

H600/H1000 Series

High Pressure In-Line Filters

Max 1000 l/min - 414 bar



Global Filtration Technology

High Pressure In-Line Filters

H600/H1000 Series

TYPICAL APPLICATIONS

- Drilling Rigs
- Power Packs
- Oil/Gas Industry
- Flight Simulators
- Test Rigs

The Parker Filtration Model H600/H1000 High Pressure In-Line Filters.

The H600/H1000 Series is designed to meet the growing demand for high-pressure filters with a flow rate capacity of up to 1000 l/min at 414 bar working pressure. A wide range of elements is available to offer system-matched protection of the hydraulic system. For systems where reverse flow can be expected, an optional integrated reverse flow valve avoids back wash of contamination. The elements and filter media used include high-quality materials such as HPFE glass fibre and stainless steel mesh as well as high strength mesh cleanable elements and high strength fibre disposable elements. When changing the element, only the end cap of the bowl has to be removed. The filter is ideal for applications where space is at a premium.



TYPICAL APPLICATIONS



SPECIFICATION

Assembly:

In-Line filter, filter housing pressure pulse fatigue test:
3,000,000 cycles 0-276 bar

Operating Pressure:

Max. 414 bar

Connections:

Threads G1½, G2 (ISO228), SAE 24, SAE 32, Flanges (rating 6000psi) SAE 1½", SAE 2"

Seal Material:

Nitrile, Neoprene, Fluoroelastomer

Operating Temperature Range:

-40°C to 100°C

Degree of Filtration:

Determined by multipass test according to ISO 16889

Filtration Media:

HPFE glass fibre GDH multi layer glass fibre. (See Table A).

Flow Fatigue Characteristics:

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

Element Collapse Rating:

20 bar (ISO 2941), 210 bar for high strength element

Bypass Setting:

7.0 bar

Differential Pressure Indicator:

5.0 bar

Differential indicator visual

Differential indicator electrical

Options:

Reverse flow valve

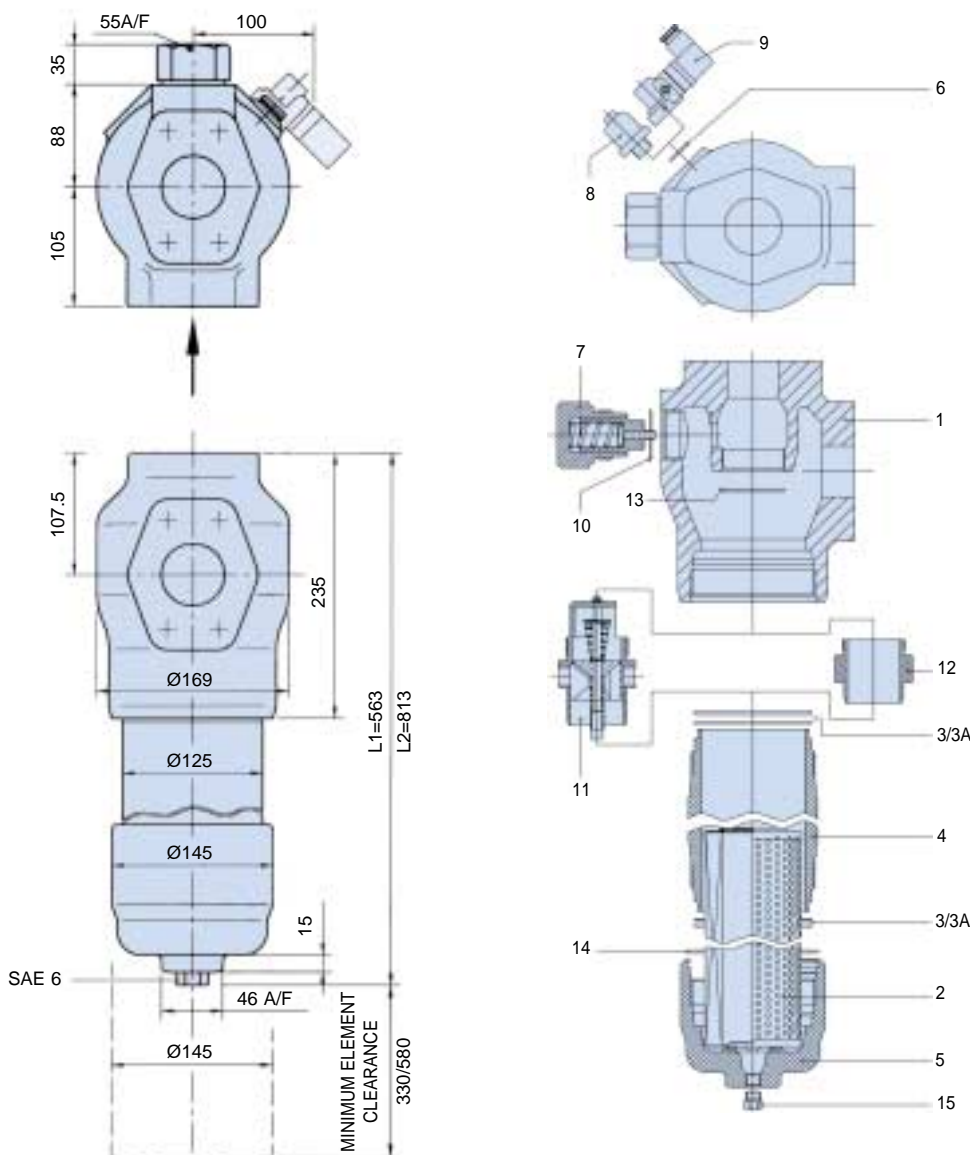
Filter Housing:

Head S.G. Iron casting, Bowl extruded steel

Filter Element:

Element with steel end caps

High strength element on request only

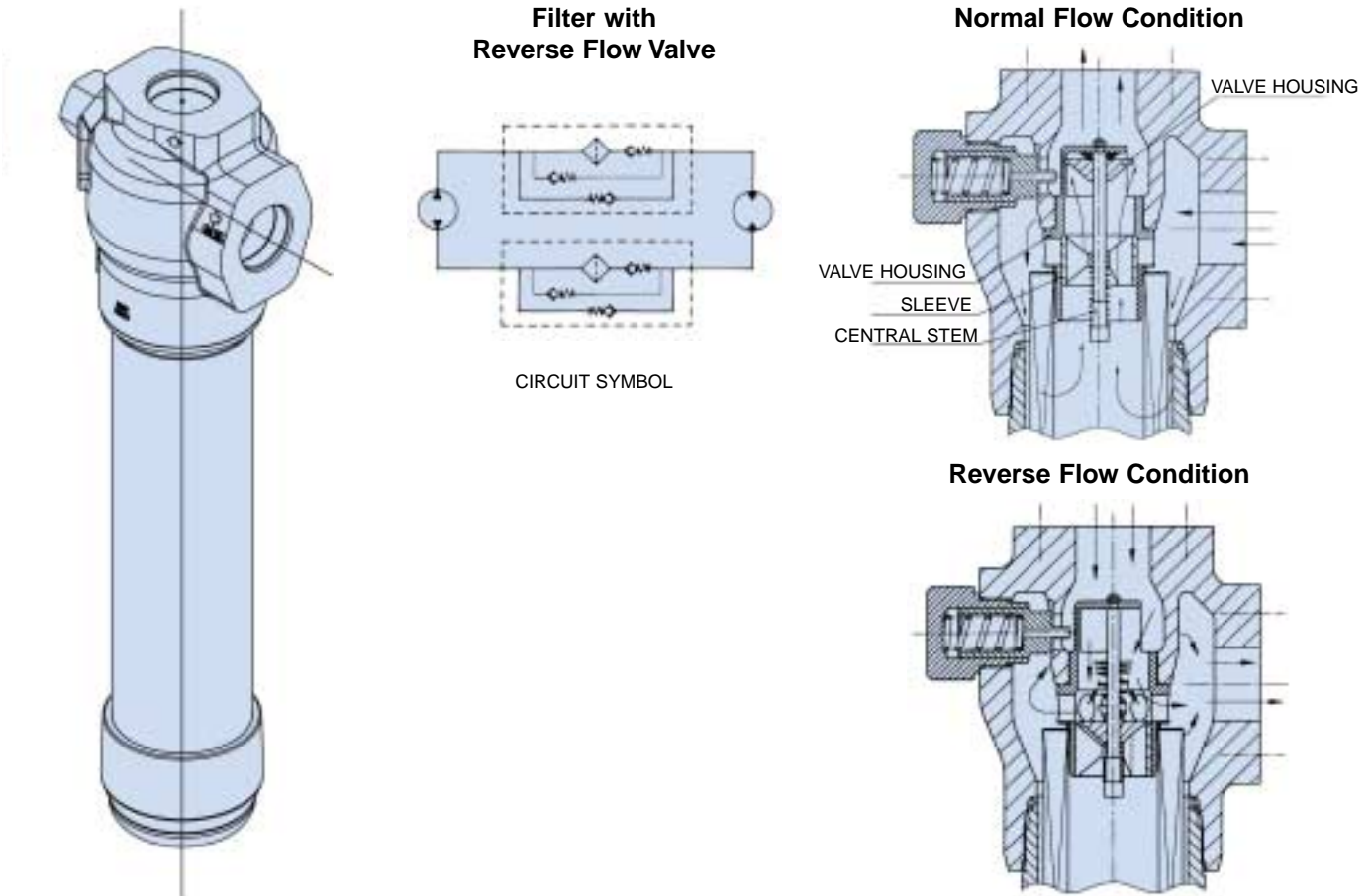


TYPE H MODEL 1000	
1	Filter head
2	Filter element
3	Bowl seal
3A	Bowl back-up ring
4	Housing
5	Cover
6	Indicator seal
7	Bypass set
8	Visual indicator
9	Electrical indicator
10	Bypass seal
11	Reverse flow set
12	Adaptor
13	Adaptor/reverse flow seal
14	Cover seal
15	Drain plug

High Pressure In-Line Filters

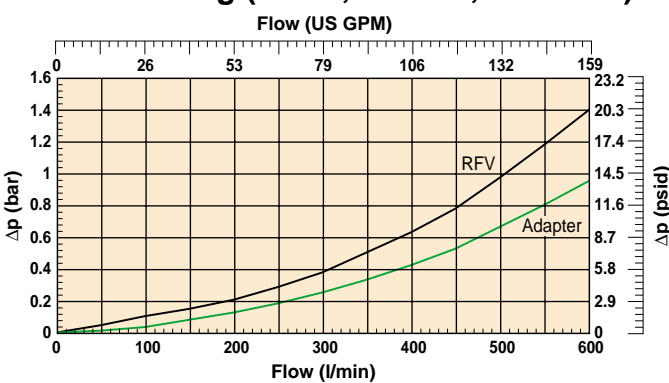
H600/H1000 Series

ADDITIONAL INFORMATION

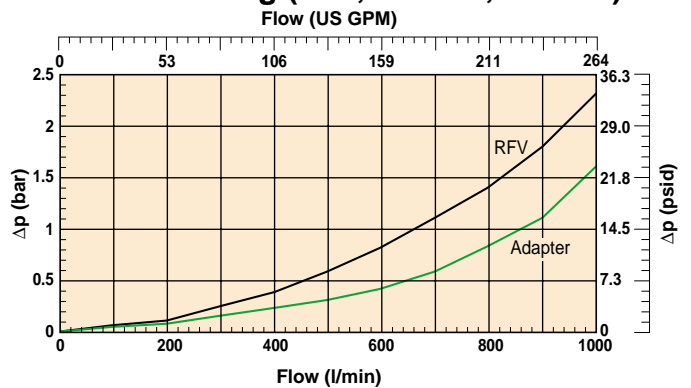


PRESSURE DROP CURVES

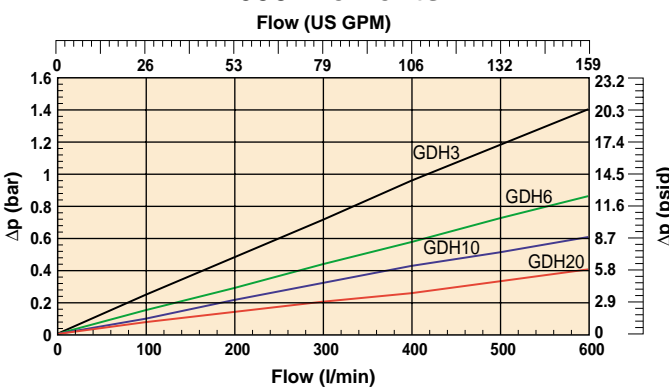
600 Housing (G1 1/2", SAE 24, SAE 1 1/2")



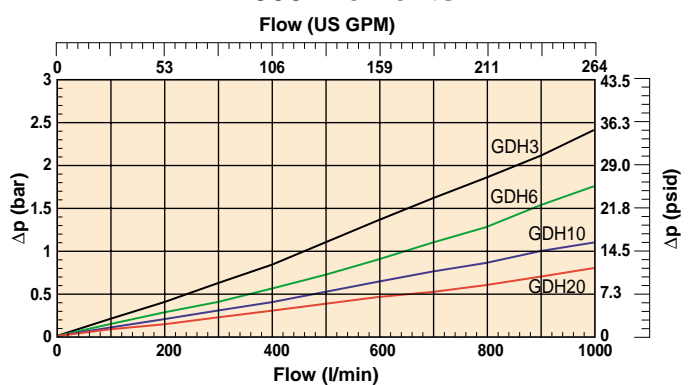
1000 Housing (G2", SAE 32, SAE 2")



600 Elements



1000 Elements



PREFERRED PRODUCTS TABLE

Ordering Code	Flow (l/min)	Media Rating	Ports	Indicator	Replacement Elements
1074A2HN70-FZ1210	600	GDH 06	1½" SAE Flange	Visual	1070Z121A
1074A2HN70-FZ1220	600	GDH 10	1½" SAE Flange	Visual	1070Z122A
1074A2HN70-FZ1230	600	GDH 20	1½" SAE Flange	Visual	1070Z123A
1074A2HN70-TZ2210	1000	GDH 06	2" SAE Flange	Visual	1070Z221A
1074A2HN70-TZ2220	1000	GDH 10	2" SAE Flange	Visual	1070Z222A
1074A2HN70-TZ2230	1000	GDH 20	2" SAE Flange	Visual	1070Z223A

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.

ORDERING EXAMPLE

Element

1 10	2 7	Std 0	8 Z	9 1	10 23	4 A
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Filter Assembly

1 10	2 7	3 4	4 A	5 2H	5A N	6 70	-	7 B	8 Z	9 1	10 23	11 0
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Table 1

Filter Type	
Housing	CODE
Model 1000	10

Table 2

Element Type	
Element Type	CODE
High strength fibre (210 bar)	5
HPFE glass fibre GDH	7

Table 3

Flow Direction	
Variety	CODE
Standard flow	4
Reverse flow valve (RFV)	2

Table 4

Seal Type	
Seal Material	CODE
Nitrile (Buna) (NBR)	A
Neoprene (CR)	B
Fluoroelastomer (FPM)	H

Table 5

Bypass	
Bypass type	
No bypass port	0H
Bypass valve	1H
Bypass valve	2H
No bypass valve	4H
Bypass valve	3H
No bypass valve	5H

Table 5A

Indicators			
	Indicator code		Setting
	N	No indicator	-
	N	Standard visual indicator	5.0 bar
	T	Electrical Din 43650 28V±/ 250 V ~ No lamps	5.0 bar
	H	Elec./Visual indicator 250 V ~ Green lamps N.C.	
	K	Elec./Visual indicator 250 V ~ Red lamps N.O.	
	C	Elec./Visual indicator 110 V ~ Green lamps N.C.	
	M	Elec./Visual indicator 110 V ~ Red lamps N.O.	
	E	Elec./Visual indicator 28 V = Green lamps N.C.	
	R	Elec./Visual indicator 28 V = Red lamps N.O.	

Table 6

Bypass Valve	
Bypass differential pressure setting	CODE
No bypass	00
Bypass setting 7.0 bar	70

Table 7

Filter Connection	
Ports	CODE
ISO 228- G1½ (BSP)	B
ISO 228- G2 (BSP)	E
SAE 24	S
SAE 32	H
1½" SAE Flange 414 bar	F
2" SAE Flange 414 bar	T

Table 10

Degree of Filtration					
	β _s ≥ 75	Filtration fineness			
		3µm	6µm	10µm	15µm
High strength fibre	FF			10	
GDH glass fibre		20	21	22	23

Table 8

Element Information	
Element types	CODE
All fluids exc. phosphate esters, water glycols and ammonia containing oils.	All ratings Z

Table 9

Element Length	
Element length	CODE
600 l/min	1
1000 l/min	2

Table 11

Options	
Options	CODE
Standard	0

Table A

Degree of Filtration						
Average filtration Beta Ratio (ISO 16889) / particle size µm(c)						CODE
2	10	75	100	200	1000	
N/A	3.0	4.1	4.4	4.9	6.7	GDL3/GDH3
N/A	4.0	6.7	7.0	7.9	10.0	GDL6/GDH6
3.1	6.2	9.9	10.4	11.6	14.6	GDL10/GDH10
6.7	12.6	17.8	18.5	20.0	22.6	GDL20/GDH20

18/28/38P Series

High Pressure Filters

Max 520 l/min - 414 bar



Global Filtration Technology

High Pressure Filters

18/28/38P Series

TYPICAL APPLICATIONS

- Injection Moulding
- Machine Tools
- Die Casting
- Mobile Equipment
- Servo Controls

Parker Filtration engineered the 18/28/38P series of high pressure filters to satisfy demanding applications in the mobile and industrial markets throughout the world. With metric mounting and optional ISO 6149 ports, this new series is truly a global design.

Installed downstream of the pump, this new series with their wide range of high capacity Microglass III elements, offer excellent protection to system components.

Standard filters come complete with industry proven spool type bypass valve. For more critical applications such as servo or proportional controls, a no bypass high strength element combination ensures maximum protection.

The modular low hysteresis differential pressure indicator fitted to this series is unrivaled in its performance. Tests prove its accuracy and foolproof design to be a major advance in indicator technology.



TYPICAL APPLICATIONS



SPECIFICATION

Maximum Allowable Operating Pressure:

414 bar (6000 psi). Factor safety 3:1

Operating Temperature Range:

-40° to 120°C (-30°F to +250°F)

Materials of Construction:

SG iron head, steel bowl

Ports:

Inlet and outlet ports are threaded internally or flange faced

Port Style

Model	18P	28P	38P
BSPF(G)	3/4"	1"	1 1/4", 1 1/2"
SAE	12	16	20, 24
ISO 6149	M27	M33	M42, M48
SAE 6000-config	3/4"	1"	1 1/4"
Metric 6000-M config*	3/4"	1"	1 1/4"

*6000-M is SAE style with appropriate metric fixing threads

Bypass Valve & Indicator Settings:

Table below gives bypass valve and corresponding indicator setting

Bypass	Indicator
3.5 bar	2.5 bar
7.0 bar	5.0 bar

Weights (kg):

Model	Length 1	Length 2
18P	4.2	5.7
28P	6.7	9.2
38P	15.8	20.3

Fluid Compatibility:

Suitable for use with mineral oils, most water glycols and other water based fluids. For other fluids, please consult Filter Division Europe

Seals:

Head to bowl, diametral with anti-extrusion ring.

Materials - Nitrile or Fluoroelastomer*

Element Condition Indicators: (Differential Pressure Type)

Cartridge type visual, with auto reset. Cartridge type electrical, with auto reset and socket to DIN43650, protection class IP65

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

Filter Elements:

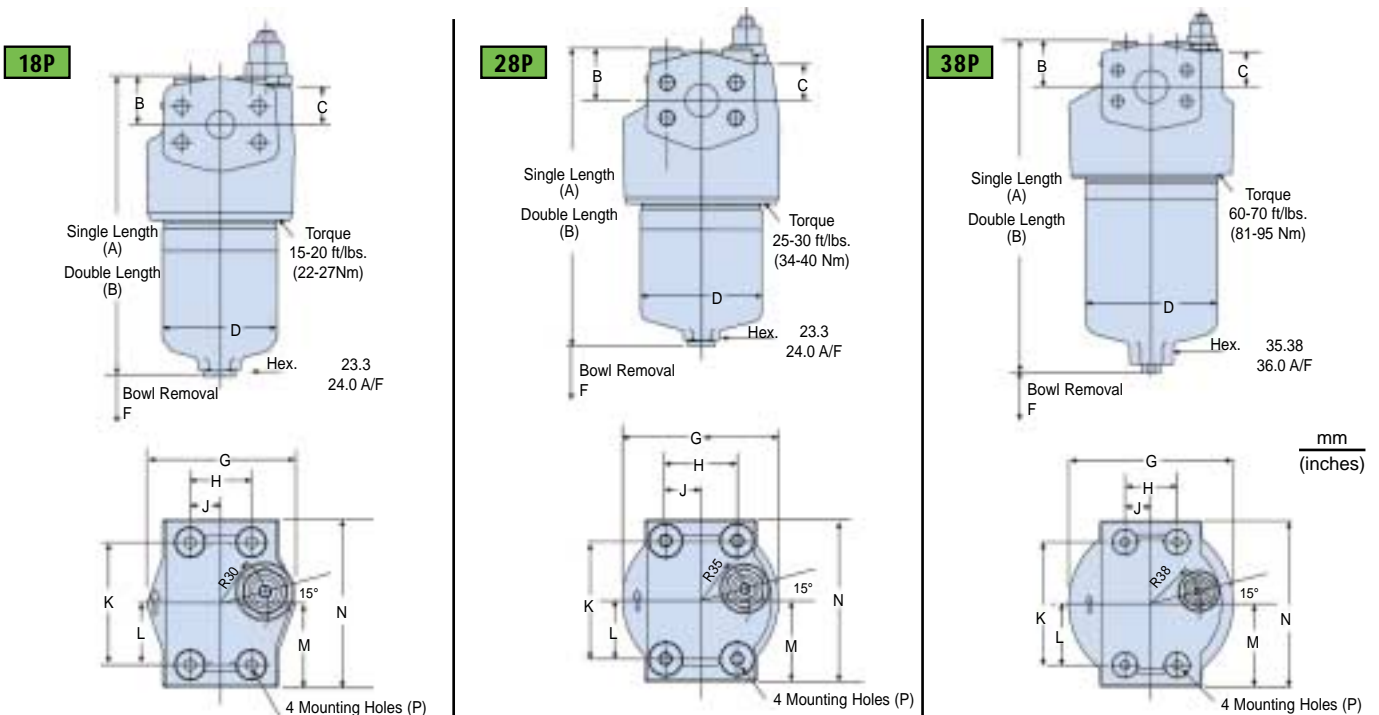
Microglass III supported with epoxy coated steel mesh. (See Table 4).

Element Collapse Rating:

Standard; 20 bar differential minimum. High collapse; 210 bar differential minimum

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

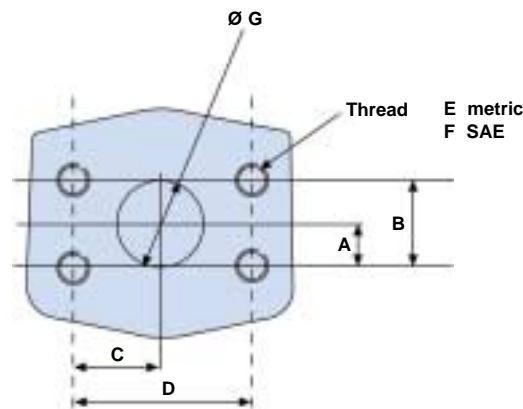
Model	A	B	C	D	E (A/F)	F	G	H	J	K	L	M	N	P
18P-1	198 (7.79)	32 (1.26)	26 (1.02)	75 (2.95)	24 (0.94)	100 (3.94)	98 (3.86)	40 (1.57)	20 (0.79)	80 (3.15)	40 (1.57)	55 (2.16)	110 (4.33)	M8 x 1.25 x12 (0.47) deep
18P-2	293 (11.53)													
28P-1	228 (8.97)	40 (1.57)	29 (1.14)	93 (3.66)	40 (1.14)		120 (4.72)	55 (2.16)	27.5 (1.07)	90 (3.54)	45 (1.77)	62 (2.44)	124 (4.88)	M10 x 1.5 x11 (0.43) deep
28P-2	337 (13.26)													
38P-1	329 (12.95)	44 (1.73)	35 (1.38)	128 (5.04)	36 (1.42)		160 (6.30)	50 (1.97)	25 (0.98)	120 (4.72)	60 (2.36)	81 (3.19)	162 (6.38)	M10 x 1.5 x12 (0.47) deep
38P-2	448 (17.64)													



High Pressure Filters

18/28/38P Series

FLANGE FACE DETAILS

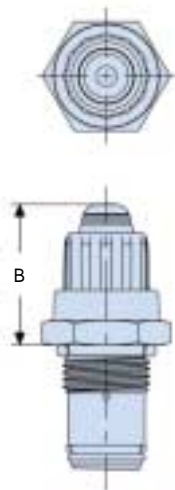


Model mm (inches)	A	B	C	D	E	F	G
18P	11.9 (0.47)	23.8 (0.94)	25.4 (1.00)	50.8 (2.0)	M10 x 1.5-6H x 18 Deep	³ / ₈ -16 UNC-2B x 18 Deep	19.0 (0.75)
28P	14 (0.55)	27.8 (1.09)	28.0 (1.10)	57.1 (2.25)	M12 x 1.75-6H x 20 Deep	⁷ / ₁₆ -14 UNC-2B x 20 Deep	25.4 (1.0)
38P	15.7 (0.62)	31.7 (1.25)	33.0 (1.30)	66.7 (2.62)	M14 x 2-6H x 20 Deep	¹ / ₂ -13 UNC-2B x 20 Deep	31.8 (1.25)

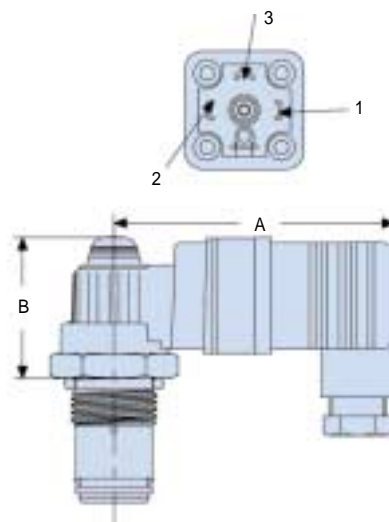
INDICATOR DETAILS

Element Condition Indicators:

**VISUAL AUTO RESET
CODE M2**



**48 VAC ELECTRICAL VISUAL INDICATOR
CODE E2**



Option	Description	Connection/Voltage	Wiring	"A"	"B"
M2	Visual Auto Reset	N/A	N/A	N/A	1.44 (36.6)
E2	Electrical – Visual	Din 43650 3 Pole + Earth 5A@48 VAC, 3A@28VDC	Pin 1 – Common Pin 2 – Normally Closed Pin 3 – Normally Open	2.90 (73.7)	1.44 (36.6)

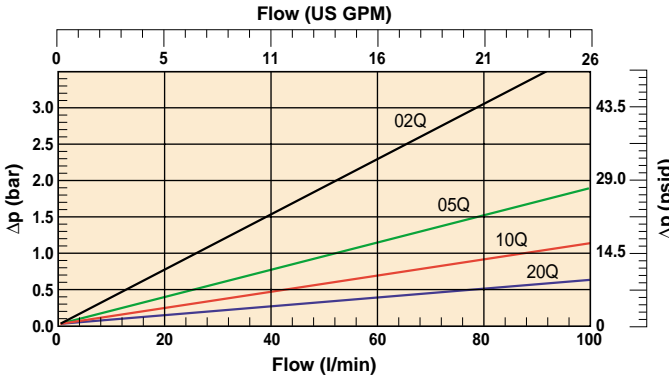
Note: For full indicator specifications see Section 6.

PRESSURE DROP CURVES

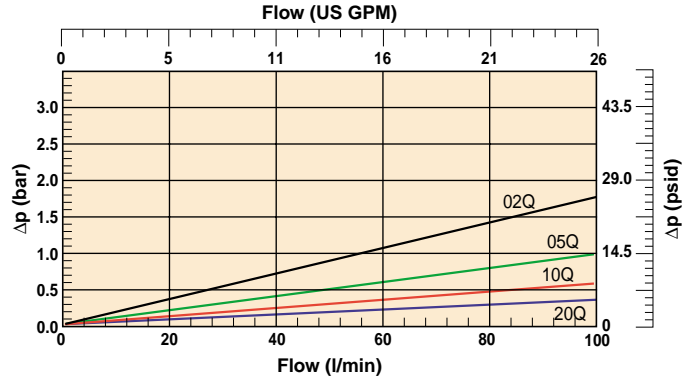
If the medium used has a viscosity different from 30 cSt, pressure drop over the filter can be estimated as follows :-

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

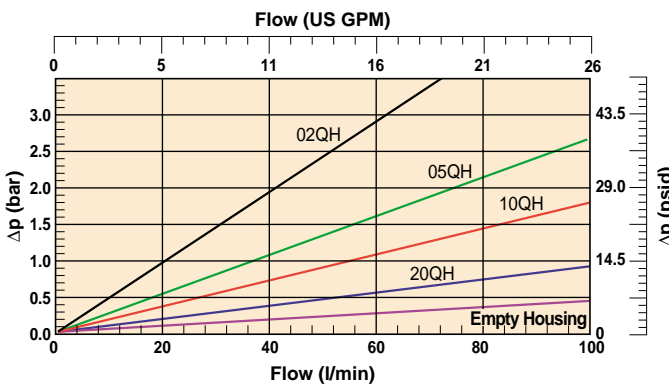
18P-1 Element Only



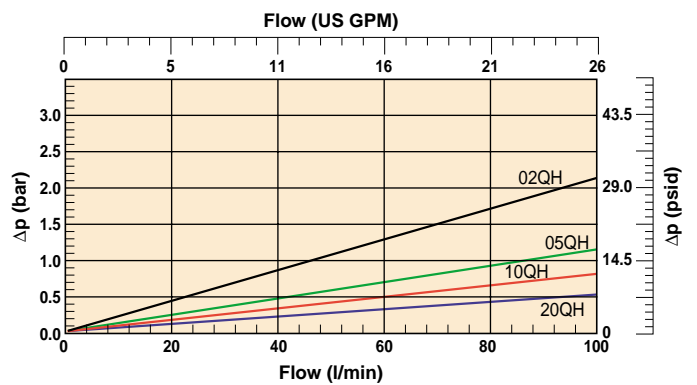
18P-2 Element Only



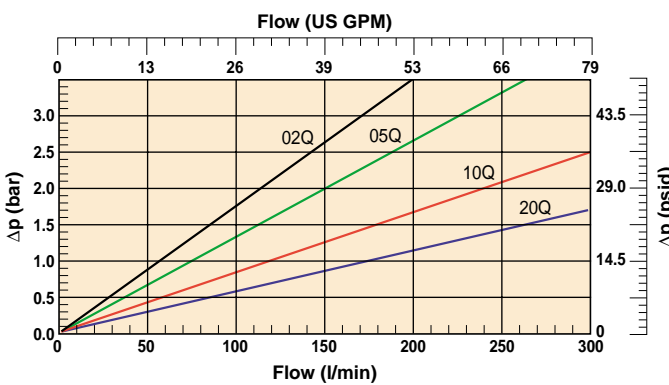
18P-1 Empty Housing and High Collapse



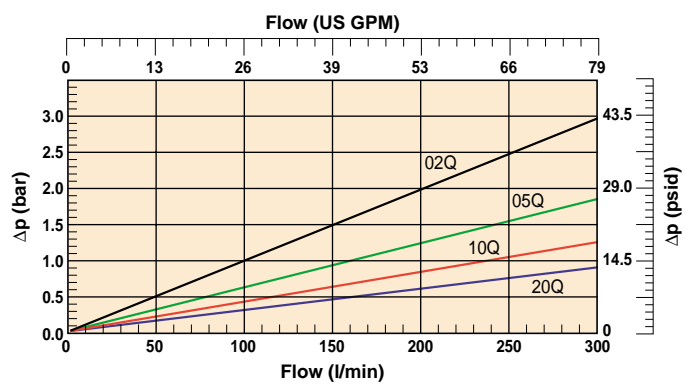
18P-2 High Collapse Elements Only



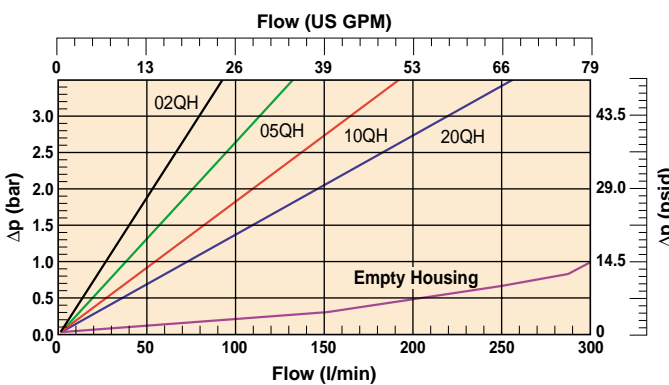
28P-1 Element Only



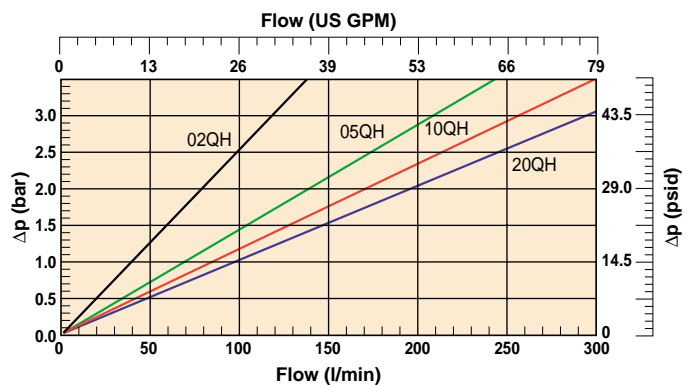
28P-2 Element Only



28P-1 Empty Housing and High Collapse



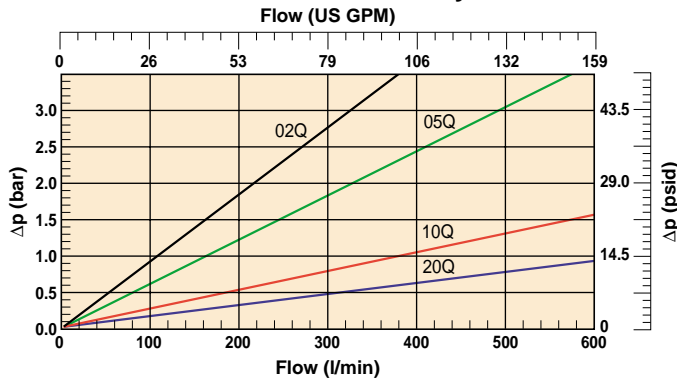
28P-2 High Collapse Elements Only



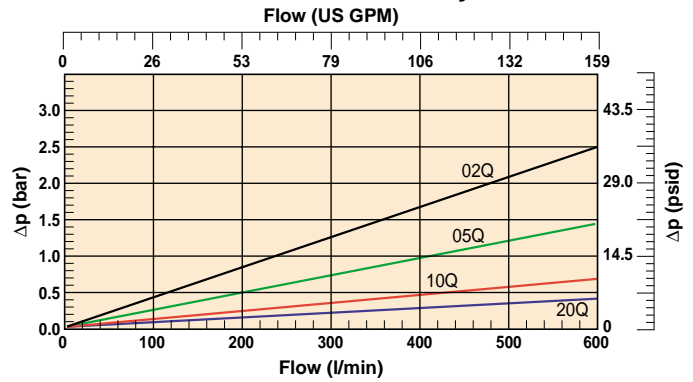
High Pressure Filters

18/28/38P Series

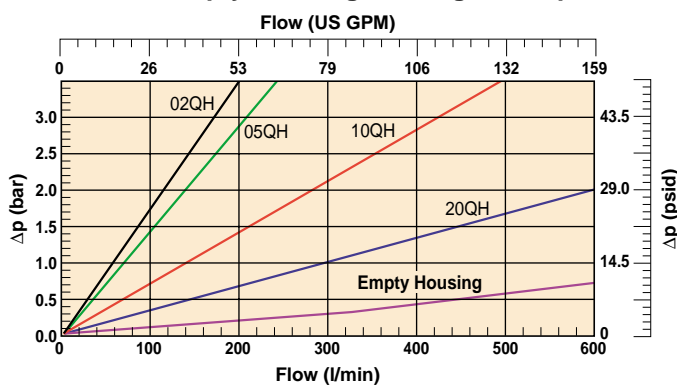
38P-1 Element Only



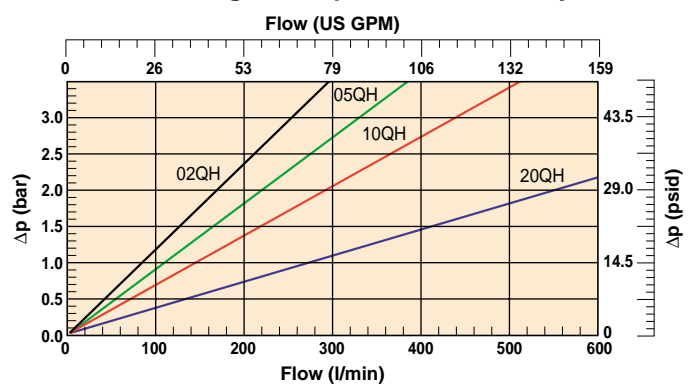
38P-2 Element Only



38P-1 Empty Housing and High Collapse



38P-2 High Collapse Elements Only



CAPACITY IN GRAMS

Media Code	38P-1 (98 psid)	38P-2 (98 psid)	28P-1 (98 psid)	28P-2 (98 psid)	18P-1 (98 psid)	18P-2 (98 psid)
02Q	74	111	28	48	7.4	22.7
05Q	78	105	28	50	9.4	23.5
10Q	67	101	24	48	8.0	17.2
20Q	60	100	24	48	8.6	17.7
02QH	57	87	24	38	6.3	17.8
05QH	61	88	27	38	8.8	19.6
10QH	56	80	23	38	7.2	16.1
20QH	54	78	22	37	7.2	12.6

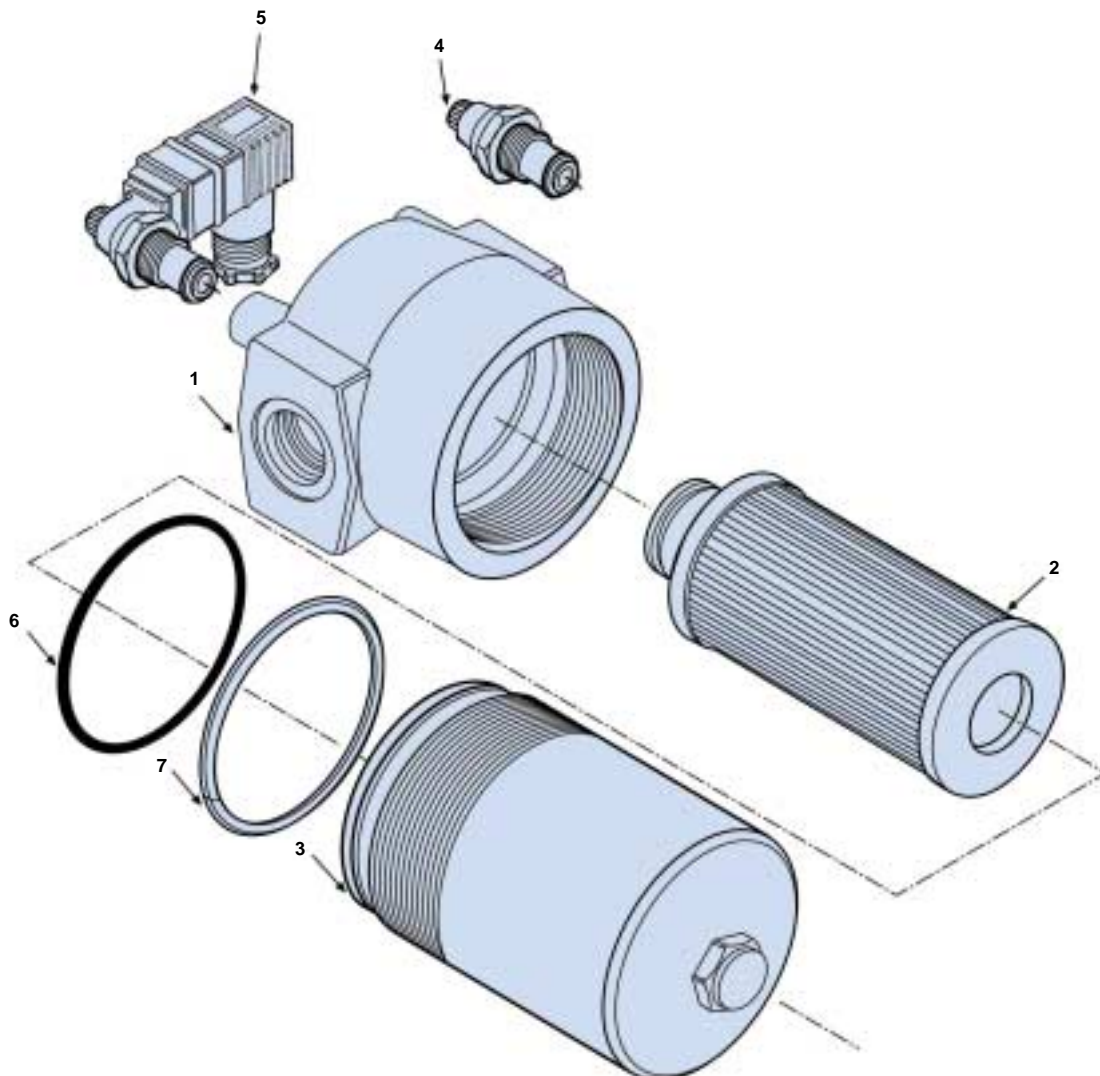
Element Service

- 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. Rotate the bowl clockwise (left) and remove.
- 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 locate element in filter head.
- H. Install bowl by rotating counter-clockwise (right) and tighten to specified torque.
 - 18P — 15-20ft. lbs (22-27 Nm)
 - 28P — 25-30ft. lbs (34-40 Nm)
 - 38P — 60-70ft. lbs (81-95 Nm)
- I. Confirm there are no leaks after powering the system.

Parts List

Index	Description
1	Head Assembly
2	Element
3	Bowl
	Single length
	Double length
	Indicators
4	M2 – Visual autoreset
5	E2 – Electrical/Visual w/DIN connection
6	Bowl Seal
7	Bowl Anti-extrusion Ring
	*Seal Kit – (Nitrile)
	*Seal Kit – (Fluoroelastomer)

*Includes bowl o-ring, bowl anti-extrusion washer and indicator o-rings



High Pressure Filters

18/28/38P Series

PREFERRED PRODUCTS TABLE

The following filters are supplied with 7.0 bar bypass and Nitrile seals.					
Part Number	Part Number	Flow (l/min)	Media Rating	Ports	Replacement Elements
18P-1-02Q-M2-98-B2B2-1	18P-1-02Q-E2-98-B2B2-1	35	02Q	G ^{3/4}	G04242
18P-1-05Q-M2-98-B2B2-1	18P-1-05Q-E2-98-B2B2-1	60	05Q	G ^{3/4}	G04243
18P-1-10Q-M2-98-B2B2-1	18P-1-10Q-E2-98-B2B2-1	90	10Q	G ^{3/4}	G04244
18P-1-20Q-M2-98-B2B2-1	18P-1-20Q-E2-98-B2B2-1	100	20Q	G ^{3/4}	G04245
18P-2-02Q-M2-98-B2B2-1	18P-2-02Q-E2-98-B2B2-1	60	02Q	G ^{3/4}	G04250
18P-2-05Q-M2-98-B2B2-1	18P-2-05Q-E2-98-B2B2-1	90	05Q	G ^{3/4}	G04251
18P-2-10Q-M2-98-B2B2-1	18P-2-10Q-E2-98-B2B2-1	110	10Q	G ^{3/4}	G04252
18P-2-20Q-M2-98-B2B2-1	18P-2-20Q-E2-98-B2B2-1	130	20Q	G ^{3/4}	G04253
28P-1-02Q-M2-98-C2C2-1	28P-1-02Q-E2-98-C2C2-1	80	02Q	G1	G04258
28P-1-05Q-M2-98-C2C2-1	28P-1-05Q-E2-98-C2C2-1	100	05Q	G1	G04259
28P-1-10Q-M2-98-C2C2-1	28P-1-10Q-E2-98-C2C2-1	150	10Q	G1	G04260
28P-1-20Q-M2-98-C2C2-1	28P-1-20Q-E2-98-C2C2-1	200	20Q	G1	G04261
28P-2-02Q-M2-98-C2C2-1	28P-2-02Q-E2-98-C2C2-1	120	02Q	G1	G04266
28P-2-05Q-M2-98-C2C2-1	28P-2-05Q-E2-98-C2C2-1	160	05Q	G1	G04267
28P-2-10Q-M2-98-C2C2-1	28P-2-10Q-E2-98-C2C2-1	200	10Q	G1	G04268
28P-2-20Q-M2-98-C2C2-1	28P-2-20Q-E2-98-C2C2-1	240	20Q	G1	G04269
38P-1-02Q-M2-98-D2D2-1	38P-1-02Q-E2-98-D2D2-1	130	02Q	G1 ^{1/4}	G04274
38P-1-05Q-M2-98-D2D2-1	38P-1-05Q-E2-98-D2D2-1	250	05Q	G1 ^{1/4}	G04275
38P-1-10Q-M2-98-D2D2-1	38P-1-10Q-E2-98-D2D2-1	360	10Q	G1 ^{1/4}	G04276
38P-1-20Q-M2-98-D2D2-1	38P-1-20Q-E2-98-D2D2-1	450	20Q	G1 ^{1/4}	G04277
38P-2-10Q-M2-98-D2D2-1	38P-2-10Q-E2-98-D2D2-1	500	10Q	G1 ^{1/4}	G04284

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	Table 2	Table 3	Table 4	Table 5	Table 6	Table 7	Table 8	Table 9																																																																																																																																																																																												
F3	28P	1	10Q	M2	98	C2C2	1	-																																																																																																																																																																																												
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7000 Series

High Pressure Filters

Max 450 l/min - 420 bar

FEATURING
EC GLASS III



Global Filtration Technology

High Pressure Filters

7000 Series

TYPICAL APPLICATIONS

- Forestry Equipment
- Industrial Power Units
- Pulp and Paper
- Port Handling Equipment
- Mining and Quarrying Equipment

The Parker Filtration 7000 Series High Pressure Filter Range.

High quality 420 bar in-line pressure filters designed to offer high levels of protection at flows up to 450 l/min
Dirt sensitive systems can be protected with confidence using the 7000 Series high pressure filters.



TYPICAL APPLICATIONS



With the courtesy of:
Kalmar Industries Inc.



With the courtesy of:
Ponsse Oyj

SPECIFICATION

Assembly:

In-line filter

Operating Pressure:

Max 420 bar, type 7008: 350 bar, filter housing pressure pulse fatigue tested: 10⁶ pulses 0-414 bar

Connections:

Threads G1, G1¹/₄, G1¹/₂ (ISO 228/1) or flanges 1¹/₂" SAE 3000 psi, 1¹/₂" SAE 6000 psi, 1¹/₄" SAE 6000 psi

Seal Material:

Nitrile (ordering B code) or Fluoroelastomer (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 (ISO 3724)

Bypass Valve:

Opening pressure 3.5 bar or optionally no bypass valve

Indicator Options:

Indicating differential pressure:

2.5 ± 0.2 bar or 7.0 ± 0.5 bar; 2.5 bar indicators to be used with 3.5 bar bypass valve and 7.0 bar indicators with no bypass option

- electronic indicator FPC.F (10 to 36 VDC)
- electrical indicator FPC.T (max 250 VAC)
- visual indicator (FPC.V)

Indicator Housing:

Standard material brass. Max torque 15Nm (11.25 Ft lbs)

Filter Housing:

Head material, cast iron (GSI). Bowl material steel. Max torque 40 Nm (30 Ft lbs)

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 elements contributes to ISO 14001 quality standards

7000 High Collapse Element (A0XX)

(to be used when no bypass function in filter housing)

Microglass III media supported with epoxy coated steel wire on upstream and stainless steel wire on downstream side. End cap material

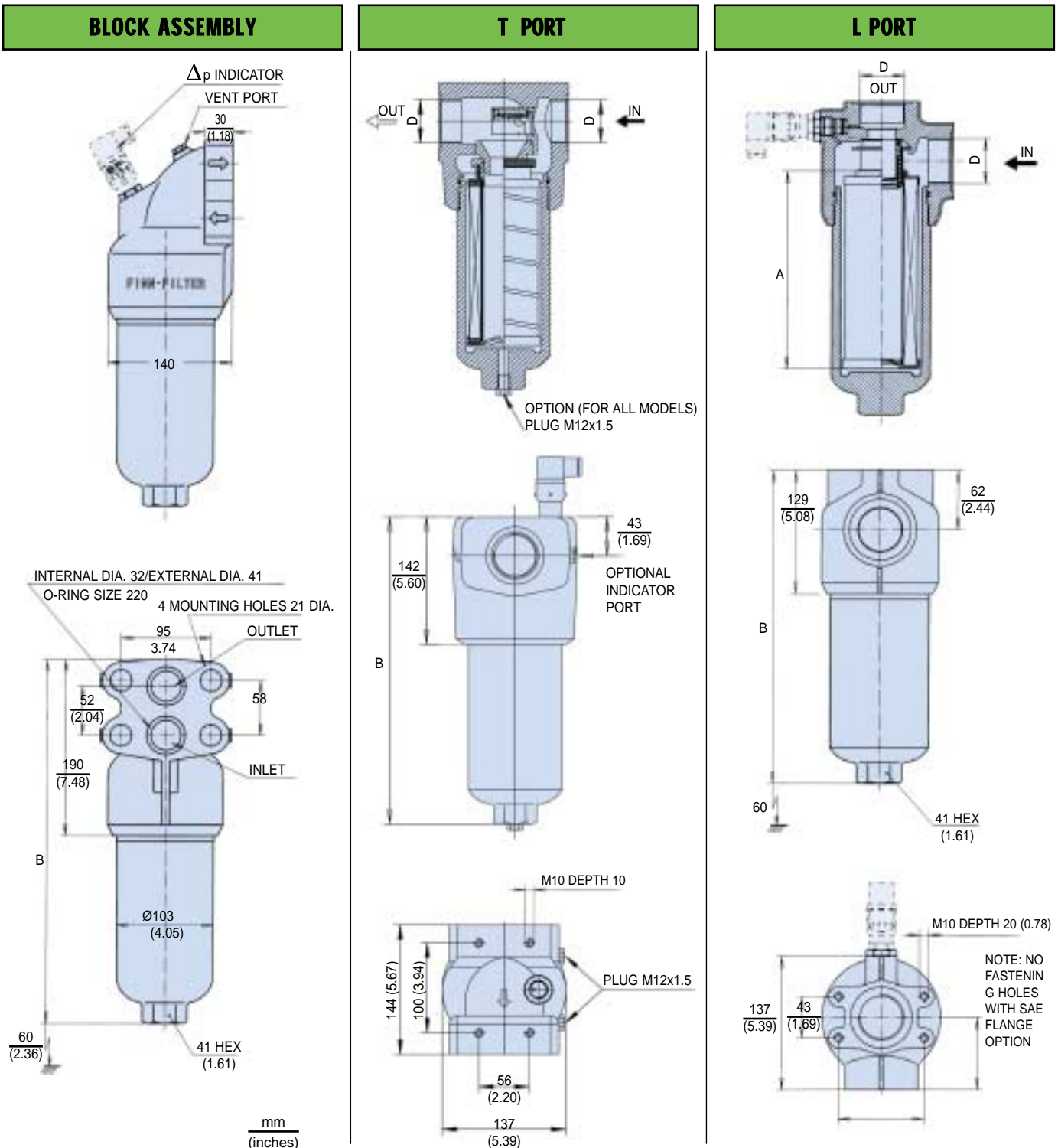


With the courtesy of:
Sandvik Tamrock

High Pressure Filters

7000 Series

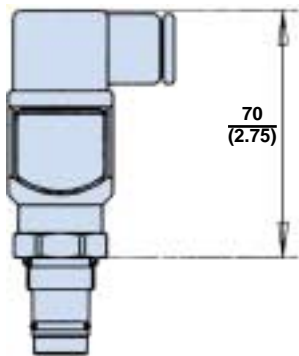
SPECIFICATION



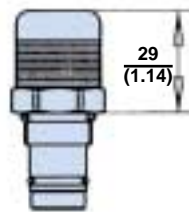
TYPE	A	B T PORT	B (block assembly)	B L PORT	MAX WORKING PRESSURE	PORT D
7005	116 (4.57)	249 (9.80)	295 (11.61)	235 (9.25)	420 bar (6000 psi)	G1, G1 ¹ / ₄ or G1 ¹ / ₂ Flange: SAE 1 ¹ / ₂ 3000 psi Flange: SAE 1 ¹ / ₂ 6000 psi Flange: SAE 1 ¹ / ₄ 6000 psi
7006	208 (8.19)	342 (13.46)	390 (15.35)	330 (13.00)		
7007	329 (12.95)	462 (18.19)	510 (20.08)	450 (17.72)		
7008	428 (16.85)	562 (22.12)	610 (24.01)	550 (21.65)	350 bar (5000 psi)	

INDICATOR DETAILS

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



Visual Differential Pressure Indicator
CODE FPC.V



Option	Description	Connection/Voltage	Wiring	P/N
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
V25	Visual Indicator (2.5 bar)	N/A	N/A	FPC.V25.BM
F70	Electronic Indicator (7.0 bar)	+10 to 36 VDC		FPC.F70.BM
T70	Electrical Indicator (7.0 bar)	Max 250 VAC Max 250 VDC		FPC.T70.VM
V70	Visual Indicator (7.0 bar)	N/A	N/A	FPC.V70.BM

Note: For full indicator specifications see Section 6.

High Pressure Filters

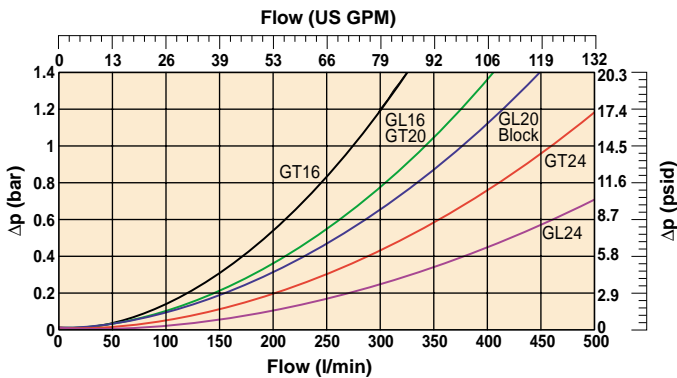
7000 Series

PRESSURE DROP CURVES

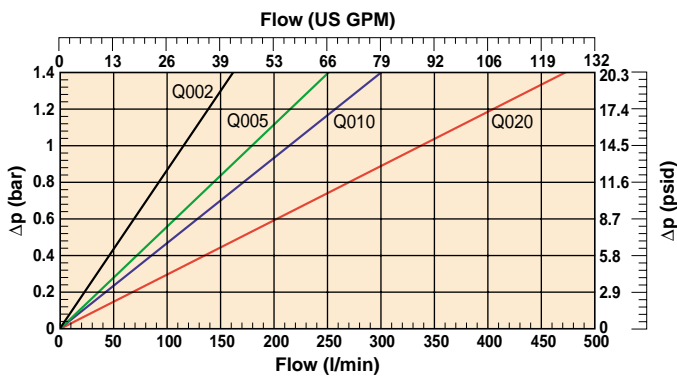
If the medium used has a viscosity different from 30 cSt, pressure drop over the filter can be estimated as follows :-

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

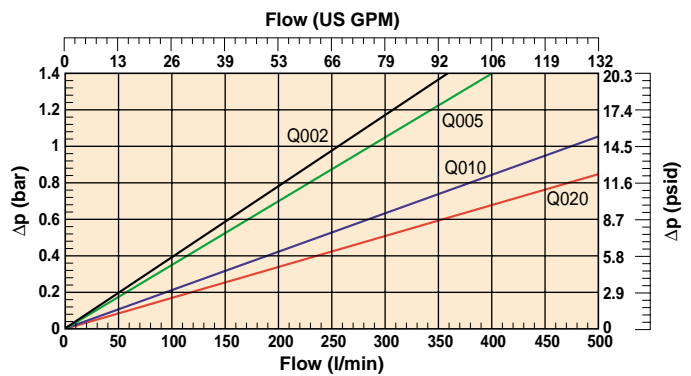
7000 Series Filter Housing



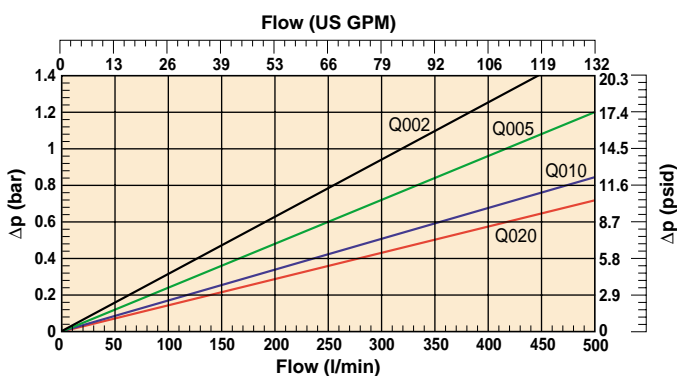
7005 Series with Microglass III Elements



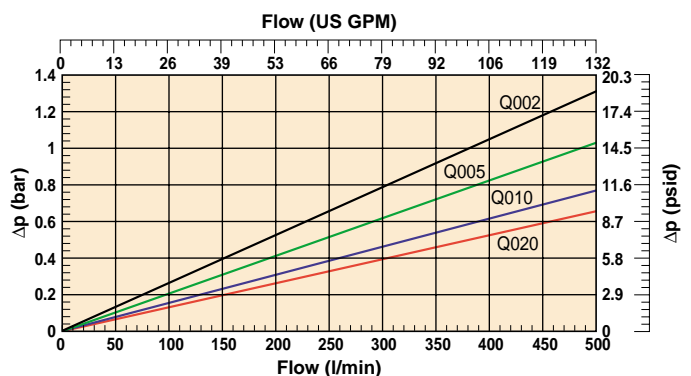
7006 Series with Microglass III Elements



7007 Series with Microglass III Elements



7008 Series with Microglass III Elements

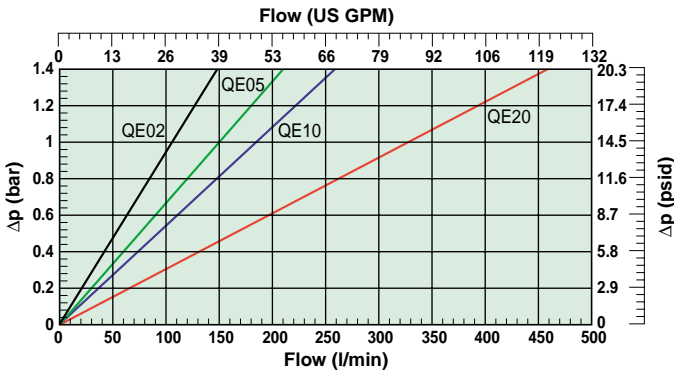


PRESSURE DROP CURVES

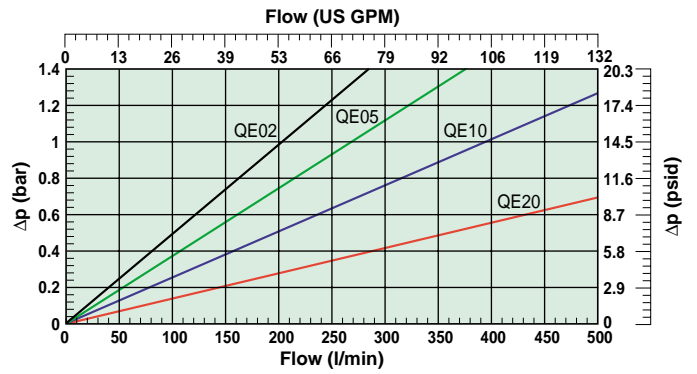
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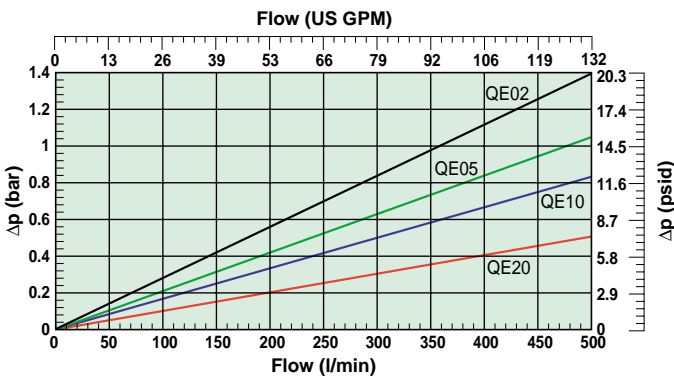
7005 Series with Ecoglass III Elements



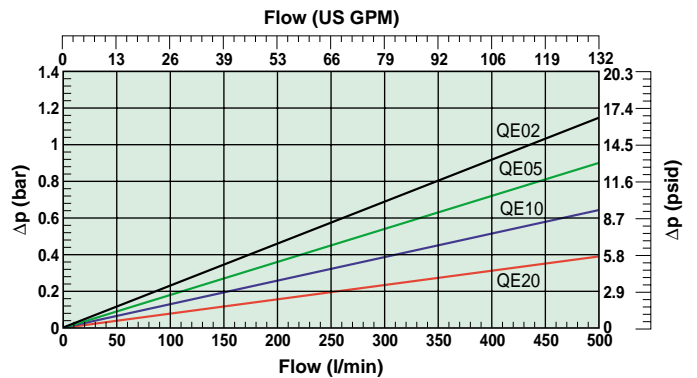
7006 Series with Ecoglass III Elements



7007 Series with Ecoglass III Elements



7008 Series with Ecoglass III Elements



High Pressure Filters

7000 Series

PREFERRED PRODUCTS TABLE

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

Part Number	Flow (l/min)	Media Rating	Ports	Replacement Elements
L-PORT				
FF7005.Q005.BS35.GL16	90	Q005	G1	FC7005.Q005.BK
FF7005.Q005.BS35.GL20	90	Q005	G1 ¹ / ₄	FC7005.Q005.BK
FF7005.Q010.BS35.GL16	120	Q010	G1	FC7005.Q010.BK
FF7005.Q010.BS35.GL20	120	Q010	G1 ¹ / ₄	FC7005.Q010.BK
FF7005.Q020.BS35.GL16	140	Q020	G1	FC7005.Q020.BK
FF7005.Q020.BS35.GL20	140	Q020	G1 ¹ / ₄	FC7005.Q020.BK
FF7006.Q005.BS35.GL16	150	Q005	G1	FC7006.Q005.BK
FF7006.Q005.BS35.GL20	150	Q005	G1 ¹ / ₄	FC7006.Q005.BK
FF7006.Q010.BS35.GL16	200	Q010	G1	FC7006.Q010.BK
FF7006.Q010.BS35.GL20	220	Q010	G1 ¹ / ₄	FC7006.Q010.BK
FF7006.Q020.BS35.GL16	220	Q020	G1	FC7006.Q020.BK
FF7006.Q020.BS35.GL20	240	Q020	G1 ¹ / ₄	FC7006.Q020.BK
FF7007.Q005.BS35.GL20	200	Q005	G1 ¹ / ₄	FC7007.Q005.BK
FF7007.Q005.BS35.GL24	220	Q005	G1 ¹ / ₂	FC7007.Q005.BK
FF7007.Q010.BS35.GL20	240	Q010	G1 ¹ / ₄	FC7007.Q010.BK
FF7007.Q010.BS35.GL24	300	Q010	G1 ¹ / ₂	FC7007.Q010.BK
FF7007.Q020.BS35.GL20	240	Q020	G1 ¹ / ₄	FC7007.Q020.BK
FF7007.Q020.BS35.GL24	380	Q020	G1 ¹ / ₂	FC7007.Q020.BK
FF7008.Q005.BS35.GL24	250	Q005	G1 ¹ / ₂	FC7008.Q005.BK
FF7008.Q010.BS35.GL24	380	Q010	G1 ¹ / ₂	FC7008.Q010.BK
FF7008.Q020.BS35.GL24	450	Q020	G1 ¹ / ₂	FC7008.Q020.BK
T-PORT				
FF7005.Q005.BS35.GT16	90	Q005	G1	FC7005.Q005.BK
FF7005.Q005.BS35.GT20	90	Q005	G1 ¹ / ₄	FC7005.Q005.BK
FF7005.Q010.BS35.GT16	120	Q010	G1	FC7005.Q010.BK
FF7005.Q010.BS35.GT20	120	Q010	G1 ¹ / ₄	FC7005.Q010.BK
FF7005.Q020.BS35.GT16	140	Q020	G1	FC7005.Q020.BK
FF7005.Q020.BS35.GT20	140	Q020	G1 ¹ / ₄	FC7005.Q020.BK
FF7006.Q005.BS35.GT20	150	Q005	G1 ¹ / ₄	FC7006.Q005.BK
FF7006.Q010.BS35.GT20	200	Q010	G1 ¹ / ₄	FC7006.Q010.BK
FF7006.Q010.BS35.GT24	230	Q010	G1 ¹ / ₂	FC7006.Q010.BK
FF7006.Q020.BS35.GT20	220	Q020	G1 ¹ / ₄	FC7006.Q020.BK
FF7006.Q020.BS35.GT24	270	Q020	G1 ¹ / ₂	FC7006.Q020.BK
FF7007.Q005.BS35.GT24	220	Q005	G1 ¹ / ₂	FC7007.Q005.BK
FF7007.Q010.BS35.GT24	270	Q010	G1 ¹ / ₂	FC7007.Q010.BK
FF7007.Q020.BS35.GT24	300	Q020	G1 ¹ / ₂	FC7007.Q020.BK
FF7008.Q005.BS35.GT24	250	Q005	G1 ¹ / ₂	FC7008.Q005.BK
FF7008.Q010.BS35.GT24	280	Q010	G1 ¹ / ₂	FC7008.Q010.BK
FF7008.Q020.BS35.GT24	320	Q020	G1 ¹ / ₂	FC7008.Q020.BK

PREFERRED PRODUCTS TABLE

ECO Range				
Part Number	Flow (l/min)	Media Rating	Ports	Replacement Elements
L-PORT				
FF7005.QE05.BS35.GL16	90	Q005	G1	FC7005.QE05.BK
FF7005.QE05.BS35.GL20	90	Q005	G1 ¹ / ₄	FC7005.QE05.BK
FF7005.QE10.BS35.GL16	120	Q010	G1	FC7005.QE10.BK
FF7005.QE10.BS35.GL20	120	Q010	G1 ¹ / ₄	FC7005.QE10.BK
FF7005.QE20.BS35.GL16	140	Q020	G1	FC7005.QE20.BK
FF7005.QE20.BS35.GL20	140	Q020	G1 ¹ / ₄	FC7005.QE20.BK
FF7006.QE05.BS35.GL16	150	Q005	G1	FC7006.QE05.BK
FF7006.QE05.BS35.GL20	150	Q005	G1 ¹ / ₄	FC7006.QE05.BK
FF7006.QE10.BS35.GL16	200	Q010	G1	FC7006.QE10.BK
FF7006.QE10.BS35.GL20	220	Q010	G1 ¹ / ₄	FC7006.QE10.BK
FF7006.QE20.BS35.GL16	220	Q020	G1	FC7006.QE20.BK
FF7006.QE20.BS35.GL20	240	Q020	G1 ¹ / ₄	FC7006.QE20.BK
FF7007.QE05.BS35.GL20	200	Q005	G1 ¹ / ₄	FC7007.QE05.BK
FF7007.QE05.BS35.GL24	220	Q005	G1 ¹ / ₂	FC7007.QE05.BK
FF7007.QE10.BS35.GL20	240	Q010	G1 ¹ / ₄	FC7007.QE10.BK
FF7007.QE10.BS35.GL24	300	Q010	G1 ¹ / ₂	FC7007.QE10.BK
FF7007.QE20.BS35.GL20	240	Q020	G1 ¹ / ₄	FC7007.QE20.BK
FF7007.QE20.BS35.GL24	380	Q020	G1 ¹ / ₂	FC7007.QE20.BK
FF7008.QE05.BS35.GL24	250	Q005	G1 ¹ / ₂	FC7008.QE05.BK
FF7008.QE10.BS35.GL24	380	Q010	G1 ¹ / ₂	FC7008.QE10.BK
FF7008.QE20.BS35.GL24	450	Q020	G1 ¹ / ₂	FC7008.QE20.BK
T-PORT				
FF7005.QE05.BS35.GT16	90	Q005	G1	FC7005.QE05.BK
FF7005.QE05.BS35.GT20	90	Q005	G1 ¹ / ₄	FC7005.QE05.BK
FF7005.QE10.BS35.GT16	120	Q010	G1	FC7005.QE10.BK
FF7005.QE10.BS35.GT20	120	Q010	G1 ¹ / ₄	FC7005.QE10.BK
FF7005.QE20.BS35.GT16	140	Q020	G1	FC7005.QE20.BK
FF7005.QE20.BS35.GT20	140	Q020	G1 ¹ / ₄	FC7005.QE20.BK
FF7006.QE05.BS35.GT20	150	Q005	G1 ¹ / ₄	FC7006.QE05.BK
FF7006.QE10.BS35.GT20	200	Q010	G1 ¹ / ₄	FC7006.QE10.BK
FF7006.QE10.BS35.GT24	230	Q010	G1 ¹ / ₂	FC7006.QE10.BK
FF7006.QE20.BS35.GT20	220	Q020	G1 ¹ / ₄	FC7006.QE20.BK
FF7006.QE20.BS35.GT24	270	Q020	G1 ¹ / ₂	FC7006.QE20.BK
FF7007.QE05.BS35.GT24	220	Q005	G1 ¹ / ₂	FC7007.QE05.BK
FF7007.QE10.BS35.GT24	270	Q010	G1 ¹ / ₂	FC7007.QE10.BK
FF7007.QE20.BS35.GT24	300	Q020	G1 ¹ / ₂	FC7007.QE20.BK
FF7008.QE05.BS35.GT24	250	Q005	G1 ¹ / ₂	FC7008.QE05.BK
FF7008.QE10.BS35.GT24	280	Q010	G1 ¹ / ₂	FC7008.QE10.BK
FF7008.QE20.BS35.GT24	320	Q020	G1 ¹ / ₂	FC7008.QE20.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 and on the previous page.

High Pressure Filters

7000 Series

PART NUMBER MATRIX

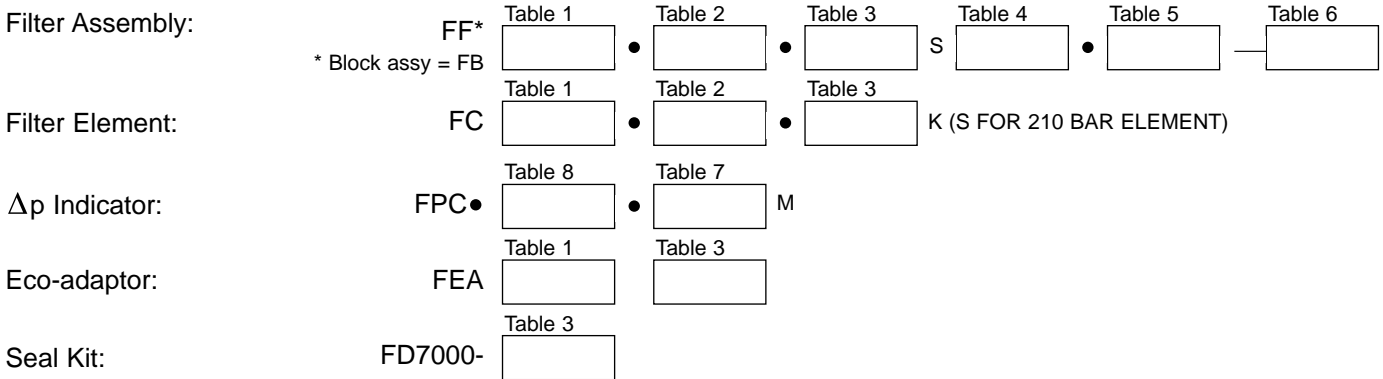


Table 1

Filter Type	
Element Length	CODE
116mm	7005
208mm	7006
329mm	7007
428mm	7008

*Note: When using Eco-element Eco-adaptor FEA is required

Table 2

Degree of Filtration									
Average filtration ratio β (ISO 16889) / particle size μm(c)							CODE*		
2	10	75	100	200	1000	4.5	Q002	QE02	
N/A	N/A	N/A	N/A	N/A	4.5		Q005	QE05	A005
N/A	N/A	4.5	5	6	7		Q010	QE10	A010
N/A	6	8.5	9	10	12		Q020	QE20	A020
6	11	17	18	20	22				

*Q0XX = Microglass III: conventional element, collapse rating 20 bar
 QEXX = Ecoglass III: Eco-element without metallic parts, collapse rating 10 bar
 A0XX = Microglass III: high collapse element, collapse rating 210 bar

Table 3

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

Table 4

Bypass Valve	
Connection Type, T-model	CODE
3.5 bar	35
NO BYPASS	00

Table 5

Filter Connection		
Connection Type Options, Filter Housing	CODE	
	L	T
G1 Thread	GL16	GT16
G1¼ Thread	GL20	GT20
G1½ Thread	GL24	GT24
Flange 1½" SAE, 3000 psi	SL24	ST24
Flange 1½" SAE, 6000 psi	VL24	VT24
Flange 1¼" SAE, 6000 psi	VL20	VT16
FB block assembly	XC32	

Table 6

Indicator Port Position T-Model	
Standard on top	—
On side only	IS

Table 7

Seal Type (Indicator)*		
Indicator Option	Seal Material	CODE
V25, F25, V70, F70	Nitrile	B
T25, T70	Fluoroelastomer	V

*Standard options.
 For other options contact Parker Filtration

Table 8

Δp Indicator	
Indicator Type Options*	CODE
Visual indicator 2.5 bar	V25
Electronic indicator 2.5 bar (10...36 VDC)	F25
Electrical indicator 2.5 bar (max 250 VAC)	T25
Visual indicator 7.0 bar	V70
Electronic indicator 7.0 bar (10...36 VDC)	F70
Electrical indicator 7.0 bar (max 250 VAC)	T70

*7.0 bar indicator for use without bypass valve

ORDERING EXAMPLES:

Please note that when choosing the right size of the filter assembly, choose first the desired connections and the degree of filtration. The element length (Table 1) can be decided last according to the Δp demands of the system.

COMPLETE FILTER: FF7007.Q010.BS35.GL20

This code is for complete filter assembly with 329mm long element made of Microglass III/Q010 filter media, supported with epoxy coated metal wire mesh and metal inner core. Seal material is nitrile and the filter housing is steel. Filter includes 3.5 bar bypass valve and G1¼ threads for connection. Degree of filtration see Table 2.

FILTER ELEMENT: FC7005.QE02.VK

This filter element is 116mm long with FEA adaptor and it is made of Ecoglass III/QE02 filter media. The seal material is fluoroelastomer and element caps are of re-inforced composite.

For additional drain and vent plug options, please contact Parker Filtration.

HPA Series

Mini Pressure Filters

Max 33 l/min - 280 bar



Global Filtration Technology

Mini Pressure Filters

HPA Series

TYPICAL APPLICATIONS

- Low Flow Servo Systems
- Pilot Lines
- Small Mobile Equipment
- Lubrication Systems
- High Pressure Water Systems

The Parker Filtration HPA Series Mini Pressure Filters.

Small and easy to install, the Mini Pressure Filter is a robust solution to the low flow applications that larger filters are unable to effectively handle.

Made from high strength brass stampings and supplied with a wide range of media options, reliable, high efficiency protection is the result of using the Mini Pressure Filter.



Alternative head mounting. For details please contact Parker Filtration.

TYPICAL APPLICATIONS



Photographs courtesy of Nifty Lift Ltd.



The machine pictured is the "Compact 40" precinct sweeper from the Johnston Compact range of self propelled suction sweepers. Photograph courtesy of Johnston Engineering Ltd.

SPECIFICATION

Construction:

Brass stampings

Max. working pressure:

280 bar

Working temperature:

-30°C to +90°C

Thread:

G¹/₄ and G³/₈

Filtration media:

Microglass III; see Table A

10µ, 25µ, 40µ, 80µ and 125µ (nominal) stainless steel

Seals:

Nitrile/Nitrile composite

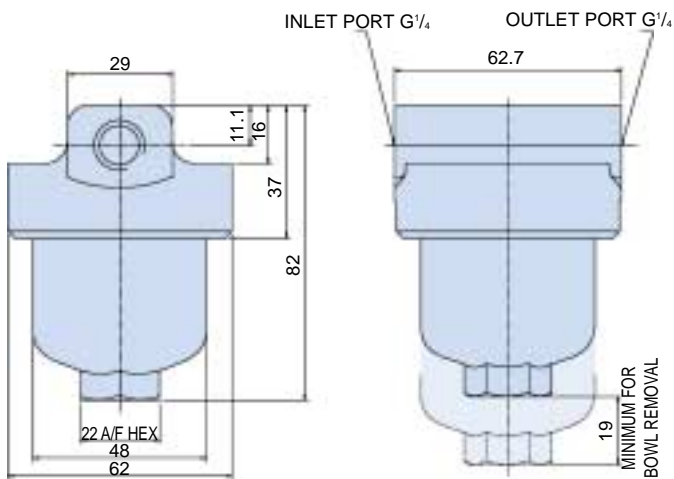
Weight:

Length 1: 0.88 Kg

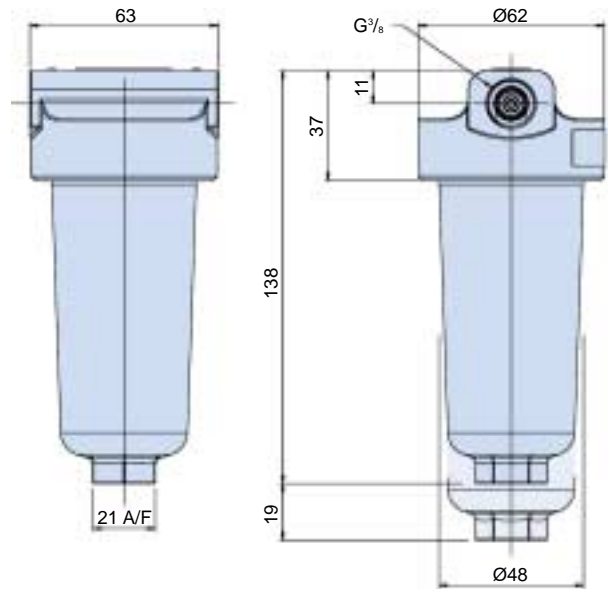
Length 2: 1.2 Kg

INSTALLATION DETAILS (FOR NEW HEAD DETAILS CONSULT PARKER FILTRATION)

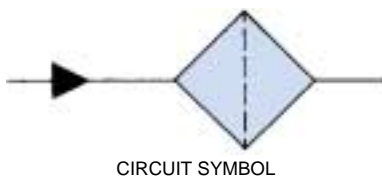
Length 1



Length 2



Note: For Length 1 and Length 2 filter housing and element media pressure drop against flow curves consult Parker Filtration.



Mini Pressure Filters

HPA Series

PREFERRED PRODUCTS TABLE

Length 1 G¹/₄ Port No by-pass

Part Number	Description		Supersedes	Replacement Element
HPA.1219.100	2μ Absolute pressure filter	Consult Parker Filtration for flow specifications	–	HPR.1219
HPA.1319.100	3μ Absolute pressure filter		–	HPR.1319
HPA.1419.100	5μ Absolute pressure filter		–	HPR.1419
HPA.1519.100	10μ Absolute pressure filter		–	HPR.1519
HPA.1619.100	25μ Absolute pressure filter		HP.1229.10	HPR.1619
HPA.1719.100	40μ Absolute pressure filter		HP.1229.25	HPR.1719
HPA.1819.100	80μ Absolute pressure filter		HP.1229.40	HPR.1819
HPA.1919.100	125μ Nominal pressure filter		HP.1229.125	HPR.1919

Note: Length 1, 10 bar by-pass version available – contact Parker Filtration.

Length 2 G³/₈ Port, 5 bar by-pass

Part Number	Description		Replacement Element
HPA.2225.100	2μ Absolute pressure filter	Consult Parker Filtration for flow specifications	HPR.1229
HPA.2325.100	3μ Absolute pressure filter		HPR.1329
HPA.2425.100	5μ Absolute pressure filter		HPR.1429
HPA.2525.100	10μ Absolute pressure filter		HPR.1529
HPA.2625.100	25μ Absolute pressure filter		HPR.1629
HPA.2725.100	40μ Absolute pressure filter		HPR.1729
HPA.2825.100	80μ Absolute pressure filter		HPR.1829
HPA.2925.100	125μ Absolute pressure filter		HPR.1929

Table A

Degree of Filtration						
Average filtration Beta Ratio (ISO 16889)						ASSEMBLY NUMBER
2	10	75	100	200	1000	
–	–	–	–	–	4.5	HPA.1219.100
–	–	3.0	–	–	–	HPA.1319.100
–	–	4.5	5.0	6.0	7.0	HPA.1419.100
–	6.0	8.5	8.0	10.0	12.0	HPA.1519.100
–	–	–	–	–	–	HPA.1619.100
–	–	40.0	–	–	–	HPA.1719.100
–	–	80.0	–	–	–	HPA.1819.100
–	–	125.0	–	–	–	HPA.1919.100

SH100 Series

High Pressure Filters

Max 100 l/min - 690 bar



Global Filtration Technology

High Pressure In-Line Stainless Steel Filters

SH100 Series

TYPICAL APPLICATIONS

- Hydraulic Start-Up Systems
- Flushing Filter
- Offshore Cranes
- Oil/Gas Industry
- Mine Hunters

The Parker Filtration Model SH100 High Pressure In-Line Stainless Steel Filters.

The stainless steel SH100 high-pressure filter is designed for heavy-duty and critical applications. It features a flow capacity of 100 l/min at 690 bar working pressure. A wide range of elements, including high-strength versions is available. The elements and filter media used include high-quality materials such as HPFE glass fibre and stainless steel mesh as well as high strength mesh cleanable elements and high strength fibre disposable elements.



TYPICAL APPLICATIONS



High Pressure In-Line Stainless Steel Filters

SH100 Series

SPECIFICATION

Assembly:

In-line filter

Operating Pressure:

Max 690 bar

Connections:

Threads G^{1/2}, G^{3/4}" (ISO228), 1/2"NPT, 3/4"NPT, 3/4" SAE

Seal Material:

Nitrile, Neoprene, Fluoroelastomer

Operating Temperature Range:

-40°C to 100°C

Degree of Filtration:

Determined by multipass test according to ISO 16889

Filtration Media:

HPFE glass fibre GDH multi layer glass fibre or Stainless Steel mesh

Flow Fatigue Characteristics

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

Element Collapse Rating:

20 bar (ISO 2941) or 210 bar for high strength version

Bypass Setting:

3.5 bar ± 0.2

Differential Pressure Indicator:

2.8 bar

Differential indicator visual

Differential indicator electrical

Filter Housing:

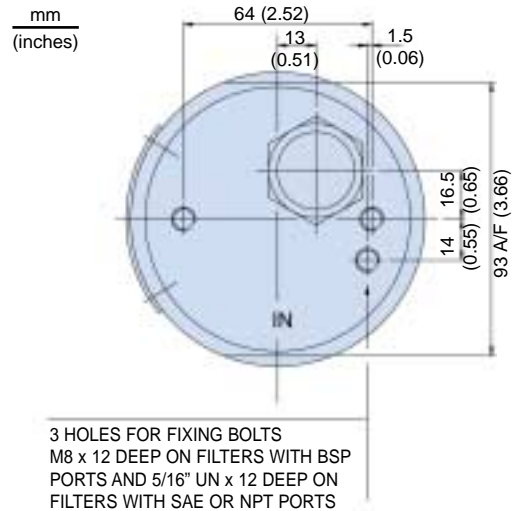
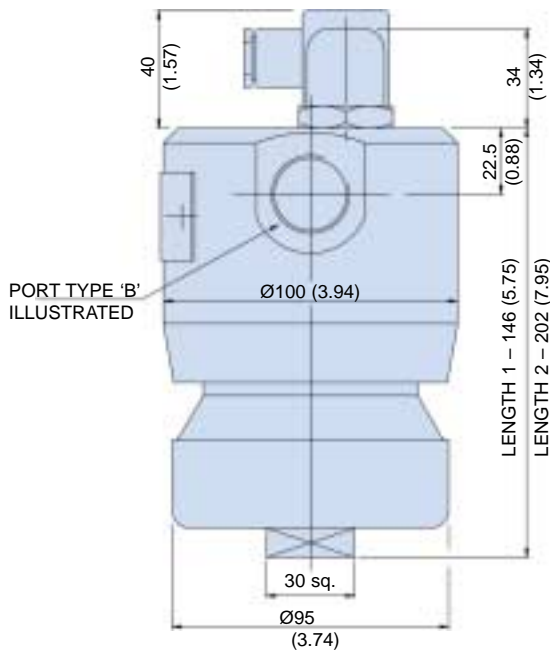
Stainless steel

Filter Element:

Element with steel end caps

Options:

High strength elements

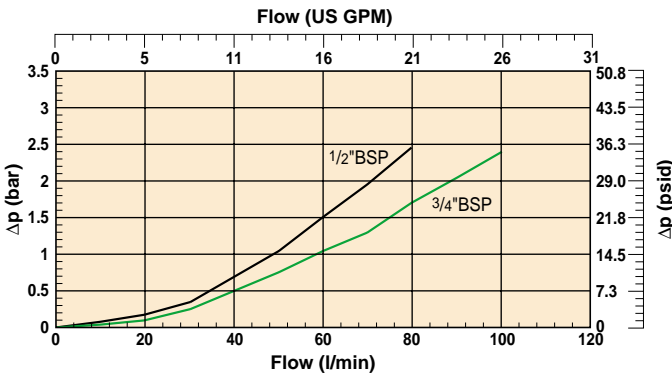


High Pressure In-Line Stainless Steel Filters

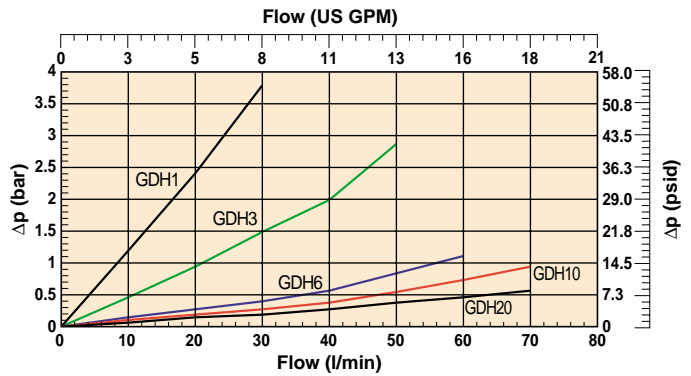
SH100 Series

PRESSURE DROP CURVES

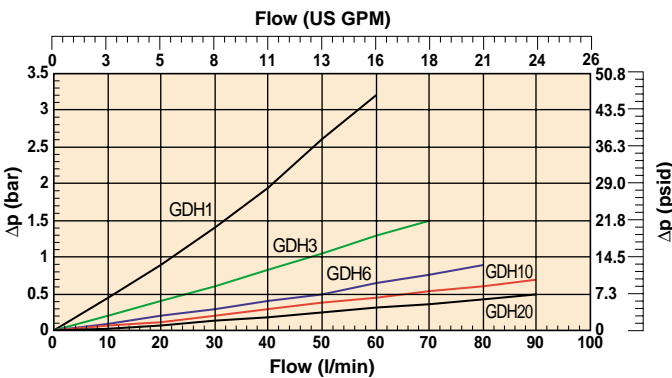
HD 100-Series Empty Housing



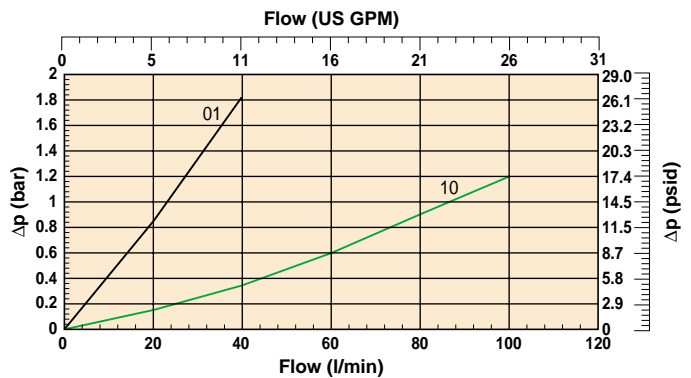
Element HD 100-Series Type 7 L1



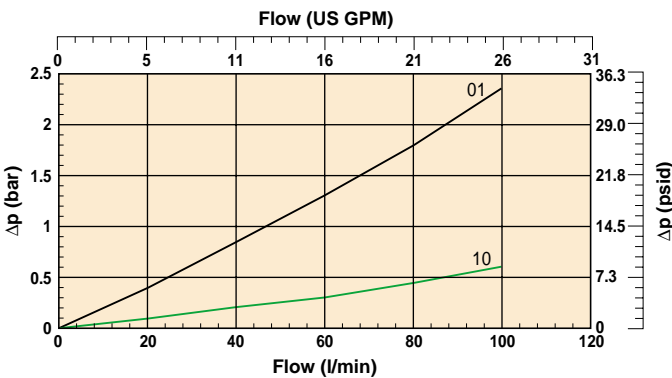
Element HD 100-Series Type 7 L2



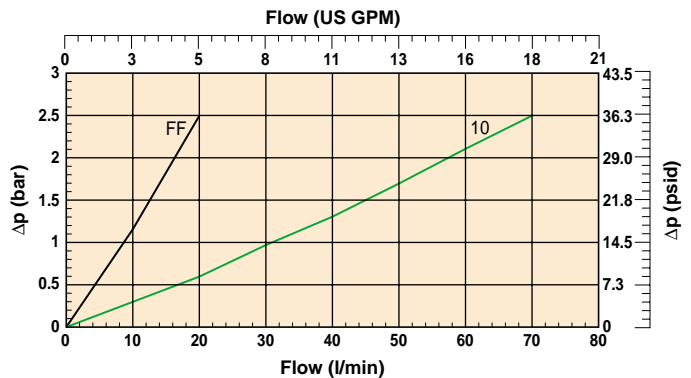
Element HD 100-Series L1 High Strength Type-4



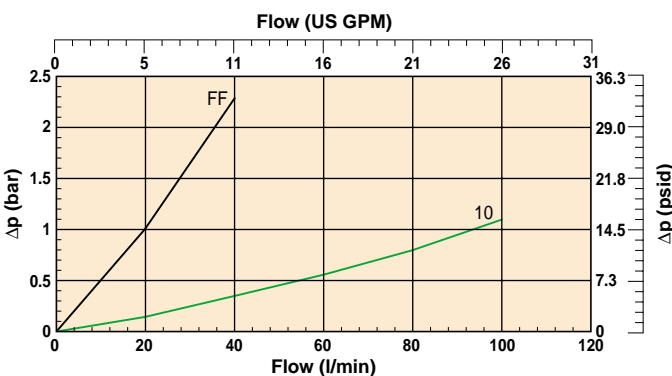
Element HD 100-Series L2 High Strength Type-4



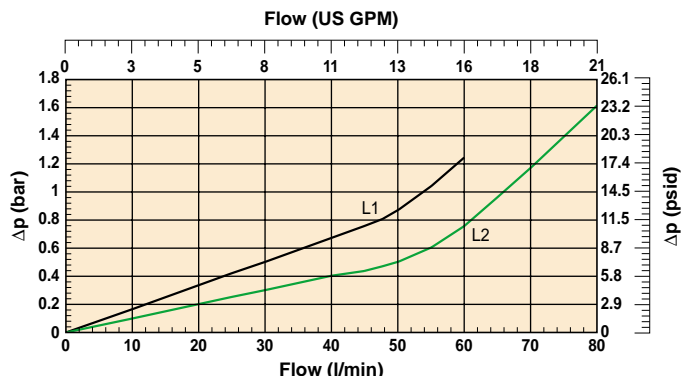
Element HD 100-Series L1 High Strength Type-5



Element HD 100-Series L2 High Strength Type-5



Element HD 100-Series L1 & L2 Type-9



PREFERRED PRODUCTS TABLE

Ordering Code	Flow (l/min)	Media Rating	Ports	Indicator	Replacement Elements
175A2L35-NZ121S	50	GDH 06	1/2" NPT	Visual	170Z121A
175A2L35-NZ122S	50	GDH 10	1/2" NPT	Visual	170Z122A
175A2L35-NZ123S	50	GDH 20	1/2" NPT	Visual	170Z123A
175A2L35-DZ221S	100	GDH 06	3/4" NPT	Visual	170Z221A
175A2L35-DZ222S	100	GDH 10	3/4" NPT	Visual	170Z222A
175A2L35-DZ223S	100	GDH 20	3/4" NPT	Visual	170Z223A

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.

ORDERING EXAMPLE

Element

Std	2	Std	8	9	10	4
1	7	0	Z	1	22	A

Assembly

1	2	3	4	5	5A	6	Std	7	8	9	10	Std
1	7	5	A	3	C	35	-	B	Z	1	22	S

Table 1

Filter Type	
Housing	CODE
Model SH100	1

Table 2

Element Type	
Element Type	CODE
High strength cleanable Stainless steel*	4
High strength inorganic fibre disposable	5
Inorganic fibre disposable	7
Corrosion resistant mesh (cleanable)*	9

Table 3

Filter Material	
Variety	CODE
Stainless steel	5

Table 4

Seal Type	
Seal Material	CODE
Nitrile (NBR)	A
Ethylene Propylene (EP)	B
Fluoroelastomer (FPM)	H

* Only valid with special cleaning routine.

Table 5		Table 5A	
Bypass		Indicators	
No bypass port machined	0	N	No indicator / No bypass valve
Spool type bypass valve	1	N	No indicator
Spool type bypass valve	2	N	Standard visual indicator
No bypass valve	4	L	Visual indicator with memory (Latch out)
Spool type bypass valve	3	T	Electrical IDN 43650 28V= / 250 V ~ No lamps
		H	Electrical visual indicator 250 V ~ Green lamps N.C.
		K	Electrical visual indicator 250 V ~ Red lamps N.O.
		C	Electrical visual indicator 110 V ~ Green lamps N.C.
No bypass valve	5	M	Electrical visual indicator 110 V ~ Red lamps N.O.
		E	Electrical visual indicator 28 V = Green lamps N.C.
		R	Electrical visual indicator 28 V = Red lamps N.O.

Table 6

Bypass Valve	
Bypass differential pressure setting	CODE
No bypass / No indicator	00
Bypass setting 3.5 bar	35

Table 7

Filter Connection	
Ports	CODE
ISO 228- G ¹ / ₂ " (1/2" BSP)	B
ISO 228- G ³ / ₄ " (3/4" BSP)	E
1/2" NPT	N
3/4" NPT	D
1 1/8" SAE (1 1/8"-12 UN-2B)	J

Table 8

Element Information		
Element types		CODE
Mineral oil only (Only available on filter type '7')	10 & 20µ only	L
All fluids exc. phos. esters, water glycols and ammonia containing fluids	All ratings	Z
HFC-Fluids Please contact Parker Arlon before utilisation	All ratings	*T
Ammonia containing fluids Please contact Parker Arlon before utilisation	All ratings	*F
Phosphate esters Please contact Parker Arlon before utilisation	All ratings	*S

* Specials on request. Please consult Parker Filtration.

Table 9

Element Length	
Element length	CODE
Length 1	1
Length 2	2

Table 10

Filter Media		
Element type	Filtration Fineness (β₂75)	CODE
5	3µ	FF
4	6µ	01
4 or 5	15µ	10
9	40µ	40
7	GDH1	19
7	GDH3	20
7	GDH6	21
7	GDH10	22
7	GDH20	23

Table A

Degree of Filtration						
Average filtration Beta Ratio (ISO 16889) / particle size µm(c)						CODE
2	10	75	100	200	1000	
N/A	3.0	4.1	4.4	4.9	6.7	GDL3/GDH3
N/A	4.0	6.7	7.0	7.9	10.0	GDL6/GDH6
3.1	6.2	9.9	10.4	11.6	14.6	GDL10/GDH10
6.7	12.6	17.8	18.5	20.0	22.6	GDL20/GDH20