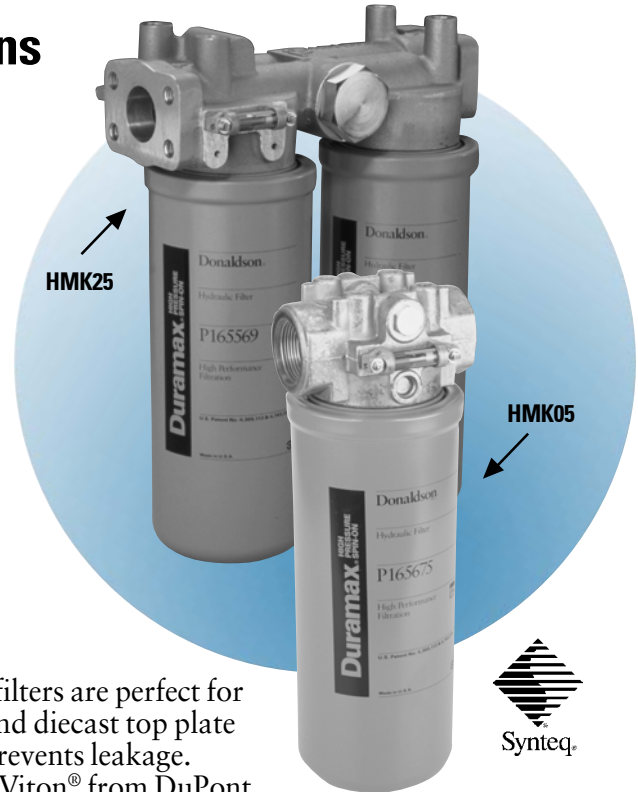


HMK05/25 DURAMAX® Spin-ons

Working Pressures to:	350 <i>psi</i> 2413 kPa 24.1 bar	
Rated Static Burst to:	800 <i>psi</i> 5520 kPa 55.2 bar	
Flow Range to:	HMK05	HMK25
	50 <i>gpm</i> 189.3 l/min	100 <i>gpm</i> 378.5 l/min



Features

HMK05 (single) and HMK25 (double) Duramax® spin-on filters are perfect for high-flow applications, featuring a heavy-duty steel body and diecast top plate for added strength. A special head-to-canister O-Ring seal prevents leakage. BunaN seals standard; Seals made of fluorocarbon (such as Viton® from DuPont Dow Elastomers or Fluorel™ from 3M Company) are available.

Since both HMK05 and HMK25 models use the same replacement filter elements, they make a great team within your application. Both filters feature identical pressure ratings, but the HMK25 double element head means double flow capability, with two filters to hold more contaminant. So there's no need to inventory two different part numbers for replacement elements!

Take advantage of Donaldson's Mix 'n Match system of in-stock heads, housings and media choices—so you can get exactly what you need! Media options include natural-fiber cellulose, wire mesh and Donaldson's exclusive Synteq® synthetic media designed especially for liquid filtration.

Beta Rating

- Performance to $\beta_{5(c)}=1000$

Porting sizes

- | | |
|-----------------|-------------------------|
| HMK05 | HMK25 |
| • 1¼" NPT | • 1½" NPT |
| • SAE-20 O-Ring | • 1½" SAE 4-Bolt Flange |
| • SAE-24 O-Ring | |

Assembly Weight

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

Replacement Filter Lengths

- 11.63" / 295.4mm

Standard Bypass Ratings

- 25 psid or 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)
- -20°F to 250°F / -29°C to 121°C (wire mesh)

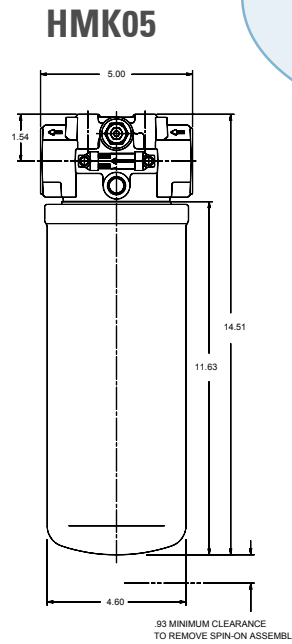
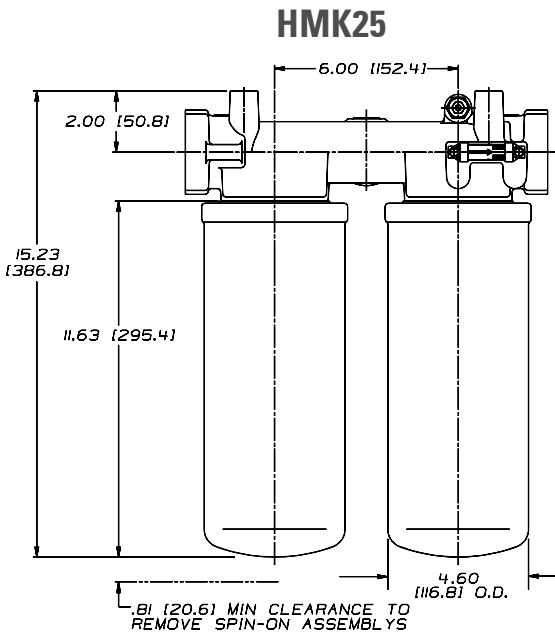
Housing Fatigue Strength Ratings

- 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

Element Collapse Ratings

- 200 psid

Assembly - Side View

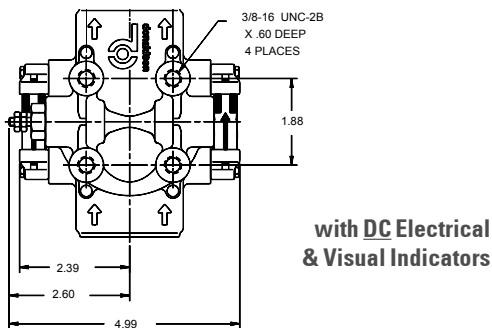
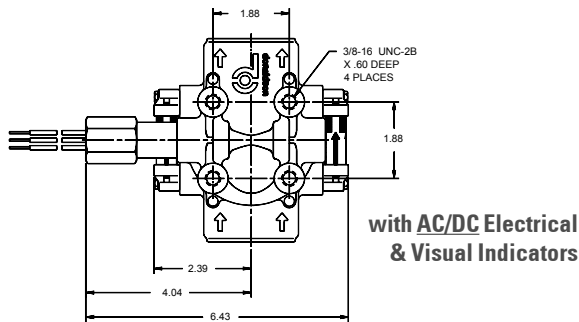


Case Drains
 Fluid Conditioning
 Power Transmissions
 Return-Line & Side Loop Systems
 Hydrostatic Charge Pumps
 Lube Oil Systems
 Cooling Circuits
 Fuel Transfer

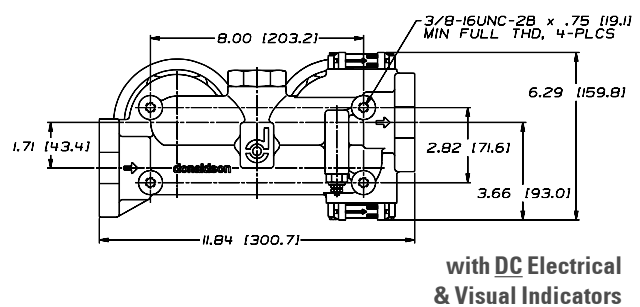
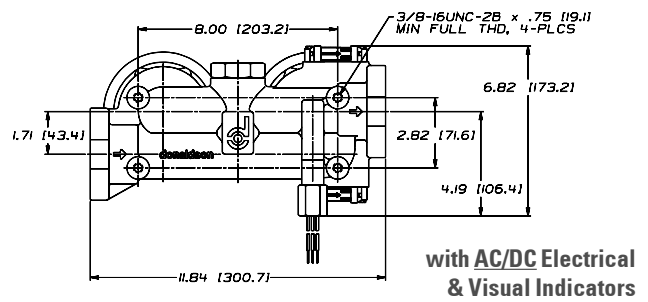
Duramax® Spin-ons

Head - Top View

HMK05



HMK25



All dimensions above are shown in inches [millimeters]

HMK05/25 Components

Spin-On Elements for HMK05 and HMK25

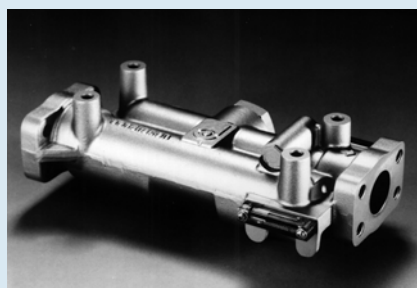
Media Number	Media Type	B _{x(9)} =1000 Rating	Length in	mm	Part Number
No. 1	Synteq®	<5µm	11.6	294	P170906
			11.6	294	P171273 ² Viton
No. 2	Synteq®	5µm	11.6	294	P165675
			11.6	294	P171274 ² Viton
			14.2	361	P179763
No. 2½	Synteq®	11µm	11.6	294	P176567
No. 3	Synteq®	13µm	14.2	361	P170949
No. 4	Synteq®	17µm	11.6	294	P165659
			11.6	294	P171275 ² Viton
No. 9	Synteq®	20µm	11.6	294	P165569
			11.6	294	P171276 ² Viton
			14.2	361	P173789
No. 10	Cellulose	27µm	11.6	294	P165705
No. 20	Synteq®	35µm	11.6	294	P165672
			14.2	361	P170546

Media Number	Media Technology	Length in	mm	Part Number	
No. 149	Wiremesh	150µm nominal	11.6	294	P173943
	Water Removal		11.6	294	P179075

Filter Notes

- ¹ Synteq® filter media is compatible with petroleum based fluids, most phosphate esters, water oil emulsions, and HWCF (high water content fluids).
- ² 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 above. (*Viton® is a registered trademark of DuPont Dow Elastomers.*)

Head Choices are shown on page 66



Choose the dual head, single head, or 3-port head



In-Oil Service Indicator Options (illustrated on opposite page)

Electric Models ⁽¹⁾					Visual Models (Non-Electric) ⁽²⁾		
Use with Bypass Valve Pressure of:	Indicator Part No.	Style ⁽³⁾	Description		Use with Bypass Valve Pressure of:	Indicator Part No.	Style ⁽³⁾
5 psi / 34.5 kPa	P163642	A	Single post DC.		15 psi / 103 kPa	P162642	D
15 psi / 103 kPa	P163601	A	Single post DC.		25 psi / 172.5 kPa	P162696	D
25 psi / 172.5 kPa	P163839	A	Single post DC.		50 psi / 345 kPa	P167580	D
25 psi / 172.5 kPa	P162400	A	Single post DC.		n/a	P165984	(blank plate)
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.				

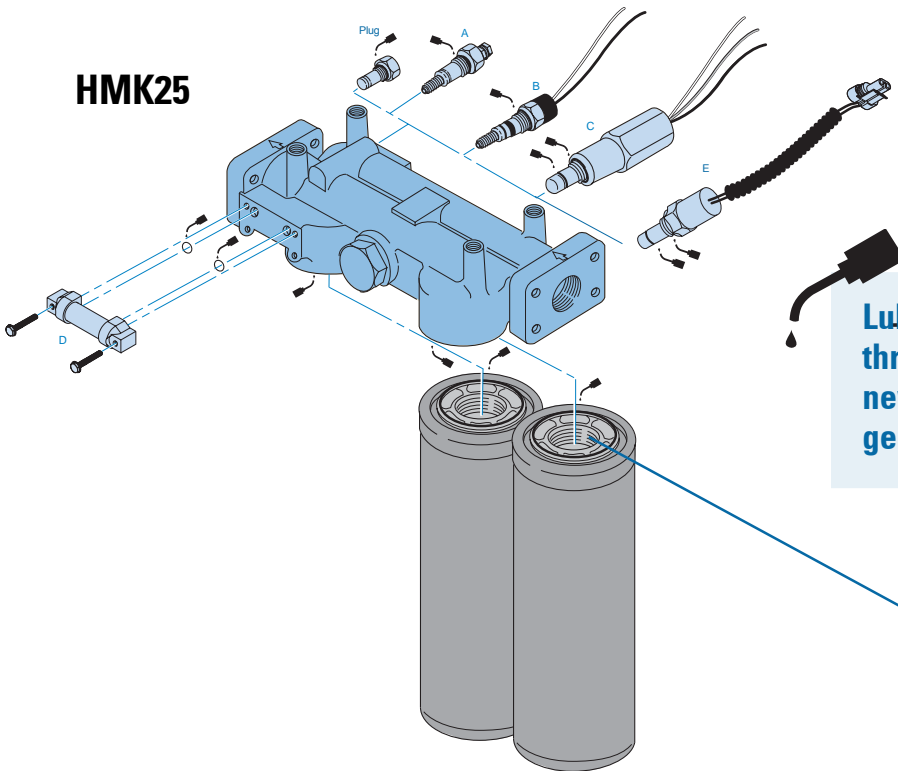
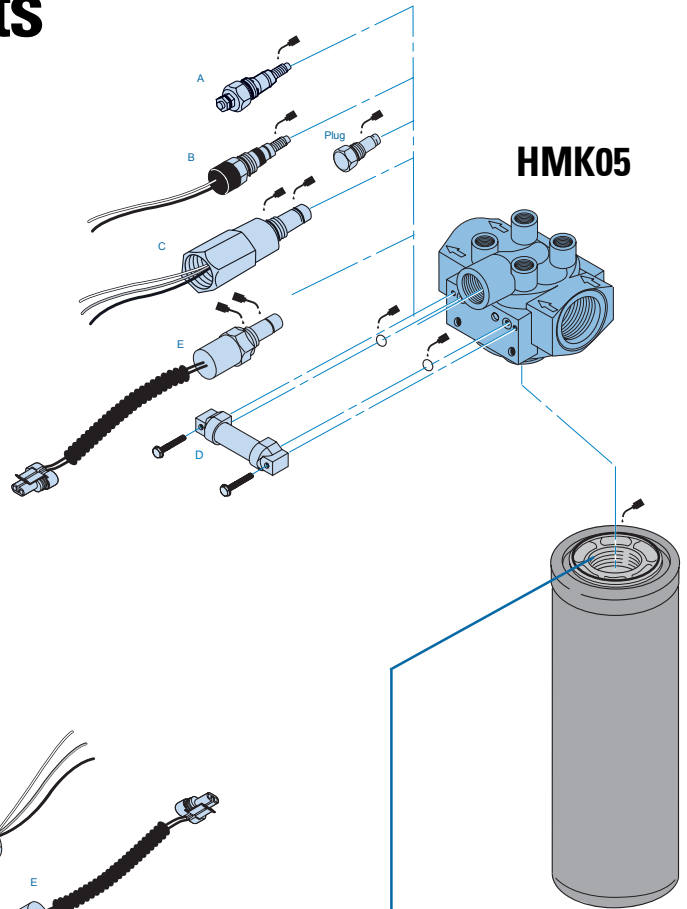
Indicator Notes

- ⁽¹⁾All electric models have a maximum operating temperature of 250°F/ 114°C.
- ⁽²⁾All non-electric models have a maximum operating temperature of 180°F/ 82°C.

Detailed descriptions of service indicators are on page 96-97.

HMK05/25 Components

See how to bank several of these dual heads together to create a higher flow circuit, described on page 67.



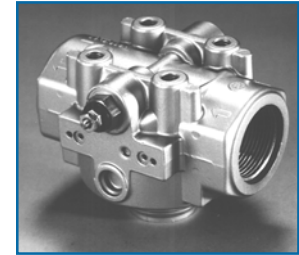
Lubricate filter-to-head threads when installing new filter. Heavy weight gear lube recommended.

Duramax® Spin-ons

HMK05/25 Components *continued...*

Head Choices for HMK05 (single)

Port Size	Bypass Rating	Standard Indicator Style & Location ¹	Indicator Options ²	Part Number
1¼" NPT	25 psi	D (Visual), Both Sides	A, B, C, E, F	P167294
	172 kPa	A (Electrical)	A, B, C, E, F	P167621
1¼" NPT	25 psi	D (Visual), Left side	D	P167622
SAE-20 O-Ring	25 psi	D (Visual), Both sides	A, B, C, E, F	P165973
	172 kPa	None	None	P167619
	No Bypass	D (Visual), Both sides	A, B, C, E, F	P166663



Single head

Head Choices for HMK25 (double)

Port Size	Bypass Rating	Indicator Style & Location ¹	Indicator Options ²	Part Number
1½" NPT	25 psi 172 kPa	G (Visual), Both Sides	A,B,C,E,F	P169985
1½" SAE 4-Bolt	25 psi	G (Visual), Both sides	A,B,C,E,F	P167296
	172 kPa			
Flange	No Bypass	G (Visual), Both Sides	A,B,C,E,F	P169984
1½" SAE O-Ring	25 psi 172 kPa	G (Visual), Both sides	A,B,C,E,F	P167297



Dual head

Head Choice for HMK25 (3rd port return)

Port size of inlet & outlet ports: 1¼" SAE 4-Bolt Flange
Size of 3rd port: 1" SAE 4-Bolt Flange

Bypass Rating	Service Indicator Options ²	Part Number
50 psi 364 kPa	A,B,C,E,F	P561924



3-port head

Head Notes

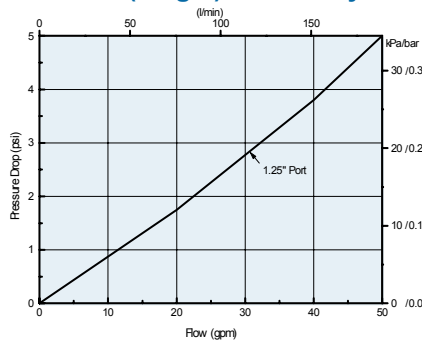
¹ Donaldson uses the inlet port as the reference point. "Left side," for instance, means the indicator mounts on the Left side when you face the inlet port.
² May be purchased separately. See indicator illustrations on page 65.

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

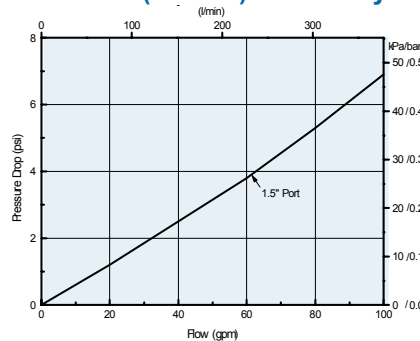
Performance Data

For a full explanation of how performance curves were derived, see page 100.

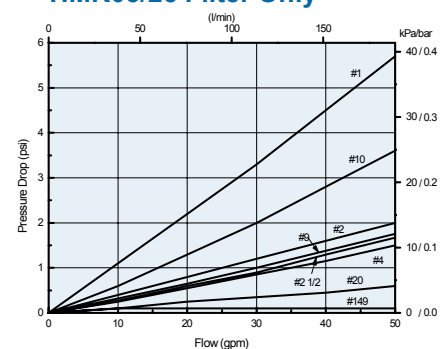
HMK05 (single) Head Only



HMK25 (double) Head Only



HMK05/25 Filter Only





Banks of HMK25 Heads with Manifold Enable Higher Flow or Higher Viscosity

If you need to filter hydraulic fluid at higher flow rates or filter higher viscosity oil -- yet want the economy and convenience of spin-on filters, consider banking several Donaldson HMK05 dual heads together with a our manifold, as shown at left.

This arrangement can also be used to achieve higher dirt-holding capacity -- while retaining the convenience of spin-on filters that are easy to change and require less clean-up.

The heads (2, 3, 4 or more) are piped together, sharing common inlet and outlet pipes.

Whereas a single HMK25 can potentially handle 100 *gpm*, two HMK25 filters together (with common inlet/outlet pipes) can potentially handle 200 *gpm*.



The multiple HMK25 configuration is ideal for any bulk oil storage tank -- like the kind found at refineries, mines, oil processing plants, and hundreds of other operations that use a lot of oil. Oil stored in tanks can pick up bacteria, metal particles, and other contamination that must be filtered out of the oil before it's used in expensive machinery.

HMK25 dual heads specs are on facing page; manifolds are custom made to suit your requirements. Call your Authorized Donaldson Distributor for further information on Donaldson manifold options.



COST-EFFECTIVE DUPLEX ALTERNATIVE: In this application, the manifolds have on/off valves so that filters can be changed without shutting down the whole system.