



aerospace
climate control
electromechanical
filtration
fluid & gas handling
hydraulics
pneumatics
process control
sealing & shielding



15P/30P Series

High Pressure Filters



ENGINEERING YOUR SUCCESS.

15P/30P Series

Applications

- 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. 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

Hex (not visible)

Hex formed at base of bowl for easy removal

Drain Port (not visible)

Clean and easy servicing
Lets you drain bowl before element changes

Bowl Construction

Formed of high grade 6061 T6 aluminum.

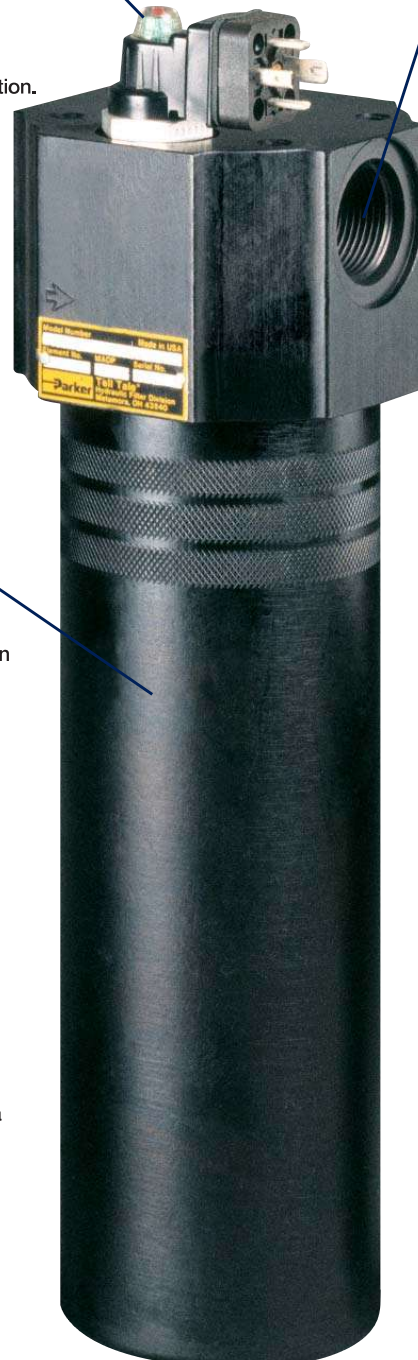
Powder painted, corrosion resistant finish.

Knurled for easier ripping when removing and re-assembling.

Bowl Configurations

Single and double length bowls available to cover a wide range of flows.

30P available in a duplex version.



15P/30P Series

Element Features

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 its 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

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



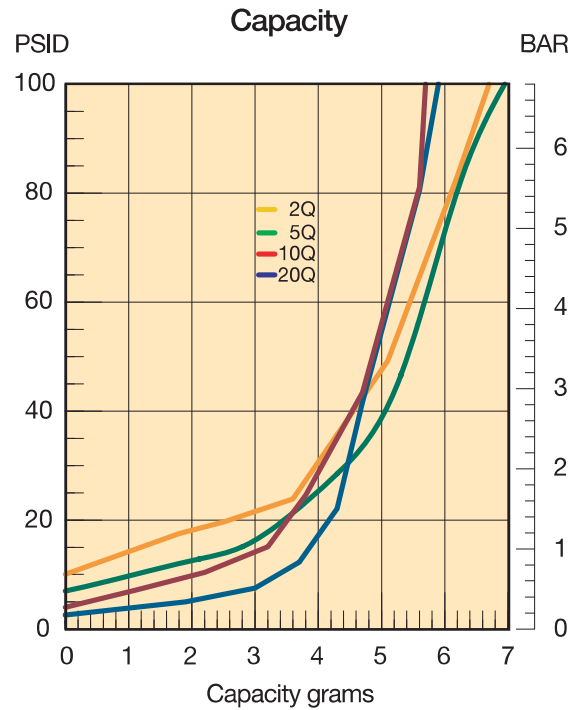
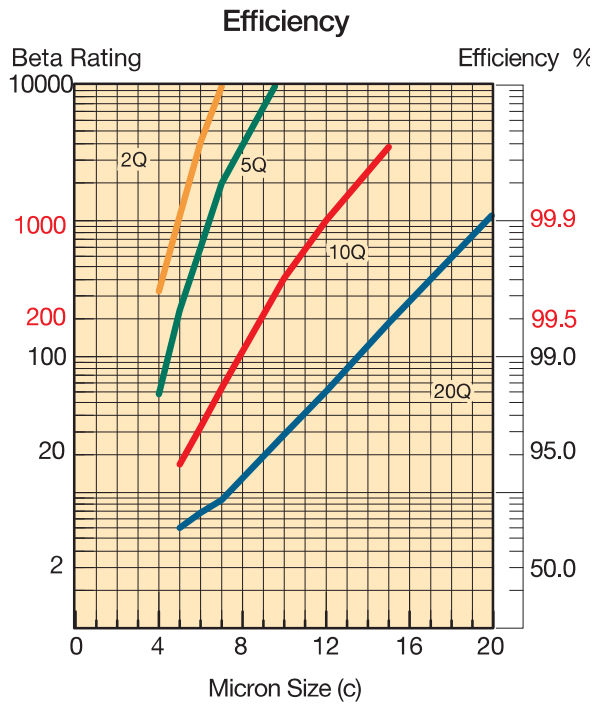
Elements for Every Application

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 downtime, 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

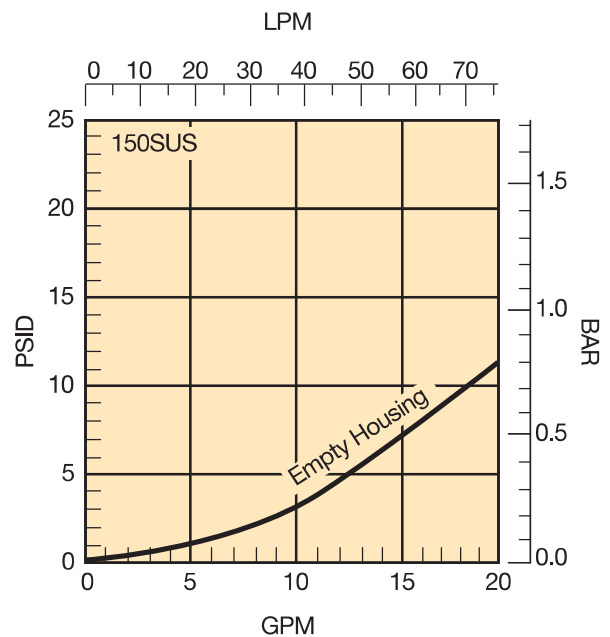
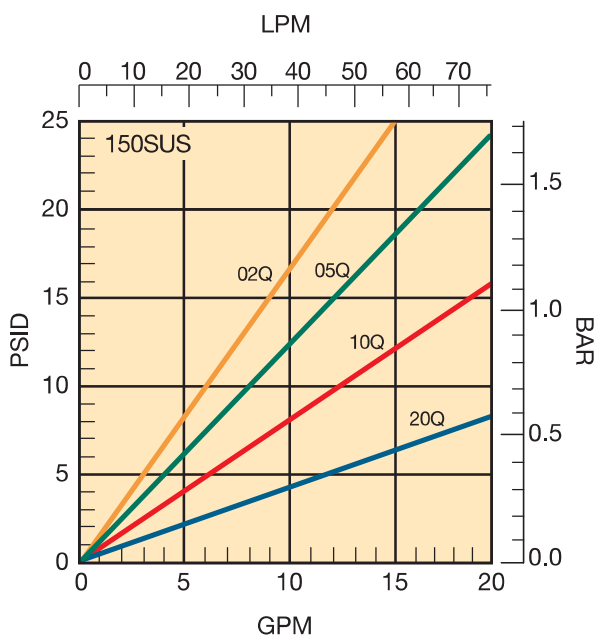
15P Series

15P-1 Element Performance



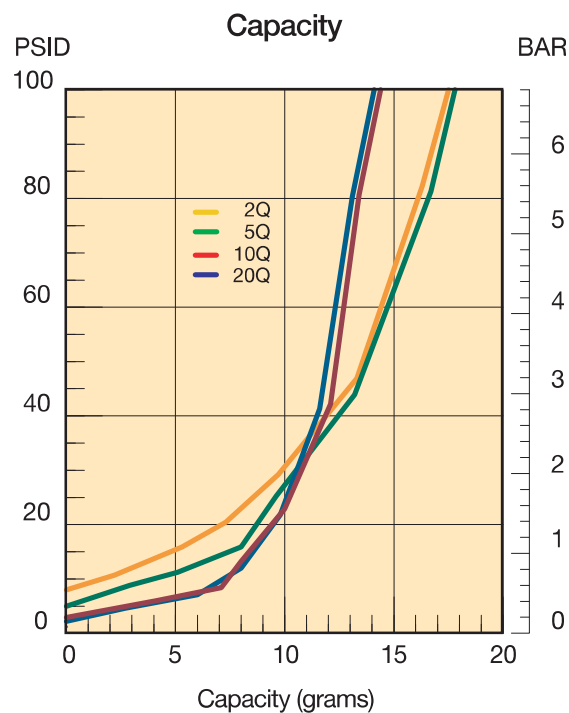
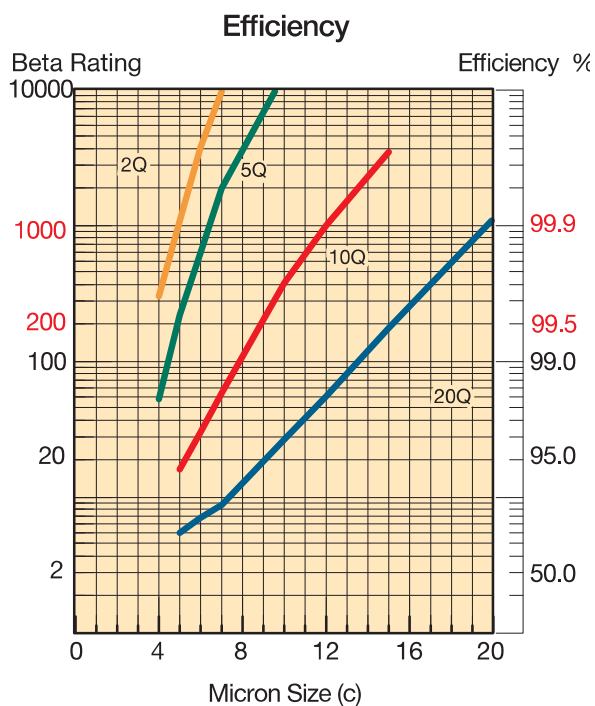
Results typical from Multi-pass tests run per test standard ISO 16889 @ 10 gpm to 100 psid terminal - 10 mg/L BUGL
Refer to Appendix on pages 264-265 for relationship to test standard ISO 4572.

Flow vs. Pressure Loss



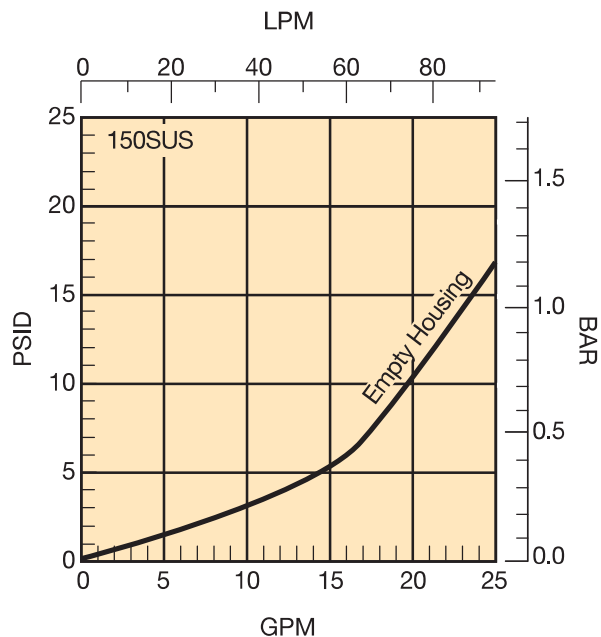
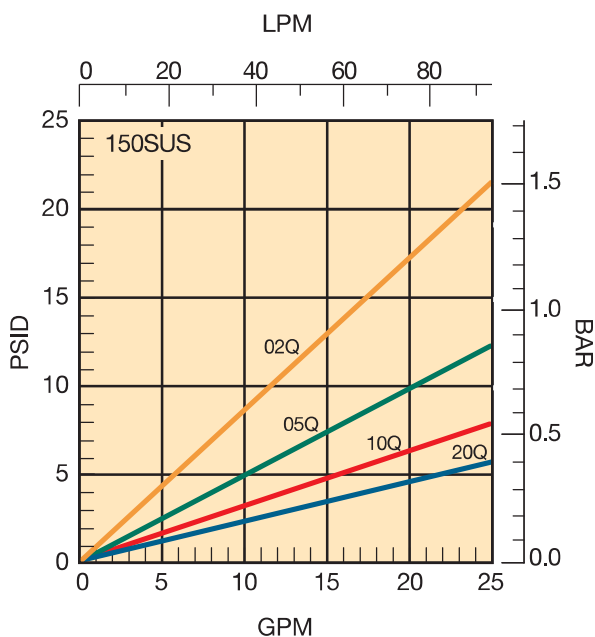
15P Series

15P-2 Element Performance



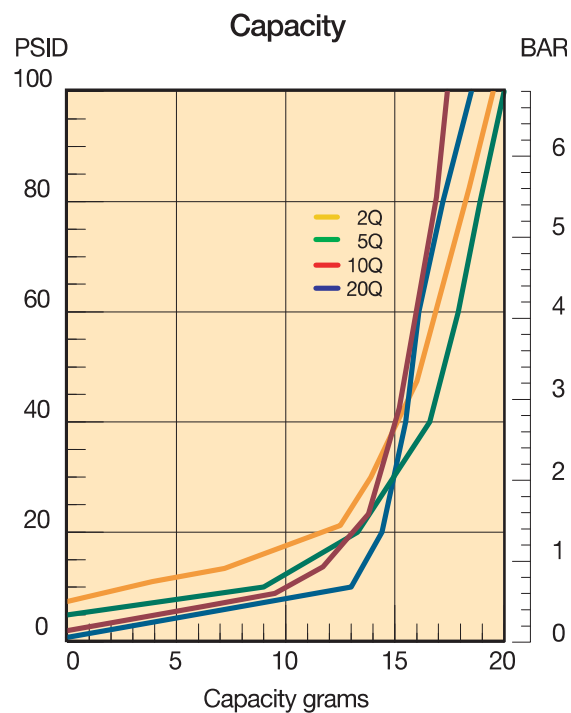
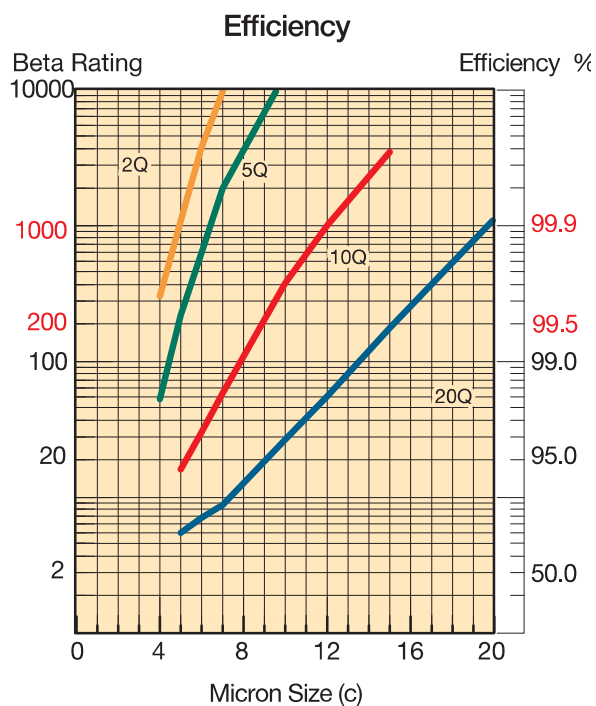
Results typical from Multi-pass tests run per test standard ISO 16889 @ 15 gpm to 100 psid terminal - 10 mg/L BUGL
Refer to Appendix on pages 264-265 for relationship to test standard ISO 4572.

Flow vs. Pressure Loss



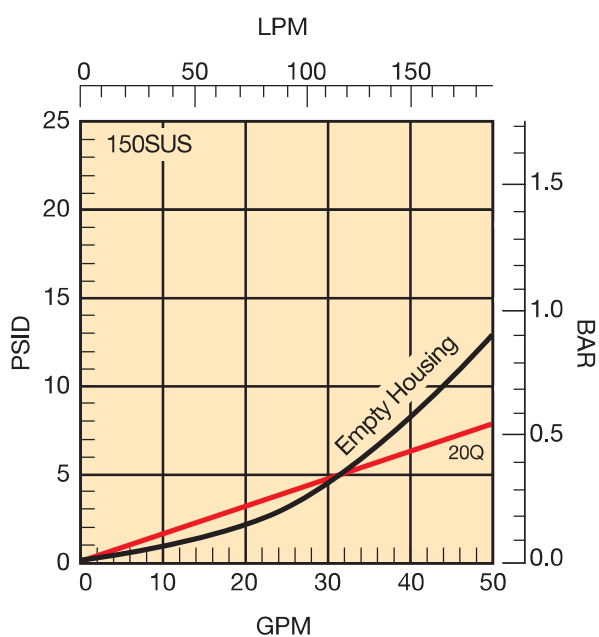
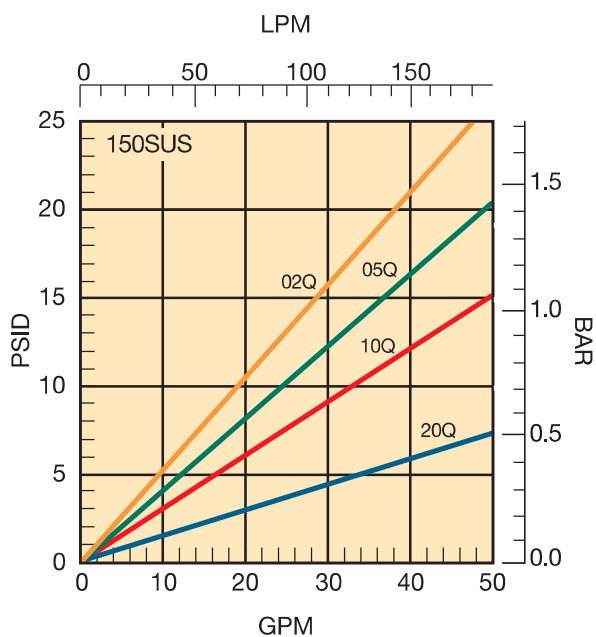
30P Series

30P-1 Element Performance



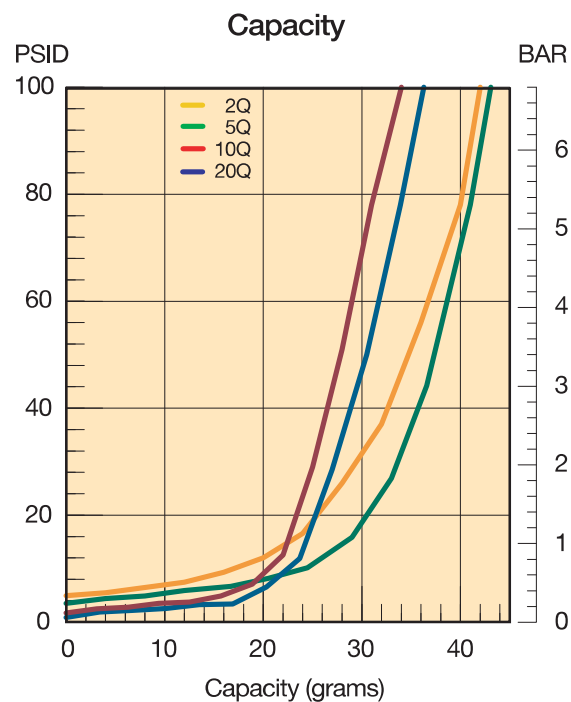
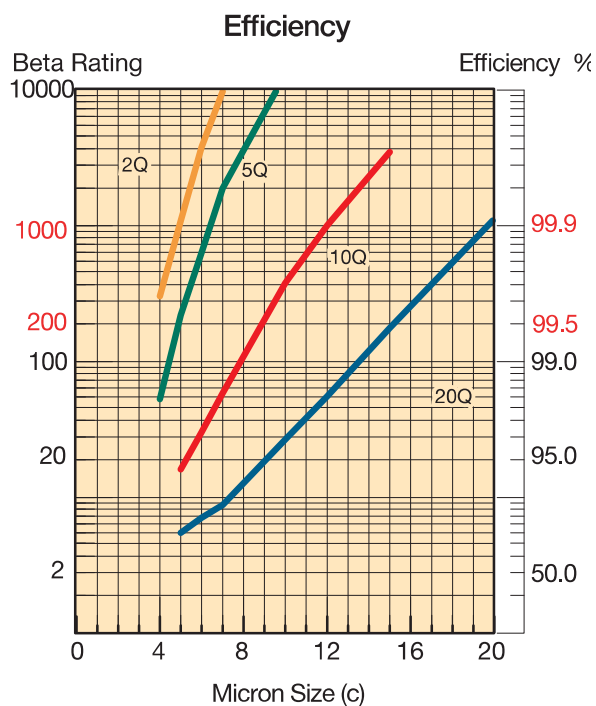
Results typical from Multi-pass tests run per test standard ISO 16889 @ 20 gpm to 100 psid terminal - 10 mg/L BUGL
Refer to Appendix on pages 264-265 for relationship to test standard ISO 4572.

Flow vs. Pressure Loss



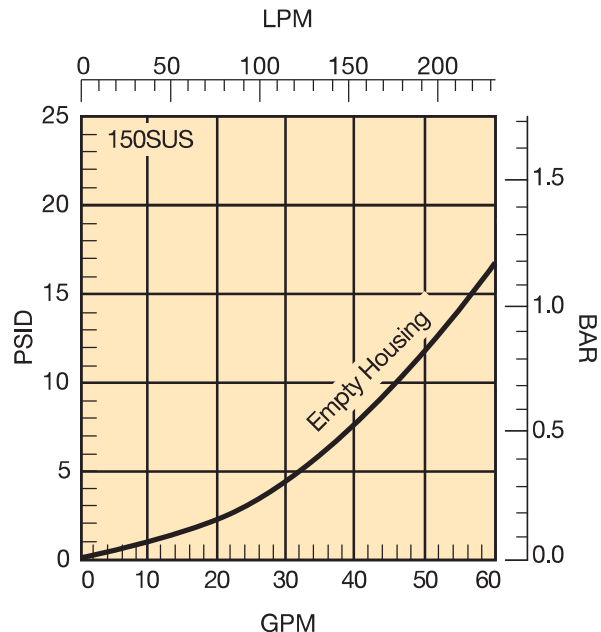
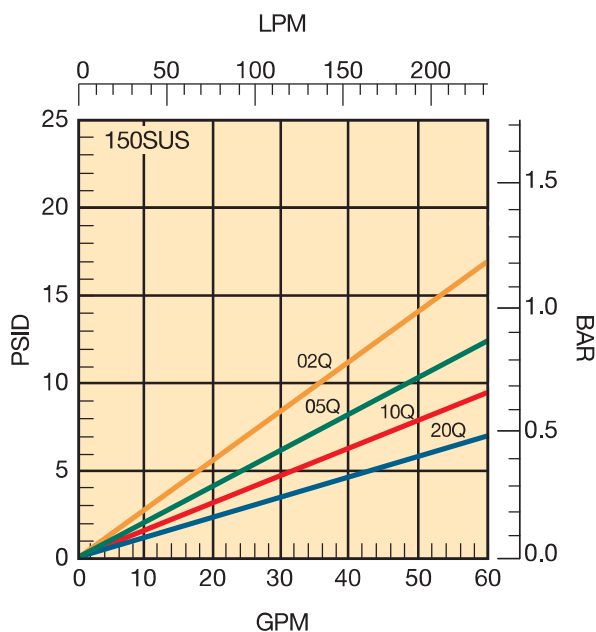
30P Series

30P-2 Element Performance



Results typical from Multi-pass tests run per test standard ISO 16889 @ 30 gpm to 100 psid terminal - 10 mg/L BUGL
Refer to Appendix on pages 264-265 for relationship to test standard ISO 4572.

Flow vs. Pressure Loss



15P Series

Specifications

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

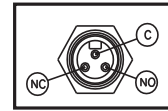
Electrical/ Visual (optional)

5A @ 240VAC, 3A @ 28VDC

Electrical-heavy duty (optional)

.25A (resistive) MAX 5 watts

12 to 28 VDC & 110 to 175 VAC



E3

Color Coding:

White (common)

Black (normally open)

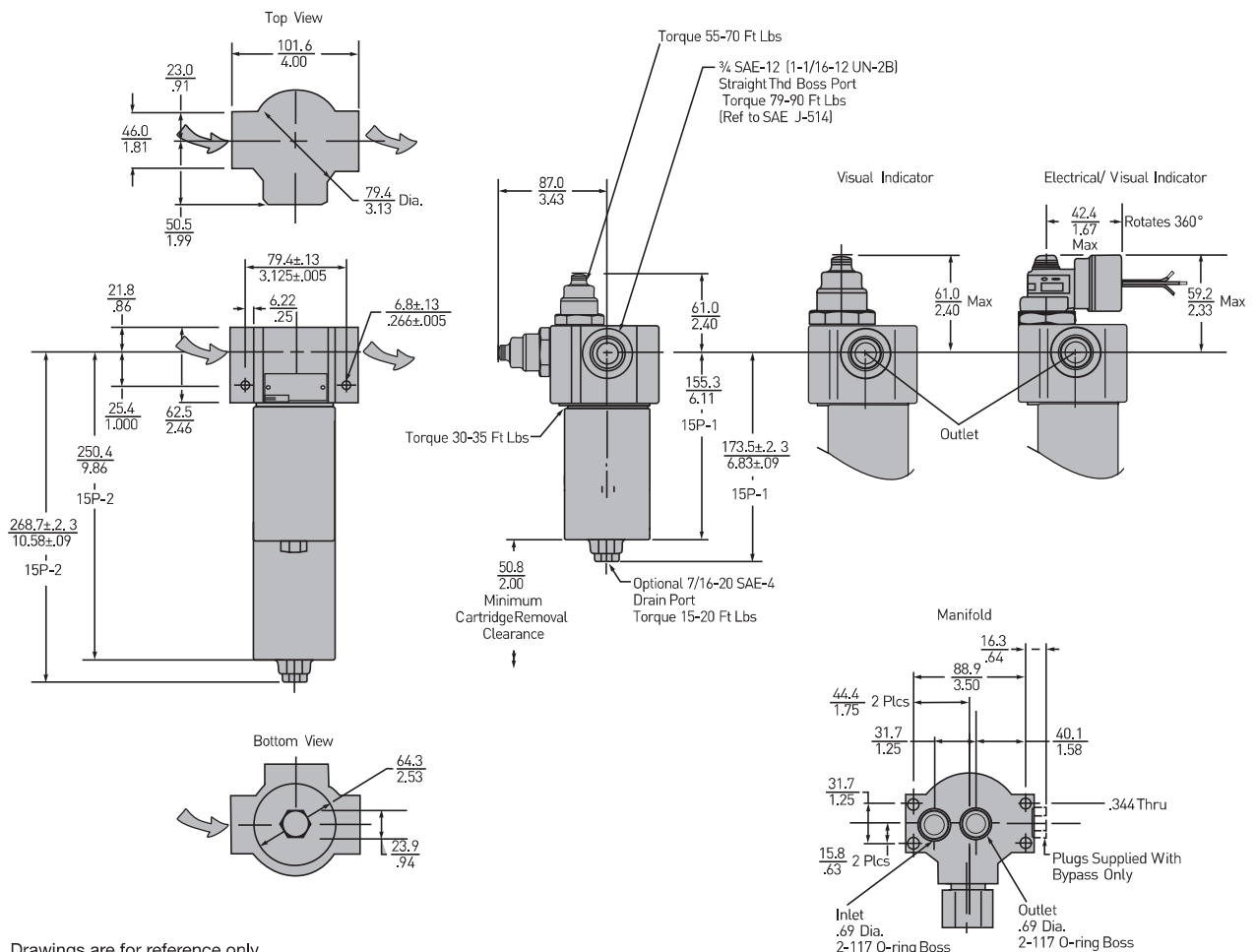
Blue (normally closed)

Weights (approximate):

15P-1 3.5 lb. (1.6 kg.)

15P-2 4.6 lb. (2.1 kg.)

Linear Measure: millimeter
inch



Drawings are for reference only.
Contact factory for current version.

30P/30PD Series

Specifications

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

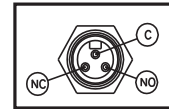
Electrical/ Visual (optional)

5A @ 240VAC, 3A @ 28VDC

Electrical-heavy duty (optional)

.25A (resistive) MAX 5 watts

12 to 28 VDC & 110 to 175 VAC



E3

Color Coding:

White (common)

Black (normally open)

Blue (normally closed)

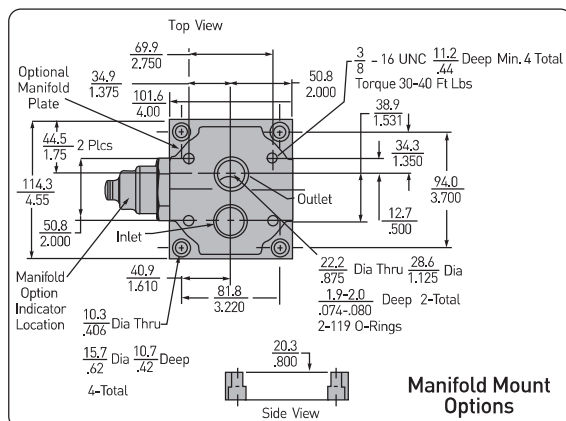
Weights (approximate):

30P-1 6.4 lb. (2.9 kg.)

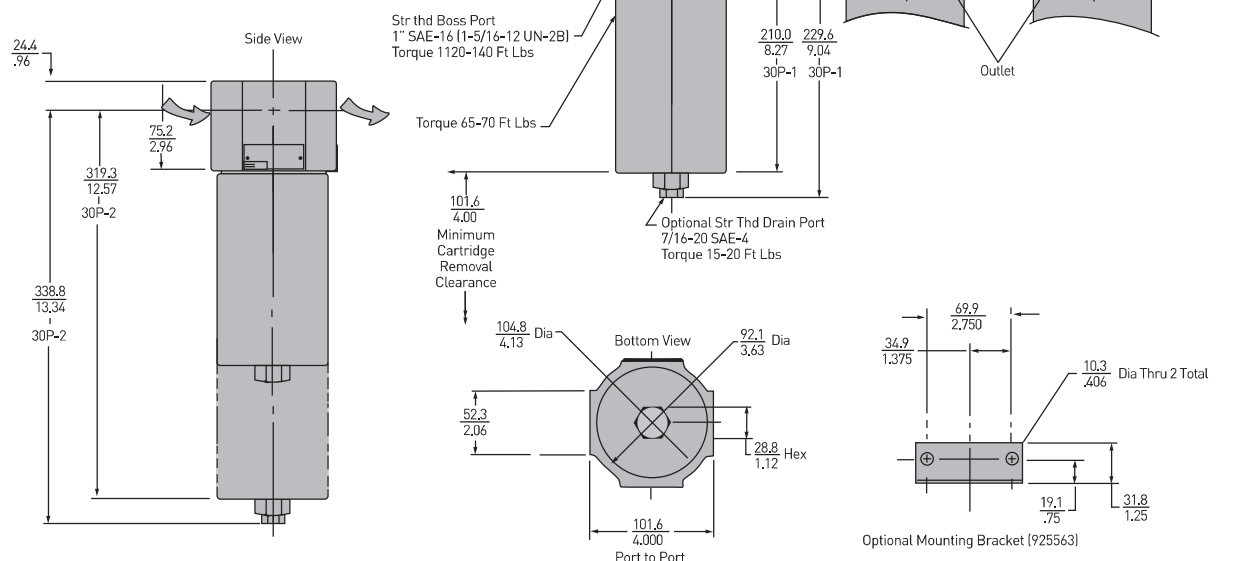
30PD-1 36 lb. (16.3 kg.)

30P-2 8.7 lb. (3.9 kg.)

30PD-2 40 lb. (18.1 kg.)



Linear Measure: millimeter
inch



Drawings are for reference only.
Contact factory for current version.

30P 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.

Drawings are for reference only.
Contact factory for current version.

Diverter Valve

Low torque for easy servicing

Detent for valve handle prevents accidental switching

Handle indicates which filter is in use

Vent Valves

Allow for convenient purging of trapped air, and pressure

Ports

SAE straight thread ports for positive sealing

Balance Valve

Safety valve equalizes pressure between the two bowls

Operating Instructions

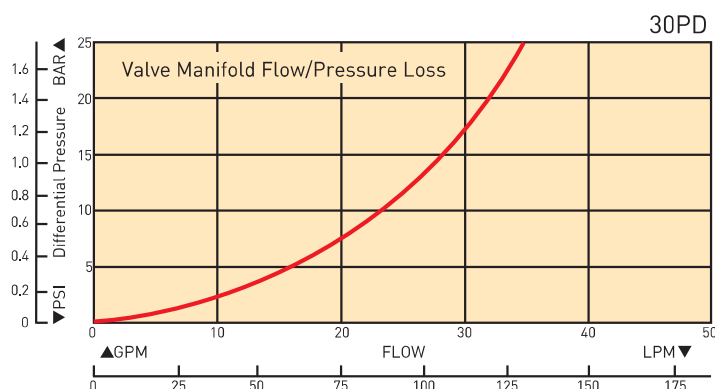
Name tag and operating instructions riveted to manifold

Vent Drains

1/8-27 NPT drain port, both sides

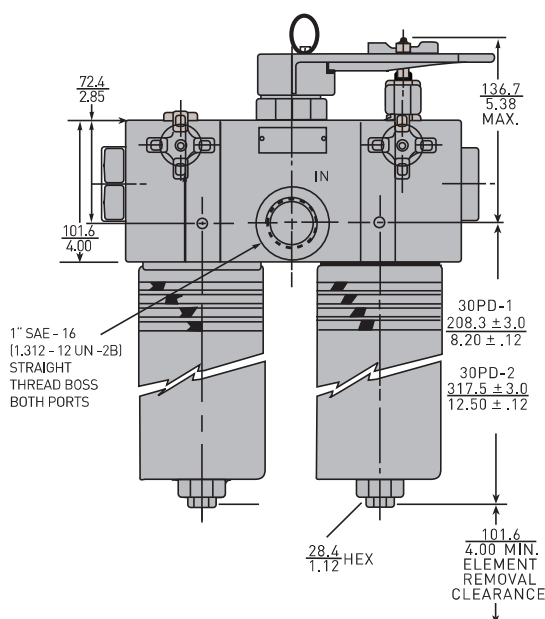
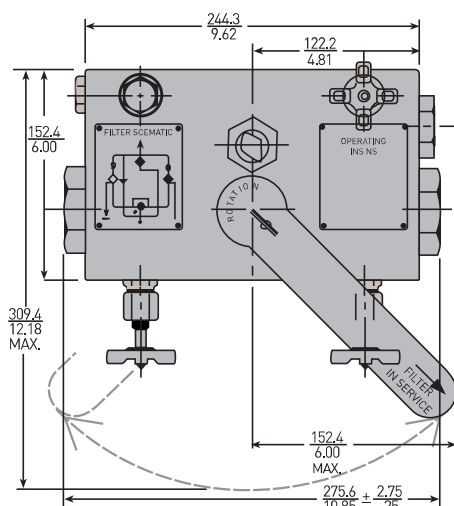
30PD Empty Housing Flow vs Pressure Loss

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

Linear Measure: $\frac{\text{millimeter}}{\text{inch}}$



15P/30P Series

Parts List

Index	Description	15P	30P
1	Head In-line Porting Bypass w/top indicator port No bypass w/top indicator port Bypass w/side indicator port No bypass w/side indicator port Manifold Porting Bypass w/indicator port No bypass w/ indicator port	931520 931519 931522 931521 931135 931523	933956 933956 933955 933955 933954 933954
2	Bypass Valve Assembly 50 psid (in-line model only) No bypass	928981 935744	925127 925209
3	Elements (see chart on model code page)		
4	Bowl O-Ring Nitrile Fluorocarbon	N92138 V92138	N92151 V92151
5	Bowl Single without drain Single with drain Double without drain Double with drain	937547 937549 937548 937550	937551 937553 937552 937554
6	Drain Plug, SAE-4 W/nitrile o-ring W/fluorocarbon o-ring	921088 928882	921088 928882
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
12	Indicators (fluorocarbon seals) Visual auto reset H option (1/2" conduit connection) E2 option (DIN 43650 connection) E3 option (3 pin ANSI/B93.55M connection)	932027 932905 929599 929596	932027 932905 929599 929596
13	Manifold Mounting Kit Manifold O-Rings (2 required) Nitrile Fluorocarbon	N/A N92117 V92117	925562 N92119 V92119

Note: consult factory for EPR part numbers

*Not for manifold-style head

Element Servicing

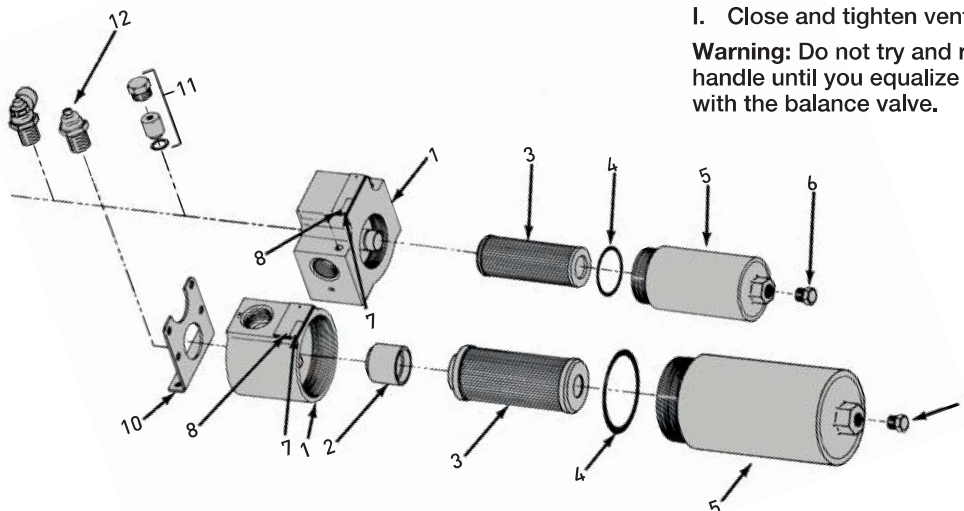
15P/30P

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

30PD

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

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



15P/30P Series

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
30P	1	10Q	E	M2	K	S16	4

BOX 1: Filter Series	
Symbol	Description
15P	Pressure filter
30P	Pressure filter
30PD	Duplex style 30P

BOX 2: Element Length	
Symbol	Description
1	Single
2	Double

BOX 3: Media Code	
Symbol	Description
10C	Cellulose (30P, 30PD only)
02Q*	Microglass III, 2 micron
05Q	Microglass III, 5 micron
10Q*	Microglass III, 10 micron
20Q	Microglass III, 20 micron

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

BOX 4: Seals	
Symbol	Description
B	Nitrile (NBR)
E	Ethylene propylene (EPR)
V	Fluorocarbon (FKM)

BOX 5: Indicator	
Symbol	Description
P	Port plugged
M2	Visual auto reset
H	Electrical indicator, w/1/2"-14 NPT connection and 12" leads
E	Electrical/visual w/ 1/2" NPT conduit connection and wire leads
E2	Electrical/visual (DIN 43650 Hirschman style connection)
E3	Electrical/visual (ANSI/ B.9355M 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	
Symbol	Pressure Setting
K	50 PSI (3.5 bar)

BOX 7: Ports	
Symbol	Description
	15P
S12	SAE-12
X	3/4"-manifold porting
	30P
S16	SAE-16
X	1"-manifold porting
	30PD
S16	SAE-16

Note: Customer supplies subplate for 30P manifold porting or may purchase 925562 30P manifold mounting kit. 15P requires no subplate.

BOX 8: Options	
Symbol	Description
1	None
2	No bypass
4	SAE-4 drain port on bowl
21	No bypass and drain port

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

Replacement Elements (Fluorocarbon Seals)

Media	15P-1	15P-2	30P/30PD-1	30P/30PD-2
20Q	930369Q	930370Q	933135Q	933136Q
10Q	932612Q	932618Q	932624Q	932630Q
05Q	932611Q	932617Q	932623Q	932629Q
02Q	932610Q	932616Q	932622Q	932628Q
20QH	934983Q	930544Q	NA	NA
10QH	932615Q	932621Q	932627Q	932633Q
05QH	932614Q	932620Q	932626Q	932632Q
02QH	932613Q	932619Q	932625Q	932631Q
10QX	933577Q	933579Q	933581Q	933583Q
02QX	933576Q	933578Q	933580Q	933582Q

Global products as identified are offered worldwide through all Parker locations and utilize a common ordering code.

