

# 100P Series

High Pressure Filters

Max 1000 l/min - 414 bar



**When it comes to high flow capacity for high pressure systems**

## **A high flow rate filter solution**

The 100P Series design means on element change only the bowl end-cap has to be removed. Microglass III glassfibre media is standard. Maximum pressure 414 bar. Maximum flow 1000 l/min. An ideal solution where space is at a premium.



## **Contact Information:**

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

## **Product Features:**

- 100P design, only the bowl end-cap is removed on element change.
- Microglass III glassfibre media is standard.
- Maximum pressure 414 bar. Maximum flow 1000 l/min.
- An ideal solution where space is at a premium.

# 100P Series

## High Pressure Filters

### 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
		Reliable performance throughout element life
Visual and electrical indicators available	Wire support reduces pleat bunching, keeps performance consistent	Reduces downtime, maximises element life
	Check element condition at a glance	Optimises element life, prevents bypassing
	Right style for the application	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:  $3 \times 10^6$  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:

Seal material Nitrile: - 40 °C to +100 °C.  
Seal material Fluoroelastomer: - 20 °C to +120 °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).

### Indicator options:

Indicating differential pressure: 5.0 bar.

- visual indicator.
- electrical indicator.

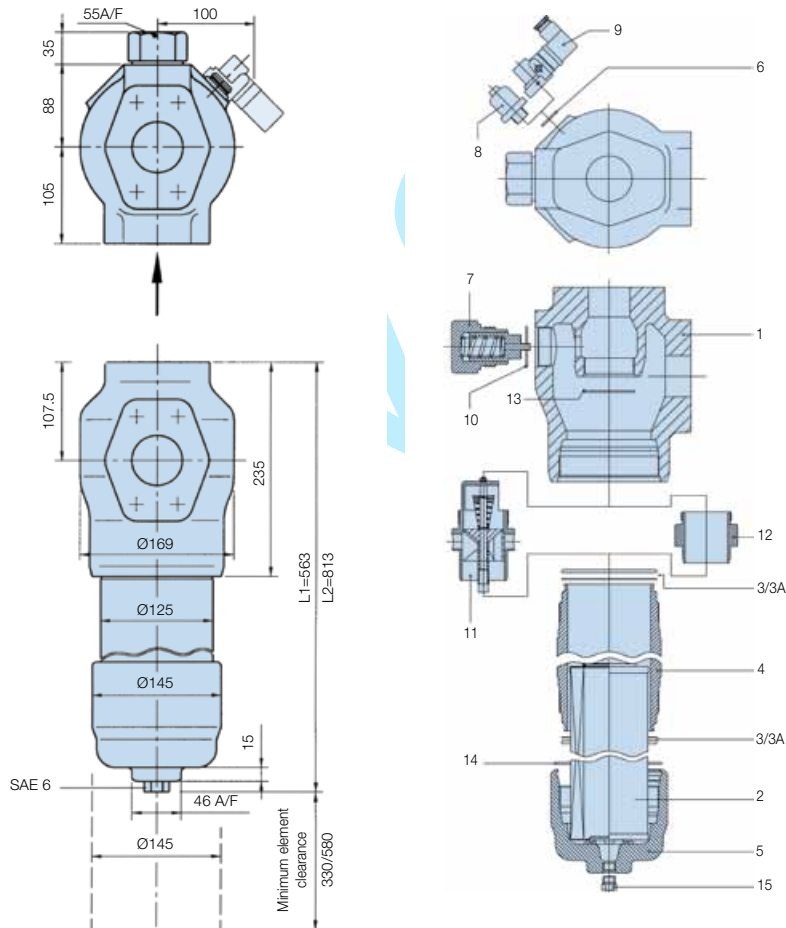
### Weights (kg):

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

### Fluid compatibility:

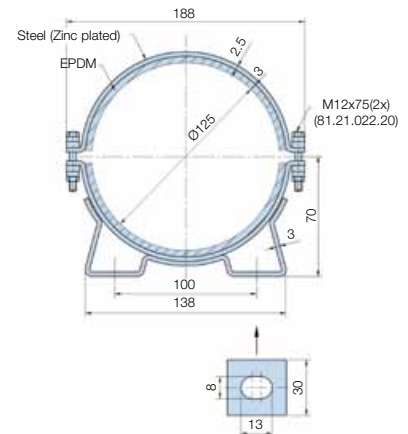
Suitable for use with mineral and vegetable oils, and some synthetic oils. For other fluids, please consult Parker Filtration.

## Installation Details



Note: For installation drawings of the SAE 1½" and 2" flanges, contact Parker.

## Mounting Clamp Item 16



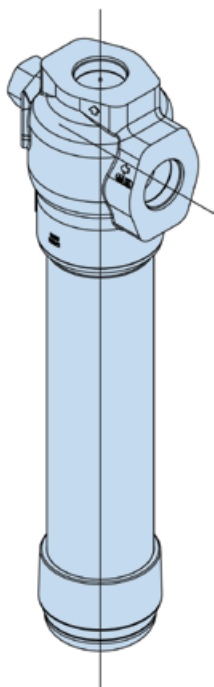
### Type H model 1000

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

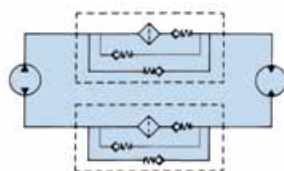
# 100P Series

## High Pressure Filters

### Additional Information

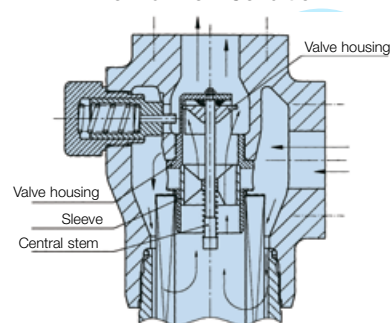


Filter with Reverse Flow Valve

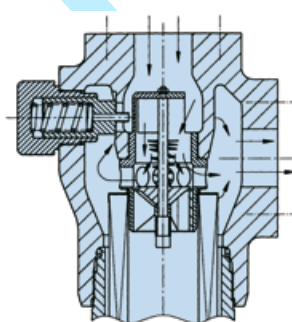


Circuit symbol

Normal Flow Condition



Reverse Flow Condition



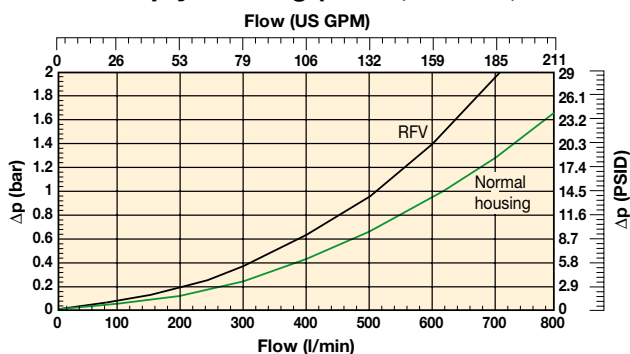
### Pressure Drop Curves

The recommended level of the initial pressure drop is max. 2.3 bar.

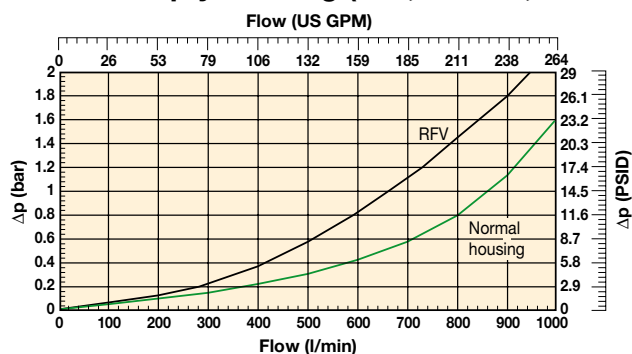
If the medium used has a viscosity different from 30 cSt, pressure drop can be estimated as follows:

The total  $\Delta p$  = housing  $\Delta p$  + (element  $\Delta p$  x working viscosity/30).

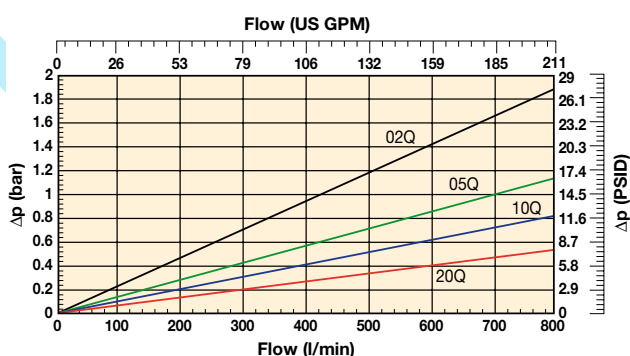
100P-1 Empty Housing (G1½", SAE 24, SAE 1½")



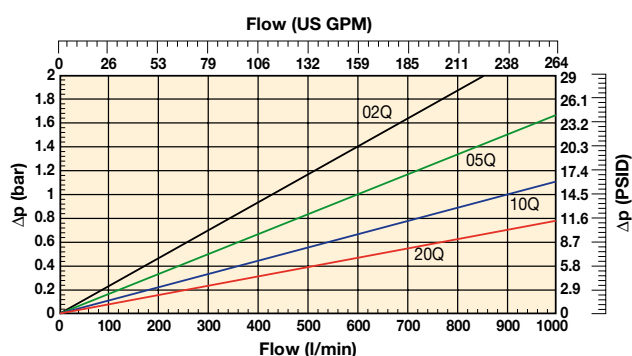
100P-2 Empty Housing (G2", SAE 32, SAE 2")



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
<b>100P105QBM4MF241</b>	1074A.2HN70.FZ1210	600	100P	Length 1	5	Nitrile	Visual	7.0 bar	SAE flange 1 1/2" 6000	<b>939061Q</b>	1070Z121A
<b>100P110QBM4MF241</b>	1074A.2HN70.FZ1220	700	100P	Length 1	10	Nitrile	Visual	7.0 bar	SAE flange 1 1/2" 6000	<b>939062Q</b>	1070Z122A
<b>100P120QBM4MF241</b>	1074A.2HN70.FZ1230	800	100P	Length 1	20	Nitrile	Visual	7.0 bar	SAE flange 1 1/2" 6000	<b>939063Q</b>	1070Z123A
<b>100P205QBM4MF321</b>	1074A.2HN70.TZ2210	840	100P	Length 2	5	Nitrile	Visual	7.0 bar	SAE flange 2" 6000	<b>939065Q</b>	1070Z221A
<b>100P210QBM4MF321</b>	1074A.2HN70.TZ2220	920	100P	Length 2	10	Nitrile	Visual	7.0 bar	SAE flange 2" 6000	<b>939066Q</b>	1070Z222A
<b>100P220QBM4MF321</b>	1074A.2HN70.TZ2230	1000	100P	Length 2	20	Nitrile	Visual	7.0 bar	SAE flange 2" 6000	<b>939067Q</b>	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
<b>100P</b>	<b>2</b>	<b>10Q</b>	<b>B</b>	<b>M4</b>	<b>M</b>	<b>F32</b>	<b>1</b>

Box 1

Code	
Model	Code
Large HP filter, L-port	<b>100P</b>

Box 2

Filter type	
Length	Code
Length 1	<b>1</b>
Length 2	<b>2</b>

Box 3

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

Box 4

Seal type	
Seal material	Code
Nitrile	<b>B</b>
Fluoroelastomer	V

Box 5

Indicator	
Indicator port plugged	<b>P</b>
Visual indicator	<b>M4</b>
Electrical indicator	<b>T2</b>
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	<b>M</b>

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

Box 7

Filter connection	
Connections	Code
Thread G 1/2	G24
Thread G 2	G32
Thread SAE 24	S24
Thread SAE 32	S32
SAE flange 1 1/2" 6000	<b>F24</b>
SAE flange 1 1/2" 6000-M	on request
SAE flange 2" 6000	<b>F32</b>
SAE flange 2" 6000-M	on request

Box 8

Options	
Options	Code
Standard	<b>1</b>
Reverse flow valve	3
ATEX certified*	EX
(Category 2, non-electrical equipment)	

Note 1\*: For ATEX classified filters add EX after the code. ATEX certified filters with electrical indicator are available on request. Visual indicators are classified as Category 2, non electrical equipment. Filter assemblies with EX code will be supplied with a dedicated name plate. Pls consult Parker Filtration for any questions related to the classification of our products.

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

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

Seal Kit and Mounting Clamp	
Options	Code
Seal kit (nitrile)	8069000070
Seal kit (fluoroelastomer)	8061000013
Mounting Clamp	84.47.265.01

Spare Indicators	
Part Number	Option
8060050033	M4
8060070002	T2
8060070007	T3
8060070006	T5

Note: Refer to Box 5 for options explanation.

### Highlights Key (Denotes part number availability)

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

Degree of filtration						Code
Average filtration beta ratio β (ISO 16889) / particle size μm [c]						
βx(c)=2	βx(c)=10	βx(c)=75	βx(c)=100	βx(c)=200	βx(c)=1000	
% efficiency, based on the above beta ratio (βx)						Disposable
50.0%	90.0%	98.7%	99.0%	99.5%	99.9%	Microglass III
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

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.

