



High Pressure Filters

100P Series

MAX 1000 l/min - 414 bar



High Pressure Filters

100P Series

Features & Benefits

Features	Advantages	Benefits
High 414 bar pressure rating	Strong and robust housing for heavy duty applications	Reliable and continuous operation for open and closed loop applications
Flow rates up to 1000 l/min	Pressure filtration possible for high flow rates	Excellent protection of high performance machinery
Optional reverse flow valve	Allows reverse flow and prevents back wash of element	Ideal for applications where back flow is expected
Bottom access bowl	Only bottom of the bowl must be opened for element change	Easy service
Microglass III replacement elements	Multi-layered design produced high capacity and efficiency	Great performance value
	Wire support reduces pleat bunching, keeps performance consistent	Reliable performance throughout element life
Visual and electrical indicators available	Check element condition at a glance	Reduces downtime, maximises element life
	Right style for the application	Optimises element life, prevents bypassing
		Matches your system electrical connections

Typical Applications

- Drilling rigs
- Power packs
- Oil/gas industry
- Flight simulators
- Test rigs

The Parker Filtration Model 100P High Pressure Filters.

The 100P 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. For systems where reverse flow can be expected, an optional integrated reverse flow valve avoids back wash of contamination. 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. The filter media used in the elements is high quality Microglass III glass fibre.



Specification

Pressure ratings:

Maximum allowable operating pressure 414 bar.
Filter housing pressure pulse fatigue tested: 3×10^6 pulses 0 - 276 bar.

Connections:

Inlet and outlet connections are threaded internally or flange faced.
Threads G1½", G2" (ISO 228/1), SAE 24, SAE 32.
or flanges 1½" SAE 6000, 2" SAE 6000, 1½" SAE 6000-M, 2" SAE 6000-M.
*6000-M is a SAE style with appropriate metric fixing threads.

Filter housing:

Head material cast iron (GSI).
Bowl material extruded steel, max torque 200 Nm.

Seal material:

Nitrile or Fluoroelastomer.

Operating temperature range:

- 20°C to +100°C.

Bypass valve:

Opening pressure 7.0 bar.

Options:

Reverse flow valve, which directs back flow from port to port.

Filter element:

Degree of filtration:

Determined by Multipass-test according to ISO 16889.

Flow fatigue characteristics:

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

Microglass III:

Supported with epoxy coated metal wire mesh, end cap material reinforced composite and metal inner core.
Collapse rating 20 bar (ISO 2941).

High collapse elements:

High collapse elements available. For details please contact Parker Filtration.

Indicator options:

Indicating differential pressure: 5.0 bar.
- visual indicator.
- electrical indicator.

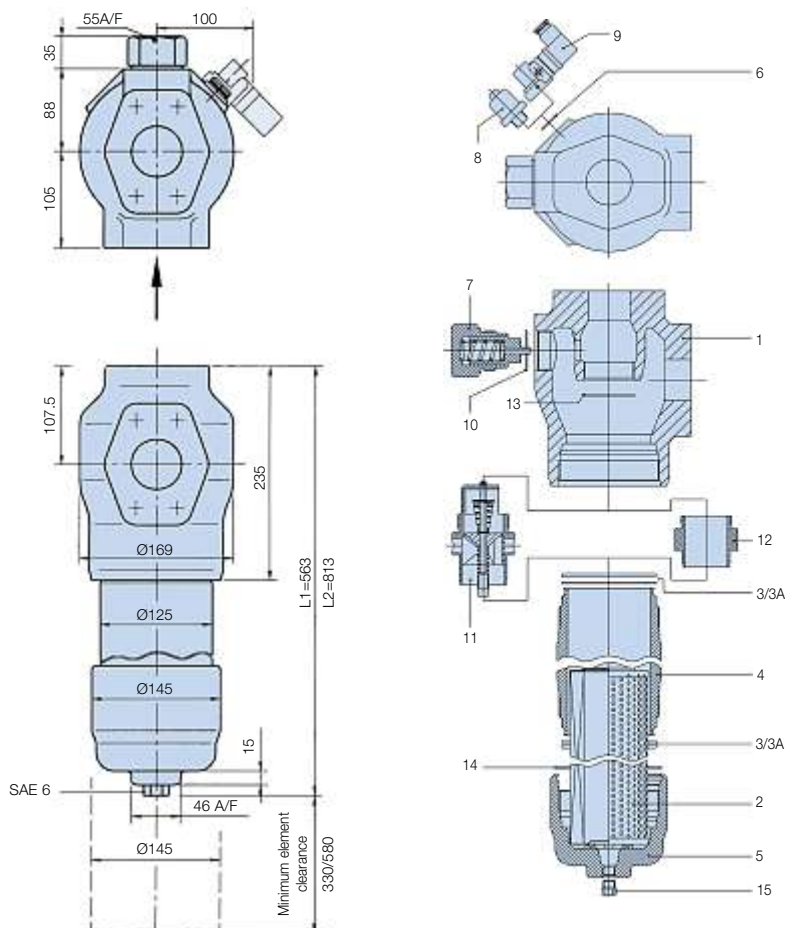
Weights (kg):

100P-1: 37 kg.
100P-2: 47 kg.

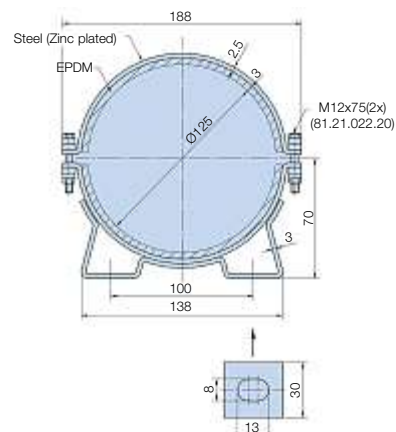
Fluid compatibility:

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

Installation Details



Mounting Clamp Item 16

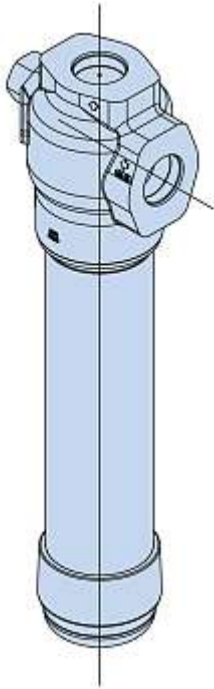


Type H model 1000

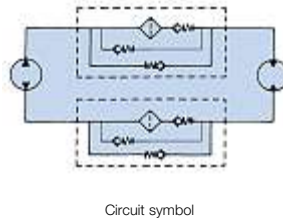
1	Filter head
2	Filter element
3	Bowl seal
3A	Bowl back-up ring
4	Housing
5	Cover
6	Indicator seal
7	Bypass set
8	Visual indicator
9	Electrical indicator
10	Bypass seal
11	Reverse flow set
12	Adaptor
13	Adaptor/reverse flow seal
14	Cover seal
15	Drain plug
16	Mounting clamp

100P Series

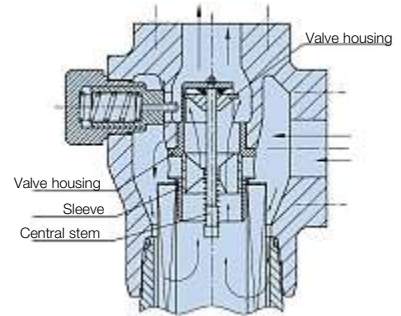
Additional Information



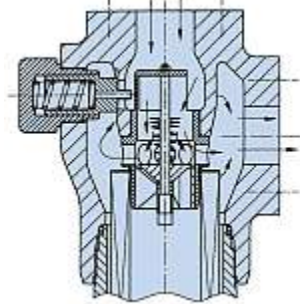
Filter with Reverse Flow Valve



Normal Flow Condition



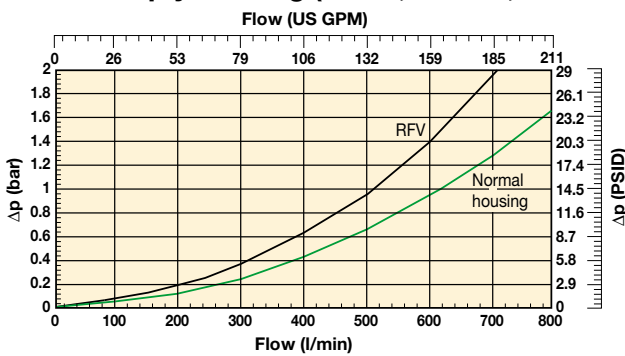
Reverse Flow Condition



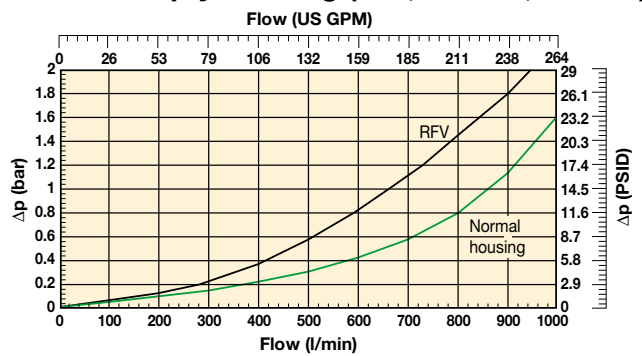
Pressure Drop Curves

The recommended level of the initial pressure drop is max. 2.3 bar.
If the medium used has a viscosity different from 30 cSt, pressure drop can be estimated as follows:
The total $\Delta p = \text{housing } \Delta p_h + (\text{element } \Delta p_e \times \text{working viscosity}/30)$.

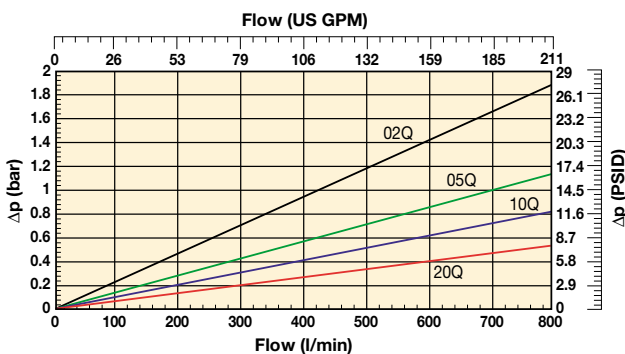
100P-1 Empty Housing (G1 1/2", SAE 24, SAE 1 1/2")



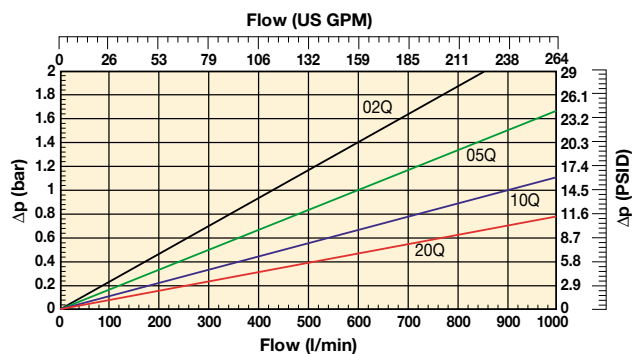
100P-2 Empty Housing (G2", SAE 32, SAE 2")



100P-1 Elements



100P-2 Elements



Ordering Information

Standard products table

Part number	Supersedes	Flow (l/min)	Model number	Element length	Media rating (µ)	Seals	Indicator	Bypass settings	Ports	Replacement elements	Supersedes
100P105QBM4MF241	1074A.2HN70.FZ1210	600	100P	Length 1	5	Nitrile	Visual	7.0 bar	SAE flange 1 1/2" 6000	939061Q	1070Z121A
100P110QBM4MF241	1074A.2HN70.FZ1220	700	100P	Length 1	10	Nitrile	Visual	7.0 bar	SAE flange 1 1/2" 6000	939062Q	1070Z122A
100P120QBM4MF241	1074A.2HN70.FZ1230	800	100P	Length 1	20	Nitrile	Visual	7.0 bar	SAE flange 1 1/2" 6000	939063Q	1070Z123A
100P205QBM4MF321	1074A.2HN70.TZ2210	840	100P	Length 2	5	Nitrile	Visual	7.0 bar	SAE flange 2" 6000	939065Q	1070Z221A
100P210QBM4MF321	1074A.2HN70.TZ2220	920	100P	Length 2	10	Nitrile	Visual	7.0 bar	SAE flange 2" 6000	939066Q	1070Z222A
100P220QBM4MF321	1074A.2HN70.TZ2230	1000	100P	Length 2	20	Nitrile	Visual	7.0 bar	SAE flange 2" 6000	939067Q	1070Z223A

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

Box 1	Box 2	Box 3	Box 4	Box 5	Box 6	Box 7	Box 8
100P	2	10Q	B	M4	M	F32	1

Box 1

Code	
Model	Code
Large HP filter, L-port	100P

Box 2

Filter type	
Length	Code
Length 1	1
Length 2	2

Box 3

Degree of filtration				
Element media		Glass fibre		
Media code				
Microglass III element	02Q	05Q	10Q	20Q

Box 4

Seal type	
Seal material	Code
Nitrile	B
Fluoroelastomer	V

Box 5

Indicator	
	Code
Indicator port plugged	P
Visual indicator	M4
Electrical indicator	T2
Electrical indicator with red lamp 28 Vdc, N.O.	T3
Electrical indicator with red lamp 110 VAC, N.O.	T4
Electrical indicator with red lamp 250 VAC, N.O.	T5

Box 6

Bypass and indicator settings		
Bypass valve	Indicator	Code
7.0 bar	5.0 bar	M

When filter includes a bypass valve but not an indicator, code denotes bypass setting.

Box 7

Filter connection	
Connections	Code
Thread G 1 1/2	G24
Thread G 2	G32
Thread SAE 24	S24
Thread SAE 32	S32
SAE flange 1 1/2" 6000	F24
SAE flange 1 1/2" 6000-M	H24
SAE flange 2" 6000	F32
SAE flange 2" 6000-M	H32

Box 8

Options	
Options	Code
Standard	1
Reverse flow valve	3

Replacement elements with nitrile seals		
Media	Length 1	Length 2
02Q	939060Q	939064Q
05Q	939061Q	939065Q
10Q	939062Q	939066Q
20Q	939063Q	939067Q

Nominal flow (l/min) at viscosity 30 cSt				
Filter port size	02Q	05Q	10Q	20Q
100P-1, 1 1/2"	540	600	700	800
100P-2, 2"	700	840	920	1000

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

Degree of filtration						Code
Average filtration beta ratio β (ISO 16889) / particle size μm [c]						
$\beta_x(c)=2$	$\beta_x(c)=10$	$\beta_x(c)=75$	$\beta_x(c)=100$	$\beta_x(c)=200$	$\beta_x(c)=1000$	Disposable Microglass III
% efficiency, based on the above beta ratio (β_x)						
50.0%	90.0%	98.7%	99.0%	99.5%	99.9%	
N/A	N/A	N/A	N/A	N/A	4.5	
N/A	N/A	4.5	5	6	7	
N/A	6	8.5	9	10	12	
6	11	17	18	20	22	20Q

Seal kit (nitrile) order code: 8069000070
Mounting clamp order code: 84.47.265.01

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.

