



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: 50 gpm / 189 lpm

HMK25: 100 gpm / 379 lpm

### Applications

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



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. Nitrile seals are standard. Fluorocarbon 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 1 1/4" NPT
- HMK05 SAE-20 O-Ring
- HMK25 1 1/2" NPT
- HMK25 SAE-24 O-Ring
- HMK25 1 1/2" 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)

### Filter Collapse Ratings

- 200 psi / 13.8 bar

### 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 Head Construction

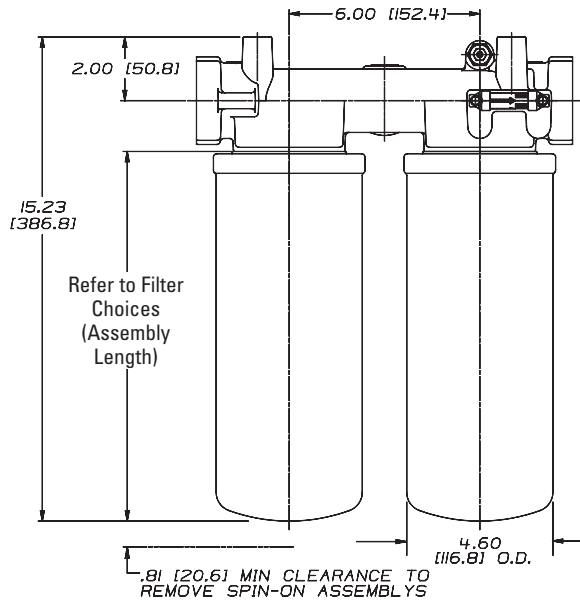
- Standard Head Cast Aluminum
- Ductile Iron Available in HMK25

## HMK05/25 Specification Illustrations

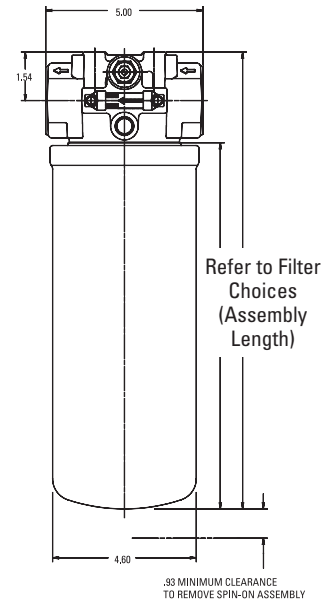
### ASSEMBLY - SIDE VIEW

All dimensions are shown in inches [millimeters].

#### HMK25

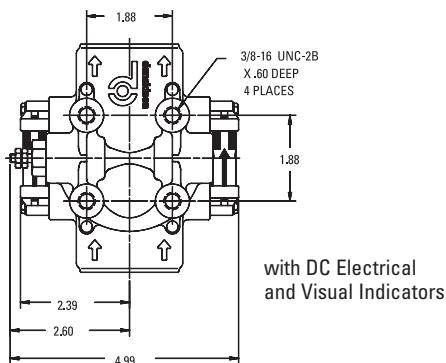
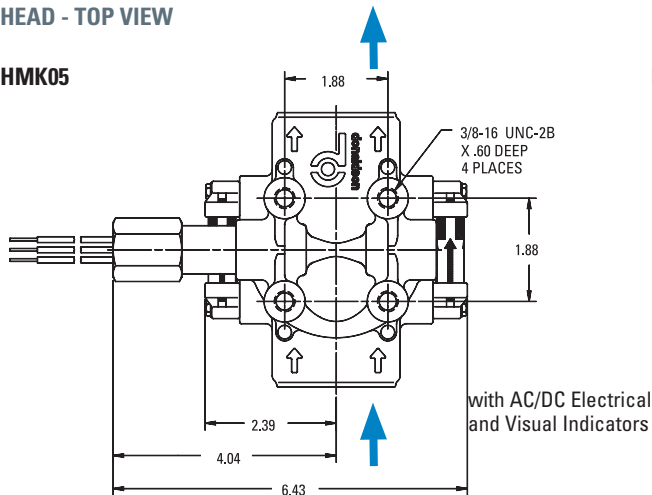


#### HMK05

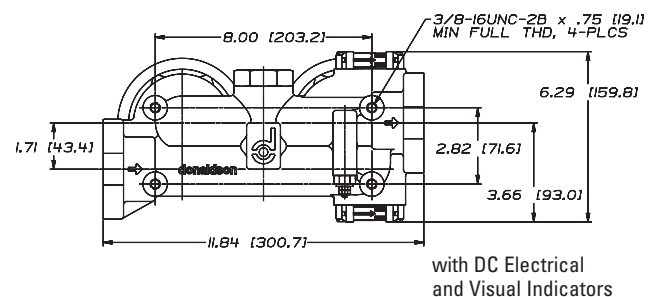
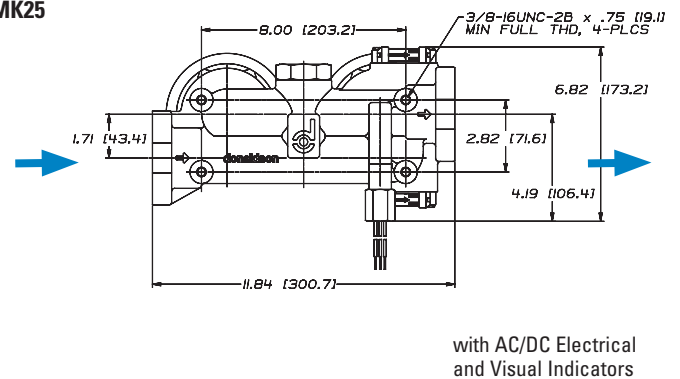


### HEAD - TOP VIEW

#### HMK05



#### HMK25





HMK05/25

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



## HMK05/25 Components

### Filter Choices

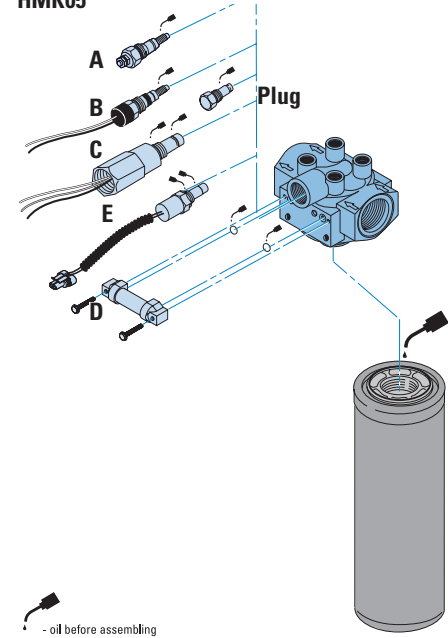
Media Type	$\beta_{x(e)} = 2$	$\beta_{x(e)} = 1000$	Length		Part No.	Comments
	Rating based on ISO 16889		in	mm		
Synteq Synthetic		<4 $\mu\text{m}$	14.2	361	P564468	Fluorocarbon, epoxy. Compatible with water glycol.
		6 $\mu\text{m}$	11.6	294	P165675	
		5 $\mu\text{m}$	11.6	294	P171274	Fluorocarbon, epoxy. Compatible with water glycol.
		6 $\mu\text{m}$	14.2	361	P179763	
		11 $\mu\text{m}$	7.6	193	P176207	
		11 $\mu\text{m}$	11.6	294	P165659	
		13 $\mu\text{m}$	11.6	294	P573996	Fluorocarbon, epoxy. Compatible with water glycol.
		11 $\mu\text{m}$	14.2	361	P170949	
		23 $\mu\text{m}$	7.6	193	P176208	
		23 $\mu\text{m}$	11.6	294	P165659	
		22 $\mu\text{m}$	11.6	294	P171276	Fluorocarbon, epoxy. Compatible with water glycol.
		23 $\mu\text{m}$	14.2	361	P173789	
		50 $\mu\text{m}$	11.6	294	P165672	
		50 $\mu\text{m}$	14.2	361	P573353	
Water Absorbing	10 $\mu\text{m}$		11.6	294	P179075	Absorbs 300 ml water
Wire Mesh	150 $\mu\text{m}$		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 nitrile are appropriate for most applications involving petroleum oil. Filters with seals made of fluorocarbon 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.

### Service Parts

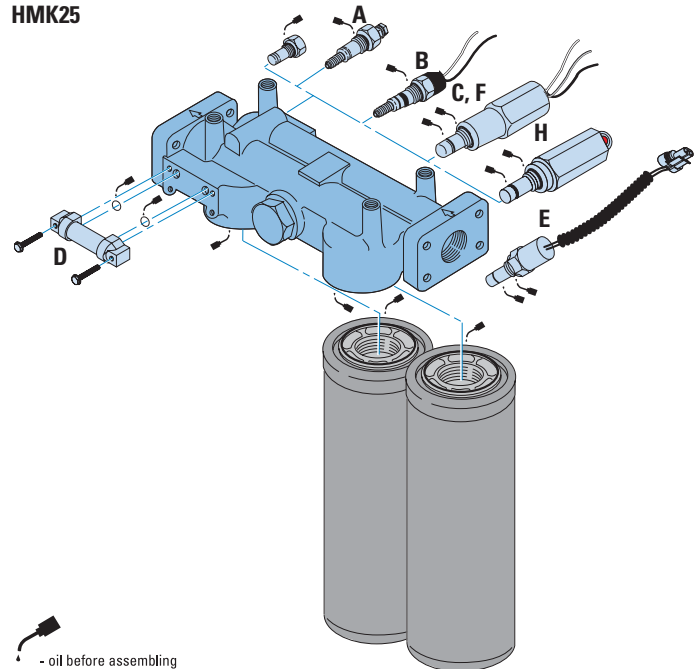
#### HMK05



### Oil Service Indicator Options

Use with Bypass Valve Pressure of:	Indicator Part No.	Style <sup>1</sup>	Description
<b>Electric Models<sup>1</sup></b>			
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
<b>Visual Models (Non-Electric)<sup>2</sup></b>			
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)	

#### HMK25



#### NOTE:

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

Indicator Notes <sup>1</sup>All electric models have a maximum operating temperature of 250°F/ 114°C. <sup>2</sup>All non-electric models have a maximum operating temperature of 180°F/ 82°C. Complete details on all service indicators can be found in the accessories section.

## Head Choices for HMK05 (single)

Port Size	Bypass Rating	Standard Indicator Style & Location <sup>1</sup>	Indicator Options <sup>2</sup>	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

## Head Choices for HMK25 (dual)

Port Size	Bypass Rating	Indicator Style & Location <sup>1</sup>	Indicator Options <sup>2</sup>	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



Dual Head

## Head Choice for HMK05 (3rd port return)

Port Size	Bypass Rating	Indicator Style & Location <sup>1</sup>	Indicator Options <sup>2</sup>	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

<sup>1</sup>Donaldson 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.

<sup>2</sup>May be purchased separately.

<sup>3</sup>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.

### NOTE:

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

## Performance Data

