HPK03 In-Line Cartridge Filters

**Working Pressures to:**
3000 psi / 20,700 kPa / 206.9 bar

**Rated Static Burst to:**
6000 psi / 41,400 kPa / 413.8 bar

**Flow Range To:**
60 gpm / 227 lpm

**Features**

The sturdy HPK03 filter is constructed of ductile iron for durability in high pressure applications. Standard housing drain plug means simplified servicing. Housing includes a fluoroelastomer head-to-housing seal. Meets HF3 specification.

Take advantage of our mix and match system of in-stock heads and cartridges—so you can get exactly what you need. HPK03 is available with your choice of visual or AC/DC electrical indicators. Likewise, choose the bypass option that’s right for your application—50 psi (3.5 bar) or no bypass. Seals made of fluorocarbon or nitrile are available with HPK03.

All HPK03 filters contain Synteq™, our synthetic filter media designed especially for hydraulic filtration. Upgraded Donaldson DT filters are also offered for superior performance.

**Applications**

- High Pressure Circuits
- In-Plant Systems
- Meets HF3 Specification
- Mobile Equipment
- Servo Valve Circuits

**Beta Rating**

- Performance to $\beta_{100}=1000$

**Porting Size Options**

- SAE-12, SAE-16 O-Ring

**Replacement Filter Lengths**

- 8.22” / 208.8mm

**Standard Bypass Ratings**

- 50 psi / 345 kPa / 3.5 bar
- No Bypass

**Assembly Weight**

- 26 lbs / 11.8 kg

**Operating Temperatures**

- -20°F to 250°F / -29°C to 121°C

**Filter Collapse Ratings**

- 200 psi / 1380 kPa / 13.8 bar (standard)
- 3000 psi / 20,700 kPa / 206.9 bar (high collapse)
HPK03 Specification Illustrations

**ASSEMBLY - SIDE VIEW**

All dimensions are shown in inches [millimeters].

**HEAD - TOP VIEW**

**HPK03 with Visual Service Indicator**

**HPK03 with AC/DC Electrical Service Indicator**

Max Flow: 60 gpm (227 lpm)
High Pressure Filters

Hydraulic Filtration

HPK03 Components

Filter Choices

<table>
<thead>
<tr>
<th>Media Type</th>
<th>β₁₀₀₀ = 1000</th>
<th>β₁₀₀ = 2</th>
<th>Length</th>
<th>Part No.</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>DT Synthetic</td>
<td>&lt;4 µm</td>
<td>8.22</td>
<td>209</td>
<td>P566209</td>
<td>DT-9600-8-2UM</td>
</tr>
<tr>
<td></td>
<td>5 µm</td>
<td>8.22</td>
<td>209</td>
<td>P566210</td>
<td>DT-9600-8-5UM</td>
</tr>
<tr>
<td></td>
<td>5 µm</td>
<td>8.22</td>
<td>209</td>
<td>P167185</td>
<td>DT-9601-8-5UM, High Collapse</td>
</tr>
<tr>
<td></td>
<td>8 µm</td>
<td>8.22</td>
<td>209</td>
<td>P566211</td>
<td>DT-9600-8-8UM</td>
</tr>
<tr>
<td></td>
<td>12 µm</td>
<td>8.22</td>
<td>209</td>
<td>P566212</td>
<td>DT-9600-8-14UM</td>
</tr>
<tr>
<td></td>
<td>12 µm</td>
<td>8.22</td>
<td>209</td>
<td>P167186</td>
<td>DT-9601-8-14UM, High Collapse</td>
</tr>
<tr>
<td></td>
<td>23 µm</td>
<td>8.22</td>
<td>209</td>
<td>P566213</td>
<td>DT-9600-8-25UM</td>
</tr>
<tr>
<td>Water Absorbing</td>
<td>10 µm</td>
<td>8.22</td>
<td>209</td>
<td>P569528</td>
<td></td>
</tr>
<tr>
<td>Wire Mesh</td>
<td>75 µm</td>
<td>8.22</td>
<td>209</td>
<td>P162233</td>
<td></td>
</tr>
</tbody>
</table>

Filter Notes: All Donaldson DT filters utilize glass fiber media with an epoxy-based resin system for the ultimate in chemical compatibility. All Donaldson DT filters are potted with epoxy-based adhesives. Standard collapse DT designs are double wire-backed using epoxy-coated steel mesh for maximum pleat support and dirt capacity. Fluorocarbon seals are standard on all Donaldson DT filters. Refer to the table in the Technical Reference Guide for fluid compatibility with our filter media. If filtering diester, phosphate ester fluids, water glycol, water/oil emulsions, or HWCF over 150°F/66°C, use filters with seals made of fluorocarbon. Donaldson “high collapse” filters, with their steel end caps and wire-backed media, are rated to withstand up to 3000 psi/21,000 kPa before collapsing. High collapse designs are also potted into machined aluminum endcaps for greater filter integrity in critical applications. The fluorocarbon seal/high collapse filters also use epoxy potting and media seam seals for added chemical compatibility.

Housing Choices

<table>
<thead>
<tr>
<th>Length</th>
<th>Part No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>8.22” (208.8mm)</td>
<td>P179579</td>
</tr>
</tbody>
</table>

The P179579 housing is 10.73 inches (273mm) long and accepts the filter that is 8.22 inches (208.8mm) long. It includes a head-to-housing seal.

Head Choices

<table>
<thead>
<tr>
<th>Port Size</th>
<th>Bypass Rating</th>
<th>Indicators</th>
<th>Part No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>SAE-16 O-Ring</td>
<td>50 psi / 3.5 bar</td>
<td>Visual indicator, left side</td>
<td>P166353</td>
</tr>
<tr>
<td>SAE-12 O-Ring</td>
<td>50 psi / 3.5 bar</td>
<td>Visual indicator, left side</td>
<td>P170489</td>
</tr>
<tr>
<td>SAE-12 O-Ring</td>
<td>No bypass</td>
<td>Visual indicator, left side</td>
<td>P170491</td>
</tr>
</tbody>
</table>

Notes:
Donaldson uses the inlet port as the reference point. “Left side,” for instance, means that the indicator mounts on the side of the filter head that is on your left when you face the inlet port.
**Service Indicator Kits** (All kits include indicator with mounting block)

<table>
<thead>
<tr>
<th>Part No.</th>
<th>Bypass Valve Pressure of:</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Visual Service Indicators</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>P569632</td>
<td>50 psi / 3.5 bar</td>
<td>35 psi/2.4 bar indicator kit auto reset pop-out button</td>
</tr>
<tr>
<td>P569633</td>
<td>90 psi / 6.2 bar</td>
<td>70 psi/4.8 bar indicator kit auto reset pop-out button</td>
</tr>
<tr>
<td>P567988</td>
<td>50 psi / 3.5 bar</td>
<td>35 psi/2.4 bar indicator kit auto reset pop-out button with thermal lockout and surge control</td>
</tr>
<tr>
<td>P567989</td>
<td>90 psi / 6.2 bar</td>
<td>70 psi/4.8 bar indicator kit* auto reset pop-out button with thermal lockout and surge control</td>
</tr>
<tr>
<td><strong>AC/DC Visual/Electrical Service Indicators</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>P569634</td>
<td>50 psi / 3.5 bar</td>
<td>35 psi/2.4 bar indicator kit Hirschmann receptacle 115 VAC/28 VDC, 2 amps</td>
</tr>
<tr>
<td>P569635</td>
<td>90 psi / 6.2 bar</td>
<td>70 psi/4.8 bar indicator kit Hirschmann receptacle 115 VAC/28 VDC, 2 amps</td>
</tr>
<tr>
<td>P567986</td>
<td>50 psi / 3.5 bar</td>
<td>35 psi/2.4 bar indicator kit with thermal lockout and surge control, Hirschmann receptacle, 115 VAC/28 VDC, 2 amps, 4 pin DIN 43650</td>
</tr>
<tr>
<td>P567987</td>
<td>90 psi / 6.2 bar</td>
<td>70 psi/4.8 bar indicator kit with thermal lockout and surge control, Hirschmann receptacle, 115 VAC/28 VDC, 2 amps, 4 pin DIN 43650</td>
</tr>
</tbody>
</table>

**Indicator Choices**

<table>
<thead>
<tr>
<th>Part No.</th>
<th>Description</th>
<th>Part No.</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>P567458</td>
<td>Replacement Indicator Only</td>
<td></td>
<td></td>
</tr>
<tr>
<td>P567459</td>
<td>Visual/Electrical indicator with thermal lockout and surge, 35 psid/2.4 bar</td>
<td>P569638</td>
<td>Visual/Electrical Indicator, 35 psid/2.4 bar</td>
</tr>
<tr>
<td>P567465</td>
<td>Visual/Electrical indicator, with thermal lockout and surge 70 psid/4.8 bar</td>
<td>P569639</td>
<td>Visual/Electrical Indicator, 70 psid/4.8 bar</td>
</tr>
<tr>
<td>P567475</td>
<td>Pop-Up Visual Indicator, with thermal lockout and surge 35 psid/2.4 bar</td>
<td>P164315</td>
<td>Visual Indicator, bar style, 35 psid/2.4 bar</td>
</tr>
<tr>
<td>P567476</td>
<td>Pop-Up Visual Indicator, with thermal lockout and surge 70 psid/4.8 bar</td>
<td>P166603</td>
<td>Visual Indicator, bar style, 70 psid/4.8 bar</td>
</tr>
<tr>
<td>P569636</td>
<td>Pop-Up Visual Indicator, 35 psid/2.4 bar</td>
<td>P166134</td>
<td>Blanking plate</td>
</tr>
<tr>
<td>P569637</td>
<td>Pop-Up Visual Indicator, 70 psid/4.8 bar</td>
<td></td>
<td></td>
</tr>
<tr>
<td>P573495</td>
<td>Indicator Mounting Block Assembly</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Performance Data**

**HPK03 Housing Only**

**HPK03 8" DT Filter Only**

**HPK03 Housing Only**

**HPK03 8" DT Filter Only**
**HPK03 Service Parts**

**SERVICE PARTS NOTE:**
Some service parts may not be stocked. Please contact your Donaldson sales representative for lead time details.

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**Max Flow:** 60 gpm (227 lpm)

**HPK03**

- **Head Assemblies**
  - See Head Assembly Options Table

- **O-Ring** (Size 006)

- **Blanking Plate** P166134
  - Includes O-Ring & Hardware

- **Optional Mounting Block Assembly** P573495
  - (Primary Position)

- **Electrical / Visual Indicator**
  - See Option Table (Includes Indicator O-Ring, Mounting Block & Hardware)

- **Seal**
  - Size 238
  - P162065 Nitrile
  - P169382 Fluorocarbon

- **Replacement Filter**
  - See Options Table

- **Housing**
  - See Housing Assembly Options Table (Includes Housing, Seal P16932, Cap, Drain Plug O-Ring)

- **O-Ring** (Size 008)
  - P162275 Nitrile
  - P169563 Fluorocarbon

- **Drain Plug**

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**Pop Up Visual Indicator**
- See Option Table (Includes Indicator O-Ring, Mounting Block & Hardware)

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**Optional Mounting Block Assembly** P573495
- (Optional Position)

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**Visual Service Indicator**
- See Option Table (Includes Indicator O-Ring & Hardware)
  - Max Temp 180°F (82°C) / 345 kPa
  - P163315 Normal Flow Model

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**Electrical / Visual Indicator**
- See Option Table (Includes Indicator O-Ring, Mounting Block & Hardware)