

15/40/80CN Series

Medium Pressure Filters

Max 320 l/min - 70 bar



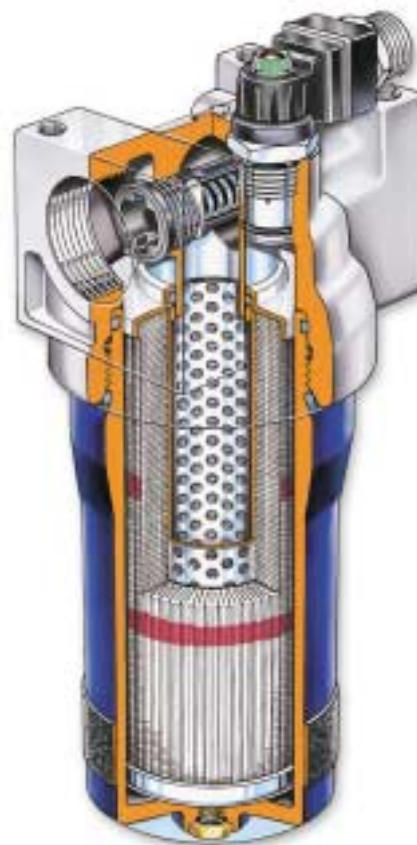
Global Filtration Technology

Medium Pressure Filters

15/40/80CN Series

TYPICAL APPLICATIONS

- Compressor Lube Oil
- Off-line Filter Loops
- Machine Tools (Automotive Standard)
- Hydrostatic Drive Charge Pumps
- Mobile Equipment
- Pilot Lines For Servo Controls
- Oil Patch Drilling Equipment
- Injection Moulding



The Parker Filtration 15/40/80CN Series Medium Pressure Filters.

This partial list of applications for Parker “CN” Series Filters has a common factor, the need for an economical, medium pressure range filter with excellent fatigue pressure ratings. Prior to the availability of the “CN” filter, applications such as those listed were restricted by limitations of a spin-on can, or forced into the higher-cost range of high pressure filters.

The “CN” Series fills this gap, and now with the newly increased fatigue rating from 40 to 56 bar the applications are expanded.

FEATURES	ADVANTAGES	BENEFITS
<ul style="list-style-type: none"> • 56 bar fatigue rating eight times that of a spin-on) 	<ul style="list-style-type: none"> • Ability to provide reliable service under tough cyclic operating conditions • Can be utilised in applications where high pressure filters may have been only option 	<ul style="list-style-type: none"> • Reduced downtime due to premature filter failures • Reduced costs, better “fit” for the application
<ul style="list-style-type: none"> • Diametral (side) seal between head and bowl 	<ul style="list-style-type: none"> • Proven reliability in cyclic applications • Reduced importance of bowl torque 	<ul style="list-style-type: none"> • No downtime, no leaks • Performs with “real world” service
<ul style="list-style-type: none"> • Dust Seal 	<ul style="list-style-type: none"> • Prevents contamination from building up on bowl/head threads 	<ul style="list-style-type: none"> • Easier service, eliminates thread galling
<ul style="list-style-type: none"> • 40CN-2 meets automotive H3 standard • 15CN meets automotive HF2 standard 	<ul style="list-style-type: none"> • Automotive industry acceptance 	<ul style="list-style-type: none"> • Satisfies specifications without need for further testing and/or approval
<ul style="list-style-type: none"> • Cast aluminium head 	<ul style="list-style-type: none"> • Low profile, lightweight and durable 	<ul style="list-style-type: none"> • Less weight, smaller envelop and cleaner appearance
<ul style="list-style-type: none"> • Reinforced Microglass III replacement elements 	<ul style="list-style-type: none"> • Multi-layered design produced high capacity and efficiency • Wire support reduces pleat bunching, keeps performance consistent 	<ul style="list-style-type: none"> • Great performance value • Reliable performance throughout element life • Reduces downtime, maximises element life
<ul style="list-style-type: none"> • Complete performance data disclosure 	<ul style="list-style-type: none"> • All pertinent information is provided in an easy-to-compare format 	<ul style="list-style-type: none"> • No hidden deficiencies • Easy selection of proper filtration
<ul style="list-style-type: none"> • Visual, electrical or electrical/visual indicators available 	<ul style="list-style-type: none"> • Check element condition at a glance • Right style for the application 	<ul style="list-style-type: none"> • Optimise element life, prevent bypassing • Matches your system electrical connections

*Fluoroelastomers are available under various registered trademarks, including Viton (a registered trademark of DuPont) and Fluorel (a registered trademark of 3M)

SPECIFICATION

Maximum Allowable Operating Pressure:

70 bar

Operating Temperature Range:

-26°C to 135°C (Fluoroelastomer Seals)

-42°C to 107°C (Nitrile)

Materials of Construction:

Aluminium head, hard anodized aluminium bowl

Filtration Media:

Microglass III. (See Table 4). For E Series consult Parker Filtration

Ports:

Inlet and outlet ports are threaded internally, flange faced ports available on 80CN

Port Style

Model

Port Style	15CN	40CN	80CN
BSPF(G)	1", 3/4"	1 1/4", 1 1/2"	1 1/2", 2"
SAE	12, 16	16, 24	24, 32
ISO 6149	M27	M33	M42, M48
Metric 3000-M config			2"

Bypass Valve & Indicator Settings:

Table following gives bypass valve and corresponding indicator

setting

Bypass

1.7 bar

3.5 bar

Indicator

1.2 bar

2.5 bar

Weights (Kg):

Model	Length 1	Length 2
15CN	1.1	1.6
40CN	2.0	2.5
80CN	5.6	6.9

Fluid Compatability:

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

Seal Material:

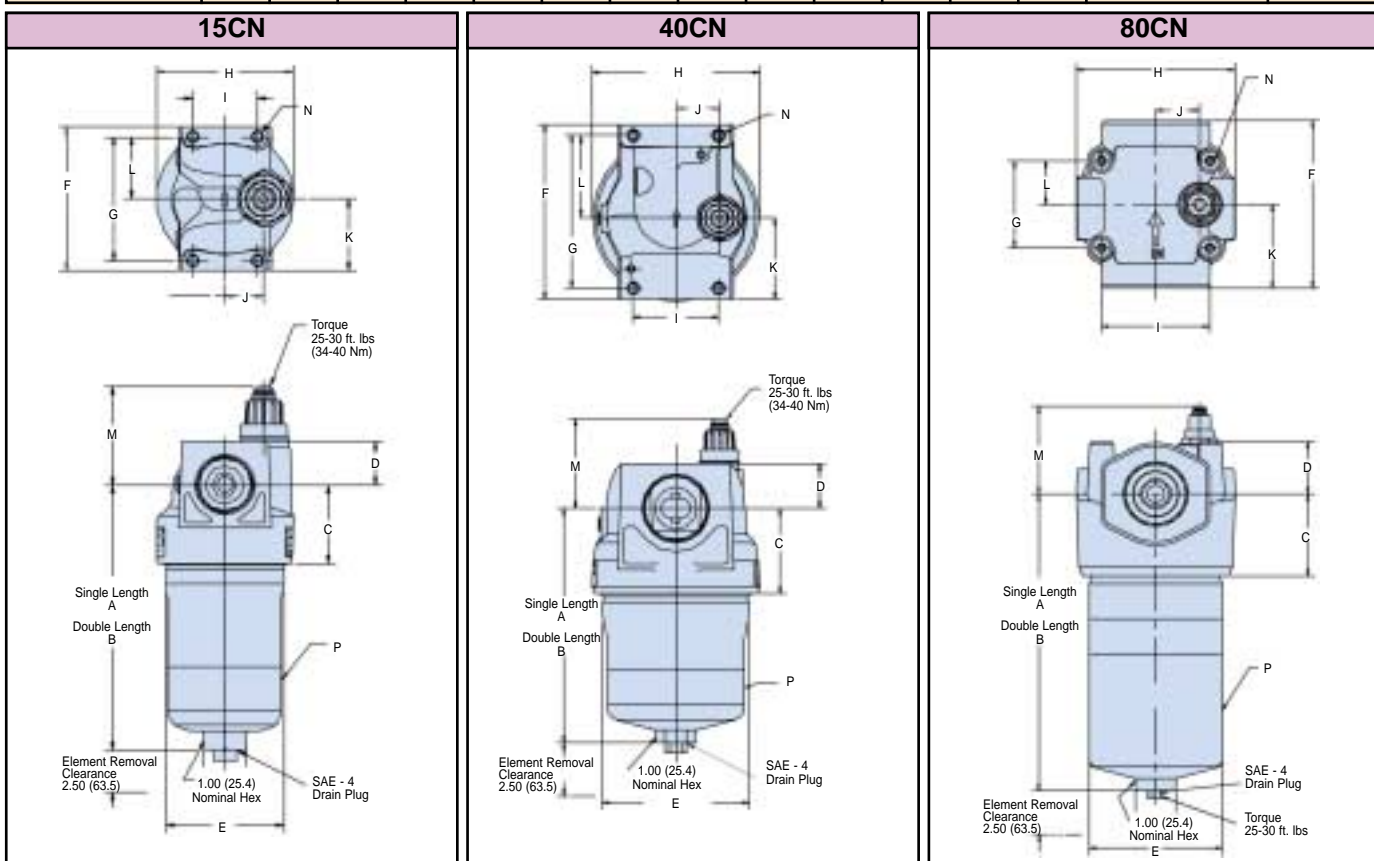
Nitrile or Fluoroelastomer*

Electrical Ratings:

Power - 5 VA max, Current - 0.25 A max (resistive), Voltage - 28 VDC max, 28 VAC (50-60Hz) max, Contacts - normally open and normally closed, wired to DIN plug pin code (option code E2 only)

DIMENSIONS (mm)

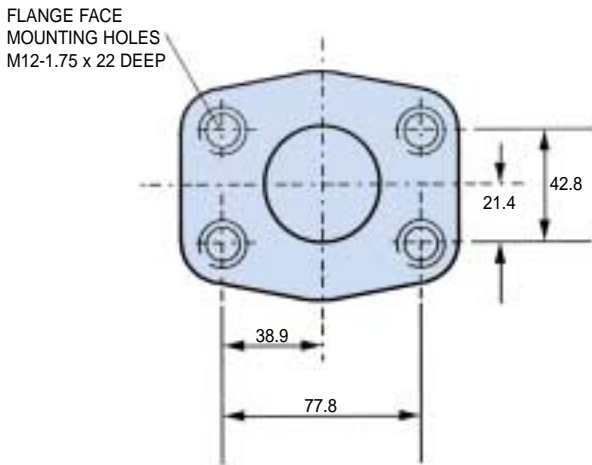
MODEL	A	B	C	D	E	F	G	H	I	J	K	L	M	N	P
15CN	156.6 (6.17)	250.7 (9.87)	46.5 (1.83)	25.4 (1.09)	71.1 (2.80)	85.9 (3.38)	73.2 (2.88)	82.6 (3.25)	38.1 (1.50)	22.9 (0.90)	42.9 (1.69)	36.6 (1.44)	60.5	4xM6-1.0x7.9 DEEP	15-20 ft lbs
40CN	170.8 (6.73)	262.4 (10.33)	62.0 (2.44)	32.6 (1.28)	107.2 (4.22)	127.0 (5.00)	111.0 (4.37)	121.9 (4.80)	62.0 (2.44)	31.8 (1.25)	58.8 (2.32)	60.2 (2.37)	60.5	4xM8-1.25x13 DEEP	45-50 ft lbs
80CN	280.9 (11.06)	401.6 (15.81)	77.7 (3.06)	49.5 (1.95)	124.8 (4.91)	158.7 (6.25)	82.6 (3.25)	151.4 (5.96)	101.6 (4.00)	41.1 (1.62)	79.4 (3.12)	41.3 (1.63)	60.5	4xM8-1.25x16 DEEP	60-70 ft lbs



Medium Pressure Filters

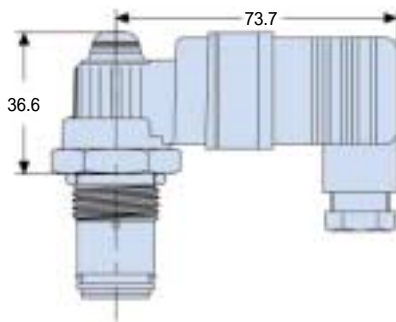
15/40/80CN Series

80CN FLANGE FACE DETAILS

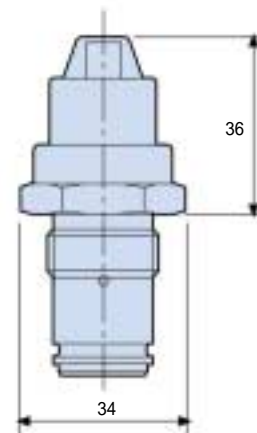


INDICATOR DETAILS

**Visual/Electrical Indicator
CODE E2**



**Visual Indicator
CODE M2**



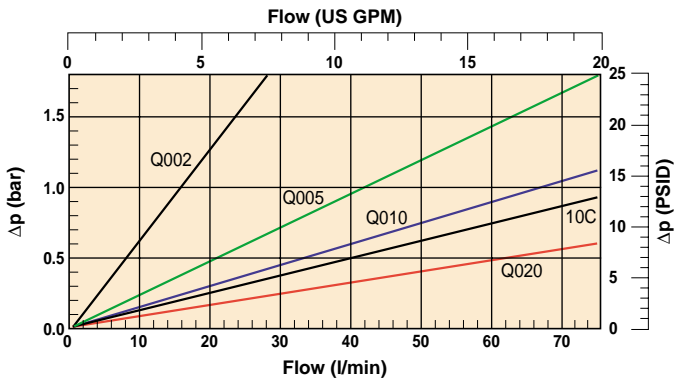
Option	Description	Connection/Voltage	Wiring	Part Number						
M2	Visual Auto Reset	N/A	N/A	932026 (1.7 bar)						
				932027 (3.4 bar)						
E2	Visual/Electrical Auto Reset	28 VDC 28 VAC MAX	<table border="1" style="display: inline-table; vertical-align: middle;"> <tr><td>1</td><td>C</td></tr> <tr><td>2</td><td>NC</td></tr> <tr><td>3</td><td>NO</td></tr> </table>	1	C	2	NC	3	NO	931153 (1.7 bar)
				1	C					
2	NC									
3	NO									
				929599 (3.4 bar)						

Note: For full indicator specifications see Section 6.

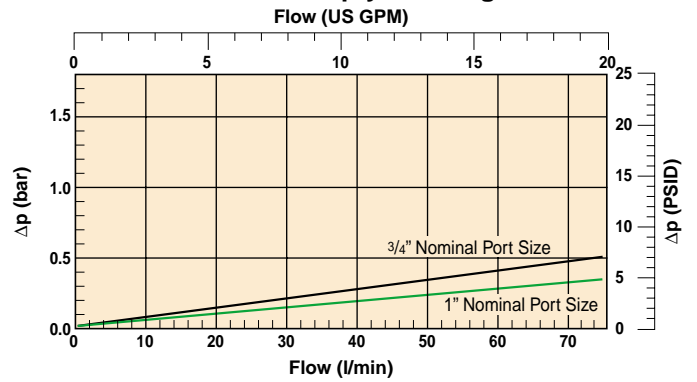
PRESSURE DROP CURVES

To select the correct housing and element it is recommended that the ratio between the bypass setting and the pressure drop across the filter with a clean element should be at least 3:1. All filters were tested in accordance with ISO 3968. "Determination of pressure drop flow characteristics of hydraulic fluid power filters", using mineral oil fluid SAE 10 at 32 cSt viscosity.

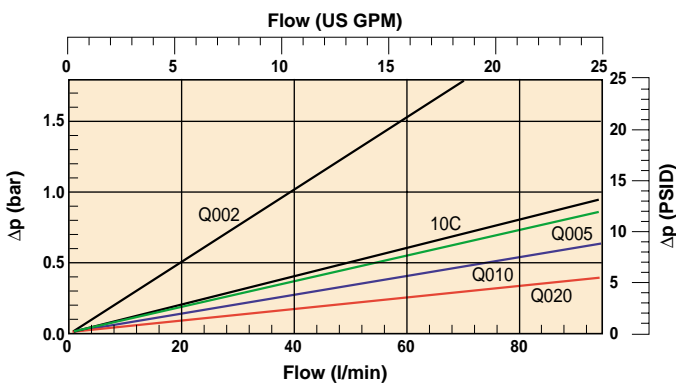
15CN-1 Elements



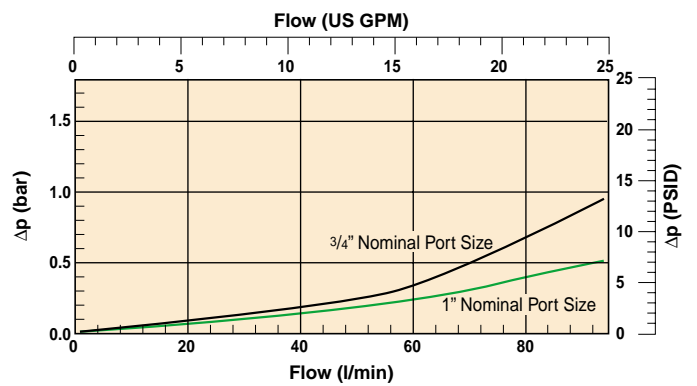
15CN-1 Empty Housing



15CN-2 Elements



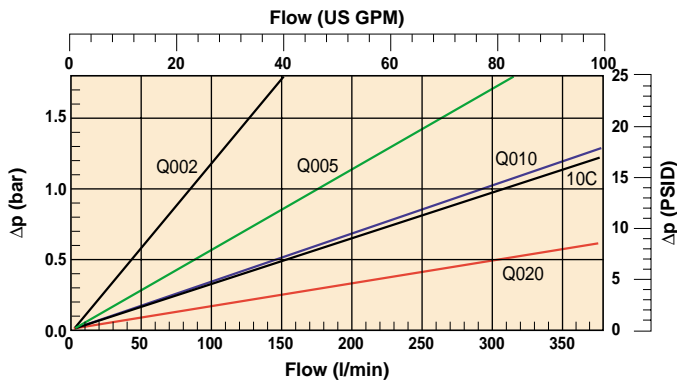
15CN-2 Empty Housing



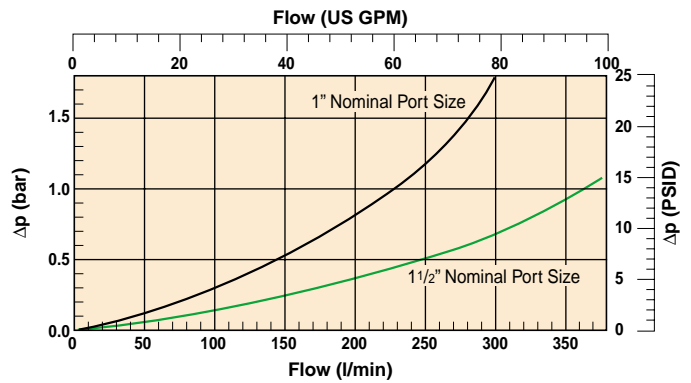
Medium Pressure Filters

15/40/80CN Series

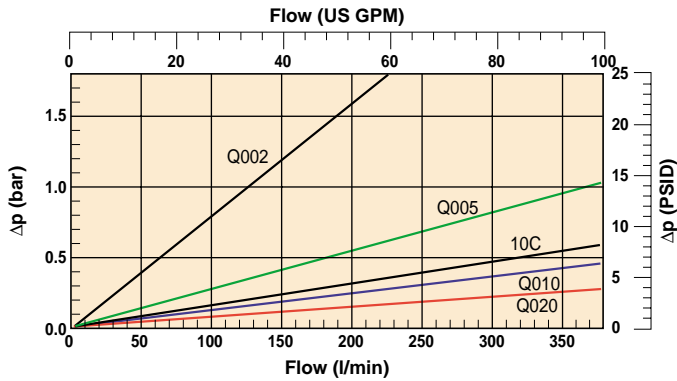
40CN-1 Elements



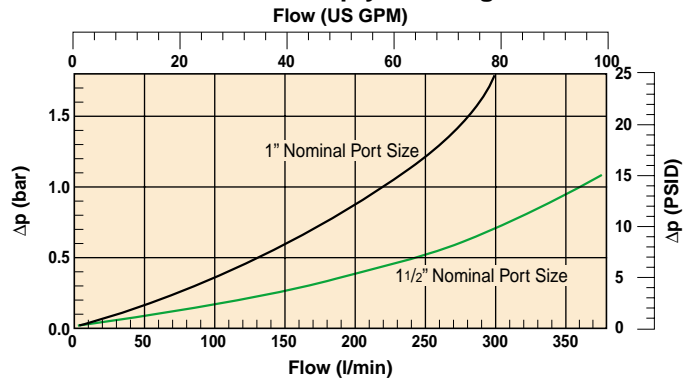
40CN-1 Empty Housing



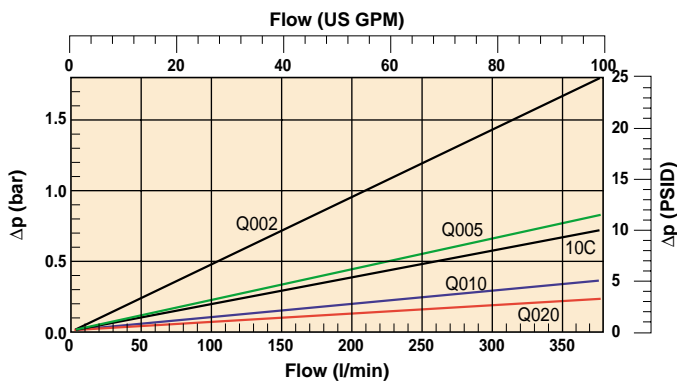
40CN-2 Elements



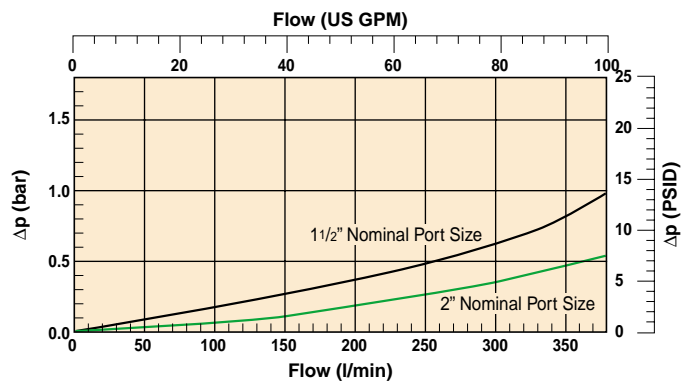
40CN-2 Empty Housing



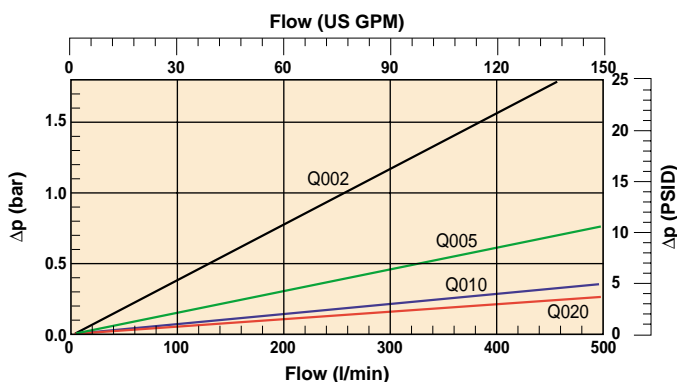
80CN-1 Elements



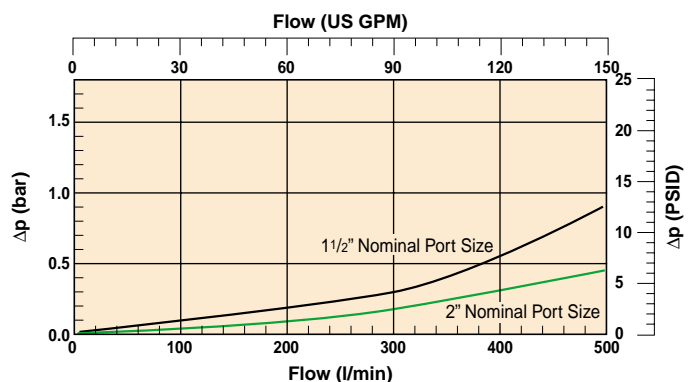
80CN-1 Empty Housing



80CN-2 Elements



80CN-2 Empty Housing



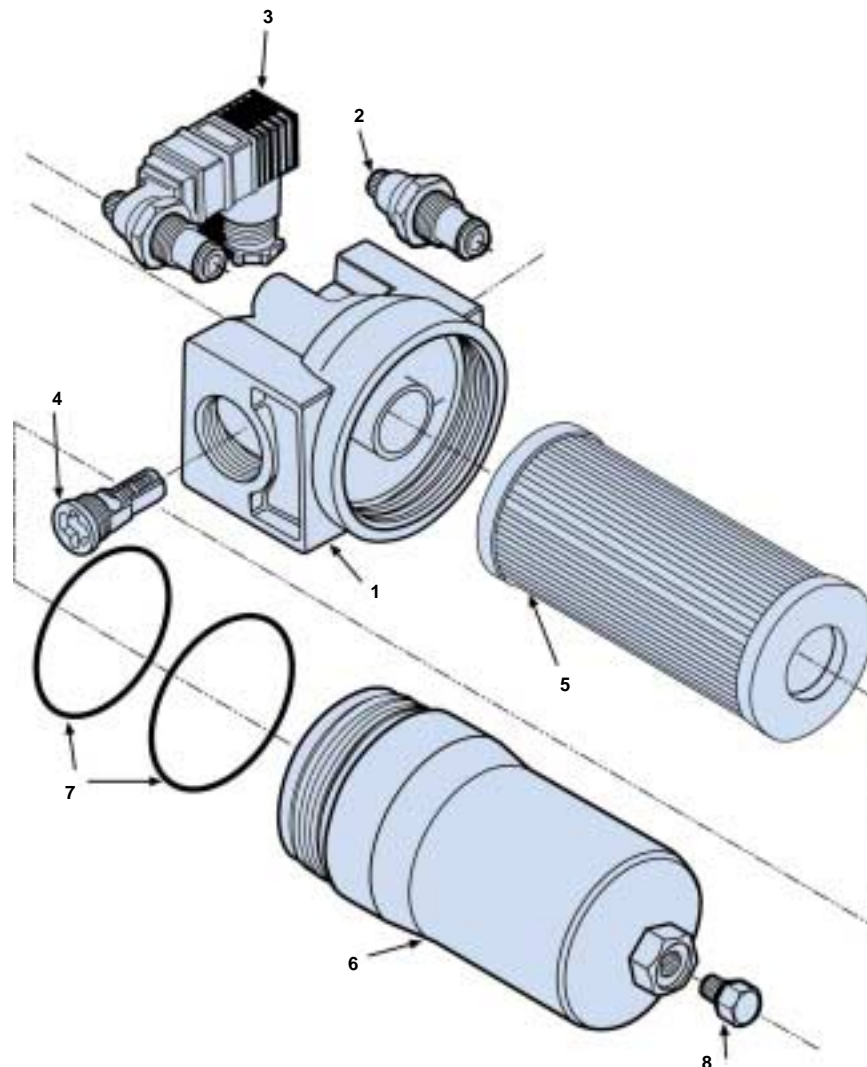
Note: All above data is calculated at 30cSt Rel density 0.856.

Element Service

- A. Stop the system's power unit.
- B. Relieve any system pressure in the filter line.
- C. Drain the filter bowl if drain port option is provided.
- D. Loosen and remove bowl.
- E. Remove element by pulling downward with a slight twisting motion and discard.
- F. Check bowl o-ring and anti-extrusion ring for damage and replace if necessary.
- G. Lubricate element o-ring with system fluid and place on post in filter head.
- H. Install bowl by rotating counter clockwise and tighten to specified torque.
 - 15CN — 15-20ft. lbs (20-27 Nm)
 - 40CN — 42-50ft. lbs (57-68 Nm)
 - 80CN — 60-70ft. lbs (80-95 Nm)
- I. Confirm there are no leaks after powering the system.

CN Filters Parts List

Index	Description
1	Head Options (Consult Factory)
2	Indicators M2-Visual Auto Reset; 1.7 bar M2-Visual Auto Reset; 3.5 bar
3	E2-Electrical/Visual; 1.7 bar c/w DIN 43650 Connector E2-Electrical/Visual; 3.5 bar c/w DIN 43650 Connector
4	Bypass Valve 1.7 bar assembly 3.5 bar assembly
5	Element (See Model Code Page)
6	Bowl Single Length With Drain Single Length Without Drain Double Length With Drain Double Length Without Drain
7	Bowl and Dust Seal Nitrile (Buna N) Fluoroelastomer
8	Drain Plug; SAE-4 Nitrile (Buna N) Fluoroelastomer



Medium Pressure Filters

15/40/80CN Series

PREFERRED PRODUCTS TABLE

The following standard filters are supplied with 3.4 bar bypass and Nitrile seals.					
Part Number	Part Number	Flow (l/min)	Media Rating	Ports	Replacement Elements
15CN-1-02Q-M2-50-C2C2-1	15CN-1-02Q-E2-50-C2C2-1	10	Q002	G 1	928935Q
15CN-1-05Q-M2-50-C2C2-1	15CN-1-05Q-E2-50-C2C2-1	35	Q005	G 1	G04041Q
15CN-1-10Q-M2-50-C2C2-1	15CN-1-10Q-E2-50-C2C2-1	60	Q010	G 1	928934Q
15CN-1-20Q-M2-50-C2C2-1	15CN-1-20Q-E2-50-C2C2-1	80	Q020	G 1	930367Q
15CN-2-02Q-M2-50-C2C2-1	15CN-2-02Q-E2-50-C2C2-1	25	Q002	G 1	928953Q
15CN-2-05Q-M2-50-C2C2-1	15CN-2-05Q-E2-50-C2C2-1	60	Q005	G 1	G04169Q
15CN-2-10Q-M2-50-C2C2-1	15CN-2-10Q-E2-50-C2C2-1	90	Q010	G 1	928952Q
15CN-2-20Q-M2-50-C2C2-1	15CN-2-20Q-E2-50-C2C2-1	110	Q020	G 1	930368Q
40CN-1-02Q-M2-50-E2E2-1	40CN-1-02Q-E2-50-E2E2-1	60	Q002	G 1½	926696Q
40CN-1-05Q-M2-50-E2E2-1	40CN-1-05Q-E2-50-E2E2-1	100	Q005	G 1½	G04048Q
40CN-1-10Q-M2-50-E2E2-1	40CN-1-10Q-E2-50-E2E2-1	180	Q010	G 1½	926835Q
40CN-1-20Q-M2-50-E2E2-1	40CN-1-20Q-E2-50-E2E2-1	260	Q020	G 1½	930099Q
40CN-2-02Q-M2-50-E2E2-1	40CN-2-02Q-E2-50-E2E2-1	80	Q002	G 1½	926697Q
40CN-2-05Q-M2-50-E2E2-1	40CN-2-05Q-E2-50-E2E2-1	200	Q005	G 1½	G04167Q
40CN-2-10Q-M2-50-E2E2-1	40CN-2-10Q-E2-50-E2E2-1	300	Q010	G 1½	926837Q
40CN-2-20Q-M2-50-E2E2-1	40CN-2-20Q-E2-50-E2E2-1	350	Q020	G 1½	930118Q
80CN-1-10Q-M2-50-F2F2-1	80CN-1-10Q-E2-50-F2F2-1	220	Q010	G 2	932658Q

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

PART NUMBER MATRIX

Table 1 F3	Table 2 40CN	Table 3 1	Table 4 10Q	Table 5 M2	Table 6 25	Table 7 E2E2	Table 8 1	Table 9 -
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Seals		Model Number		Housing Length		Indicator	
Description	SYMBOL	Symbol		Description	SYMBOL	Description	SYMBOL
Nitrile	O	15CN		Single Length	1	No Indicator (use with "11" option, no bypass only)	N
Fluoroelastomer*	F3	40CN		Double Length	2	No Indicator (use when model is equipped with bypass valve)	P
		80CN				Visual/Auto reset	M2
						FPC Visual/Auto reset	V3
						Electric Switch DIN 43650	E2
						FPC Electric DIN 43650	TW3
						FPC Electronic L.E.D.	FW3

Degree of Filtration							
Average filtration ratio β (ISO 16889) / particle size μm(c)	2	10	75	100	200	1000	CODE
N/A	N/A	N/A	N/A	N/A	N/A	4.5	02Q
N/A	N/A	4.5	5	6	7		05Q
N/A	6	8.5	9	10	12		10Q
6	11	17	18	20	22		20Q
Water removal 40CN & 80CN only							WR

Ports	
Description	SYMBOL
G½" Thread	15CN
G1	C2C2
12, SAE Thread	M4M4
16, SAE Thread	N4N4
M27, ISO 6149	B3B3
G1½	40CN
G1½	D2D2
G1½	E2E2
16, SAE Thread	N4N4
24, SAE Thread	P4P4
M33, ISO 6149	C3C3
G1½	80CN
G1½	E2E2
G2	F2F2
24, SAE Thread	P4P4
32, SAE Thread	R4R4
2" 3000-M Flange Face	Y3Y3
M42, ISO 6149	D3D3
M48, ISO 6149	E3E3

Nitrile Seals						Fluoroelastomer Seals					
MODEL	Q002	Q005	Q010	Q020	10C	MODEL	Q002	Q005	Q010	Q020	10C
15CN-1	928935Q	G04041Q	928934Q	930367Q	928932	15CN-1	932610Q	G04189Q	932612Q	930369Q	925385
15CN-2	928953Q	G04169Q	928952Q	930368Q	928950	15CN-2	932616Q	G04190Q	932618Q	930370Q	925394
40CN-1	926696Q	G04048Q	926835Q	930099Q	930095	40CN-1	926716Q	G04191Q	926836Q	930100Q	930096
40CN-2	926697Q	G04167Q	926837Q	930118Q	930114	40CN-2	926717Q	G04192Q	926838Q	930119Q	930115
80CN-1	932656Q	932657Q	932658Q	929899Q	929909	80CN-1	932659Q	932660Q	932661Q	929903Q	929912
80CN-2	932662Q	932663Q	932664Q	929923Q	929933	80CN-2	932665Q	932666Q	932667Q	929927Q	929936

Bypass Indicator Setting	
Description	SYMBOL
1.7 bar	25
3.4 bar	50

If "No Bypass" option (11) & an indicator is selected, above symbols (25, 50) denote indicator settings.

Options	
Description	SYMBOL
None	1
No Bypass	11
Drain port on bowl	19
No bypass and drain port	21

Design Number		
Applied to the filter assembly by Parker Filtration.		

Seal Kits		
MODEL	Nitrile (0)	Fluoroelastomer* (F3)
15CN	S02594	S02595
40CN	S02596	S02597
80CN	S03543	S03544

* Fluoroelastomers are available under various registered trademarks, including Viton (a registered trademark of DuPont) and Fluorel (a registered trademark of 3M)



1145 Series

Medium Pressure Filters

Max 220 l/min - 40 bar

FEATURING
EC GLASS III



Global Filtration Technology

Medium Pressure Filters

1145 Series

TYPICAL APPLICATIONS

- Industrial Power Units
- Mobile Construction Equipment
- Forestry Equipment

The Parker Filtration 1145 Series Medium Pressure Filters.

The 1145 Series of medium pressure filters offer an ideal solution to the problem of protecting system components at lower pressures.

These filters are a realistic, high quality alternative to low specification spin-on filters. The 1145 Series offers high dirt holding capacity, 40 bar capability and rapid element replacement.



TYPICAL APPLICATIONS



SPECIFICATION

Assembly:

In-line filter

Connections:

Threads G1, G1¼, G1½ (ISO 228/1) or 1½" SAE 3000 flange

Operating Pressure:

Max 40 bar, filter housing pressure pulse fatigue tested:
10⁶ pulses 0-40 bar

Seal Material:

Nitrile (ordering code B) or Fluoroelastomer eg. Viton (ordering code V)

Operating Temperature Range:

-20° to +100°C

Degree of Filtration:

Determined by multipass test according to ISO 16889

Filtration Media:

Microglass III supported with epoxy coated metal wire mesh or
Ecoglass III supported with plastic net (no metallic parts) (see Table 2)

Flow Fatigue Characteristics:

Filter media is supported so that the optimal fatigue life is achieved

Bypass Valve:

Opening pressure 3.5 bar

Indicator Options:

Indicating differential pressure:

2.5 ± 0.2 bar

- electronic indicator FPC.F (10 to 36 VDC)

- electrical indicator FPC.T (max 250 VAC)

- visual indicator FPC.V

Indicator Housing:

Material brass (code M)

Filter Housing:

Head material cast iron (GSI).

Bowl material steel.

Filter Element; and Collapse Ratings:

7000 Series (Q0XX)

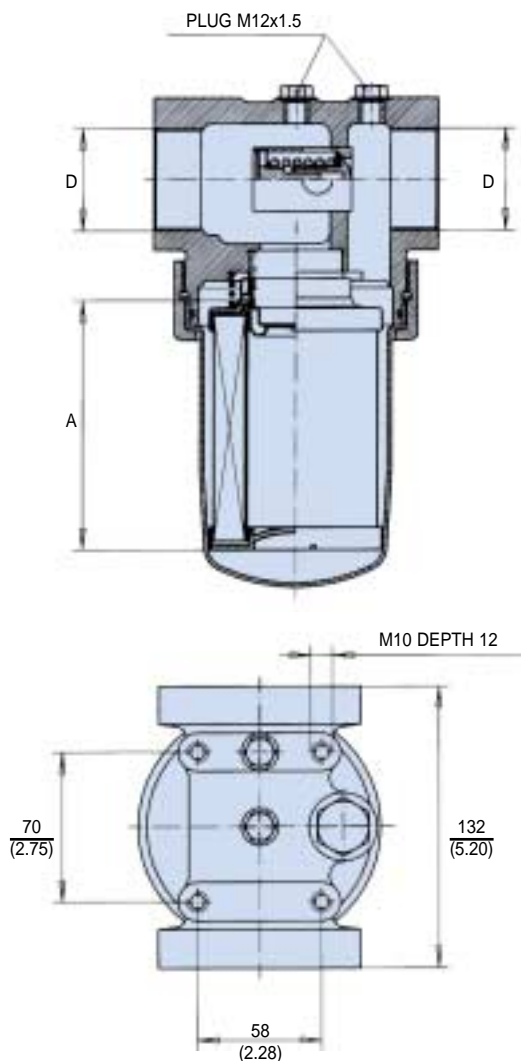
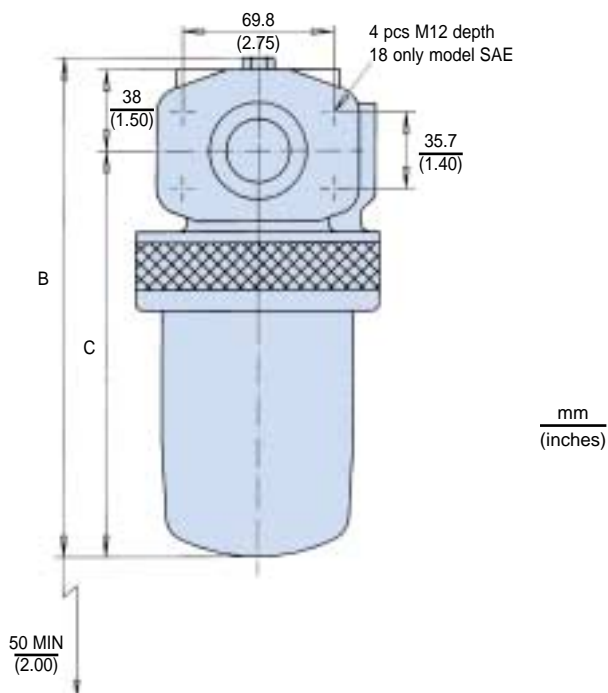
Microglass III media, end cap material reinforced composite (code K) and metal inner core. Collapse rating 20 bar (ISO 2941).

7000 Eco (QEXX)

Ecoglass III media, end cap material reinforced composite (code K), no metallic parts. Filter element can only be used together with re-usable FEA Eco-adaptor. Collapse rating 10 bar (ISO 2941).

Note: Ecoglass III contributes to ISO14001 quality.

TYPE	A	B	C	D
1145	116 (4.57)	237 (9.33)	192 (7.56)	G1, G1¼
1146	208 (8.20)	330 (13.00)	285 (11.22)	G1½
1147	329 (13.00)	450 (17.72)	405 (15.94)	SAE 1½" 3000 psi
1148	428 (16.85)	550 (21.65)	505 (19.90)	



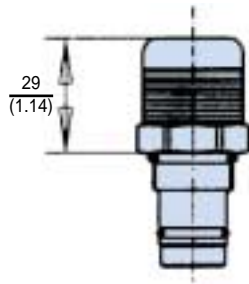
Medium Pressure Filters

1145 Series

INDICATOR DETAILS

Visual Differential Pressure Indicator

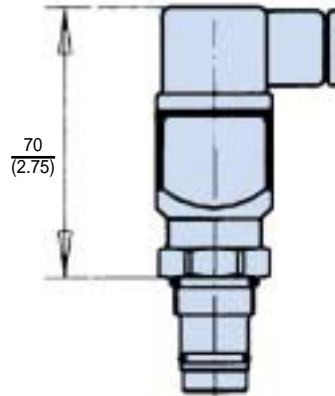
CODE FPC.V



mm
(inches)

Electrical & Electronic Differential Pressure Indicator

CODE FPC.T & FPC.F



Option	Description	Connection/Voltage	Wiring	P/N
V25	Visual Indicator (2.5 bar)	N/A	N/A	FPC.V25.BM
F25	Electronic Indicator (2.5 bar)	+10 to 36 VDC		FPC.F25.BM
T25	Electrical Indicator (2.5 bar)	Max 250 VAC Max 250 VDC		FPC.T25.VM

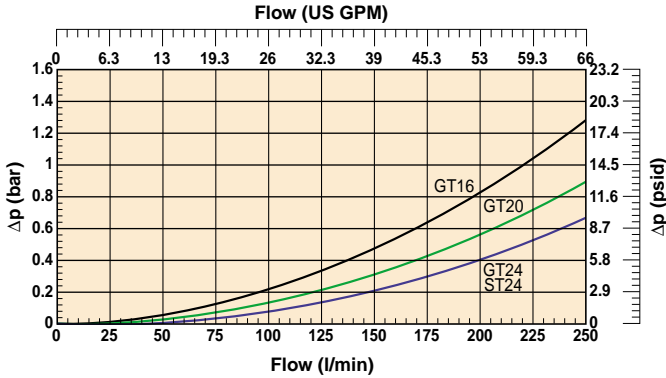
Note: For full indicator specifications see Section 6.

PRESSURE DROP CURVES

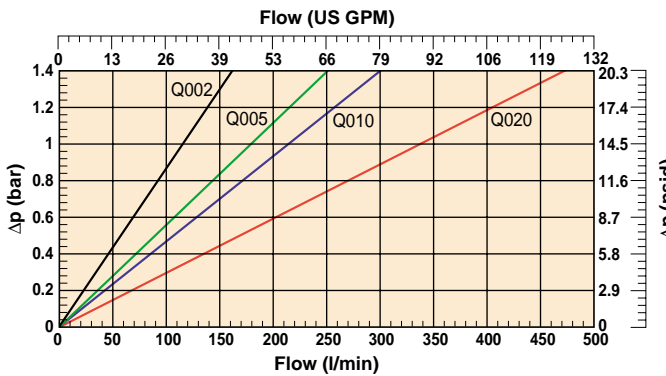
If the medium used has a viscosity different from 30 cSt, pressure drop over the filter can be estimated as follows :-

$$\Delta p = (\Delta p_{30} \times \text{viscosity of medium used}) / 30 \text{ cSt}$$

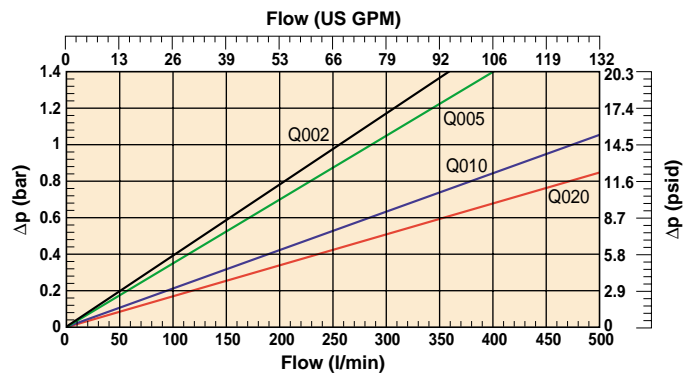
1145 Series Filter Housing Only



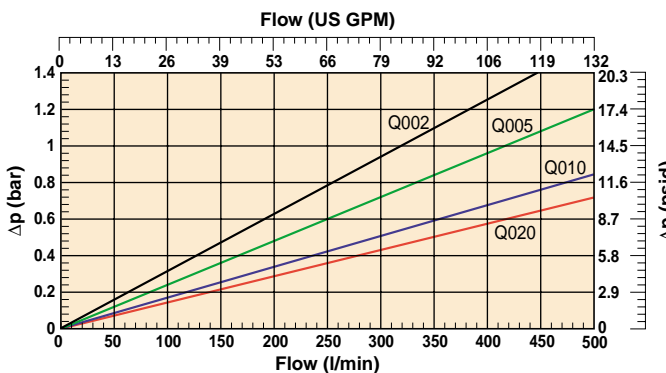
1145 Series with Microglass III



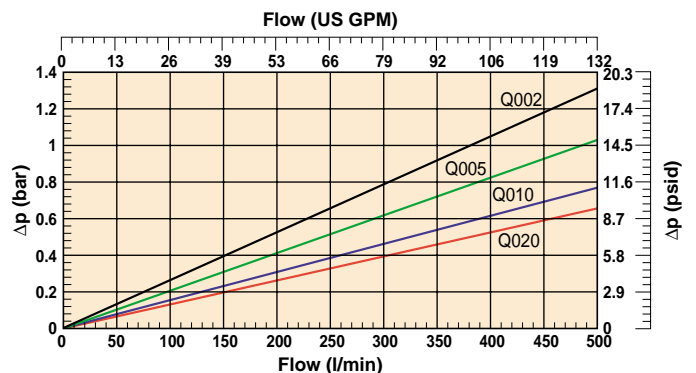
1146 Series with Microglass III



1147 Series with Microglass III



1148 Series with Microglass III



Note: These graphs relate to the 7000 Series elements which are used in all 1145 Series filters.

Medium Pressure Filters

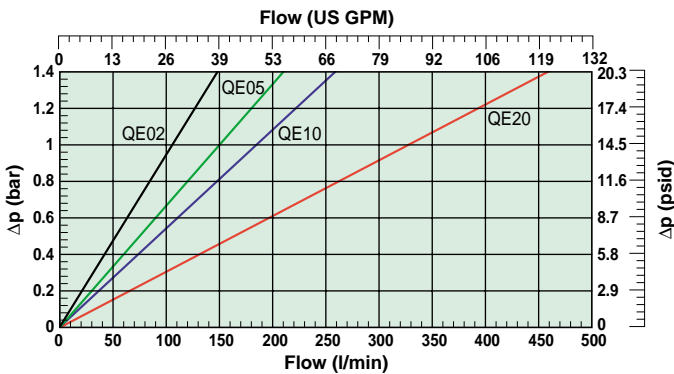
1145 Series

PRESSURE DROP CURVES

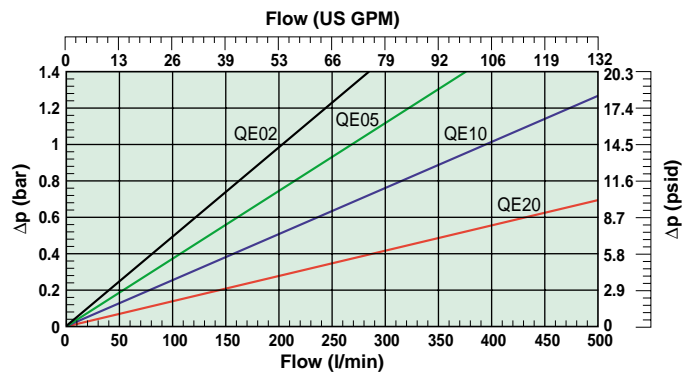
If the medium used has a viscosity different from 30 cSt, pressure drop over the filter can be estimated as follows :-

$$\Delta p = (\Delta p_{30} \times \text{viscosity of medium used}) / 30 \text{ cSt}$$

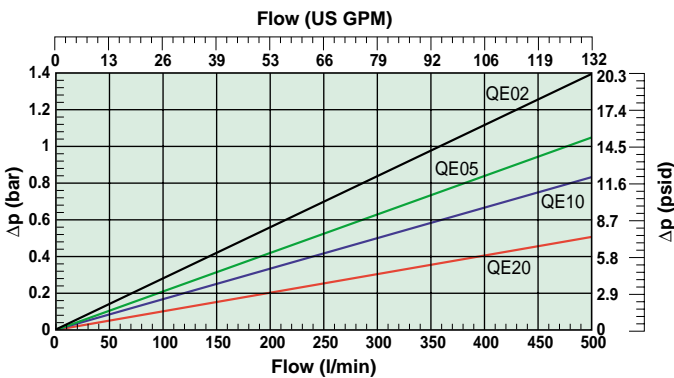
1145 Series with Ecoglass III



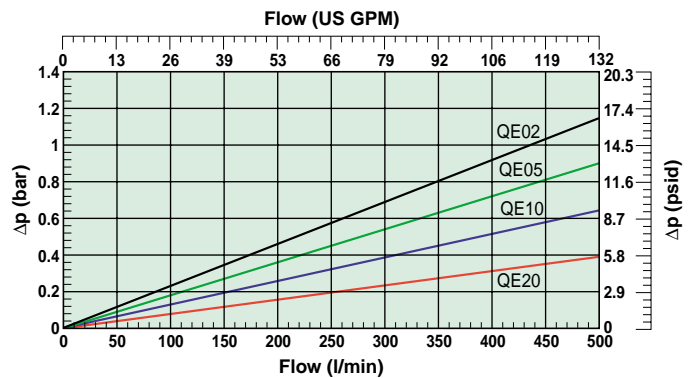
1146 Series with Ecoglass III



1147 Series with Ecoglass III



1148 Series with Ecoglass III



Note: These graphs relate to the 7000 Series elements which are used in all 1145 Series filters.

PREFERRED PRODUCTS TABLE

The following standard filters are supplied with 3.5 bar bypass and Nitrile seals.
NB indicator if required should be ordered separately.

Part Number	Flow (l/min)	Media Rating	Ports	Replacement Elements
FF1145.Q020.BS35.GT16	100	Q020	G1	FC7005.Q020.BK
FF1145.Q010.BS35.GT16	80	Q010	G1	FC7005.Q010.BK
FF1145.Q005.BS35.GT16	60	Q005	G1	FC7005.Q005.BK
FF1145.Q002.BS35.GT16	50	Q002	G1	FC7005.Q002.BK
FF1146.Q020.BS35.GT16	150	Q020	G1	FC7006.Q020.BK
FF1146.Q020.BS35.GT20	170	Q020	G1 ^{1/4}	FC7006.Q020.BK
FF1146.Q010.BS35.GT16	100	Q010	G1	FC7006.Q010.BK
FF1146.Q010.BS35.GT20	120	Q010	G1 ^{1/4}	FC7006.Q010.BK
FF1146.Q005.BS35.GT16	80	Q005	G1	FC7006.Q005.BK
FF1146.Q005.BS35.GT24	100	Q005	G1 ^{1/2}	FC7006.Q005.BK
FF1146.Q002.BS35.GT16	60	Q002	G1	FC7006.Q002.BK
FF1147.Q010.BS35.GT24	170	Q010	G1 ^{1/2}	FC7007.Q010.BK
FF1147.Q005.BS35.GT24	130	Q005	G1 ^{1/2}	FC7007.Q005.BK
FF1147.Q002.BS35.GT24	110	Q002	G1 ^{1/2}	FC7007.Q002.BK

ECO Range

Part Number	Flow (l/min)	Media Rating	Ports	Replacement Elements
FF1145.QE20.BS35.GT16	100	QE20	G1	FC7005.QE20.BK
FF1145.QE10.BS35.GT16	80	QE10	G1	FC7005.QE10.BK
FF1145.QE05.BS35.GT16	60	QE05	G1	FC7005.QE05.BK
FF1145.QE02.BS35.GT16	50	QE02	G1	FC7005.QE02.BK
FF1146.QE20.BS35.GT16	150	QE20	G1	FC7006.QE20.BK
FF1146.QE20.BS35.GT20	170	QE20	G1 ^{1/4}	FC7006.QE20.BK
FF1146.QE10.BS35.GT16	100	QE10	G1	FC7006.QE10.BK
FF1146.QE10.BS35.GT20	120	QE10	G1 ^{1/4}	FC7006.QE10.BK
FF1146.QE05.BS35.GT16	80	QE05	G1	FC7006.QE05.BK
FF1146.QE05.BS35.GT24	100	QE05	G1 ^{1/2}	FC7006.QE05.BK
FF1146.QE02.BS35.GT16	60	QE02	G1	FC7006.QE02.BK
FF1147.QE10.BS35.GT24	170	QE10	G1 ^{1/2}	FC7007.QE10.BK
FF1147.QE05.BS35.GT24	130	QE05	G1 ^{1/2}	FC7007.QE05.BK
FF1147.QE02.BS35.GT24	110	QE02	G1 ^{1/2}	FC7007.QE02.BK

Note: Filter assemblies ordered from the Part Number Matrix on the next page are on extended lead times. Where possible, please make your selection from the tables above.

Medium Pressure Filters

1145 Series

PART NUMBER MATRIX

Filter Assembly:	FF	Table 1A	•	Table 2	•	Table 3	S	Table 4	•	Table 5	-	Table 6
Filter Element:	FC	Table 1B	•	Table 2		Table 3	K					
Δp Indicator:	FPC	Table 7	•	Table 8			M					
Seal Kit:	FD 1145-	Table 3										
Eco-adaptor:	FEA	Table 1B		Table 3								

PART NUMBER MATRIX

Table 1

Filter Type		
Element Length	CODE	
	A	B
Filter assembly/housing	1145	
Element for type 1145 116mm		7005
Filter assembly/housing	1146	
Element for type 1146 208mm		7006
Filter assembly/housing	1147	
Element for type 1147 329mm		7007
Filter assembly/housing	1148	
Element for type 1148 428mm		7008

Table 2

Degree of Filtration							
Average filtration ratio β (ISO 16889) / particle size μm(c)							CODE
2	10	75	100	200	1000		
N/A	N/A	N/A	N/A	N/A	4.5		QE02
							Q002
N/A	N/A	4.5	5	6	7		QE05
							Q005
N/A	6	8.5	9	10	12		QE10
							Q010
6	11	17	18	20	22		QE20
							Q020

Table 3

Seal Type (Filter)	
Seal Material	CODE
Nitrile	B
Fluoroelastomer	V

Table 4

Bypass Valve	
Opening Pressure	CODE
3.5 bar	35

Note: When using Eco elements, Eco adaptor FEA is required.

Table 5

Filter Connection	
Connection Type, T-model	CODE
G1 Thread	GT16
G 1 1/4 Thread	GT20
G1 1/2 Thread	GT24
Flange 1 1/2" SAE 3000 psi	ST24

Table 6

Valve Option	
Valve Type	CODE
Non-return valve	T

Table 7

Pressure Indicator	
Indicator Type Option	CODE
Visual Indicator 2.5 bar	V25
Electronic Indicator 2.5 bar, (+10 to 36VDC)	F25
Electrical Indicator 2.5 bar, (max 250VAC)	T25

Table 8

Seal Type (Indicators)		
Indicator Option	Seal Material	CODE
V25	Nitrile	B
F25	Nitrile	B
T25	Fluoroelastomer	V

1300 Series – Eco

Medium Pressure Filters

Max 1000 l/min - 30 bar

FEATURING
EC GLASS III



Global Filtration Technology

Medium Pressure Filters

1300 Series

TYPICAL APPLICATIONS

- Paper Production Plants
- Steel Mills
- Aluminium Mills
- Industrial Power Packs
- Lubrication Systems
- Power Generation

The Parker Filtration 1300 Series Low 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.

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



TYPICAL APPLICATIONS



SPECIFICATION

Assembly:

As on-line filter

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.

Operating Pressure:

Single filters 30 bar (3000 kPa), filter systems 16 bar (1600 kPa).
Filter housing pressure pulse fatigue tested: 10⁶ pulses 0-25 bar.

Connections:

Single unit connections

Flanges SAE 2 1/2", 210 bar or with adaptor threads G1 1/2 or G2.

Dual unit connections

SAE 3", 210 bar 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).

Seal Material:

Nitrile (NBR) or Fluoroelastomer (FPM)

Operating Temperature Range:

-20°C to +100°C

Degree of Filtration:

Determined by multipass test according to ISO 16889 (See Table 2)

Filtration Media:

Ecoglass III, end caps reinforced polyamid (code K)

Flow Fatigue Characteristics:

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

Element Collapse Rating:

10 bar (ISO 2941)

Bypass Valve:

Opening pressure 3.5 bar (0.35 MPa)

Indicator:

Includes FPC.V25.BM as standard

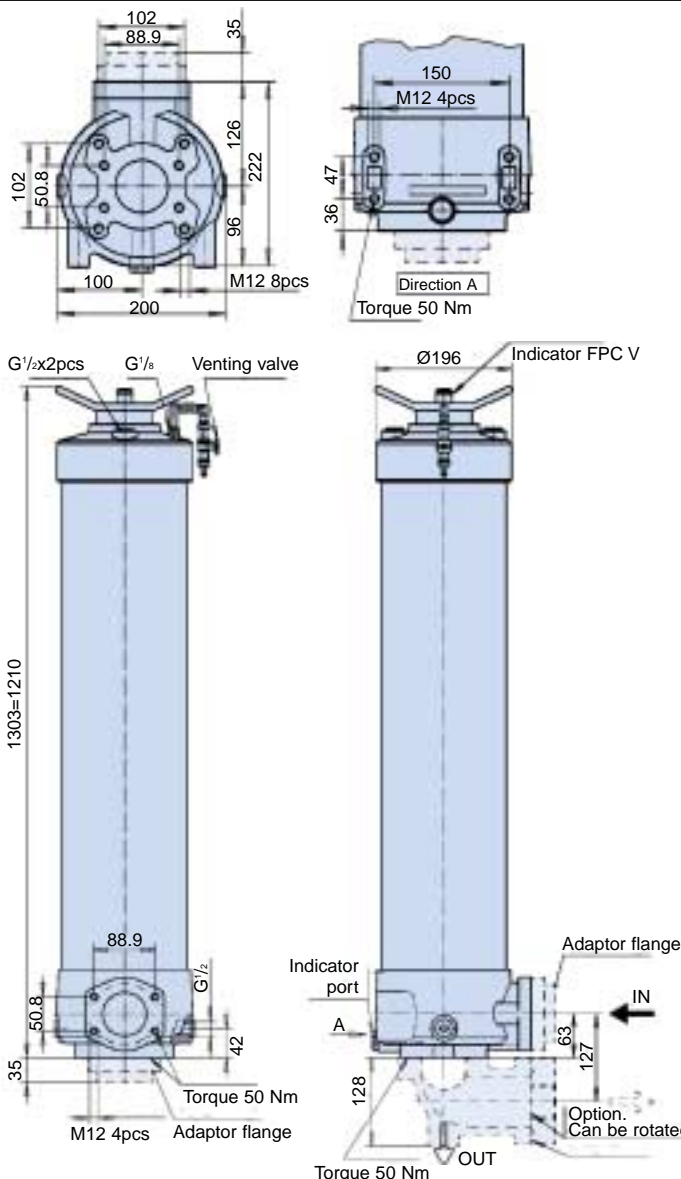
Indicator Options (additional):

- Indicating differential pressure 2.5 bar
- electronic indicator FPC.F (10 to 36 VDC)
- electrical indicator FPC.T (max 250 VAC)
- visual indicator FPC.V

Filter Housing:

Material aluminium (code A)

Note: Also available as non eco assembly. Contact Parker Filtration for details. Ecoglass III elements contributes to ISO14001 quality standards.



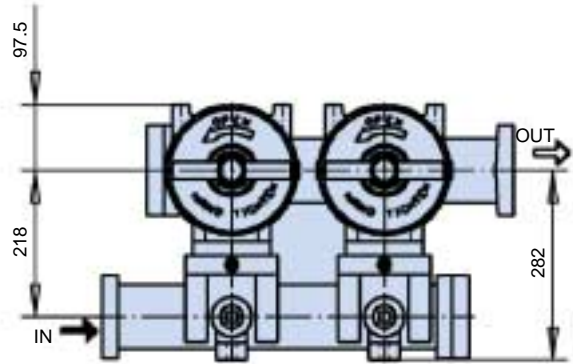
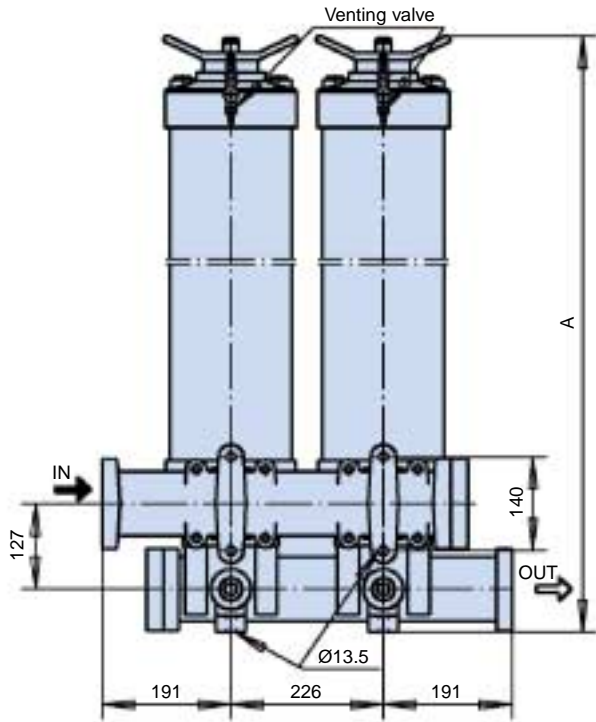
SINGLE ASSEMBLIES

Connection Options	
Body Flange	SAE 2 1/2" 3000
	SAE 3" 3000
Adaptor Flange Thread	G1 1/2
	G2

Medium Pressure Filters

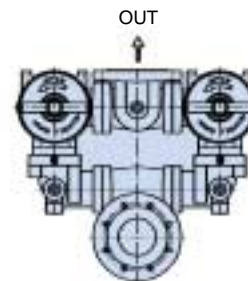
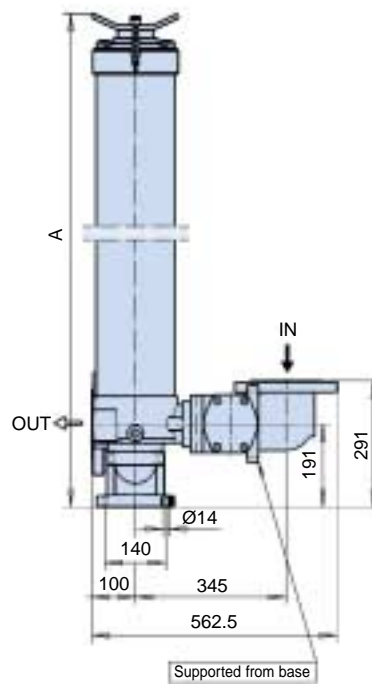
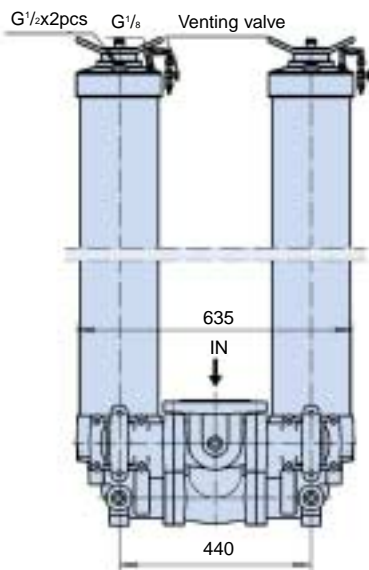
1300 Series

DUAL SYSTEM

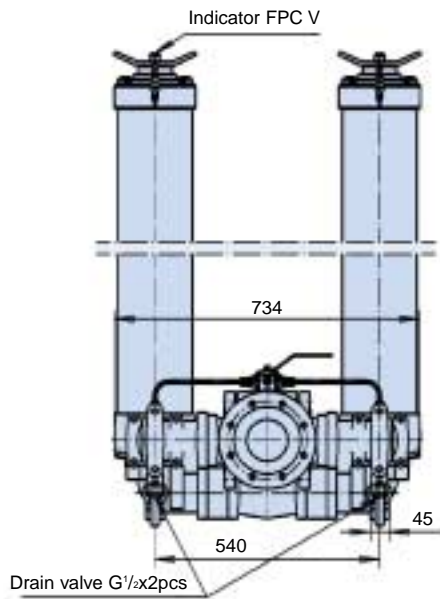


PARALLEL SYSTEM

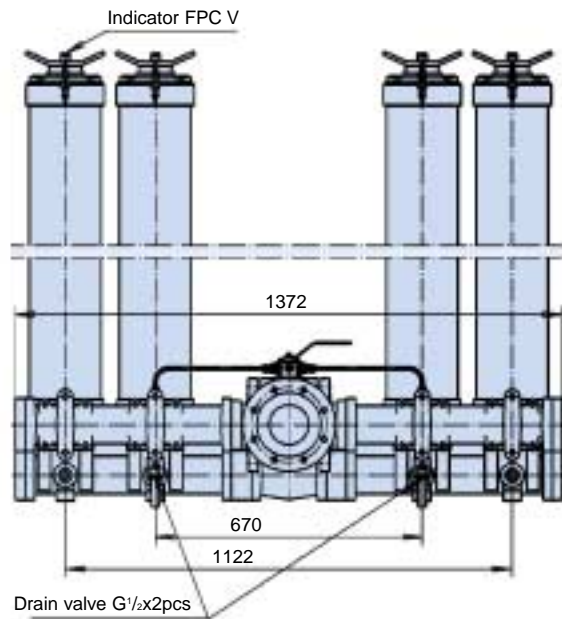
TYPE	A
1302	780
1303	1340



FS1300-2



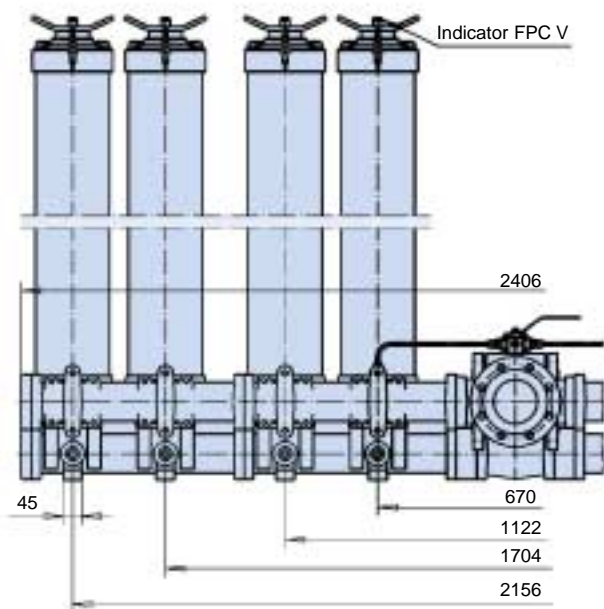
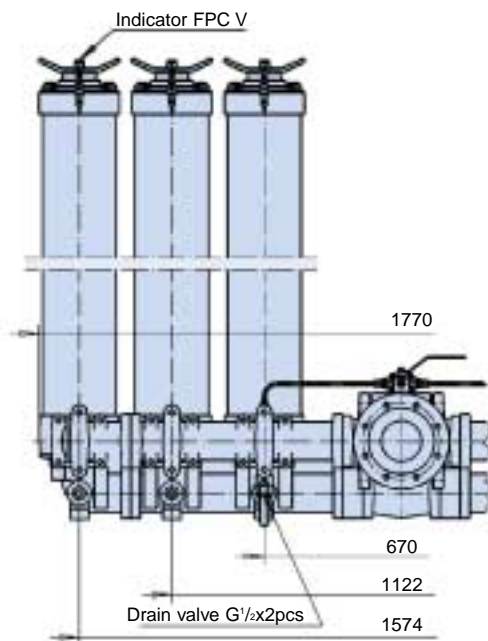
FS1300-4



FS1300-6

TYPE	A
1302	780
1303	1340

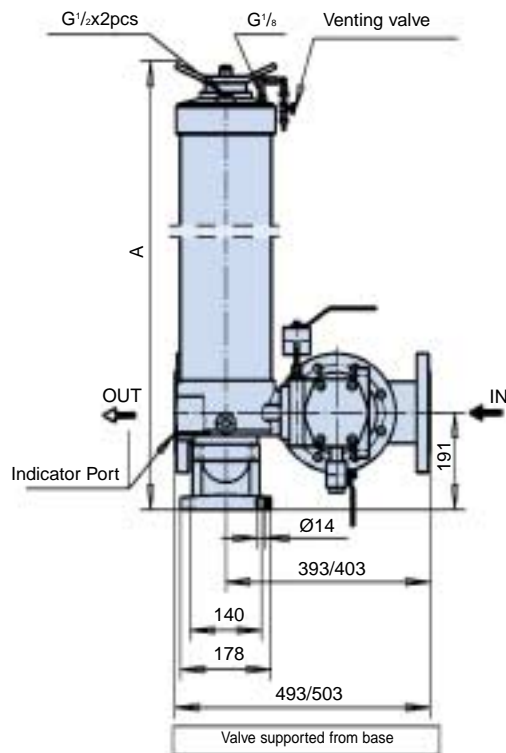
FS1300-8



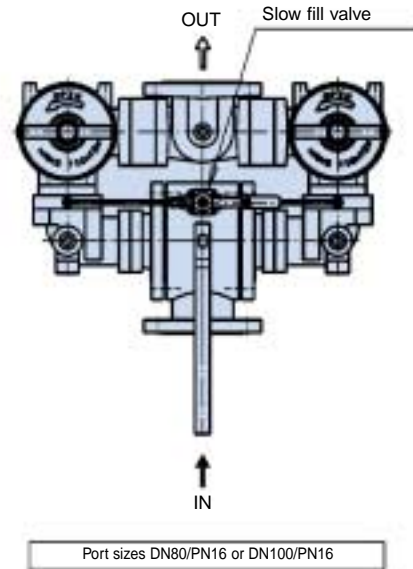
Medium Pressure Filters

1300 Series

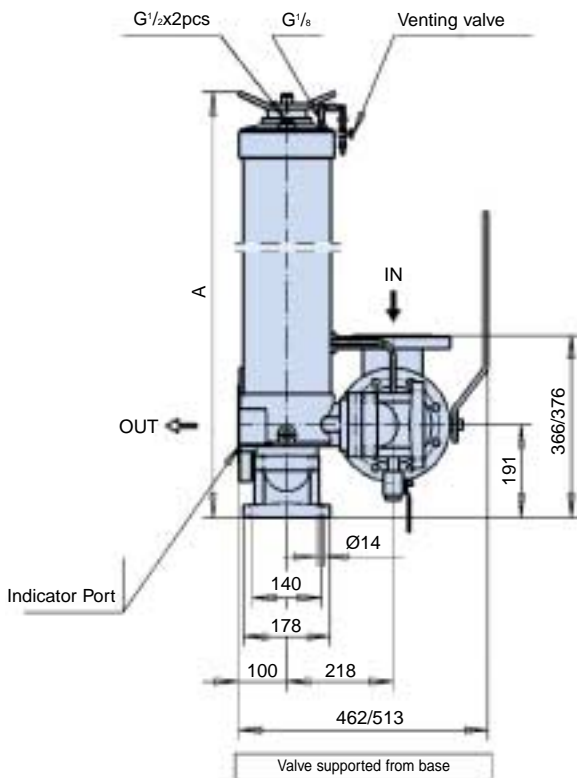
VALVE ASSEMBLY CONNECTION T-MODEL



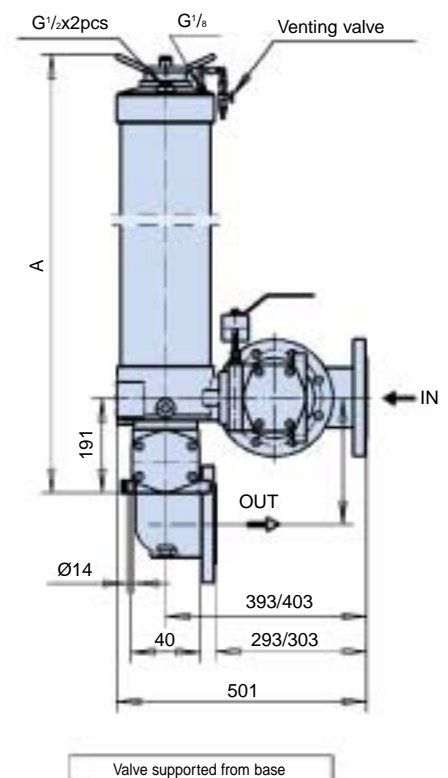
TYPE	A
1302	780
1303	1340



L-MODEL

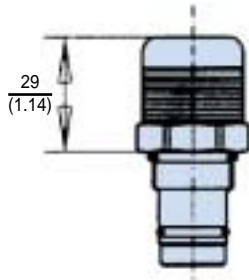


C-MODEL



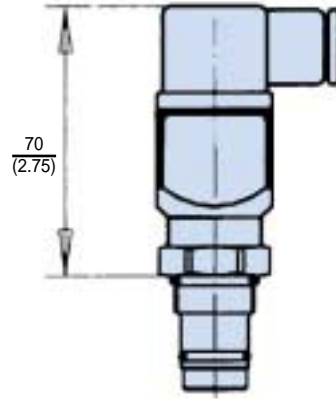
INDICATOR DETAILS

**Visual Differential Pressure Indicator
CODE FPC.V**



mm
(inches)

**Electrical & Electronic Differential
Pressure Indicator CODE FPC.T & FPC.F**



Option	Description	Connection/Voltage	Wiring	P/N
V25	Visual Indicator (2.5 bar)	N/A	N/A	FPC.V25.BM
F25	Electronic Indicator (2.5 bar)	+10 to 36 VDC		FPC.F25.VM
T25	Electrical Indicator (2.5 bar)	Max 250 VAC Max 250 VDC		FPC.T25.VM

Note: For full indicator specifications see Section 6.

Medium Pressure Filters

1300 Series

PRESSURE DROP CURVES

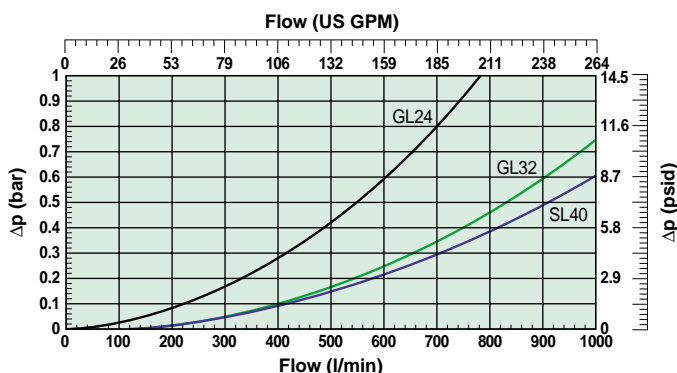
$\Delta p_{\text{total}} = \Delta p_{\text{housing}} + \Delta p_{\text{element}}$

The recommended initial pressure drop for medium pressure filters is max 0.5 bar.

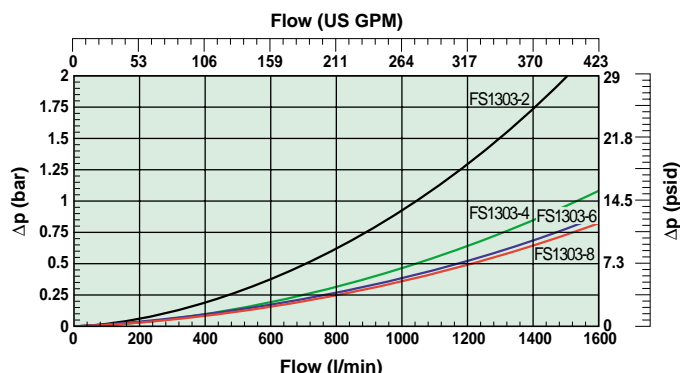
If the oil viscosity differs from 30 cSt, pressure drop over the filter can be estimated as follows :-

$$\Delta p = (\Delta p_{30} \times \text{used oil viscosity cSt}) / 30 \text{ cSt}$$

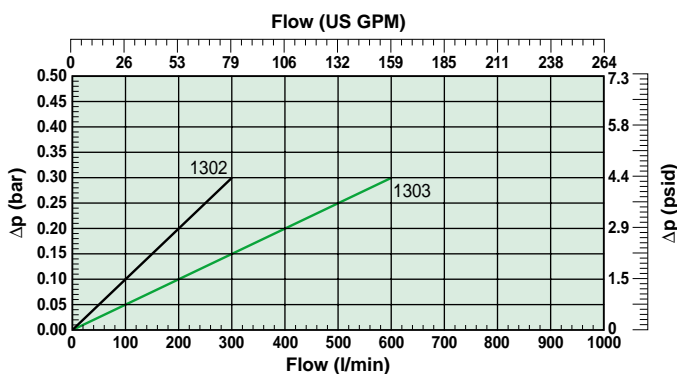
Single Housing 1300 Eco



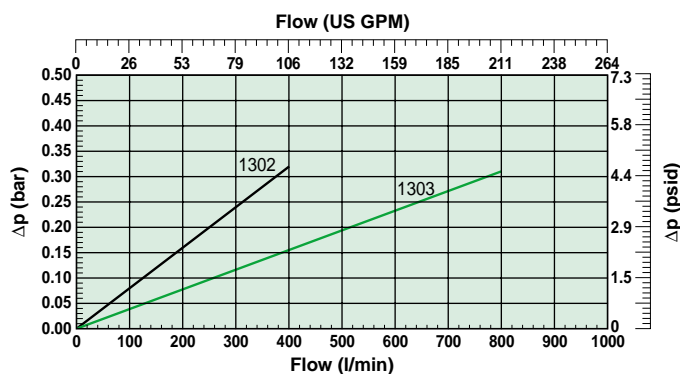
Housing FS1303 DT64



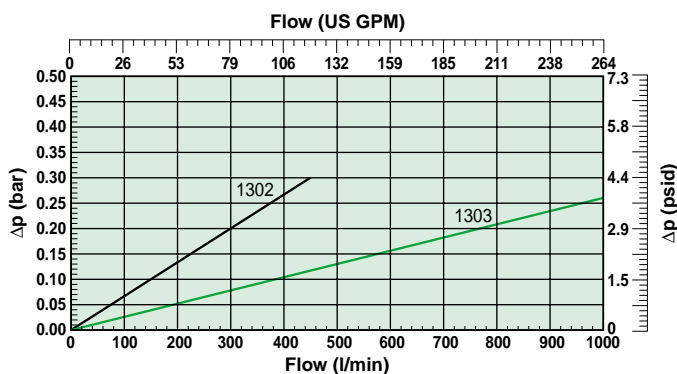
Filter Elements QE02



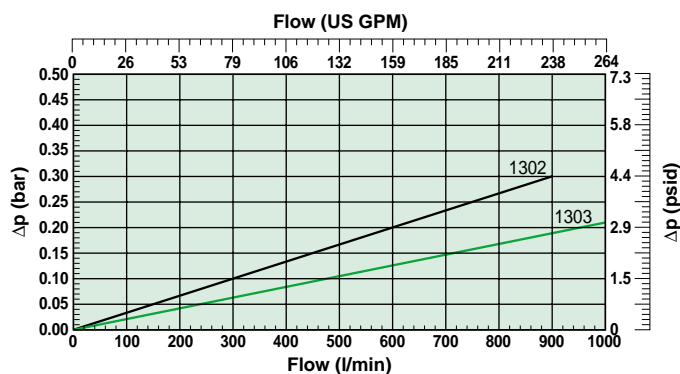
Filter Elements QE05



Filter Elements QE10



Filter Elements QE20



PREFERRED PRODUCTS TABLE

The following standard filters are supplied with 3.5 bar bypass and Nitrile seals and visual indicator.

FF1300 -Series	Flow (l/min)	Media Rating	Ports	Replacement Elements
FF1302.QE02.BA35.GL24	250	QE02	G 1½	FC1302.QE02.BK
FF1302.QE02.BA35.GL32	250	QE02	G 2	FC1302.QE02.BK
FF1302.QE02.BA35.SL40	250	QE02	SAE 2½	FC1302.QE02.BK
FF1302.QE05.BA35.GL24	400	QE05	G 1½	FC1302.QE05.BK
FF1302.QE05.BA35.GL32	400	QE05	G 2	FC1302.QE05.BK
FF1302.QE10.BA35.SL40	500	QE10	SAE 2½	FC1302.QE10.BK
FF1302.QE10.BA35.GL24	400	QE10	G 1½	FC1302.QE10.BK
FF1302.QE10.BA35.GL32	500	QE10	G 2	FC1302.QE10.BK
FF1302.QE20.BA35.SL40	700	QE20	SAE 2½	FC1302.QE20.BK
FF1302.QE20.BA35.GL32	700	QE20	G 2	FC1302.QE20.BK
FF1303.QE02.BA35.SL40	500	QE02	SAE 2½	FC1303.QE02.BK
FF1303.QE02.BA35.GL24	400	QE02	G 1½	FC1303.QE02.BK
FF1303.QE05.BA35.SL40	650	QE05	SAE 2½	FC1303.QE05.BK
FF1303.QE05.BA35.GL32	600	QE05	G 2	FC1303.QE05.BK
FF1303.QE10.BA35.SL40	800	QE10	SAE 2½	FC1303.QE10.BK
FF1303.QE10.BA35.GL32	700	QE10	G 2	FC1303.QE10.BK
FF1303.QE20.BA35.SL40	1000	QE20	SAE 2½	FC1303.QE20.BK

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

PART NUMBER MATRIX

Filter Assembly:	FF	Table 1	Table 2	Table 3	A35	Table 4	Table 6	
Filter System:	FS	Table 1	Table 2	Table 3	A35	Table 4	Table 5	Table 6
Filter Housing:	FG	Table 1	Table 4	Table 3	A35	Table 5	Table 6	
Filter Element:	FC	Table 1	Table 2	Table 3	K			
Seal Kit: (for one housing)	FD 1300-	Table 3						
Eco-Adaptor:	FEA	Table 1	Table 3					

Nominal flows for dimensioning the filter

Filter type	Filter connection	
	GL32	SL40
FF1302 QE02	250	
QE05	400	
QE10	500	
QE20	700	
FF1303 QE02		500
QE05		650
QE10		800
QE20		1000

Table 1

Filter Type	
Element Length	CODE
368mm	1302
925mm	1303

Table 2

Degree of Filtration							
Average filtration ratio β (ISO 16889) / particle size μm(c)	2	10	75	100	200	1000	CODE
N/A	N/A	N/A	N/A	N/A	N/A	4.5	QE02
N/A	N/A	4.5	5	6	7		QE05
N/A	6	8.5	9	10	12		QE10
6	11	17	18	20	22		QE20

Table 3

Seal Type (Filter)	
Seal Material	CODE
Nitrile	B
Fluoroelastomer	V

Table 5

Filter System Type	
Filter System Options	CODE
Dual system	D2
Parallel system	P2
FS 1300-2	S2
FS 1300-4	S4
FS 1300-6	S6
FS 1300-8	S8

Table 6

Δp Indicator		
Indicator Type Option	CODE	CODE
Electronic Indicator 2.5 bar (+10 to 36 VDC)	Nitrile	F25
Electrical Indicator 2.5 bar (max 250VAC)	Fluoroelastomer	T25

Table 4

Filter Connection	
Single housing connection	CODE
Single with flange SAE 2"	SL32
Single with flange SAE 2½"	SL40
Single with C-type outlet flange SAE 3"	SC48
Single with adaptor threads G1½"	GL24
Single with adaptor threads G2"	GL32
Filter system connection	
Dual (two units) flanges 3", 210 bar	SH48
Dual (two units) with adaptor threads G1½"	GH24
Dual (two units) with adaptor threads G2"	GH32
Parallel (two units) with flanges DN80/PN16	DL48
Parallel (two units) with flanges DN100/PN16	DL64
System with flanges DN80/PN16, T-connection	DT48
System with flanges DN80/PN16, L-connection	DL48
System with flanges DN80/PN16, C-connection	DC48
System with flanges DN100/PN16, T-connection	DT64
System with flanges DN100/PN16, L-connection	DL64
System with flanges DN100/PN16, C-connection	DC64