IN1000	15	IN1500	16	IN2000	17	IN2400	18
Insert IN-AGB	Code																																						
IN30	0																																						
IN60	2																																						
IN90	3																																						
IN120	4																																						
IN125	5																																						
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IN800	14																																						
IN1000	15																																						
IN1500	16																																						
IN2000	17																																						
IN2400	18																																						

Box 2

Degree of filtration						
Element media	Glass fibre					Wire mesh
	Microglass III (for disposable elements)					
	Ecoglass III (for Leif® elements)					
	Cellulose					Abs. rating
	Nom. rating					
Disposable element	10C	02Q	05Q	10Q	20Q	040W
LEIF® element		02QL	05QL	10QL	20QL	

Box 3

Seal type	
Seal material	Code
Nitrile	B
Fluoroelastomer	V
Neoprene	N

Box 4

Indicator	
	Code
No indicator	N

Box 5

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

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

Highlights Key (Denotes part number availability)

123	Item is standard
123	Item is standard green option
123	Item is semi standard
123	Item is non standard

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

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

In-Tank Mounted Return Line Filters

IN-AGB Series

Ordering Information (cont.)

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

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

Ordering Information (cont.)

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	TXX13-10-B	TXW13-2-B	TXW13-5-B	TXW13-10-B	TXW13-20-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	