Parker
Filtration

15P/30P Series

High Pressure Filters

Global Filtration Technology

Applications for 15P/30P Series filters

- Saw mills
- Aircraft ground support equipment
- Asphalt pavers
- Hydraulic fan drives
- Power steering circuits
- Waste trucks
- Cement trucks
- Servo control protection
- Logging equipment

These application examples have one thing in common...the need for clean hydraulic fluid.

Modern high pressure hydraulic systems are demanding. Better controls and long component life are expected. To deliver the high standards of performance, hydraulic components are built with tighter tolerances which increases their sensitivity to contamination.

That's where Parker pressure filters come into play. They filter out ingressed contamination before it jams a valve or scores a cylinder. They block pump generated debris before it gets to servo or proportional valves. Parker pressure filters are a key ingredient in meeting today's system demands.

Put your hydraulic systems in the care of Parker Hydraulic Filter Division. We are committed to designing and building the best filters available to industry.

Indicators
- Both visual auto reset style and dual indicator visual/ electrical style available to suit your application. New patented design resists false signaling due to vibration.

Straight Thread Ports
- SAE straight thread for positive sealing

Bypass Valve (not visible)
- May be blocked for critical applications

Bowl Construction
- Formed of high grade 6061 T6 aluminum
- Black anodized, corrosion resistant finish
- Knurled for easier gripping when removing and re-assembling

Hex (not visible)
- Hex formed at base of bowl for easy removal

Bowl Configurations
- Single and double length bowls available to cover a wide range of flows
- 30P available in a duplex version.

Drain Port (not visible)
- Clean and easy servicing
- Lets you drain bowl before element changes

Quality elements make the difference

The important item in a filter assembly is the element. It must capture and retain contaminants that can damage system components. At the same time it must allow flow to pass as freely as possible to perform it's function.

There are many ways to design and build an element, and it's easy to produce a low cost element. However, cost is not the only selection criteria, especially when the risk is loss of critical machine performance.

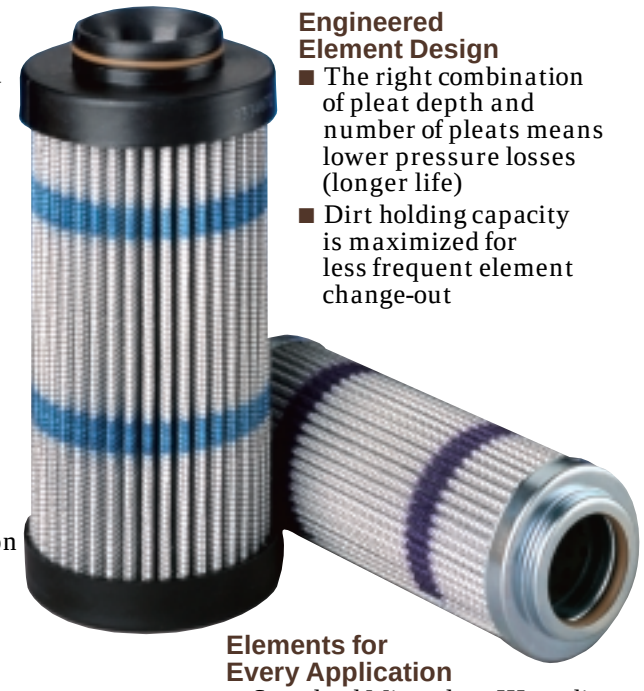
For instance, wire mesh reinforcement. Not all filter elements have it. It's used in Parker elements to keep the pleats from bunching or collapsing. If pleats bunch, the effective surface area of the element is reduced, excessive pressure drop develops, and the filter assembly may go into premature bypass mode.

There are many other features that are included standard with every quality Parker element. The table below outlines several.

O-Ring Seal
- Positive sealing for optimum element efficiency

Wire Reinforced Media
- Prevents pleat bunching
- Helps prevent media migration
- Maintains media efficiency

Zinc Dichromate End Caps (15P)
- Excellent corrosion protection
- Strong adhesion means no element separation

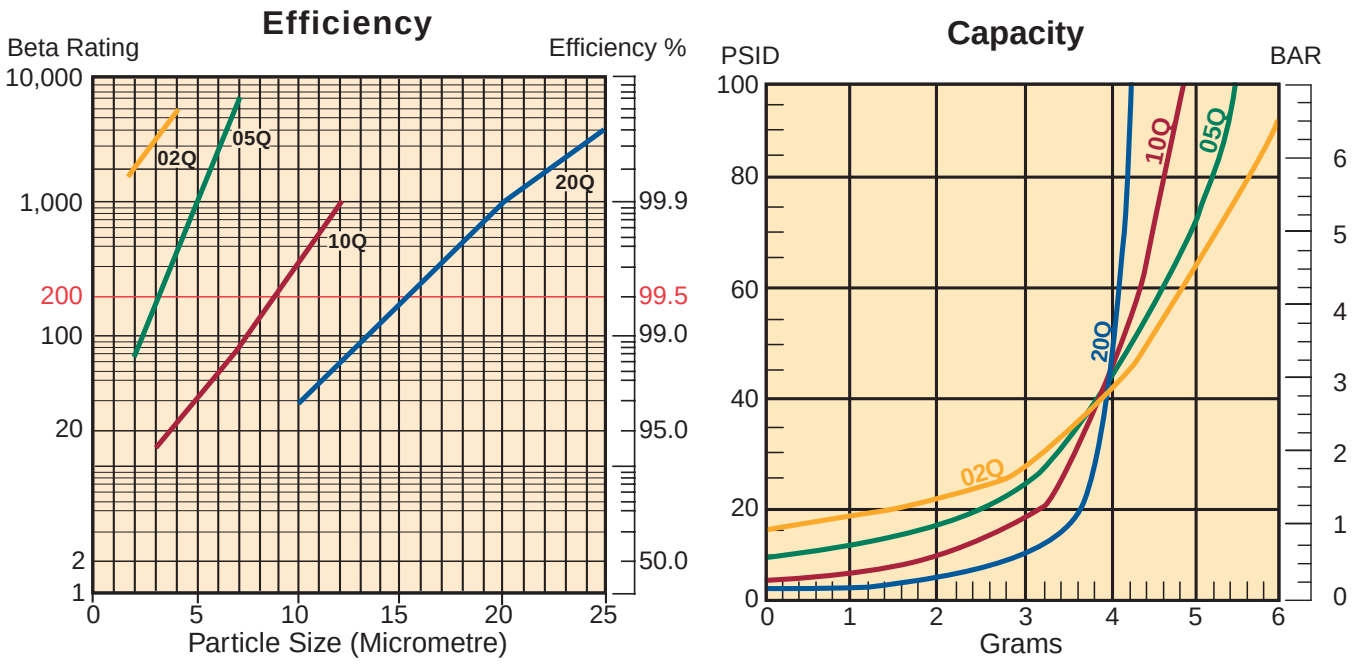


Engineered Element Design
- The right combination of pleat depth and number of pleats means lower pressure losses (longer life)
- Dirt holding capacity is maximized for less frequent element change-out

Elements for Every Application
- Standard Microglass III media for long life and excellent system protection

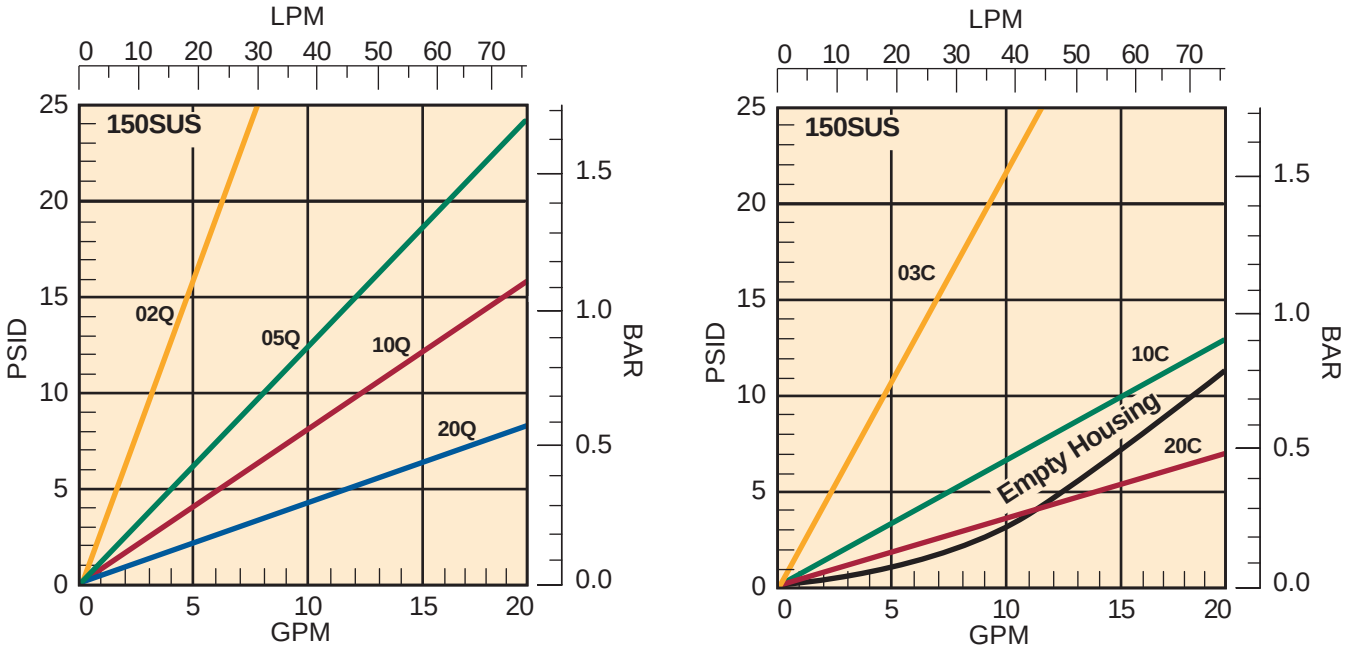
Feature	Advantage	Benefit
• Wire reinforced Microglass III elements	• Rugged construction, stands up to abuse of cyclic flows without performance loss • Wire support reduces pleat bunching, keeps pressure drops consistent	• The reliable filtration provided assures equipment protection, reduces down-time, maximizes element life, and allows the hydraulic system to operate properly
• Multipass tested elements (per ANSI/NFPA T3.10.8.8 R1-1990)	• Filter performance backed by recognized and accepted laboratory test standards	• Filters you select have known performance levels
• Complete element performance data disclosure	• All pertinent information is provided in an easy-to-compare format	• Provides an easy guide to proper filter selection

15P-1 Element Performance

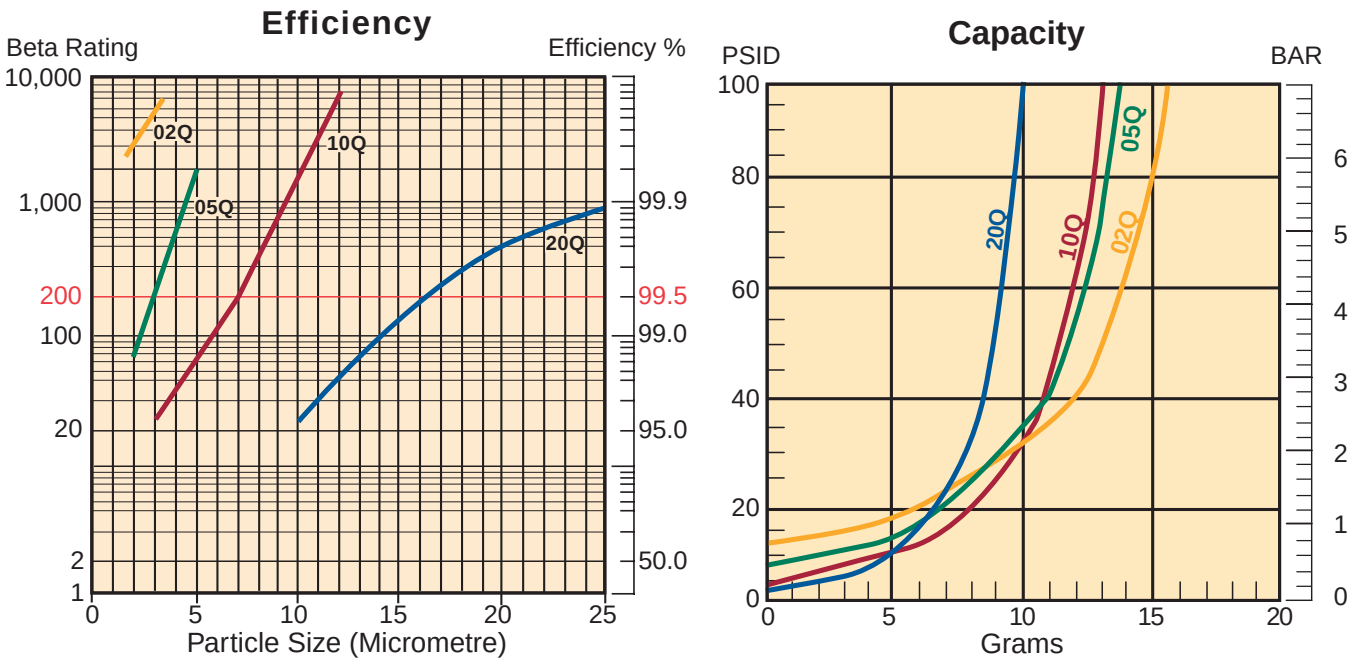


Multipass tests run @ 10 gpm to 100 psid terminal - 5mg/L BUGL

Flow vs. Pressure Loss

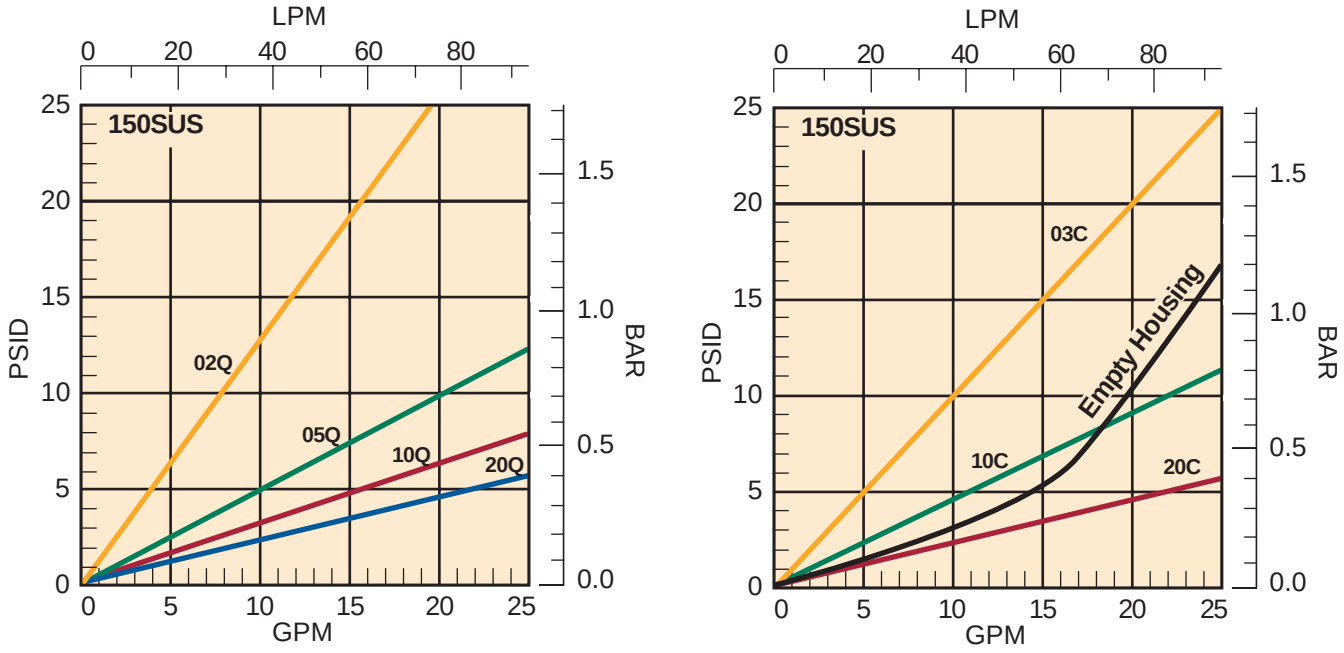


15P-2 Element Performance

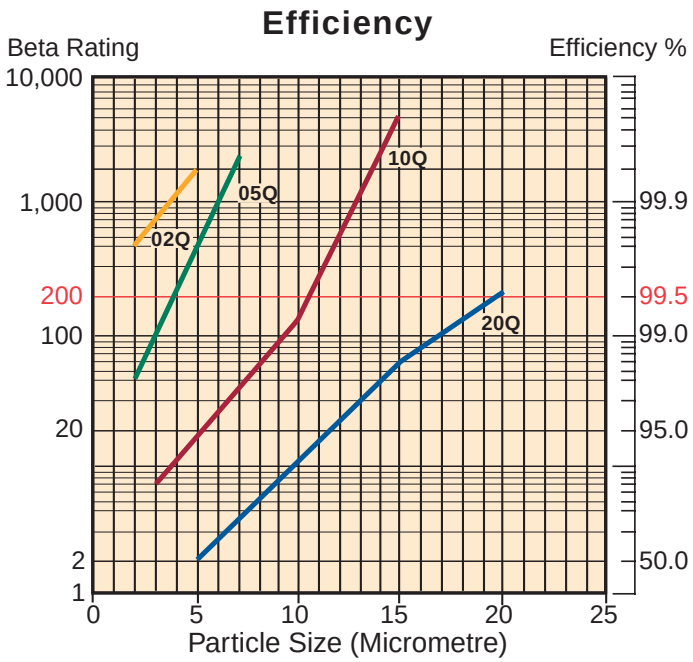


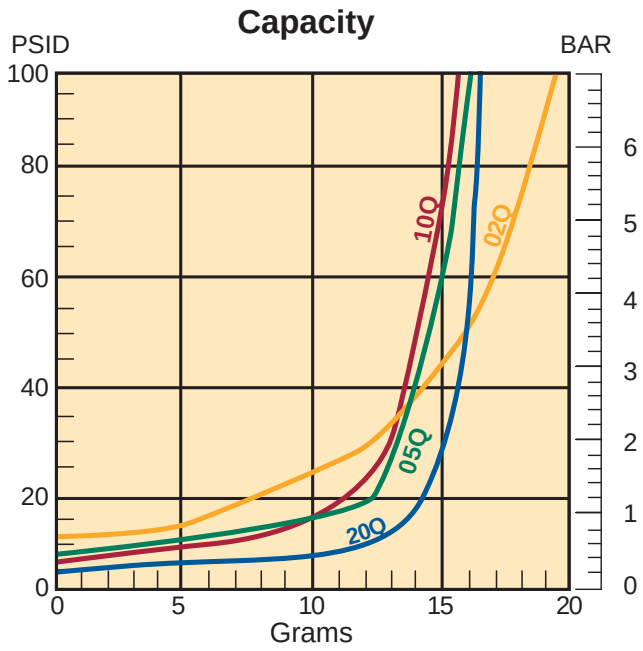
Multipass tests run @ 15 gpm to 100 psid terminal - 5mg/L BUGL

Flow vs. Pressure Loss



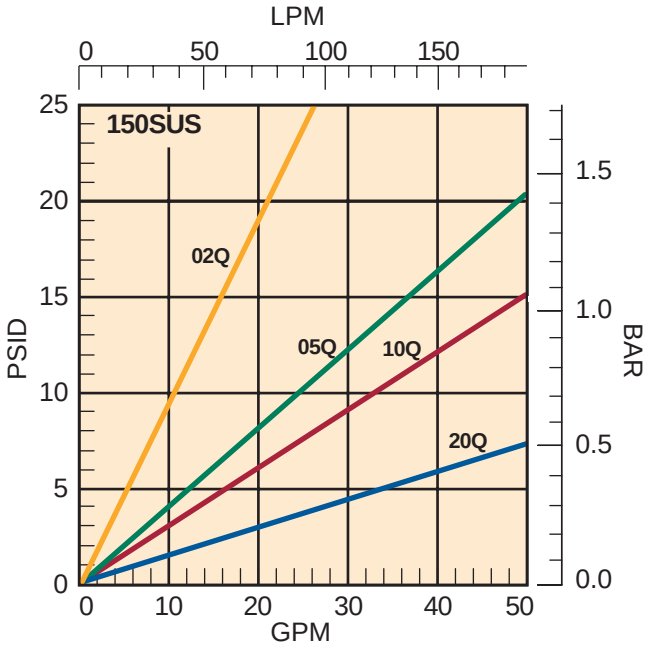
30P-1 Element Performance

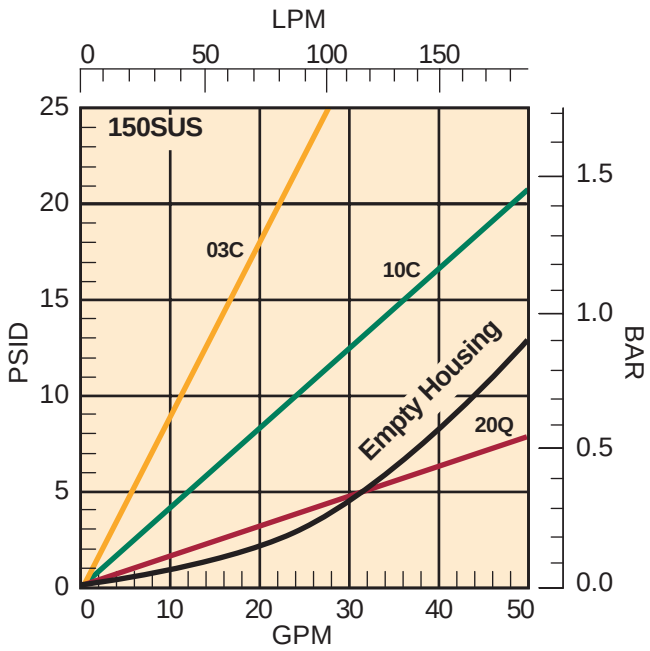




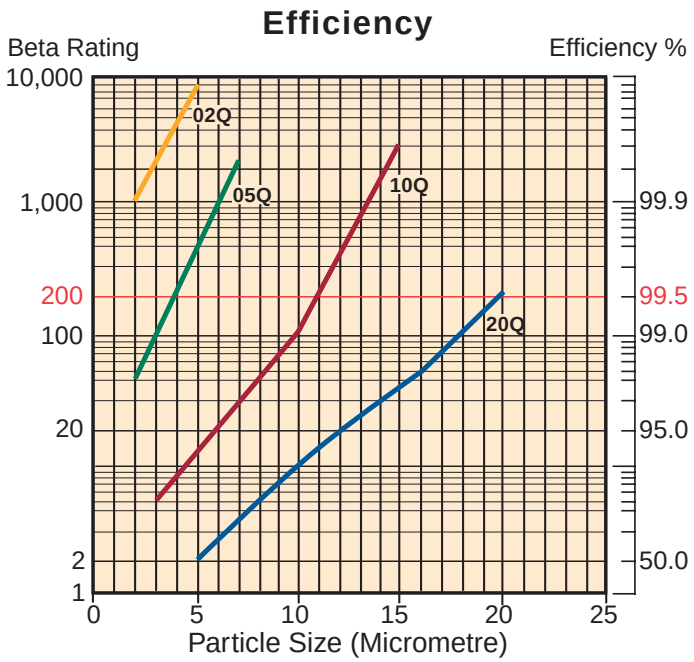
Multipass tests run @ 20 gpm to 100 psid terminal - 5mg/L BUGL

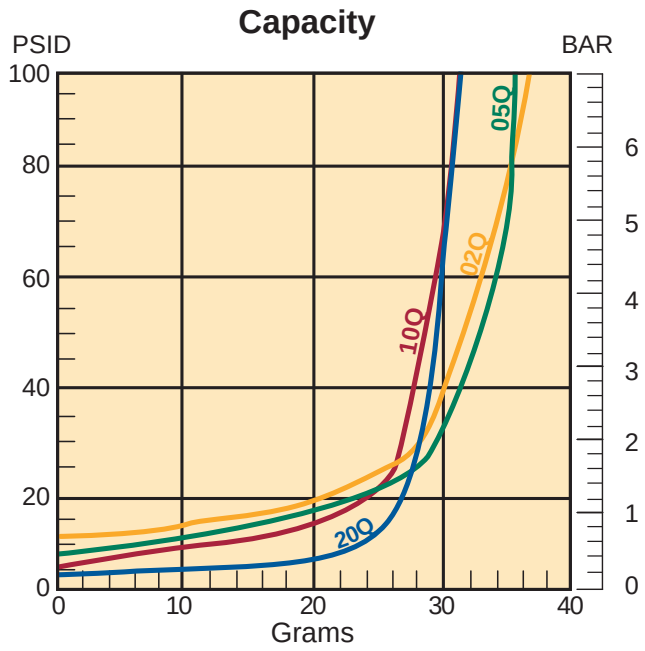
Flow vs. Pressure Loss





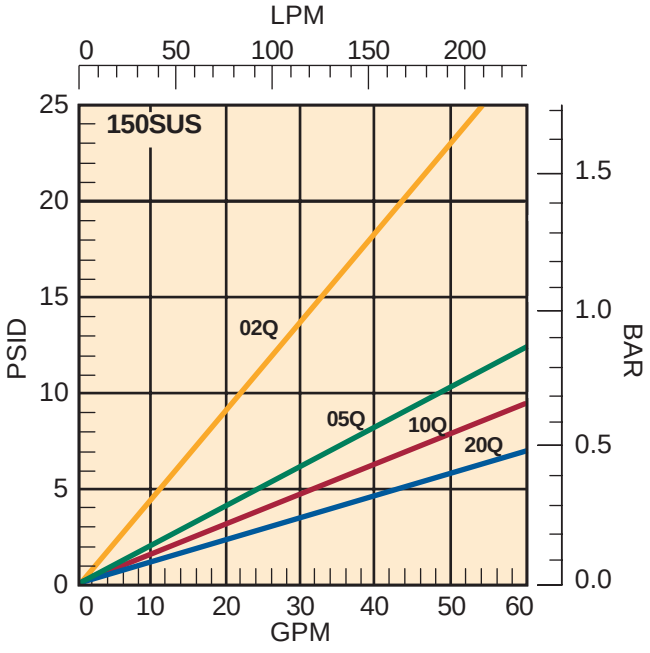
30P-2 Element Performance

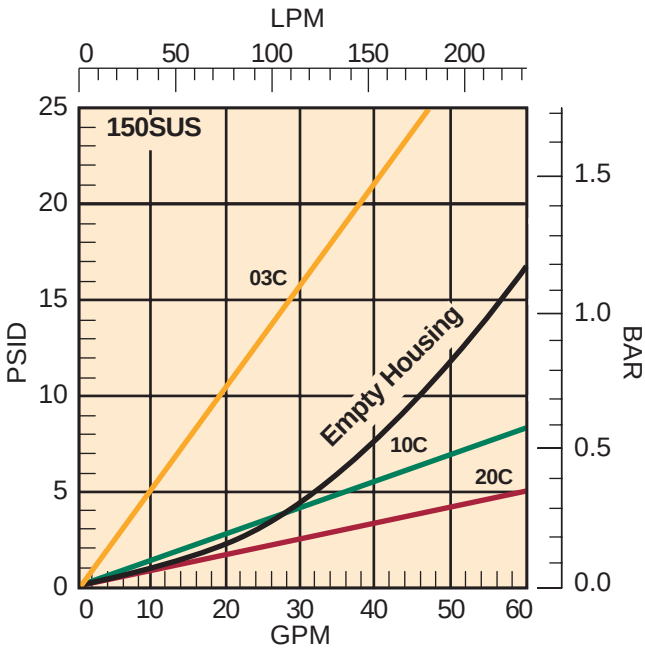




Multipass tests run @ 30 gpm to 100 psid terminal - 5mg/L BUGL

Flow vs. Pressure Loss





Specifications: 15P

Pressure Ratings:
Maximum Allowable Operating Pressure (MAOP): 3000 psi (206.9 bar)
Rated Fatigue Pressure: 2000 psi (138 bar)
Design Safety Factor: 3:1

Operating Temperatures:
Buna: -40°F (-40°C) to 225°F (107°C)
Fluorocarbon: -15°F (-26°C) to 275°F (135°C)

Element Collapse Rating:
Standard- 350 psid (24.1 bar)
"H" Option- 2000 psid (138 bar)
"X" Option- 3000 psid (206.9 bar)

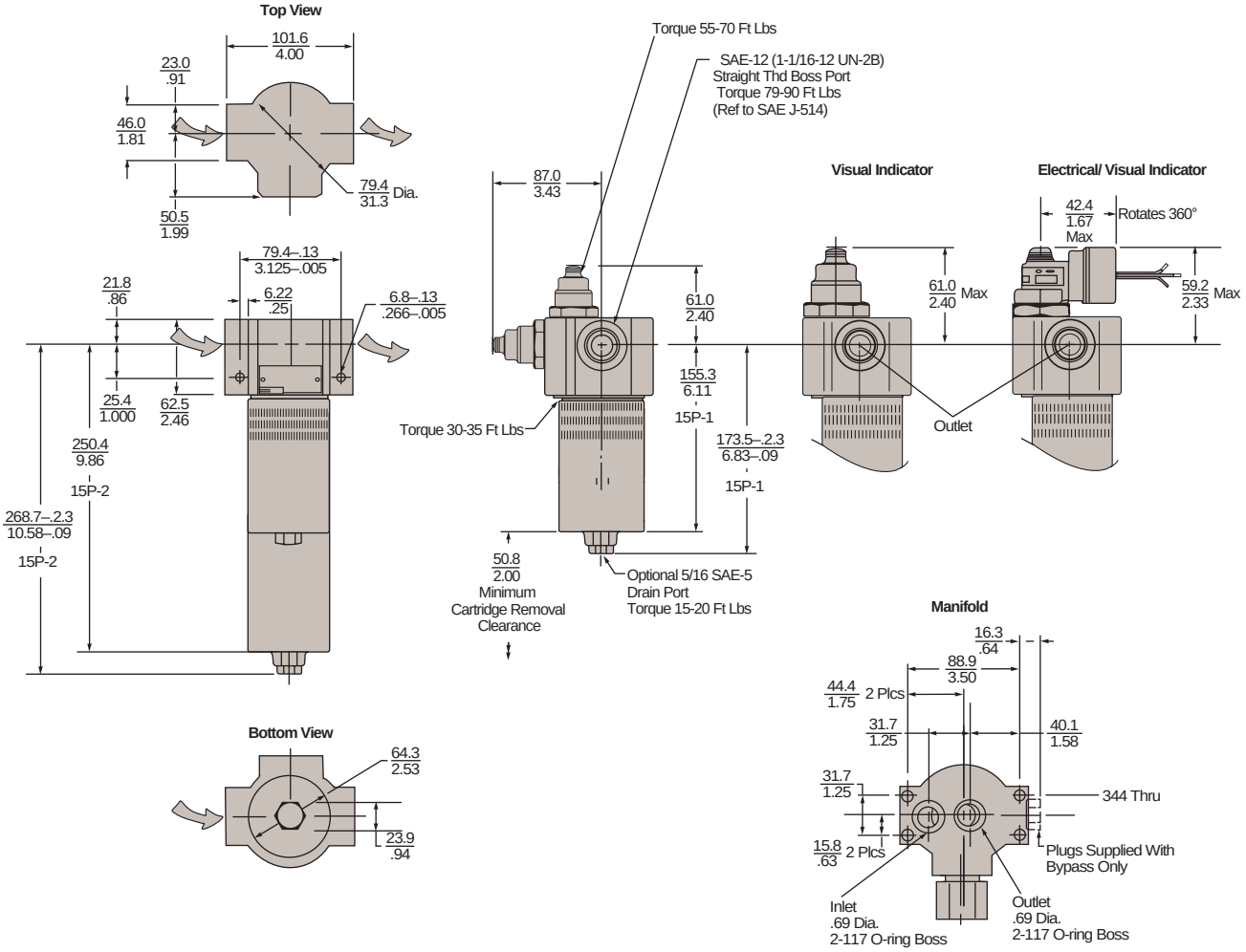
Materials:
Bowl: impacted aluminum (anodized 6061-T6)
Head: extruded aluminum (anodized 6061-T6)
Bypass: nylon

Element Condition Indicators:
Visual (optional) 360° green/ red
Electrical/ Visual (optional)
5A @ 240VAC, 3A @ 28VDC
Electrical-heavy duty (optional)
.25A (resistive) MAX 5 watts
12 to 28 VDC & 110 to 175 VAC

Color Coding:
White (common)
Black (normally open)
Blue (normally closed)

Weights (approximate):
15P-1 3.5 lb. (1.6 kg.)
15P-2 4.6 lb. (2.1 kg.)

Linear Measure: millimeter / inch



Dimensional drawings are for reference only.

Specifications: 30P/30PD

Pressure Ratings:
Maximum Allowable Operating Pressure (MAOP): 3000 psi (206.9 bar)
Rated Fatigue Pressure: 2000 psi (138 bar)
Design Safety Factor: 3:1

Operating Temperatures:
Buna: -40°F (-40°C) to 225°F (107°C)
Fluorocarbon: -15°F (-26°C) to 275°F (135°C)

Element Collapse Rating:
Standard- 350 psid (24.1 bar)
"H" Option- 2000 psid (138 bar)
"X" Option- 3000 psid (206.9 bar)

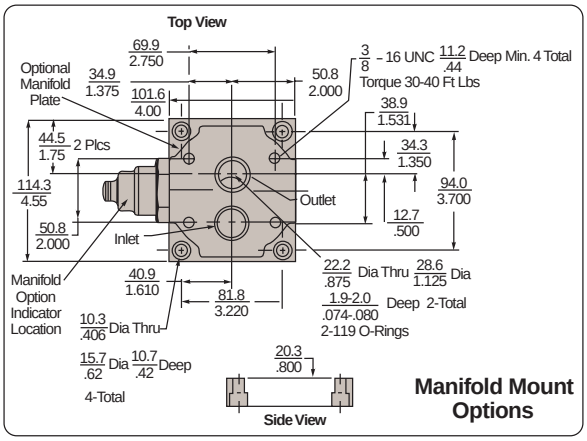
Materials:
Bowl: impacted aluminum (anodized 6061-T6)
Head: extruded aluminum (anodized 6061-T6)
Bypass: Nylon

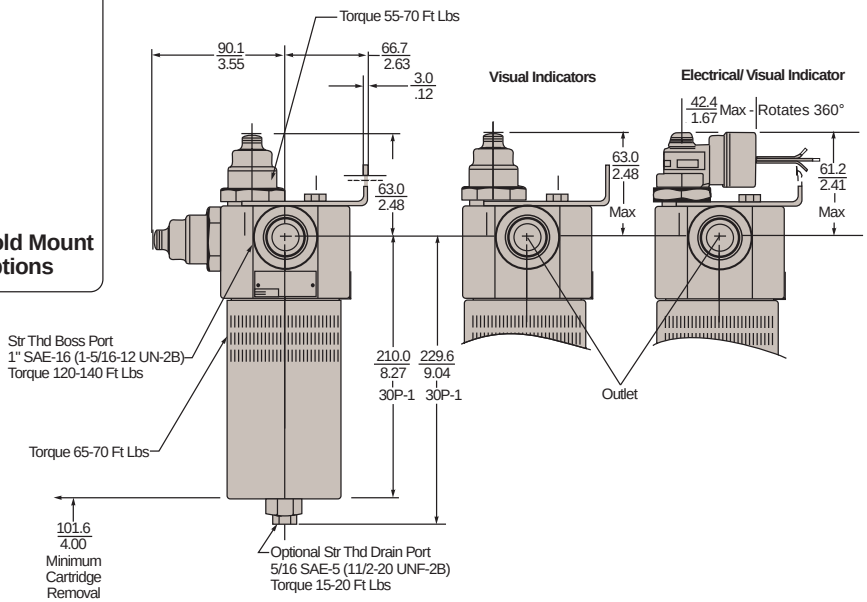
Element Condition Indicators:
Visual (optional) 360° green/ red
Electrical/ Visual (optional)
5A @ 240VAC, 3A @ 28VDC
Electrical-heavy duty (optional)
.25A (resistive) MAX 5 watts
12 to 28 VDC & 110 to 175 VAC

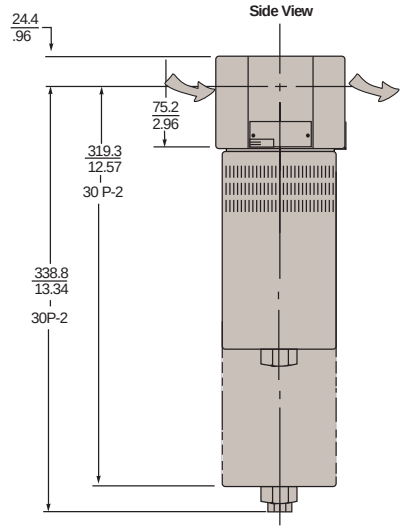
Color Coding:
White (common)
Black (normally open)
Blue (normally closed)

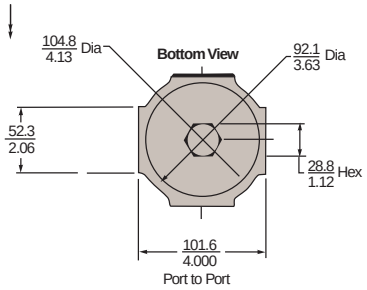
Weights (approximate):
30P-1 6.4 lb.(2.9 kg.)
30PD-1 36 lb. (16.3 kg.)
30P-2 8.7 lb. (3.9 kg.)
30PD-2 40 lb. (18.1 kg.)

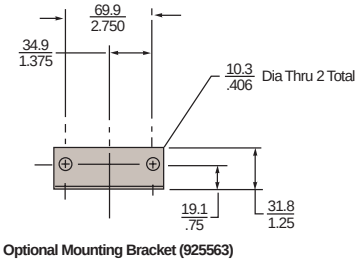
Linear Measure: millimeter / inch











Dimensional drawings are for reference only.

30PD Duplex Filter

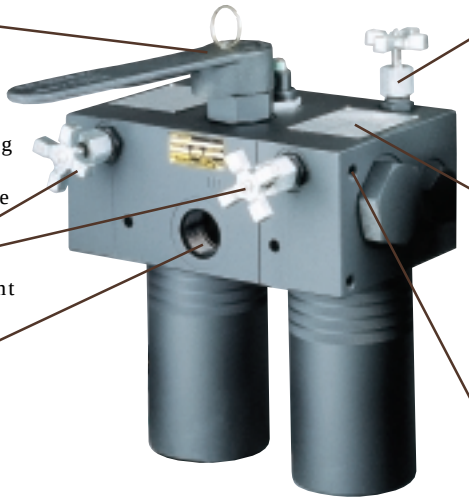
The Parker 30PD duplex pressure filter provides uninterrupted filtration for equipment that cannot be shut down for servicing.

The 30PD allows you to simply switch the diverter valve and service the element while the other side is in service.

Pressure balancing valves and check valves are all neatly assembled in a compact manifold head that makes operation safe, smooth and easy.

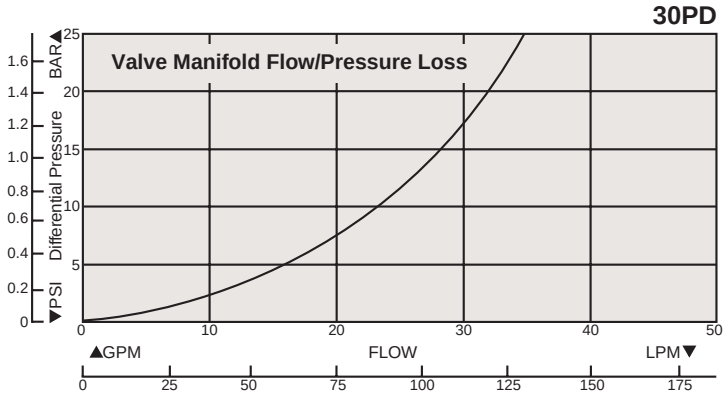
Vent valves are also included to insure that all air is purged during service so that maximum system performance is achieved.

The Parker 30PD makes use of industry proven components. Elements are multi-pass tested in accordance with ANSI/NFPA T3.10.8.8 R1 -1990. Bowls and head are subjected to rigorous fatigue testing to insure a trouble free service life.

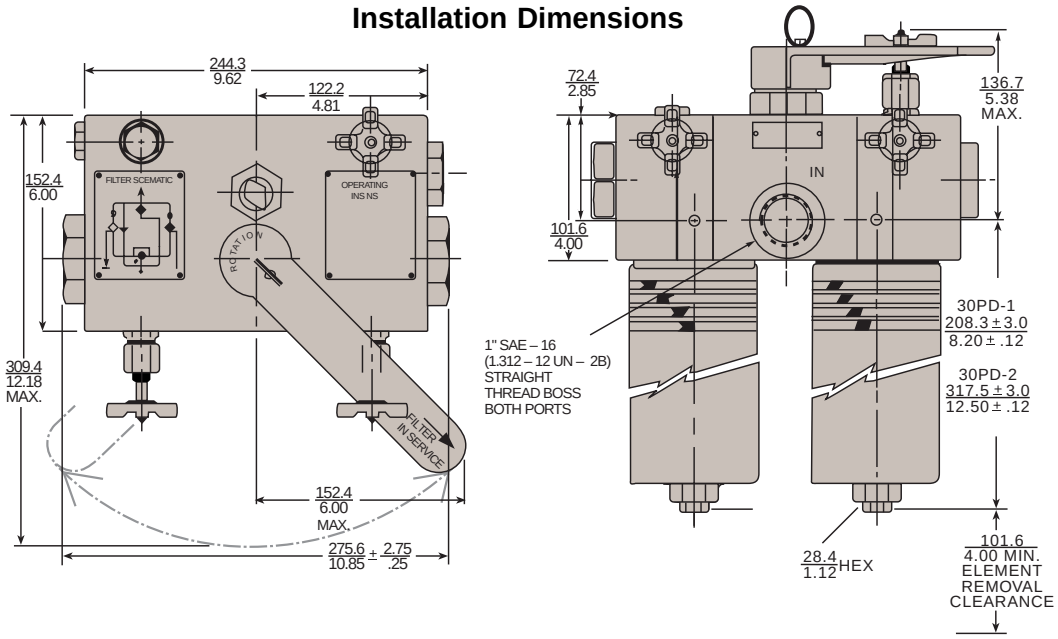


30PD Empty Housing Flow vs Pressure Loss

To obtain total filter assembly pressure loss, add empty housing loss to the pressure loss of selected element on 30P element performance pages.



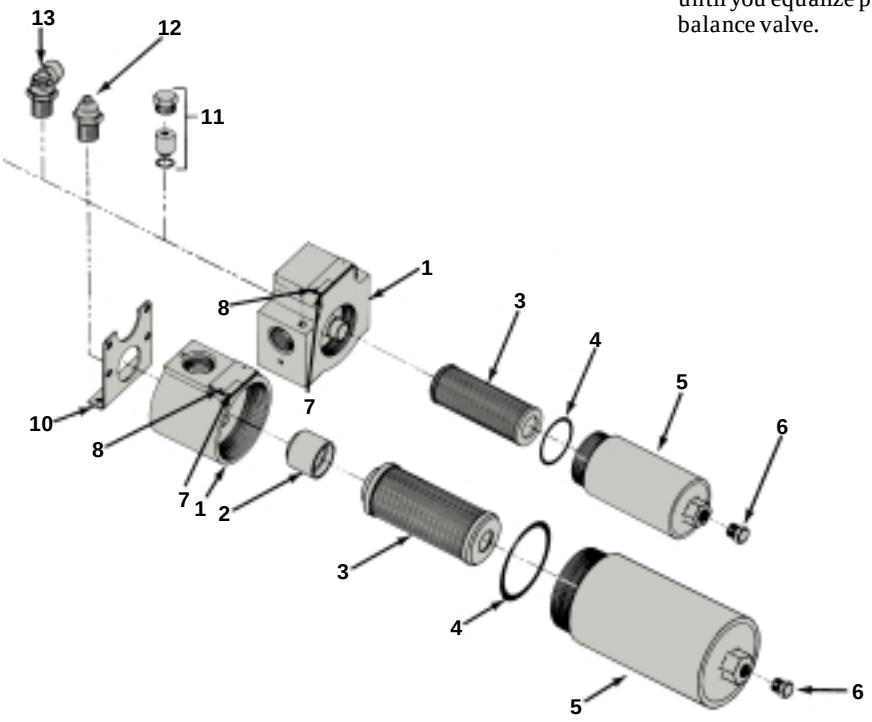
Installation Dimensions



Parts List

Index	Description	15P	30P
1	**Head**		
	In-line Porting		
	Bypass w/top indicator port	931520	933956
	No bypass w/top indicator port	931519	933956
	Bypass w/side indicator port	931522	933955
	No bypass w/side indicator port	931521	933955
	Manifold Porting		
	Bypass w/indcator port	931135	933954
	No bypass w/ indicator port	931523	933954
2	**Bypass Valve Assembly**		
	50 psid (in-line model only)	928981	925127
	No bypass	N/A	925209
3	**Elements (see chart on model code page)**		
4	**Bowl O-Ring**		
	Buna	N92138	N92151
	Fluorocarbon	V92138	V92151
5	**Bowl**		
	Single without drain	926102	926038
	Single with drain	926450	926040
	Double without drain	926103	926039
	Double with drain	926451	926041
6	**Drain Plug**		
	W/buna o-ring	920462	920462
	W/fluorocarbon o-ring	922521	922521
7	**Nameplate(unstamped)**	920928	920928
8	**Drive Screws**	903393	903393
9	**Mounting Spacer Tube (not shown)**	925650	N/A
10	**Mounting Bracket Kit**	N/A	925563
11	**Blank Indicator Kit**	925515	925515
	Indicators (viton seals)		
12	Visual auto reset	933124	933124
	H option (1/2" conduit connection)	932905	932905
	E2 option (DIN 43650 connection)	929599	929599
13	E3 option (3 pin ANSI/B93.55M connection)	932773	932773
	Manifold Mounting Kit	N/A	925562
	Manifold O-Rings (2 required)		
	Buna	N92117	N92119
	Fluorocarbon	V92117	V92119

Note: consult factory for EPR part numbers



Element Servicing

15P/30P

A. Stop the system's power unit.
B. Relieve any pressure in the filter line and drain filter bowl if drain port is provided.
C. Loosen and remove bowl.
D. Remove element from housing.
E. Place new, clean element in housing, centering it on the element locator.
F. Inspect the bowl o-ring and replace if necessary.
G. Install bowl and tighten to specified torque.

30PD

A. Arrow on diverter handle points to the on-duty chamber.
B. Open off-duty vent valve (vent port should be plumbed back to reservoir).
C. Open balance valve slowly to admit fluid into off duty chamber.
D. When fluid is discharged from vent port, close and tighten.
E. Pull up on detent pin and rotate diverter approximately 90° until detent relocates in seat.
F. Close and tighten balance valve.
G. Open new off-duty vent valve to relieve pressure.
H. Follow steps C-G from 15P/30P instructions above.
I. Close and tighten vent valve.

Warning: Do not try and rotate handle until you equalize pressure with the balance valve.

HOW TO ORDER:

Select the desired symbol (in the correct position) to construct a model code.
Example:

BOX 1	BOX 2	BOX 3	BOX 4	BOX 5	BOX 6	BOX 7	BOX 8	BOX 9
F3	30P	1	10Q	M2	50	NN	19	(Assigned By Parker)

BOX 1: Seals

Symbol	Description
None	***Buna N (nitrile)***
F3	***Fluorocarbon***
E8	EPR

BOX 2: Basic Assembly

Symbol	Description
15P	***Pressure filter***
30P	***Pressure filter***
30PD	Duplex style 30P

BOX 3: Length

Symbol	Description
1	***Single***
2	***Double***

BOX 4: Element Media

Symbol	Description
20C	Cellulose
10C	Cellulose
03C	Cellulose
20Q	***Microglass III***
10Q	***Microglass III***
05Q	***Microglass III***
02Q	***Microglass III***

Note: For high collapse rated (2000 psid) elements, add "H" behind Q. For 3000 psid collapse rated elements, add "X" behind Q.

BOX 5: Indicator

Symbol	Description
N	No indicator, no pressure port
P	***Port plugged***
M2	***Visual auto reset***
H	Electrical indicator, w/½"-14 NPT connection and 12" leads
E	Electrical/visual w/ ½" NPT conduit connection and wire leads
E2	***Electrical/visual (DIN 43650 Hirschman style connection)***
E3	Electrical/visual (ANSI/ B93.55M 3-pin Brad Harrison style connection)

Note: For side mount indicators, place a "s" after indicator symbol. Not available on 30PD model.

BOX 6: Bypass Or Indicator Setting

Symbol	Pressure Setting
50	***50 psid***

Note: If "no bypass" option (-11) and an indicator is selected, "50" denotes indicator calibration.

BOX 7: Ports

Model	Symbol	Description
15P	***MM***	***SAE-12***
15P	XX	¾"-manifold porting
30P	***NN***	***SAE-16***
30P	XX	1"-manifold porting
30PD	NN	SAE-16

Note: Customer supplies subplate adaptor, or purchases optional Parker subplate.

BOX 8: Options

Symbol	Description
1	***None***
11	No bypass
19	SAE-5 drain port on bowl
21	No bypass and drain port

BOX 9: Design Number

Applied to filter assembly by Parker Filter Division. Use the full filter model code, including the design number when ordering replacement parts, elements and cartridges.

REPLACEMENT ELEMENTS

Filter Model (Flourocarbon seals)				
Media	**15P-1**	**15P-2**	**30P/30PD-1**	**30P/30PD-2**
20C	925576	925596	922625	925834
10C	925385	925394	922624	925835
03C	925578	925598	922923	925836
20Q	***930369Q***	***930370Q***	***933135Q***	***933136Q***
10Q	***932612Q***	***932618Q***	***932624Q***	***932630Q***
05Q	***932611Q***	***932617Q***	***932623Q***	***932629Q***
02Q	***932610Q***	***932616Q***	***932622Q***	***932628Q***
I0QH	932615Q	932621Q	932627Q	932633Q
05QH	932614Q	932620Q	932626Q	932632Q
02QH	932613Q	932619Q	932625Q	932631Q
I0QX	933577Q	933579Q	933581Q	933583Q
02QX	933576Q	933578Q	933580Q	933582Q

Please note the bolded options reflect standard options with a reduced lead-time. Consult factory on all other lead-time options.