

## HAK05 Return-Line Filter

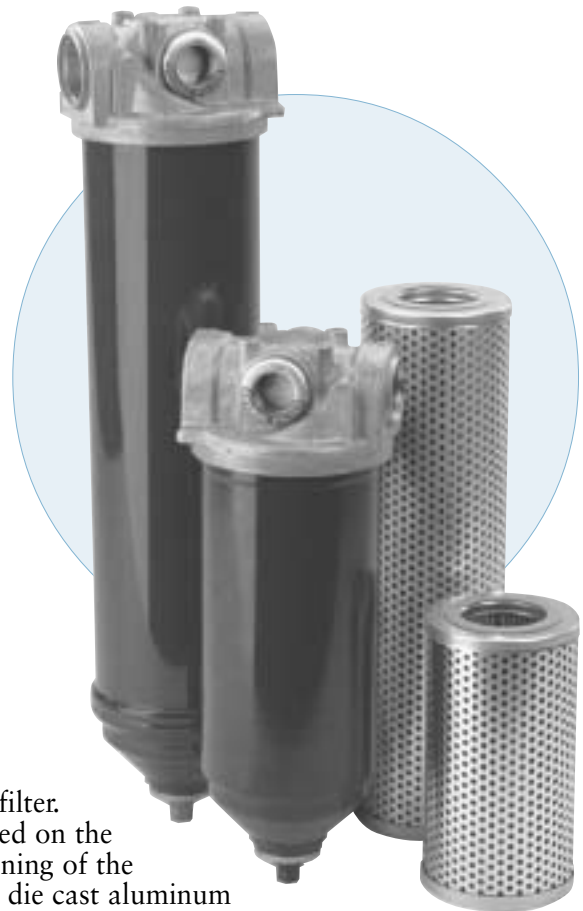
**Working Pressures to:** 500 *psi*  
3448 kPa  
34.5 bar

**Rated Static Burst to:** 1000 *psi*  
6895 kPa  
69 bar

**Flow Ranges to:**

Return-line < 120 *gpm*  
454 l/min

Suction < 30 *gpm*  
114 l/min



## Features

The hardy HAK05 is perfect for return-line filtering in heavy duty applications where you want a cartridge style filter. Its inside to outside flow pattern means that dirt is collected on the inside of the cartridge, eliminating the need for heavy cleaning of the housing when servicing the filter. HAK05 filters feature a die cast aluminum head, steel body, and a single center-retention bolt that simplifies servicing.

HAK05 is available in two element lengths, 16" and 8", to accommodate various flow ratings. The seven in-stock models come complete with Synteq® media cartridges. Other media choices are available may be ordered separately....see chart on page 39.

If you want the convenience of a spin-on style filter, use the HMK05 or HMK25. See page 66.

### Beta Rating

- Performance to  $\beta_{(3)}=75$  (on standard cartridge; options available)

### Porting Sizes

- 1½" NPT
- SAE-24 O-Ring

### Replacement Filter Lengths

- 8" / 203 mm
- 16" / 406 mm

### Standard Bypass Ratings

- 25 *psi* / 172.5 kPa / 1.7 bar

### Assembly Weight

- 18 lbs / 8.2 kg (long)
- 13 lbs / 5.9 kg (short)

### Operating Temperatures

- Synthetic media -20°F to 250°F  
-29°C to 121°C

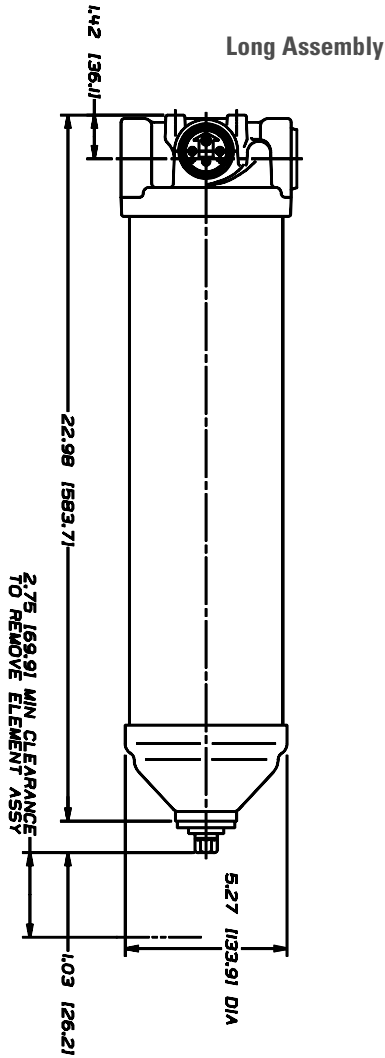
### Collapse/Burst Ratings

- 100 *psi* / 689 kPa / 6.9 bar

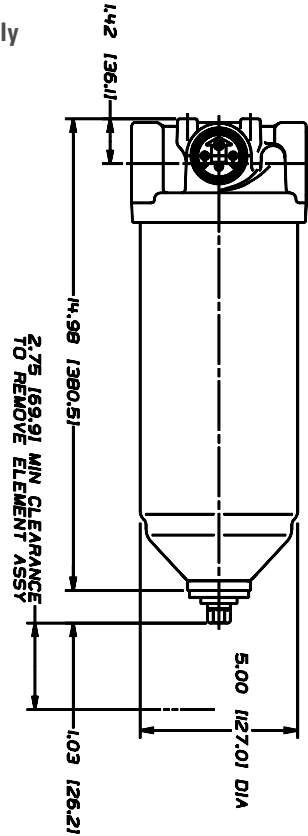
Assembly - Side View

for:  
Return Lines  
Side Loop Systems  
In-Plant & Mobile Machinery  
Lube Oil Systems  
Suction Lines

Low Pressure Filters

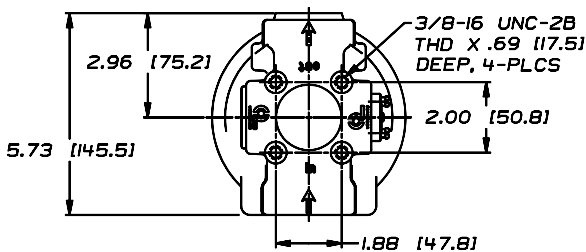


Short Assembly

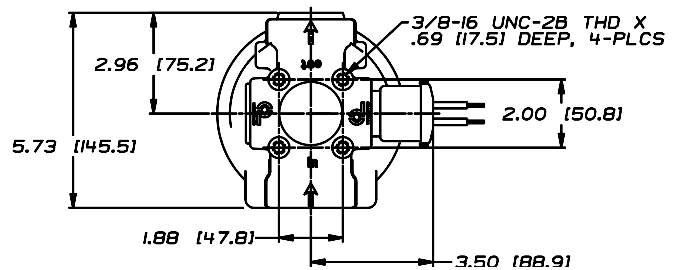


Head - Top View

with Optional DC Electrical Indicator



with Optional AC Electrical Indicator



All dimensions above are shown in inches [millimeters]

# HAK05 Components

## In-Stock Assemblies

Port Size	Bypass Rating	Indicator <sup>(1)</sup> Style/Location	Assembly Part No.	Includes this Filter Cartridge <sup>(2)</sup>
1½" NPT	25 psi / 172.5 kPa	Visual, Right side	K050405 (short)	P166460
		Visual, Left side	K050410 (short)	P166460
1½" NPT	25 psi / 172.5 kPa	Visual, Right side	K050017 (long)	P164697
		Visual, Left side	K050765 (long)	P164697
SAE-24 O-Ring	25 psi / 172.5 kPa	Visual, Right side	K050585 (short)	P166460
		Visual, Left side	K050590 (short)	P166460
SAE 24 O-Ring	25 psi / 172.5 kPa	Visual, Right side	K051091 (long)	P164697

### Notes

<sup>(1)</sup> 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.

<sup>(2)</sup> All in-stock HAK05 assemblies contain a cartridge filter with our No. 4 Synteq® media rated at 4/12/15 um. Other cartridges, shown below, may be ordered separately.

See page 94 for instructions on how to read the visual service indicator.

## Replacement Cartridge Options

Media Number	Media Technology	B <sub>(ω)</sub> = 2/20/75 Rating	Length in	mm	Part Number
No. 1	Synteq®	<2/<2/3	8	203	P161008
			16	406	P161016
No. 2	Synteq®	2/3/5	8	203	P165626
			16	406	P165628
No. 2½	Synteq®	2/7/10	8	203	P176220
			16	406	P176221
No. 4	Synteq®	4/12/15	8	203	P166460
			16	406	P164697
No. 6	Synteq®	5/10/13	8	203	P160558
No. 9	Synteq®	10/17/22	8	203	P166461
			16	406	P164699
No. 16	Synteq®	15/30/37	8	203	P163172
			16	406	P161571
No. 20	Synteq®	20/33/40	8	203	P560527
			16	406	P166597
No. 149	Wiremesh	150	8	203	P162368
			16	406	P160700



### Filter Notes

- Filters with seals made of BunaN are appropriate for most applications involving petroleum oil. Filters with seals made of Viton® (a fluoroelastomer) are required when using diester, phosphate ester fluids, water glycol, water/oil emulsions, and HWCF (high water content fluids) over 150°F. Donaldson offers both types, as shown in the table at right. (*Viton® is a registered trademark of DuPont Dow Elastomers.*)
- Donaldson Synteq® filter media is compatible with petroleum based fluids, most phosphate esters, water oil emulsions, and HWCF (high water content fluids).

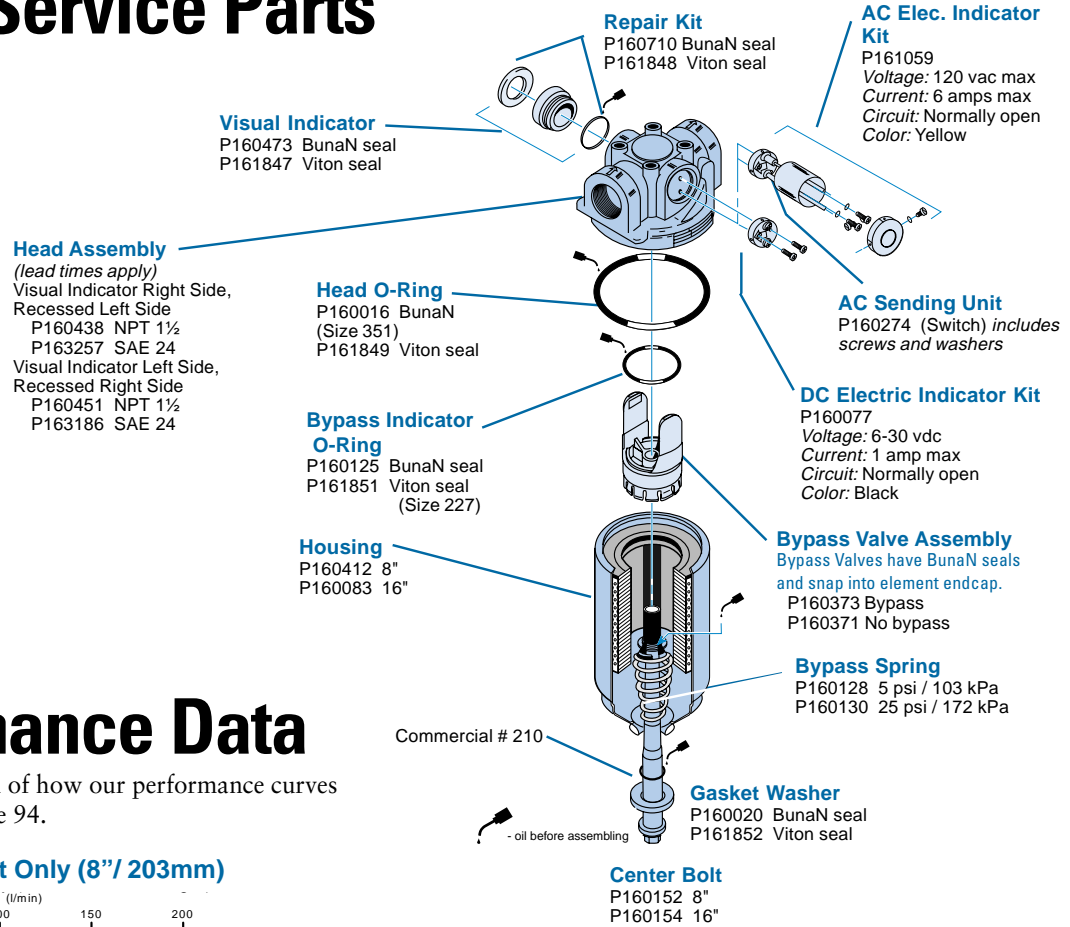


Machining centers like this one are protected from metal particles and other contamination in the environment by Donaldson hydraulic filters.



What's so special about Donaldson-developed Synteq® synthetic filter media? Go to [page 7](#) to find out!

# HAK05 Service Parts

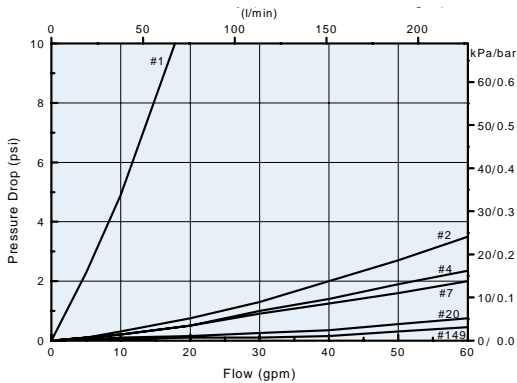


Low Pressure Filters

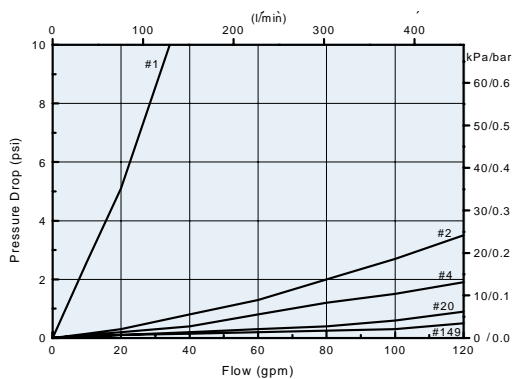
## Performance Data

For a full explanation of how our performance curves were derived, see page 94.

**HAK05 Element Only (8" / 203mm)**



**HAK05 Element Only (16" / 406mm)**



**HAK05 Head Only**

