



HMK05/25

Max Flow: 50 gpm (189 lpm) / 100 gpm (379 lpm)



HMK05/25 DURAMAX® Spin-On Filters

Working Pressures to: 350 psi
2415 kPa
24.2 bar

Rated Static Burst to: 800 psi
5520 kPa
55.2 bar

Flow Range To:	HMK05	HMK25
		50 gpm 189 lpm



Parallel Flow

Features

HMK05 (single) and HMK25 (double) Duramax spin-on filters are perfect for high-flow applications, featuring a heavy-duty steel body and die-cast top plate for added strength. A special head-to-canister O-Ring seal prevents leakage. Buna-N® seals are standard. Fluorocarbon Viton® seals are available. Both models use the same replacement filters and have identical pressure ratings, so there's no need to inventory two different replacement filters. The HMK25 double filter head means twice the flow capability, with two filters to hold more contaminant.

Take advantage of Donaldson's mix and match system of in-stock heads, housings and media choices for exactly what you need. Media options include wire mesh and Donaldson's exclusive Synteq™ synthetic media.

Beta Rating

- Performance to $\beta_{<4(c)} = 1000$

Porting Size Options

- HMK05 1¼" NPT
- HMK05 SAE-20 O-ring
- HMK25 1½" NPT
- HMK25 SAE-24 O-ring
- HMK25 1½" SAE 4-Bolt Flange Code 61

Replacement Filter Lengths

- 7.6" / 193mm
- 11.63" / 295.4mm
- 14.2" / 361mm

Standard Bypass Ratings

- 25 psi / 173 kPa / 1.73 bar
- 50 psi / 345 kPa / 3.5 bar
- No Bypass

Assembly Weight

- 7.5 lbs / 3.4 kg (single)
- 16 lbs / 7.3 kg (double)

Operating Temperatures

- -20°F to 250°F / -29°C to 121°C (synthetic)
- -20°F to 225°F / -29°C to 107°C (cellulose)
- -20°F to 250°F / -29°C to 121°C (wire mesh)

Housing Fatigue Strength Ratings*

- 100,000 Cycles: 0-350 psi / 0-2413 kPa / 24.1 bar
- 300,000 Cycles: 0-300 psi / 0-2068 kPa / 20.7 bar
- 1,000,000 Cycles: 0-250 psi / 0-1734 kPa / 17.3 bar

Filter Collapse Ratings

- 200 psi / 13.8 bar

Filter Head Construction

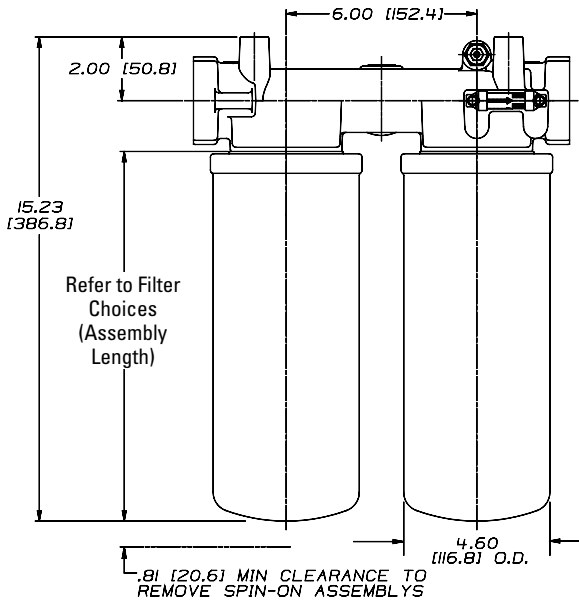
- Standard Head Cast Aluminum
- Ductile Iron Available in HMK25

HMK05/25 Specification Illustrations

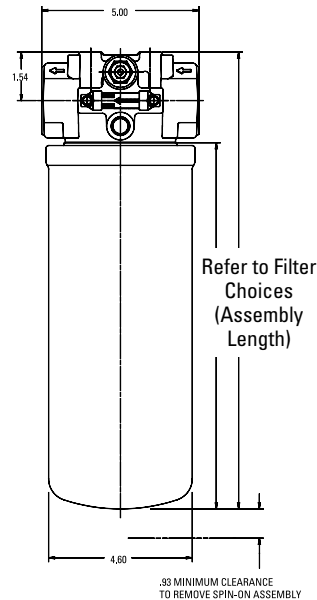
All dimensions are shown in inches [millimeters].

Assembly - Side Views

HMK25



HMK05

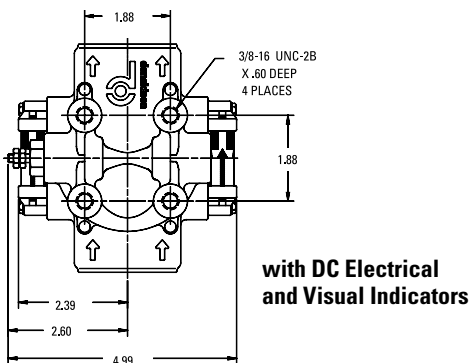
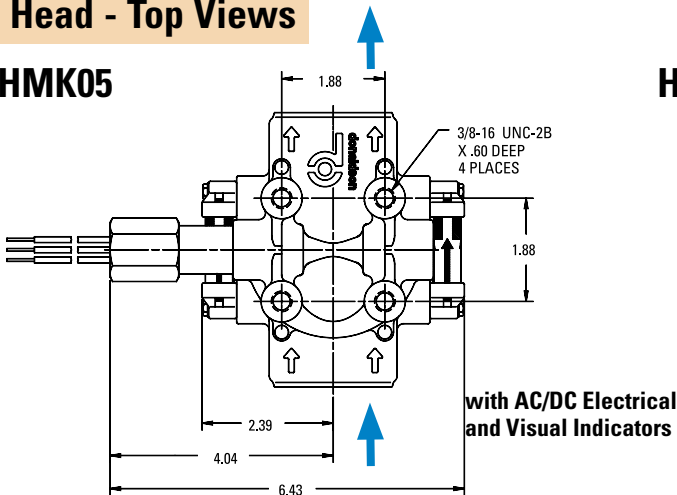


Applications

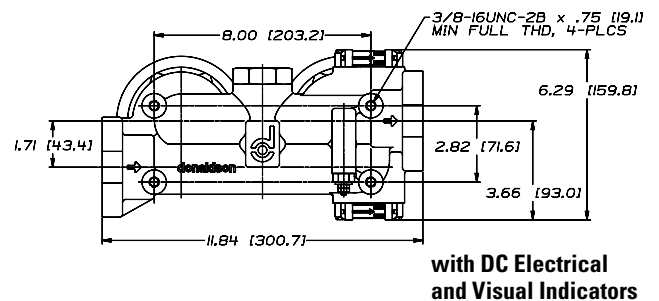
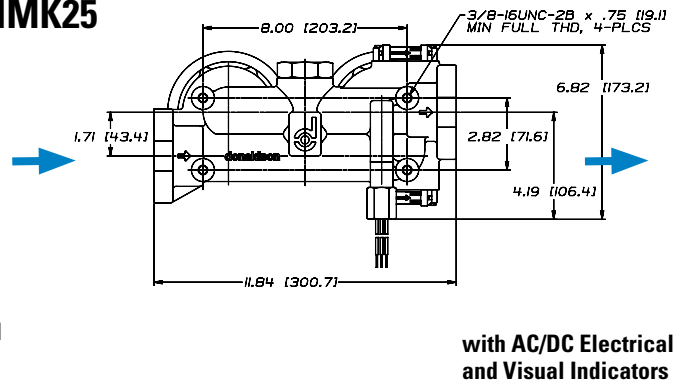
- Case Drains
- Cooling Circuits
- Fluid Conditioning Systems
- Fuel Transfer
- Hydrostatic Charge Pumps
- Lube Oil Systems
- Power Transmissions
- Return Lines
- Side Loop Systems

Head - Top Views

HMK05



HMK25





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HMK05/25 Components

Filter Choices

Media Type	$\beta_{x(c)} = 2$ Rating based on ISO 16889	$\beta_{x(c)} = 1000$	Length		Donaldson Part No.	Comments
			in	mm		
Synteq Synthetic	<4 μm		14.2	361	P564468	¹ Viton, Epoxy
	6 μm		11.6	294	P165675	
	6 μm		11.6	294	P171274	¹ Viton, Epoxy
	6 μm		14.2	361	P179763	
	11 μm		7.6	193	P176207	
	11 μm		11.6	294	P165659	
	11 μm		11.6	294	P171275	¹ Viton, Epoxy
	11 μm		14.2	361	P170949	
	23 μm		7.6	193	P176208	
	23 μm		11.6	294	P165569	
	23 μm		11.6	294	P171276	¹ Viton Epoxy
	23 μm		14.2	361	P173789	
50 μm		11.6	294	P165672		
50 μm		14.2	361	P573353		
Water Absorbing	10 μm		11.6	294	P179075	Absorbs 300 ml water
Wire Mesh	150 μm		11.6	294	P173943	

Filter Notes

- Refer to table in the Technical Reference Guide for fluid compatibility with our filter media.
- Thread size is 1 3/4"-12 UNF-2B
- Filters with seals made of Buna-N[®] are appropriate for most applications involving petroleum oil. Filters with seals made of Viton[®] (a fluor elastomer) 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.

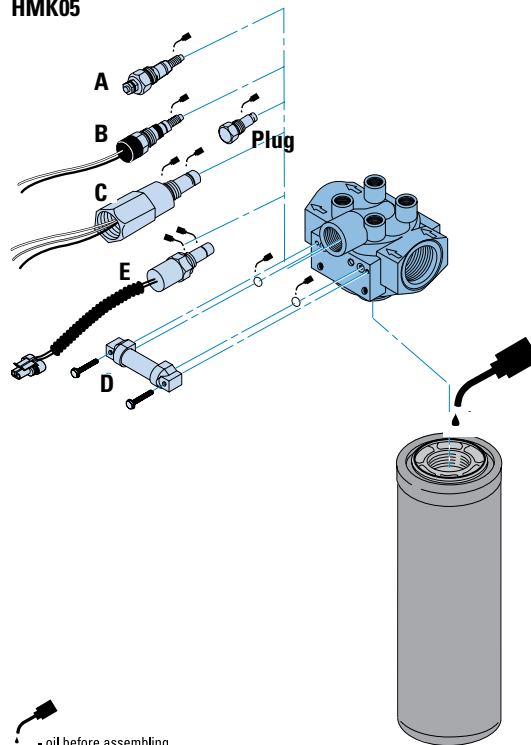
Oil Service Indicator Options

Use with Bypass Valve Pressure of:	Indicator Part No.	Style ³	Description
Electric Models¹			
5 psi / 34.5 kPa	P163642	A	Single post DC
15 psi / 103 kPa	P163601	A	Single post DC.
25 psi / 172.5 kPa	P163839	A	Single post DC. N.C.
25 psi / 172.5 kPa	P162400	A	Single post DC. N.O.
25 psi / 172.5 kPa	P171143	B	DC 2-wire
25 psi / 172.5 kPa	P173944	C	AC/DC 3-wire
50 psi / 345 kPa	P165194	A	Single post DC. N.O.
50 psi / 345 kPa	P574968	B	DC 2-wire
50 psi / 345 kPa	P574967	E	DC 2-wire
50 psi / 345 kPa	P575549	F	DC 3-wire
50 psi / 345 kPa	P174396	C	AC/DC 3-wire

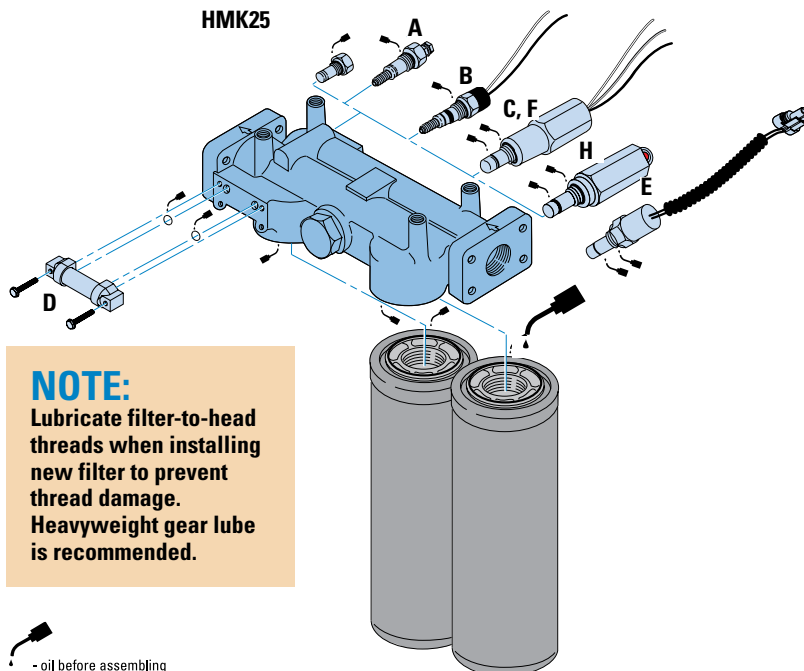
Use with Bypass Valve Pressure of:	Indicator Part No.	Style ³
Visual Models (Non-Electric)²		
15 psi / 103 kPa	P162642	D
25 psi / 172.5 kPa	P162696	D
50 psi / 345 kPa	P167580	D
N/A	P165984	(blank plate)
25 psi / 172.5 kPa	P165965	D Heavy-duty
50 psi / 345 kPa	P574177	D Heavy-duty
25 psi / 172.5 kPa	P575334	H (Pop up)
50 psi / 345 kPa	P575335	H (Pop up)

Service Parts

HMK05



HMK25



NOTE:
 Lubricate filter-to-head threads when installing new filter to prevent thread damage. Heavyweight gear lube is recommended.

Indicator Notes

- ¹All electric models have a maximum operating temperature of 250°F/ 114°C.
 - ²All non-electric models have a maximum operating temperature of 180°F/ 82°C.
 - ³Complete details on all service indicators can be found in the accessories section.
- Buna-N[®] Viton[®] are a registered trademarks of E. I. DuPont de Nemours and Company.

Head Choices for HMK05 (single)

Port Size	Bypass Rating	Standard Indicator Style & Location ¹	Indicator Options ²	Part No.
1¼" NPT	25 psi / 172 KPa	D (Visual), Both Sides (25 psi)	A, B, C, E, F	P167294
1¼" NPT	25 psi / 172 kPa	A (Electrical) (25 psi)	A, B, C, E, F	P167621
	25 psi / 172 KPa	D (Visual), Left Side (25 psi)	D	P167622
SAE-20 O-Ring	25 psi / 172 KPa	D (Visual), Both Sides (25 psi)	A, B, C, E, F	P165973
	25 psi / 172 KPa	None	None	P167619
	50 psi / 345 KPa	D (Visual), Left Side, Blank Plate Right Side	A, B, C, E, F	P561885
	No Bypass	D (Visual), Both Sides (25 psi)	A, B, C, E, F	P166663
	No Bypass	D (Visual), Right Side (25 psi)	D	P564486
No Bypass	D (Visual), Both Sides (50 psi)	A, B, C, E, F	P564858	



Single Head



Dual Head

Head Choices for HMK25 (dual)

Port Size	Bypass Rating	Indicator Style & Location ¹	Indicator Options ²	Part No.
1½" NPT	25 psi / 172 KPa	D (Visual), Left side only	A,B,C,E,F	P169985
1½" SAE 4-Bolt Flange	25 psi / 172 kPa	D (Visual), Both sides	A,B,C,E,F	P167296
	No Bypass	D (Visual), Both Sides	A,B,C,E,F	P169984
SAE-24 O-Ring	25 psi / 172 kPa	D (Visual), Both sides	A,B,C,E,F	P167297
1½" SAE 4-Bolt Flange	50 psi / 345 kPa	Visual RH	A,B,C,E,F	P560855*

* Ductile Iron Construction

NOTE:

Lubricate filter-to-head threads when installing new filter to prevent thread damage. Heavyweight gear lube is recommended.

Head Choice for HMK05 (3rd port return)

Port Size	Bypass Rating	Indicator Style & Location ¹	Indicator Options ²	Part No.
1¼" SAE 4-Bolt Flange (3rd port: 1" SAE 4-Bolt)	50 psi / 345 kPa	None	A,B,C,E,F	P561924

Head Notes

¹Donaldson uses the inlet port as the reference point. "Left side," for instance, means the indicator mounts on the Left side when you face the inlet port.

²May be purchased separately.

*Complete details on all service indicators can be found in the accessories section.

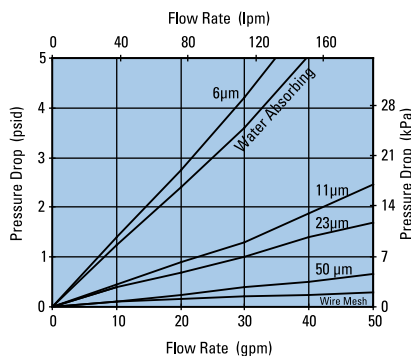
3-Port Head



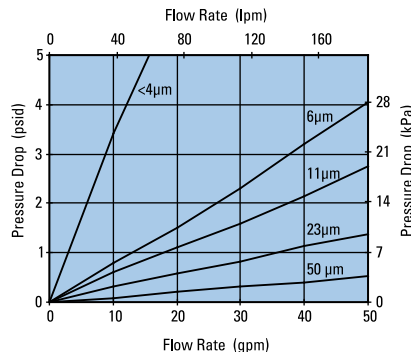
The **P561924** head is designed with a 50 psi / 3.45 bar third port bypass valve that diverts all bypass flow back to the reservoir, instead of going straight through the head and into the system as it does in 2-ported heads. Unfiltered fluid is NOT allowed into the system in the case of plugged filters. Designed primarily for charge pump applications.

Performance Data

HMK05 Filter Only
(Synthetic, 11.6"/294mm)



HMK05 Filter Only
(Synthetic, 14.2"/361mm)



HMK05/25 Head Only

