



HMK04/24

Max Flow: 35 gpm (130 lpm) / 60 gpm (230 lpm)



HMK04/24 DURAMAX® Spin-On Filters

Working Pressures to: 500 *psi*
3450 kPa
34.5 bar

Rated Static Burst to: 1000 *psi*
6900 kPa
69 bar

Flow Range to:	HMK04	HMK24
	35 <i>gpm</i>	60 <i>gpm</i>
	130 <i>lpm</i>	230 <i>lpm</i>



Features

HMK04 (single) and HMK24 (double) Duramax® spin-on filters both feature a die-cast aluminum head, a heavy-duty steel body, with die-cast aluminum top plate for added strength. A special head-to-canister O-Ring seal prevents leakage. Buna-N seals are standard; Viton® seals are available on some models.

Since both HMK04 and HMK24 models use the same replacement filters, they make a great team for your application. Both filters feature identical pressure ratings, but HMK24 handles double the flow capacity as HMK04, so there's no need to inventory two different part numbers for replacement filters. A full range of media options are available, using Donaldson's exclusive Synteq™ synthetic media designed especially for liquid filtration. You can also select the exact indicator types and bypass options to suit your application.

Buna-N® Viton® are a registered trademarks of E. I. DuPont de Nemours and Company.

Beta Rating

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

Porting Size Options

- | | |
|---------------------------------|---------------------------------------|
| • HMK04
3/4", 1" NPT, | • HMK24
SAE-20 O-ring |
| • SAE-12, -16 O-ring | • 1 1/4" SAE 4-Bolt
Flange Code 61 |

Assembly Weight

- HMK04 with short filter: 3.9 lbs/1.8 kg
- HMK04 with long filter: 4.8 lbs/2.2 kg
- HMK24: with short filter: 7.8 lbs/3.5 kg
- HMK24: with long filter: 9.6 lbs/4.4 kg

Replacement Filter Lengths

- 6" / 152mm
- 9.4" / 240mm

Standard Bypass Ratings

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

Operating Temperatures

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

Housing Fatigue Strength Ratings*

- 100,000 Cycles: 0-500 *psi* / 0-3450 kPa / 34.5 bar
- 300,000 Cycles: 0-400 *psi* / 0-2758 kPa / 27.6 bar
- 1,000,000 Cycles: 0-350 *psi* / 0-2415 kPa / 24 bar

*Per T3.10.17 NFPA

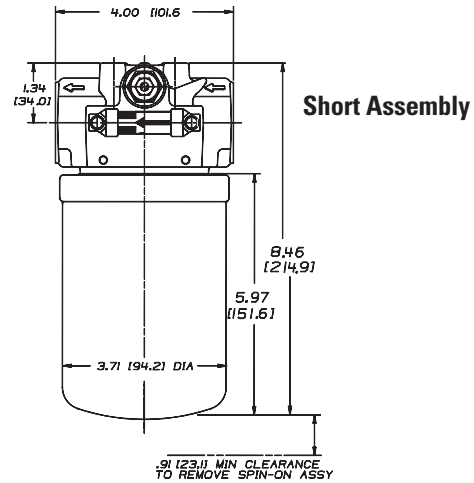
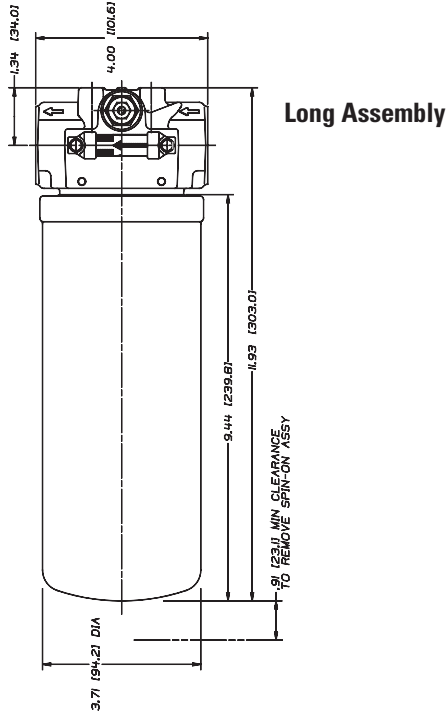
Filter Collapse Rating

- 150 psid / 10 bar
- 300 psid / 20 bar also available

HMK04/24 Specification Illustrations

All dimensions are shown in inches [millimeters].

Assembly - Side Views

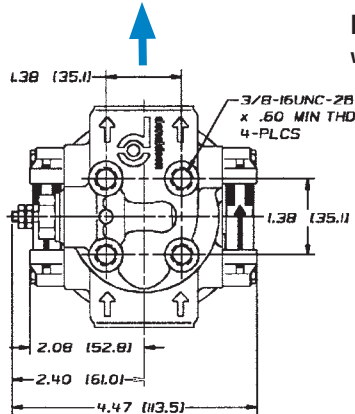


Applications

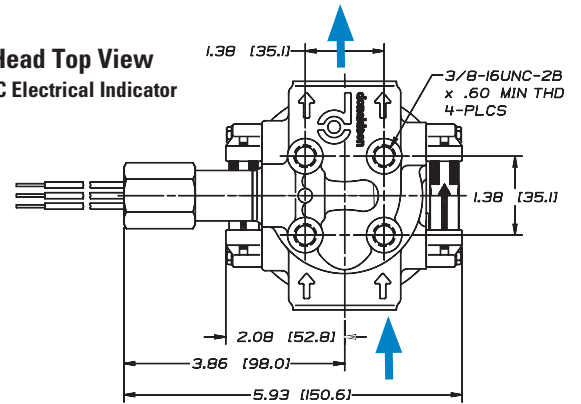
- Case Drains
- Cooling Circuits
- Fluid Conditioning Systems
- Fuel Transfer
- Hydrostatic Charge Pumps
- Lube Oil Systems
- Power Transmissions
- Return Lines
- Side Loop Systems

Heads - Top & Side Views

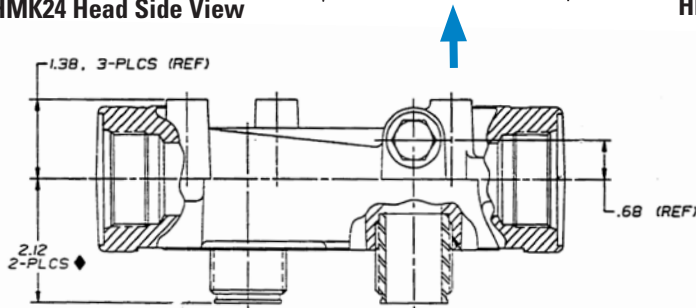
HMK04 Head Top View with DC Electrical Indicator



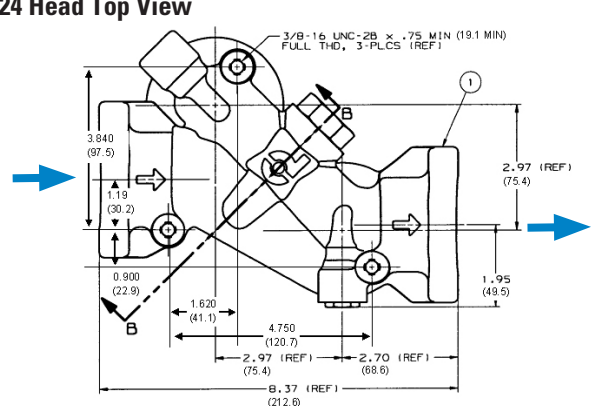
HMK04 Head Top View with AC/DC Electrical Indicator



HMK24 Head Side View



HMK24 Head Top View





HMK04/24

Max Flow: 35 gpm (130 lpm) / 60 gpm (230 lpm)



HMK04/24 Components

Filter Choices

Media Type	$\beta_{x(c)} = 2$ Rating based on ISO 16889	$\beta_{x(c)} = 1000$	Length in	Length mm	Donaldson Part No.	Comments
Synteq Synthetic	<4 μm	9.4	240	P165185	¹ Viton® O-ring	
	7 μm	6	52	P165354		
	7 μm	9.4	240	P167590		
	7 μm	9.4	240	P165332		
	9 μm	6	152	P163542		
	9 μm	6	152	P164375		
	9 μm	6	152	P176565		
	9 μm	9.4	240	P173737	300 psi collapse	
	9 μm	9.4	240	P176566		
	9 μm	9.4	240	P164378		
	9 μm	9.4	240	P170950	300 psi collapse	
	9 μm	9.4	240	P163555	300 psi collapse	
	13 μm	9.4	240	P164056	¹ Viton O-ring	
	14 μm	9.4	240	P177047		
	22 μm	9.4	240	P164059	¹ Viton O-ring	
	23 μm	6	152	P163315		
	23 μm	9.4	240	P163567		
	25 μm	6	152	P164381		
	25 μm	9.4	240	P164384		
	50 μm	6	152	P165335		
50 μm	9.4	240	P165338			
Water Absorbing	10 μm	9.4	240	P560584		



NOTE:

Lubricate filter-to-head threads when installing new filter to prevent thread damage.

Heavyweight gear lube is recommended.

¹ Filters with seals made of Buna-N® are appropriate for most applications involving petroleum oil. Filters with seals made of Viton® (a fluorocopolymer) 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.

Buna-N® Viton® are a registered trademarks of E. I. DuPont de Nemours and Company.

Filter Notes

- Refer to table in the Technical Reference Guide for fluid compatibility with our filter media.
- Standard filter collapse rating is 150 psi, except as noted.
- Thread size is 1 3/8"-12 UNF-2B
- Some part numbers are offered with the same beta ratings to maintain customer ordering patterns.

Head Choices for HMK24 (double)

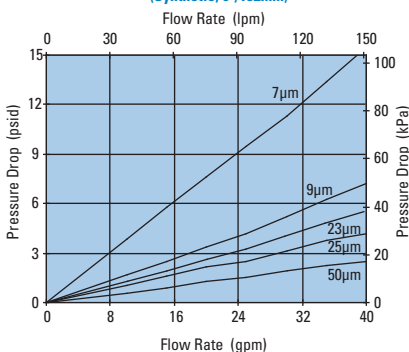


Port Size	Bypass Rating	Indicator Options ¹	Part No.
SAE-20 O-Ring	None	A,B,C	P179609
1 1/4" SAE 4-Bolt			
Code 61	50 psi	A,B,C	P179582

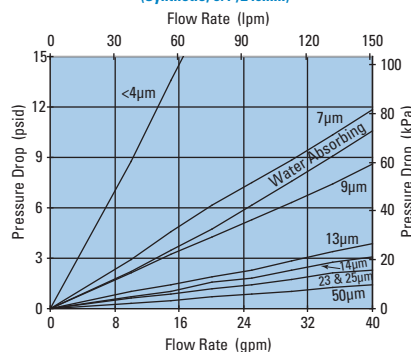
¹ Reference illustration on next page for service indicator styles.

Performance Data

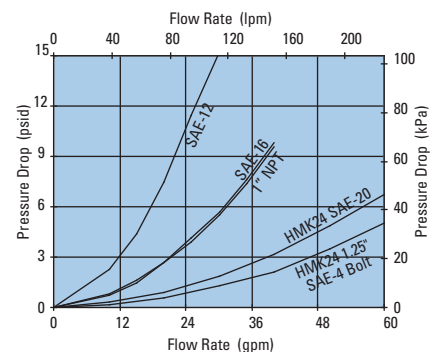
HMK04 Filter Only
(Synthetic, 6"/152mm)



HMK04 Filter Only
(Synthetic, 9.4"/240mm)



HMK04/24 Head Only



Head Choices for HMK04 (single)

Port Size	Bypass Rating	Standard Indicator Style & Location ^{1,2}	Indicator Options	Head Part No.
¾" NPT	25 psi	None	None	P169317
	172 kPa	D (Visual), Left Side	None	P169310
SAE-12 O-Ring	25 psi	None	None	P167473
	172 kPa	D (Visual), Left Side	None	P166387
	No Bypass	D (Visual), Left Side (25 psi)	None	P169320
		None	None	P165434
SAE-12 O-Ring (3 ports)	No Bypass	D (Visual), Left Side (50 psi)	None	P173750
	50 psi / 345 kPa	A (Electrical, P161594)	B, C	P167529
1" NPT	25 psi	D (Visual), Both Sides	A, B, C	P166086
	172 kPa	None	None	P169309
		D (Visual), Left Side	None	P166416
SAE-16 O-Ring	15 psi / 100 kPa	None	A, B, C, E, F	P176569
SAE-16 O-Ring	25 psi / 172 kPa	None	None	P163681
		D (Visual), Left Side	None	P166417
		D (Visual), Both Sides	A, B, C	P166088
		E (Electrical, P177361)	None	P176568
		A (Electrical, P162400)	B, C	P165537
	No Bypass	D (Visual), Both Sides (25 psi)	A, B, C	P166664
		A (Electrical, P162400)	B, C	P166902
	50 psi	D (Visual, Right Side)	All	P179381
	No Bypass	None	None	P164667
	50 psi / 345 kPa	None	None	P167201
	A (Electrical, P165194)	B, C	P166862	
SAE-16 O-Ring	5 psi	D (Visual), Both Sides	All	P564850
1" NPT	No Bypass	D (Visual), Left Side (25 psiD)	None	P564484
1" NPT	25 psi	D (Visual), Left Side (25 psiD)	None	P564485

NOTE:

Lubricate filter-to-head threads when installing new filter to prevent thread damage.

Heavyweight gear lube is recommended.



Head Notes

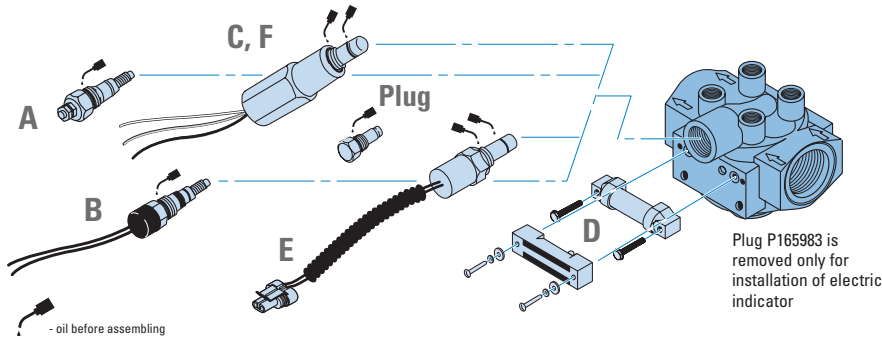
- Reference illustration below for indicator styles.
- Donaldson uses the inlet port as the reference point. "Left side," for instance, means that the indicator mounts on the side of the filter head that is on your left when you face the inlet port.

3-Port Head for Charge Pumps



The **P167529** 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.

Service Indicator Choices



Electric Models¹

Use with Bypass Valve Pressure of:	Indicator Part No.	Style ³	Description
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	P167455	A	Single post DC. N.C.
50 psi / 345 kPa	P171087	B	DC 2-wire.
50 psi / 345 kPa	P170926	E	DC 2-wire.
50 psi / 345 kPa	P173893	F	DC 3-wire.
50 psi / 345 kPa	P174396	C	AC/DC 3-wire.

Visual Models (non-electric)²

Use with Bypass Valve Pressure of:	Indicator Part No.	Style ³
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

Indicator Notes

- All electric models have a maximum operating temperature of 250°F / 121°C.
- 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.