

HMK04/24 DURAMAX® Spin-Ons

Working Pressures to:	500 <i>psi</i> 3450 kPa 34.5 bar	
Rated Static Burst to:	1000 <i>psi</i> 6900 kPa 69 bar	
Flow Range to:	HMK04 35 <i>gpm</i> 130 l/min	HMK24 60 <i>gpm</i> 230 l/min

Features

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

Since both HMK04 and HMK24 models use the same replacement filter elements, 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 elements.

A full range of media options is available, including natural-fiber cellulose and Donaldson's exclusive Synteq® synthetic media designed especially for liquid filtration. Likewise, select the exact indicator types and bypass options to suit your application.



Beta Rating

- Performance to $\beta_{3(c)}=1000$

Porting Sizes

- | | |
|----------------------|------------------|
| HMK04 | HMK24 |
| • SAE-12, -16 O-Ring | • SAE-20 O-Ring |
| • ¾" & 1" NPT | • 1¼" SAE 4-Bolt |

Assembly Weight

- HMK04 with short element: 3.9 lbs/1.8 kg
- HMK04 with long element: 4.8 lbs/2.2 kg
- HMK24: 13 lbs/ 5.9 kg

Replacement Filter Lengths

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

Standard Bypass Ratings

- 25 *psi*, 50 *psi*, No Bypass

Operating Temperatures

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

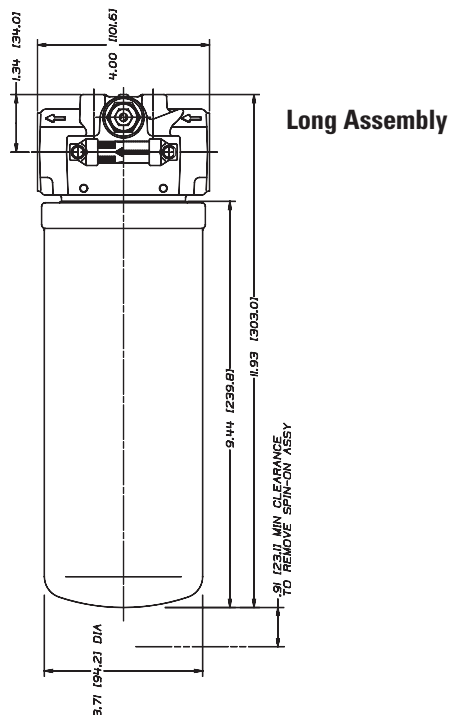
Housing Fatigue Strength Ratings

- 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

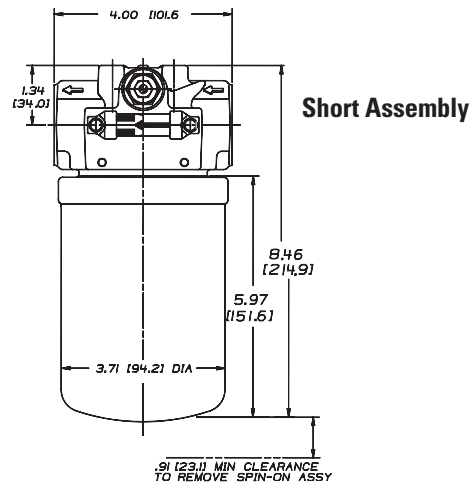
Element Collapse Rating

- 150 psid
- 300 psid also available
- Standard Head Construction Cast Aluminum

Assembly - Side View



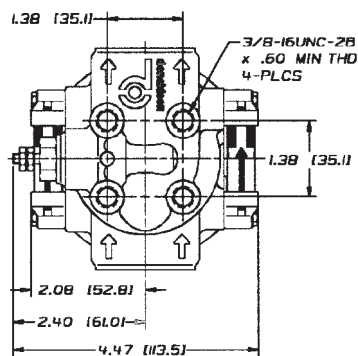
for: Return-Lines
Case Drains
Side Loop Systems
Bearing/Gear Lube Systems
Hydrostatic Charge Pumps
Power Transmissions
Cooling Circuits
Fuel Transfer



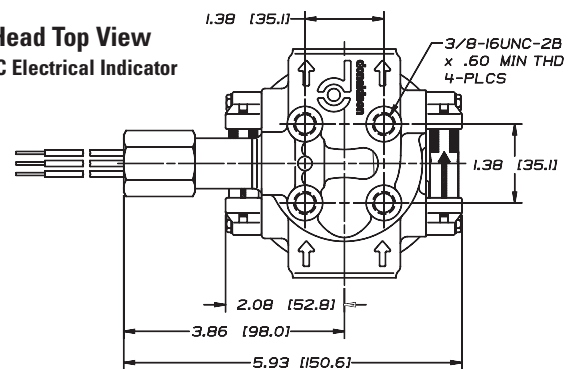
Duramax® Spin-Ons

Heads - Top & Side Views

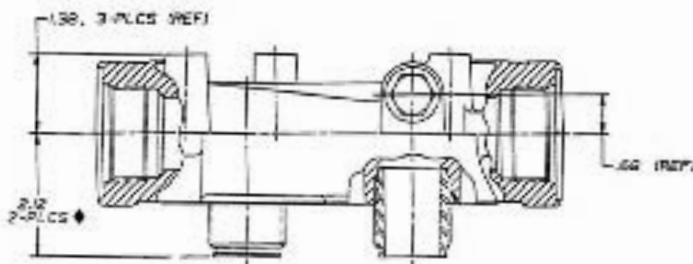
**HMK04 Head
Top View
with DC Electrical
Indicator**



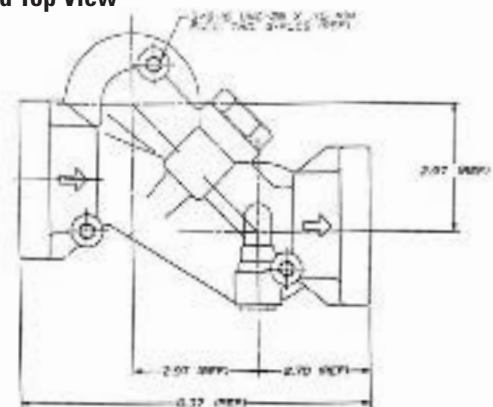
**HMK04 Head Top View
with AC/DC Electrical Indicator**



HMK24 Head Side View



HMK24 Head Top View



All dimensions above are shown in inches [millimeters]

HMK04/24 Components



Mix 'n Match to Get What You Need

Donaldson's Mix 'n Match system provides the great performance and functional advantages of custom-engineered filters with the convenience and speedy delivery of in-stock parts. Choose your options and build a filter model that exactly suits your cleanliness requirements.

Notes on Spin-On Elements

- Filters with seals made of BunaN 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.
- Synteq® filter media is compatible with petroleum based fluids, most phosphate esters, water emulsions, and HWCF.
- Standard element collapse rating is 150 psi, except as noted.

Spin-On Elements for both HMK04 and HMK24

Media Number	B _{w(c)} = 1000 Rating	Media Technology	Length (in.)	(mm)	Part No.
No. ½	<3µm	Synteq®	9.4	240	P165185 Viton Seal
No. 1	6µm	Synteq®	9.4	240	P167590
No. 2	9µm	Synteq®	6	52	P165354
			9.4	240	P165332
No. 2½	10µm	Synteq®	6	152	P176565
			9.4	240	P176566
No. 3	24µm	Cellulose	6	152	P163405
			9.4	240	P163323
No. 4	20µm	Synteq® 300 psi collapse	6	152	P163542
			9.4	240	P163555
No. 4	20µm	Synteq®	6/	152	P164375
			9.4	240	P164378
No. 6	13µm	Synteq®	9.4	240	P164056 Viton Seal
No. 7	33µm	Synteq®	6	152	P164381
			9.4	240	P164384
No. 10	23µm	Cellulose	6	152	P163419
			9.4	240	P163324
No. 15	29µm	Cellulose	6	152	P163496
			9.4	240	P163322
No. 16	22µm	Synteq®	9.4	240	P164059 Viton Seal
No. 20	>50µm	Synteq®	6	152	P165335
			9.4	240	P165338
	na	Water Removal	9.4	240	P560584

Head Choices for HMK24 (double)



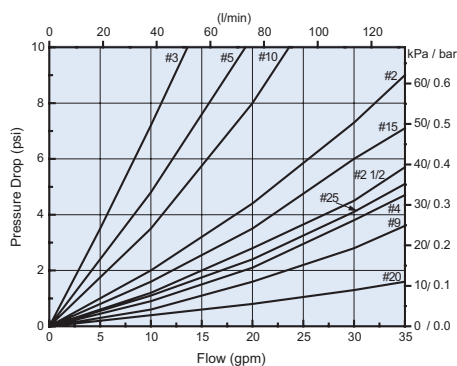
Port Size	Bypass Rating	Indicator Options ¹	Part No.
SAE-20 O-Ring	None	A,B,C	P179609
1¼" 4-Bolt	50 psi	A,B,C	P179582

¹ Reference illustration on next page for indicator styles.

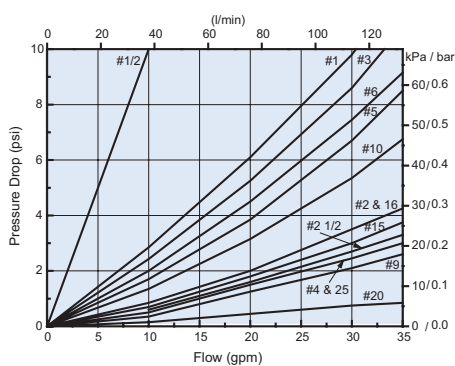
IMPORTANT:

The filter head snout/post must be lubricated before spinning on a new filter to prevent thread damage.

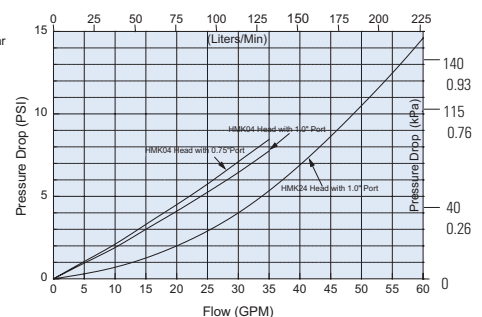
Short Filter Only (6"/152mm)



Long Filter Only (9.4"/240mm)



HMK04 & HMK24 Heads Only





Head Notes

¹ Reference illustration below for indicator styles.

² 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.

The filter head snout/post must be lubricated before spinning on a new filter to prevent thread damage.

3-Port Head for Charge Pumps

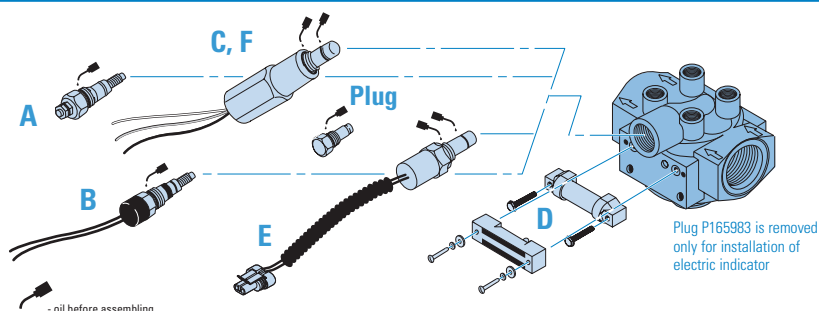


The P167529 head is designed with a 50 *psi* third port bypass valve that diverts all bypass flow back to the reservoir, instead of going straight through the head and into the system as it does in 2-ported heads. Unfiltered fluid is NOT allowed into the system in the case of plugged filters. Designed primarily for charge pump applications.

Head Choices for HMK04 (single)

Port Size	Bypass Rating	Standard Indicator Style & Location ^{1,2}	Indicator Options	Head Part No.
3/4" 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
	No Bypass	D (Visual), Left Side (50 psi)	None	P173750
SAE-12 O-Ring (3 ports)	50 psi	A (Electrical)	B, C	P167529
1" NPT	25 psi	D (Visual), Both Sides	A, B, C	P166086
	172 kPa	None	None	P169309
SAE-16 O-Ring	15 psi	D (Visual), Left Side	None	P166416
	100 kPa	None	A	P176569
SAE-16 O-Ring	25 psi	None	None	P163681
		D (Visual), Left Side	None	P166417
		D (Visual), Both Sides	A, B, C	P166088
		E (Electrical)	None	P176568
	No Bypass	A (Electrical)	B, C	P165537
		D (Visual), Both Sides (25 psi)	A, B, C	P166664
		A (Electrical)	B, C	P166902
		D (Visual, Right Side)	All	P179381
	50 psi	None	None	P164667
	No Bypass	None	None	P167201
		50 psi	None	P167201
	345 kPa	A (Electrical)	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

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.
25 psi / 172.5 kPa	P162400	A	Single post DC.
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.
50 psi / 345 kPa	P167455	A	Single post DC.
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. kPa	P162696	D
50 psi / 345 kPa	P167580	D
n/a (blank plate)	P165984	n/a

NOTE: PSI is marked on the face of the visual indicators.

Indicator Notes

¹ All electric models have a maximum operating temperature of 250°F/ 121°C.

² All non-electric models have a maximum operating temperature of 180°F/ 82°C.

³ Indicator styles are illustrated above and detailed on page 56-57.