15P/30P Series
High Pressure Filters
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.
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.

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

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

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

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

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.)

Optional Mounting Bracket (925563)

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

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

Drawings are for reference only. Contact factory for current version.
15P/30P Series

Parts List

<table>
<thead>
<tr>
<th>Index</th>
<th>Description</th>
<th>15P</th>
<th>30P</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Head</td>
<td></td>
<td></td>
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<tr>
<td></td>
<td>In-line Porting</td>
<td>931520</td>
<td>933956</td>
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<td>Bypass w/top indicator port</td>
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<td>No bypass w/side indicator port</td>
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<td>Manifold Porting</td>
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<td></td>
<td>Bypass w/indicator port</td>
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<td>933954</td>
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<td>No bypass w/ indicator port</td>
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<td>Bypass Valve Assembly</td>
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<td>925127</td>
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<td>50 psid (in-line model only)</td>
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<td>925209</td>
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<td>3</td>
<td>Elements (see chart on model code page)</td>
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<td>4</td>
<td>Bowl O-Ring</td>
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<td>Fluorocarbon</td>
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<td>Single without drain</td>
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<td>Single with drain</td>
<td>937548</td>
<td>937552</td>
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<tr>
<td></td>
<td>Double without drain</td>
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<td>937554</td>
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<td>Double with drain</td>
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<td>6</td>
<td>Drain Plug, SAE-4</td>
<td>921088</td>
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<td>W/nitrile o-ring</td>
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<td>W/fluorocarbon o-ring</td>
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<td>7</td>
<td>Nameplate (unstamped)</td>
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<td>8</td>
<td>Drive Screws</td>
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<td>9</td>
<td>Mounting Spacer Tube (not shown)</td>
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<td>Mounting Bracket Kit</td>
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<td>Blank Indicator Kit</td>
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<td>12</td>
<td>Indicators (fluorocarbon seals)</td>
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<td>Visual auto reset</td>
<td>932027</td>
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<td>H option (1/2” conduit connection)</td>
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<td>E2 option (DIN 43650 connection)</td>
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<td></td>
<td>E3 option (3 pin ANSI/B93.55M connection)</td>
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<td>Manifold Mounting Kit</td>
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<td>Nitrile</td>
<td>N92117</td>
<td>N92111</td>
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<tr>
<td></td>
<td>Fluorocarbon</td>
<td>V92117</td>
<td>V92117</td>
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</tbody>
</table>

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.
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: 15P
  - Description: Pressure filter
- Symbol: 30P
  - Description: Pressure filter
- Symbol: 30PD
  - Description: Duplex style 30P

**BOX 2: Element Length**
- Symbol: 1
  - Description: Single
- Symbol: 2
  - Description: Double

**BOX 3: Media Code**
- Symbol: 10C
  - Description: Cellulose (30P, 30PD only)
- Symbol: 02Q*
  - Description: Microglass III, 2 micron
- Symbol: 05Q
  - Description: Microglass III, 5 micron
- Symbol: 10Q*
  - Description: Microglass III, 10 micron
- Symbol: 20Q
  - Description: 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: B
  - Description: Nitrile (NBR)
- Symbol: E
  - Description: Ethylene propylene (EPR)
- Symbol: V
  - Description: Fluorocarbon (FKM)

**BOX 5: Indicator**
- Symbol: P
  - Description: Port plugged
- Symbol: M2
  - Description: Visual auto reset
- Symbol: H
  - Description: Electrical indicator, w/½"-14 NPT connection and 12” leads
- Symbol: E
  - Description: Electrical/visual w/ ½” NPT conduit connection and wire leads
- Symbol: E2
  - Description: Electrical/visual (DIN 43650 Hirschman style connection)
- Symbol: E3
  - Description: 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: K
  - Pressure Setting: 50 PSI (3.5 bar)

**BOX 7: Ports**
- Symbol: 15P
- Symbol: S12
  - Description: SAE-12
- Symbol: S16
  - Description: SAE-16

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

<table>
<thead>
<tr>
<th>Media</th>
<th>15P-1</th>
<th>15P-2</th>
<th>30P/30PD-1</th>
<th>30P/30PD-2</th>
</tr>
</thead>
<tbody>
<tr>
<td>20Q</td>
<td>930369Q</td>
<td>930370Q</td>
<td>933135Q</td>
<td>933136Q</td>
</tr>
<tr>
<td>10Q</td>
<td>932612Q</td>
<td>932618Q</td>
<td>932624Q</td>
<td>932630Q</td>
</tr>
<tr>
<td>05Q</td>
<td>932611Q</td>
<td>932617Q</td>
<td>932623Q</td>
<td>932629Q</td>
</tr>
<tr>
<td>02Q</td>
<td>932610Q</td>
<td>932616Q</td>
<td>932622Q</td>
<td>932628Q</td>
</tr>
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<td>20QH</td>
<td>934983Q</td>
<td>930544Q</td>
<td>NA</td>
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<tr>
<td>10QH</td>
<td>932615Q</td>
<td>932621Q</td>
<td>932627Q</td>
<td>932633Q</td>
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<td>05QH</td>
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<td>932620Q</td>
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<td>933579Q</td>
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<td>933578Q</td>
<td>933580Q</td>
<td>933582Q</td>
</tr>
</tbody>
</table>

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