

Medium Pressure Filters



Medium Pressure Filters

Medium pressure filters can be used in applications up to 2000 psi (13790 kPa). Donaldson offers both spin-on and in-line cartridge-style filters.

Donaldson Duramax® filters are the highest rated medium pressure spin-on filters available. Duramax filters are proven, reliable, long-lived and easy to install.



Section Index

Max Operating Pressure < 2000 psi (138 bar)

Models arranged from low to maximum flow rates

Spin-on Filters HMK03 82 HMK04 96 HNK05 90 HNK05 94 HMK24 86 HMK25 90 In-line Cartridge Filters FLK90 FLK110 102 FLK125 105 DPK350 108 W061 112 HDK06 116 W041 120 HFK08 124



HMK03 DURAMAX® Spin-On Filters

Working 1000 psi 6895 kPa 69 bar

Rated Static
Burst to:

2000 psi
13,790 kPa
138 bar

Flow Range To: 25 gpm 95 lpm



Features

HMK03 Series Duramax® spin-on filters offer twice the capacity of competitive filters, yet they are physically smaller than traditional housing/cartridge filter assembles. It features a die cast aluminum head and a unique radial seal O-ring gasket design that eliminates leakage.

Take advantage of Donaldson's mix and match system of in-stock heads, housings and media choices – so you can get exactly what you need. 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.

Beta Rating

• Performance to $\beta_{g(c)}$ =1000

Porting Size Options

• SAE-12 O-ring

Replacement Filter Lengths

- 5.5" / 140mm
- 9.5" / 242mm

Standard Bypass Ratings

- 50 psi / 345 kPa / 3.5 bar
- No Bypass

Filter Collapse Ratings

• 290 psid / 20 bar

Assembly Weight

• Short: 3.3 lbs / 1.5 kg

• Long: 4.2 lbs / 1.9 kg

Operating Temperatures

• -20°F to 250°F / -29°C to 121°C

Housing Fatigue Strength Ratings*

- 100,000 Cycles: 0-1000 psi / 0-6895 kPa / 68 bar
- 300,000 Cycles: 0-800 psi / 0-5516 kPa / 55 bar
- 1,000,000 Cycles: 0-700 psi / 0-4826 kPa / 48 bar

*Per T3.10.17 NFPA





HMK03 Specification Illustrations

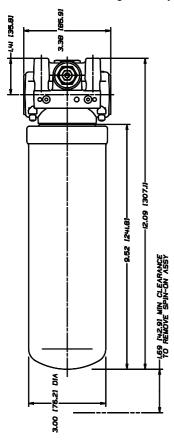
All dimensions are shown in inches [millimeters].

Assembly - Side Views

Long Assembly

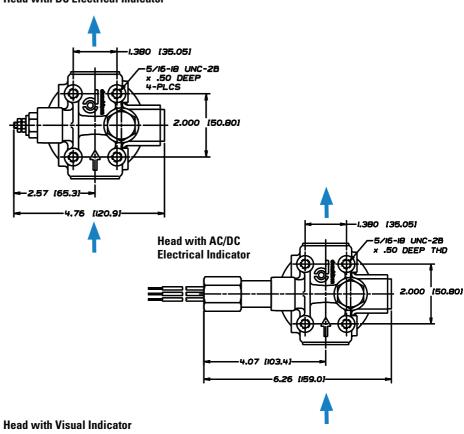
Applications

- Hydrostatic Charge Pumps
- Hydrostatic Transmission
- Pilot Control Circuits
- Refrigeration Compressor Circuits

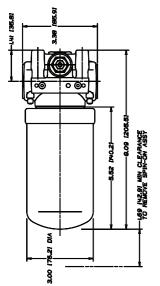


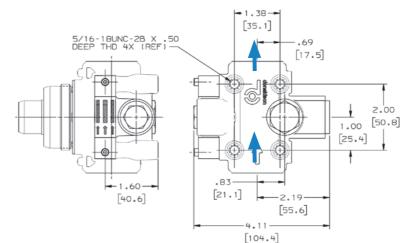
Head - Top View with Indicators

Head with DC Electrical Indicator



Short Assembly







HMK03 Components

Filter Choices

Media	$B_{x(c)} = 1000$	Length		Donaldson	Comments
Туре	Rating based on ISO 16889	in	mm	Part No.	
Synteq Synthetic	6 μm	5.5	140	P170308	Buna-N
	6 μm	9.5	242	P170309	Buna-N
	11 μm	5.5	140	P170310	Buna-N
	11 µm	9.5	242	P170311	Buna-N
	23 μm	5.5	140	P170312	Buna-N
	23 μm	9.5	242	P170313	Buna-N

Filter Notes

- Synteq™ filter media is compatible with petroleum based fluids, most phosphate esters, water oil emulsions, and HWCF (high water content fluids)
 All models have 2*-12 threads
 Buna-N* is a registered trademark of E. I. DuPont de Nemours and Company.



HMK03 Head

Port	Bypass	Indicator	Head
Size	Rating		Part No.
3/4" SAE-12	No Bypass	None*	P170327
O-Ring	50 psi / 345 kPa	None*	P170773
	50 psi / 345 kPa	Visual*	P179460

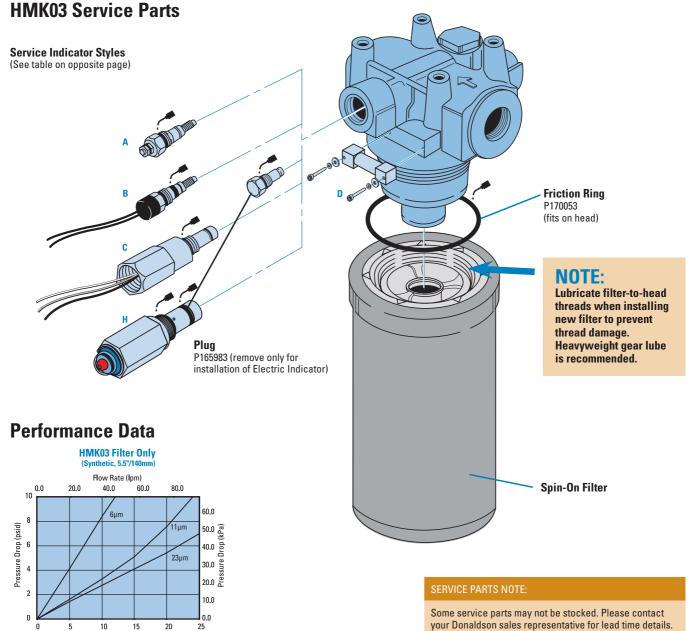
*Head is machined to accept optional electrical indicators. See Indicator list at right for the available choices.

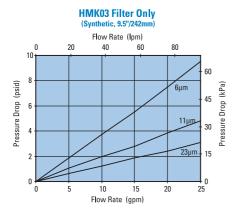
Oil Service Indicator Choices

Part No.	Style ²	Description ¹
P171143	В	Electric 2-wire DC
P173944	С	Electric 3-wire AC/DC
P165965	D	Visual
P575334	Н	Visual, pop up
P165194	Α	Electric Single post DC
P574968	В	Electric 2-wire DC
P174396	С	Electric 3-wire AC/DC
P575335	Н	Visual, pop up
P574967	E	DC 2-wire.
	P171143 P173944 P165965 P575334 P165194 P574968 P174396 P575335	No. Style ² P171143 B P173944 C P165965 D P575334 H P165194 A P574968 B P174396 C P575335 H

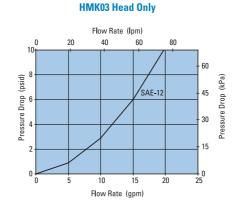
 $^{^1}$ All electric models have a maximum operating temperature of 250°F/121°C. 2 See illustration of indicator styles on next page and complete details for all parts in the service indicators portion of the accessories section.







Flow Rate (gpm)



HMK04/24

Max Flow: 35 gpm (133 lpm) / 60 gpm (227 lpm)



HMK04/24 DURAMAX® Spin-On Filters

Working 500 psi 3450 kPa 35 bar

Rated Static 1000 psi 6895 kPa 69 bar

Flow Range To: HMK04 HMK24 35 gpm 60 gpm 133 lpm 227 lpm



Features

HMK04 (single) and HMK24 (double) Duramax® spin-on filters feature a die-cast aluminum head, heavy-duty steel body, and 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.

Both models use the same replacement filters and feature identical pressure ratings, but the HMK24 handles greater flow capacity. There's no need to inventory two different replacement filters. A full range of media options are available, using Donaldson's exclusive Synteq™ synthetic media. Choose the indicator types and bypass options to suit your application.

Beta Rating

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

Porting Size Options

- HMK04 ¾", 1" NPT
- HMK04 SAE-12, SAE-16 O-ring
- HMK24 SAE-20, O-ring
- HMK24 11/4" SAE 4-Bolt Flange Code 61

Replacement Filter Lengths

- 5.97" / 152mm
- 9.4" / 240mm

Standard Bypass Ratings

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

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

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

Filter Collapse Ratings

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



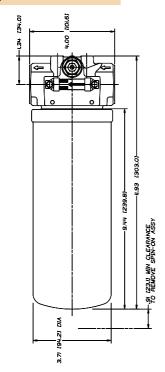


HMK04/24 Specification Illustrations

All dimensions are shown in inches [millimeters].

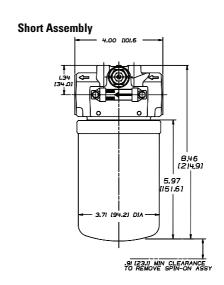
Assembly - Side Views

Long Assembly



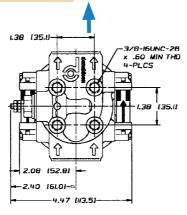
Applications

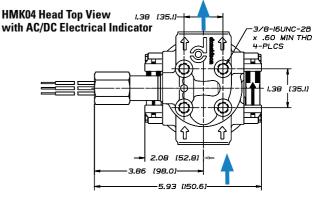
- Case Drains
- Cooling Circuits
- Fluid Conditioning Systems
- Fuel Transfer
- Hydrostatic Charge Pumps
- Lube Oil Systems
- Power Transmissions
- Return Lines
- Side Loop Systems

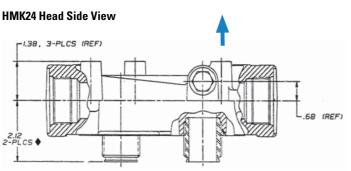


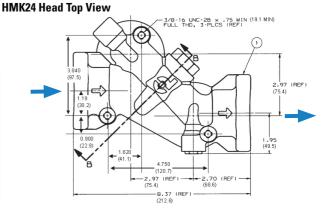
Head - Top & Side Views

HMK04 Head Top View with DC Electrical Indicator











HMK04/24 Components

Filter Choices

I IIIGI GIIO	1063					
Media	$B_{x(c)} = 2$	$B_{x(c)} = 1000$	Len	igth	Donaldson	Comments
Туре	Rating base	d on ISO 16889	in	mm	Part No.	
Synteq Synthetic		<4 μm	9.4	240	P165185	¹Viton® 0-ring
		6 μm	5.97	152	P165354	
		6 µm	9.4	240	P165332	
		11 μm	5.97	152	P163542	500 psi collapse
		11 μm	5.97	152	P164375	
		11 µm	9.4	240	P164378	
		13 µm	9.4	240	P164056	¹Viton O-ring
		14 μm	9.4	240	P177047	
		22 μm	9.4	240	P164059	¹Viton O-ring
		23 μm	9.4	240	P163567	500 psi collapse
		23 µm	5.97	152	P164381	
		23 µm	9.4	240	P164384	
		50 μm	5.97	152	P165335	
		50 μm	9.4	240	P165338	
Water Absorbing	10 μm		9.4	240	P560584	
Wire Mesh	150 μm		9.4	240	P573301	

Duramax

NOTE:

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

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
¹ Filters with seals made of Buna-N® 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.

Buna-No Vitono are a registered trademarks of E. I. DuPont de Nemours and Company

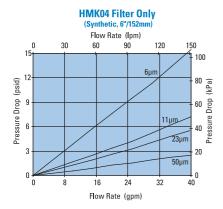
Head Choices for HMK24 (double)

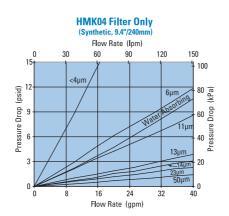


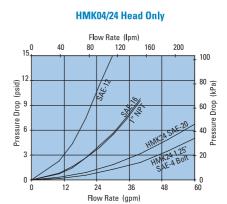
Port Size	Bypass Rating	Indicator Options ¹	Part No.
SAE-20 O-Ring	None	A, B, C, E, F, H	P179609
1¼" SAE 4-Bolt Code 61	50 psi	A, B, C, E, F, H	P179582

Reference illustration on next page for service indicator styles.

Performance Data







MEDIUM PRESSURE FILTERS

Head Choices for HMK04 (single)

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

Plug P165983 is removed only for installation of electric indicator

Service Indicator Choices

Use with Bypass	Indicator	
Valve Pressure of:	Part No.	Style ³
Visual Models (non-		
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	Н Рор ир

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...

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 $% \left(1\right) =\left(1\right) \left(1\right) \left$ primarily for charge pump applications.

Service Indicator Choices

OUI VIOU IIIu	Ioutoi	Olloit	, 00
Use with Bypass	Indicator		
Valve Pressure of:	Part No.	Style ³	Description
Electric Models ¹			
5 psi / 34.5 kPa	P163642	Α	Single post DC.
15 psi / 103 kPa	P163601	Α	Single post DC.
25 psi / 172.5 kPa	P163839	Α	Single post DC. N.C.
25 psi / 172.5 kPa	P162400	Α	Single post DC. N.O.
25 psi / 172.5 kPa	P171143	В	DC 2-wire.
25 psi / 172.5 kPa	P173944	С	AC/DC 3-wire.
50 psi / 345 kPa	P165194	Α	Single post DC. N.O.
50 psi / 345 kPa	P574968	В	DC 2-wire.
50 psi / 345 kPa	P574967	Е	DC 2-wire.
50 psi / 345 kPa	P575549	F	DC 3-wire.
50 psi / 345 kPa	P174396	С	AC/DC 3-wire.

HMK05/25 Max Flow: 50

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



HMK05/25 DURAMAX® Spin-On Filters

Working 350 psi 2415 kPa 24.2 bar

Rated Static 800 psi 5520 kPa 55.2 bar

Flow Range To: HMK05 HMK25 50 gpm 100 gpm 189 lpm 379 lpm



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 B = 1000

Porting Size Options

- HMK05 11/4" NPT
- HMK05 SAE-20 O-ring
- HMK25 11/2" NPT
- HMK25 SAE-24 O-ring
- HMK25 11/2" 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)

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

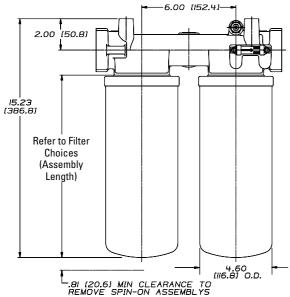


HMK05/25 Specification Illustrations

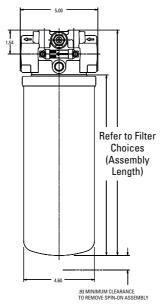
All dimensions are shown in inches [millimeters].

Assembly - Side Views

HMK25

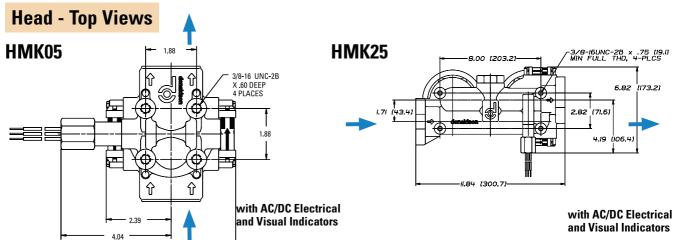


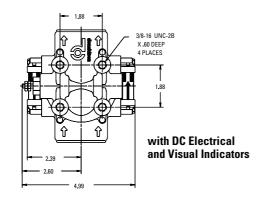
HMK05

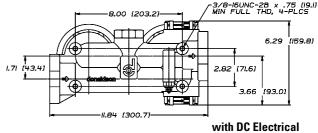


Applications

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







and Visual Indicators



HMK05/25 Components

Filter Choices

Media	$B_{x(c)} = 2$	$B_{x(c)} = 1000$	Ler	igth	Donaldson	Comments
Туре		d on ISO 16889	in	mm	Part No.	
Synteq Synthetic		<4 µm	14.2	361	P564468	¹Viton, Epoxy
		6 µm	11.6	294	P165675	
		6 µm	11.6	294	P171274	¹Viton, 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	¹Viton, 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	¹Viton 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 13/4-12 UNF-2B

Thread size is 13/4-12 UNF-2B

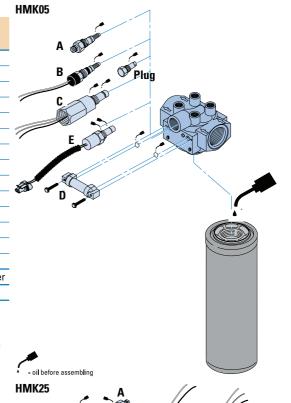
Filters with seals made of Buna-N are appropriate for most applications involving petroleum oil. Filters with seals made of Viton* (a fluoroelastomer) are required when using diester, phosphate ester fluids, water glycol, water/oil emulsions and HWCF (high water content fluids) over 150*F. Donaldson offers both types.

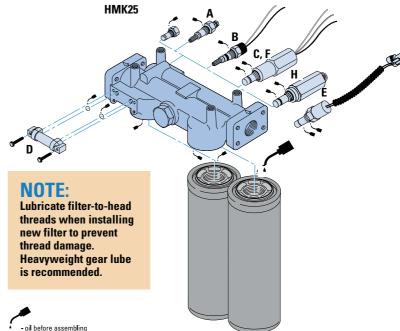
Oil Service Indicator Options

Use with Bypass	Indicator		
Valve Pressure of:	Part No.	Style ³	Description
Electric Models ¹			
5 psi / 34.5 kPa	P163642	Α	Single post DC
15 psi / 103 kPa	P163601	Α	Single post DC.
25 psi / 172.5 kPa	P163839	Α	Single post DC. N.C.
25 psi / 172.5 kPa	P162400	Α	Single post DC. N.O.
25 psi / 172.5 kPa	P171143	В	DC 2-wire
25 psi / 172.5 kPa	P173944	С	AC/DC 3-wire
50 psi / 345 kPa	P165194	Α	Single post DC. N.O.
50 psi / 345 kPa	P574968	В	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	С	AC/DC 3-wire

Use with Bypass	Indicator	
Valve Pressure of:	Part No.	Style ³
Visual Models (No	n-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





Indicator Notes

"All electric models have a maximum operating temperature of 250°F/114°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.

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



Head Choices for HMK05 (single)

Houd		i illinikoo (olligio)		
Port	Bypass	Standard Indicator	Indicator	Part
Size	Rating	Style & Location ¹	Options ²	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	25 psi / 172 KPa	D (Visual), Both Sides (25 psi)	A, B, C, E, F	P165973
0-Ring	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	Bypass	Indicator Style	Indicator	Part
Size	Rating	& Location¹	Options ²	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	Bypass	Indicator Style	Indicator	Part
Size	Rating	& Location¹	Options ²	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

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.

²May be purchased separately

³Complete details on all service indicators can be found in the accessories section.

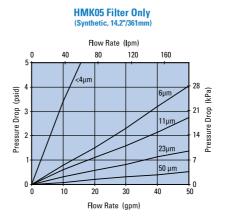
3-Port Head



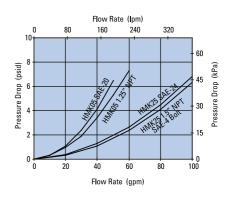
The **P561924** head is designed with a 50 psi / 3.45 bar third port bypass valve that diverts all bypass flow back to the reservoir, instead of going straight through the head and into the system as it does in 2-ported heads. Unfiltered fluid is NOT allowed into the system in the case of plugged filters.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

Performance Data

HMK05 Filter Only (Synthetic, 11.6"/294 Flow Rate (Ipm) 160 Pressure Drop (kPa) Pressure Drop (psid) 23μη 50 μm Flow Rate (gpm)



HMK05/25 Head Only





HNK04/05 DURAMAX® Spin-On Filters

Working Pressures to:	н ико 4 500 psi 3450 kPa 34.5 bar	н ико 5 350 psi 2415 kPa 24.1 bar

 Rated Static
 1000 psi
 800 psi

 6895 kPa
 5515 kPa

 69 bar
 55 bar

Flow Range To: HNK04 HNK05 50 gpm 133 lpm 189 lpm



Features

HNK Duramax® filters utilize a RadialSeal™ design – making servicing easier and providing a more reliable seal without having to torque to specification.

- Applications include hydrostatic charge side filtration, pilot circuits, power shift transmissions and kidney loop circuits.
- Utilizes Synteq™ filter media for high filtration efficiency and higher dust-holding capacity.
- Improved performance including higher burst, greater fatigue strength and longer filter life.

Beta Rating

• Performance to $\beta_{6(c)}$ =1000

Porting Size Options

• HNK04: SAE-12, SAE-16 O-ring

HNK05: SAE-20 O-ring

Replacement Spin-On Lengths

• 04 short: 5.97" / 151.7 mm

• 04 long: 9.44" / 239.8 mm

• 05 short: 11.63" / 295.4 mm

• 05 long: 14.24" / 361.7 mm

Assembly Weight

• 04 short: 5.97" length - 3.95 lbs / 1.8 kg

• 04 long: 9.44" length - 4.7 lbs / 2.1 kg

• 05 short: 11.63" length - 7.35 lbs / 3.3 kg

• 05 long: 14.24" length - 8.0 lbs / 3.6 kg

Operating Temperatures

• -20° to 250°F (-29° to 121°C)

Standard Bypass Ratings

• 50 psi / 345 kPa / 3.5 bar

No Bypass

Filter Collapse Ratings

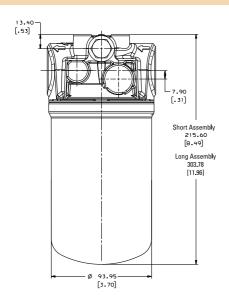
• 235 psi / 1621 kPa / 16.2 bar



HNK04/05 Specification Illustrations

All dimensions are shown in inches [millimeters].

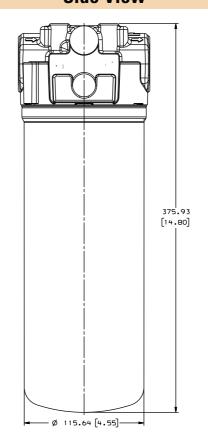
HNK04 Spin-on Assembly -Side View



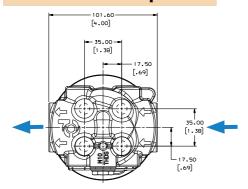
Applications

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

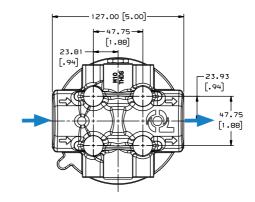
HNK05 Spin-on Assembly -Side View



HNK04 Head - Top View



HNK05 Head - Top View



HNK04/05 Components

Head Choices for HNK04

Port	Bypass	Part			Mounting
Size	Rating	Number	Indicators	Style	Threads
SAE-12	50 psi / 3.5 bar	P568856	none	optional elect.	3/8"-16 UNC
SAE-12	No bypass	P568857	none	optional elect.	3/8"-16 UNC
SAE-16	50 psi / 3.5 bar	P568858	none	optional elect.	3/8"-16 UNC
SAE-16	No bypass	P568859	none	optional elect.	3/8"-16 UNC

Head Choices for HNK05

Port	Bypass	Part			Mounting
Size	Rating	Number	Indicators	Style	Threads
SAE-20	50 psi / 3.5 bar	P568860	none	optional elect.	3/8"-16 UNC
SAE-20	No bypass	P568861	none	optional elect.	3/8"-16 UNC

Indicator Choices

Set Point/Type	Part No.	Description
50 psi / 345 kPa	P165194	Electric Single post DC
25 psi / 172 kPa	P575334	Visual Indicator, Pop up
50 psi / 345 kPa	P575335	Visual Indicator, Pop up

Filter Choices for HNK04

Media	$B_{x(c)} = 1000$	Length Donald		Donaldson
Туре	Rating based on ISO 16889	in	mm	Part No.
Synteq Synthetic	6 μm	5.97	151.7	P569203
	6 μm	9.44	239.8	P569204
	11 μm	5.97	151.7	P569205
	11 μm	9.44	239.8	P569206

Filter Choices for HNK05

Media	$B_{x(c)} = 1000$	Length Don		Donaldson
Туре	Rating based on ISO 16889	in	mm	Part No.
Synteq Synthetic	6 μm	11.63	295.4	P569209
	6 μm	14.24	361.7	P569210
	11 μm	11.63	295.4	P569211
	11 μm	14.24	361.7	P569212

Filter Notes



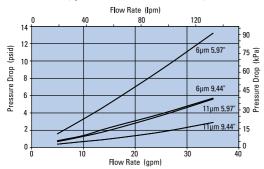
Refer to table in the Technical Reference Guide for fluid compatibility with our filter media.

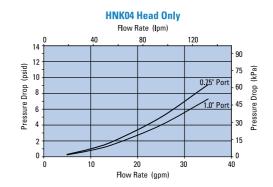




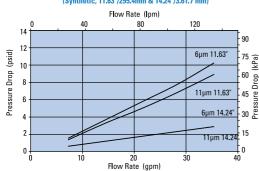
Performance Data

HNK04 Filter Only (Synthetic, 5.97"/151.7mm & 9.44"/239.8 mm)

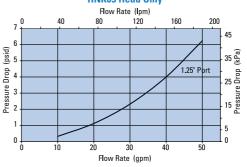




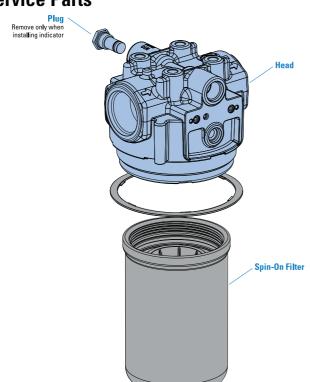
HNK05 Filter Only (Synthetic, 11.63"/295.4mm & 14.24"/3.61.7 mm)

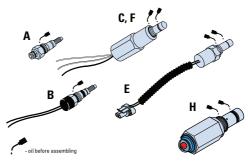






Service Parts





Some service parts may not be stocked. Please contact your Donaldson sales representative for lead time details.



FLK Family



Our FLK hydraulic filtration systems are packed with innovative features that will deliver cleaner, mistake-proof filter servicing.

Applications

- Hydrostatic Charge Pumps
- Hvdrostatic Transmission
- Pilot Control Circuits

Integrated By-pass Valve

Robust, proven design

Unique Head to Cartridge Interface Connection —

RadialSeal™——— Sealing Technology

- No metal-to-metal contact
 downstream flow
- Robust, reliable seal on clean side of filter – prevents cross contamination of oil

Filter Cartridge

- Double wire mesh support on outside of cartridge maintains pleat spacing under high pressure differential
- Locking grab handles makes for cleaner servicing and simplifies filter position during servicing

Industrial Hand Grips

No special servicing tools needed



Locking Grab Handles
Cleaner, easier servicing



- No metal-to-metal contact upstream flow
- Easy-to-torque, mistake-proof sealing
- Robust, reliable seal

Anti-dust Seal

- Keeps threads free from contamination
- Easier to remove and reassemble during service

Synteq XP Media Technology

Delivers high performance – lower pressure drop, superior cold-start filtration and extended filter life

Closed End Cap

Eliminates the possibility of contamination to clean side of assembly during servicing

Oil Drain Port

Oil drain port used to drain oil during servicing

IMPORTANT SERVICE INSTRUCTIONS:

To prevent thread damage when installing new filter, fully lubricate the entire thread and o-ring surface with a Molybdenum-containing gear oil or anti-seize paste such as Schaeffer #214S Supreme One 80W-140 gear oil or Dow Corning Molykote P-37 anti-seize past.



FLK90 In-Line Cartridge Filters

Working 580 psi 4002 kPa 40 bar

Rated Static 2000 psi 13,790 kPa

138 bar

Flow Range To: 40 gpm

151 lpm



IMPORTANT SERVICE INSTRUCTIONS:

To prevent thread damage when installing new filter, fully lubricate the entire thread and o-ring surface with a Molybdenum-containing gear oil or anti-seize paste such as Schaeffer #214S Supreme One 80W-140 gear oil or Dow Corning Molykote P-37 anti-seize past.

Features

The FLK assembly is a robust, reusable housing and disposable cartridge design. The versatile FLK filter head accommodates multiple housing lengths. Industrial, raised hand grips make it easy to remove the housing from the head without the need for special servicing tools. The oil drain port on the bottom of the housing and the locking grab handles on the filter cartridge allow for cleaner, easier servicing. The filter tabs lock into place – simplifying positioning during reassembly. Short removal clearance is needed for filter replacement means the assembly can easily fit into tight spaces.

These assemblies utilize a unique sealing technology that protects systems from harmful ingressed contaminants and cross contamination of oil. The RadialSealTM interface increases the surface area which provides a robust connection with superior vibration resistance, a common challenge in today's heavy-duty applications.

The FLK filters are offered with Synteq XP™ media, Donaldson's most advanced media technology. Each filter has extended surface area for advanced filtration performance. Synteq XP delivers better pressure drop and better contaminant holding capacity than standard filter media.

- Robust 4-point mount
- Oil drain port
- Optional 2-point mount
- Heads features: one side machined/plugged for indicator

Beta Rating

• Performance to $\beta_{<6(c)}$ =1000

Porting Size Options

- SAE-12 O-ring
- SAE-16 O-ring

Replacement Filter Lengths

- 4.21" / 107 mm
- 8.23" / 209 mm

Standard Bypass Ratings

- 50 psi / 345 kPa / 3.5 bar
- No bypass

Assembly Weight

• Long Housing: 2.33 kg / 5.14 lbs

• Short Housing: 1.82 kg / 4.01 lbs

Operating Temperatures

• -40° to 250°F (-40° to 121°C)

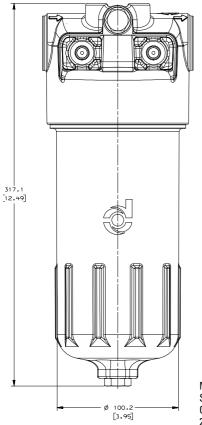
Filter Collapse Ratings

• 145 psid / 1000 kPa / 10 bar (standard)



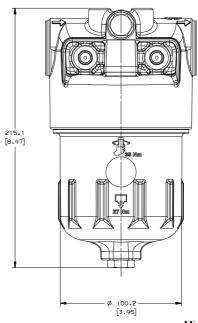
FLK Specification Illustrations

Long Assembly - Side View



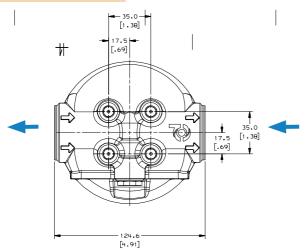
Minimum Service Clearance: 2.56" / 65mm

Short Assembly - Side View



Minimum Service Clearance: 2.56" / 65mm

Head - Top View





FLK90 Components

Head Choices

Part No.	Port Connections	Bypass Valve
P574994	SAE-12	50 psi (3.4 bar) bypass
P574995	SAE-12	No bypass
P574996	SAE-16	50 psi (3.4 bar) bypass
P574997	SAE-16	No bypass

Housing Choices

Part No.	Comments	
P766990	Short length assembly	
P766961	Long length assembly	

Filter Choices

Media	$B_{x(c)} = 1000$	Length Don		Donaldson		
Туре	Rating based on ISO 16889	in	mm	Part No.		
Short Leng	gth Assembly					
Synteq XP	6 μm	4.21	107	P767128		
Synthetic	11 μm	4.21	107	P766987		
	15 μm	4.21	107	P767129		
Long Leng	th Assembly					
Synteq XP	6 μm	8.23	209	P767130		
Synthetic	11 μm	8.23	209	P766959		
	15 μm	8.23	209	P767131		

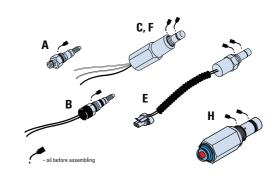
Service Indicator Choices

ocivice maleutor onoices						
Use with Bypass	Indicator					
Valve Pressure of:	Part No.	Style ²	Description			
Electric Models ¹						
50 psi / 345 kPa	P165194	Α	Single post DC. N.O.			
50 psi / 345 kPa	P574968	В	DC 2-wire.			
50 psi / 345 kPa	P574967	Е	DC 2-wire.			
50 psi / 345 kPa	P575549	F	DC 3-wire.			
50 psi / 345 kPa	P174396	С	AC/DC 3-wire.			
25 psi / 172.5 kPa	P575334	Н	Visual pop up			
50 psi / 345 kPa	P575335	Н	Visual pop up			

Indicator Notes

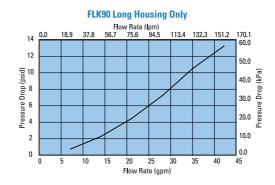
All electric models have a maximum operating temperature of 250°F / 121°C.

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

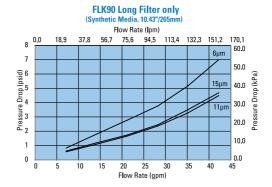


Performance Data





FLK90 Short Filter only







FLK110 In-Line Cartridge Filters

Working 435 psi 3001 kPa 30 bar

Rated Static
Burst to:

1300 psi
8970 kPa
90 bar

Flow Range To: 42 gpm 159 lpm



IMPORTANT SERVICE INSTRUCTIONS:

To prevent thread damage when installing new filter, fully lubricate the entire thread and o-ring surface with a Molybdenum-containing gear oil or anti-seize paste such as Schaeffer #214S Supreme One 80W-140 gear oil or Dow Corning Molykote P-37 anti-seize past.

Features

The FLK assembly is a robust, reusable housing and disposable cartridge design. The versatile FLK filter head accommodates multiple housing lengths. Industrial, raised hand grips make it easy to remove the housing from the head without the need for special servicing tools. The oil drain port on the bottom of the housing and the locking grab handles on the filter cartridge allow for cleaner, easier servicing. The filter tabs lock into place – simplifying positioning during reassembly. Short removal clearance is needed for filter replacement means the assembly can easily fit into tight spaces.

These assemblies utilize a unique sealing technology that protects systems from harmful ingressed contaminants and cross contamination of oil. The RadialSeal™ interface increases the surface area which provides a robust connection with superior vibration resistance, a common challenge in today's heavy-duty applications.

The FLK filters are offered with Synteq XP™ media, Donaldson's most advanced media technology. Each filter has extended surface area for advanced filtration performance. Synteq XP delivers better pressure drop and better contaminant holding capacity than standard filter media.

- Robust 4-point mount
- Optional 2-point mount
- Oil drain port
- Heads features: one side machined/plugged for indicator

Beta Rating

• Performance to $\beta_{<6(c)}$ =1000

Porting Size Options

SAE-20 O-ring

Replacement Filter Lengths

- 7.4" / 187.9 mm
- 10.43" / 264.9 mm

Filter Collapse Ratings

• 145 psid / 1000 kPa / 10 bar (standard)

Standard Bypass Ratings

- 50 psi / 345 kPa / 3.5 bar
- No bypass

Assembly Weight

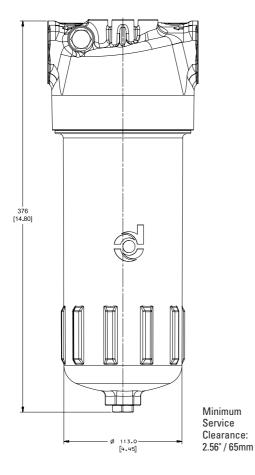
- Long Housing: 1.34 kg / 2.95 lb
- Short Housing: 1.01 kg / 2.22 lb

Operating Temperatures

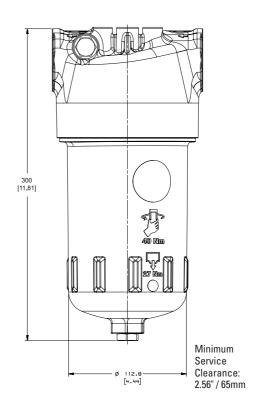
• -40° to 250°F (-40° to 121°C)

FLK Specification Illustrations

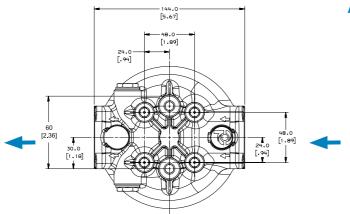
Long Assembly - Side View



Short Assembly - Side View



Head - Top View



Applications

- Hydrostatic Charge PumpsHydrostatic Transmission
- Pilot Control Circuits



FLK110 Components

Head Choices

Part No.	Port Connections	Bypass Valve
P766831	SAE-20	50 psi (3.4 bar) bypass
P767009	SAE-20	No bypass

Housing Choices

Part No.	Comments			
P766812	Short length assembly			
P766810	Long length assembly			

Filter Choices

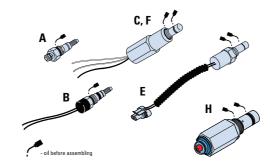
Media	$B_{x(c)} = 1000$	Len	gth	Donaldson
Туре	Rating based on ISO 16889	in	mm	Part No.
Short Leng	th Assembly			
Synteq XP	6 μm	7.4	187	P766847
Synthetic	11 µm	7.4	187	P766813
	15 µm	7.4	187	P767012
Long Leng	th Assembly			
Synteq XP	6 μm	10.43	265	P767010
Synthetic	11 µm	10.43	265	P766811
	15 µm	10.43	265	P767011

Service Indicator Choices

Corrido marcator Chordos						
Use with Bypass	Indicator					
Valve Pressure of:	Part No.	Style ²	Description			
Electric Models ¹						
50 psi / 345 kPa	P165194	Α	Single post DC. N.O.			
50 psi / 345 kPa	P574968	В	DC 2-wire			
50 psi / 345 kPa	P574967	Е	DC 2-wire			
50 psi / 345 kPa	P575549	F	DC 3-wire			
50 psi / 345 kPa	P174396	С	AC/DC 3-wire			
25 psi / 172.5 kPa	P575334	Н	Visual pop up			
50 psi / 345 kPa	P575335	Н	Visual pop up			

Indicator Notes

¹All electric models have a maximum operating temperature of 250°F / 121°C.
²Complete details on all service indicators can be found in the accessories section.

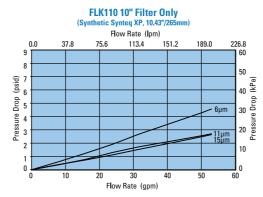


Performance Data



Flow Rate (gpm)

Pressure Drop (psid)



FLK125 In-Line Cartridge Filters

Working 508 psi 3505 kPa 35.1 bar

Rated Static 2000 psi 13,790 kPa 138 bar

Flow Range To: 85 gpm 322 lpm



IMPORTANT SERVICE INSTRUCTIONS:

To prevent thread damage when installing new filter, fully lubricate the entire thread and o-ring surface with a Molybdenum-containing gear oil or anti-seize paste such as Schaeffer #214S Supreme One 80W-140 gear oil or Dow Corning Molykote P-37 anti-seize past.

Features

The FLK assembly is a robust, reusable housing and disposable cartridge design. The versatile FLK filter head accommodates multiple housing lengths. Industrial, raised hand grips make it easy to remove the housing from the head without the need for special servicing tools. The oil drain port on the bottom of the housing and the locking grab handles on the filter cartridge allow for cleaner, easier servicing. The filter tabs lock into place – simplifying positioning during reassembly. Short removal clearance is needed for filter replacement means the assembly can easily fit into tight spaces.

These assemblies utilize a unique sealing technology that protects systems from harmful ingressed contaminants and cross contamination of oil. The RadialSeal™ interface increases the surface area which provides a robust connection with superior vibration resistance, a common challenge in today's heavy-duty applications.

The FLK filters are offered with Synteq XP™ media, Donaldson's most advanced media technology. Each filter has extended surface area for advanced filtration performance. Synteq XP delivers better pressure drop and better contaminant holding capacity than standard filter media.

- Robust 4-point mount
- Oil drain port
- Optional 2-point mount
- Heads features: one side machined/plugged for indicator

Beta Rating

• Performance to $\beta_{<\beta(c)}=1000$

Porting Size Options

• 2" SAE 4 bolt flange code 61

Replacement Filter Lengths

• 10.85" / 275.7 mm

Standard Bypass Ratings

• 50 psi / 345 kPa / 3.5 bar

Assembly Weight

• Long Housing: 4.76 kg / 10.50 lbs

Operating Temperatures

• -40° to 250°F (-40° to 121°C)

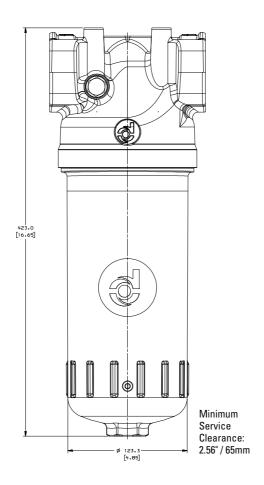
Filter Collapse Ratings

• 145 psid / 1000 kPa / 10 bar (standard)

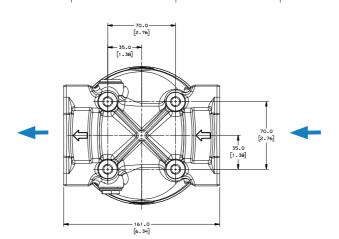


FLK Specification Illustrations

Long Assembly - Side View



Head - Top View



MEDIUM PRESSURE FILTERS

FLK125 Components

Head Choices

Part No.	Port Connections	Bypass Valve		
P767095	2" SAE 4 bolt	50 psi (3.4 bar) bypass		

Housing Choices

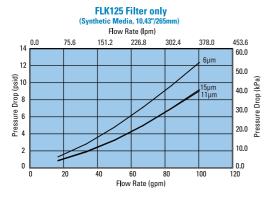
Part No.	Comments	
P767089	Long length assembly	

Filter Choices

Media	$R_{x(c)} = 1000$	Length		Donaldson
Туре	Rating based on ISO 16889	in	mm	Part No.
Synteq XP	6 μm	10.74	272.7	P767084
Synthetic	11 μm	10.74	272.7	P767104
	15 μm	10.74	272.7	P767106

Performance Data



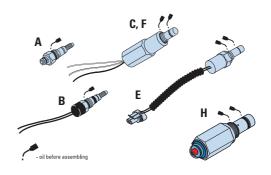


Service Indicator Choices

COLVICO Indicator Choice								
Use with Bypass	Indicator							
Valve Pressure of:	Part No.	Style ²	Description					
Electric Models ¹								
50 psi / 345 kPa	P165194	А	Single post DC. N.O.					
50 psi / 345 kPa	P574968	В	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	С	AC/DC 3-wire					
25 psi / 172.5 kPa	P575334	Н	Visual pop up					
50 psi / 345 kPa	P575335	Н	Visual pop up					

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

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





DPK350 In-Line Cartridge Filters

Working 350 psi 2400 kPa **Pressures to:** 24 bar

Rated Static 700 psi 4800 kPa Burst to: 48 bar

Flow Range To: 100 gpm 379 lpm



Applications

- In-plant Systems
- Process Fluids
- Lube Oil Systems

Features

DPK350 duplex filter assemblies allow continuous filtration during filter servicing to avoid machine shutdown. The DPK350 duplex design combines lighter weight aluminum heads with durable steel bowls for a high-performance assembly. Choose between optional features such as no by-pass, by-pass valve, visual indicators or combination electrical/visual indicators for a customized assembly that best fits the needs of your specific application. Filter performance ranges from 5µ to 25µ at beta 1000 and high collapse elements are available at 5µ and 27µ, offering additional flexibility to achieve the filtration level your system requires.

- Head Material: Anodized Aluminum Alloy
- Bowl Material: Steel

- Optional visual and visual / electric indicators
- Automatic bleed-over valve

Beta Rating

• Performance to \$5₆₀=1000

Porting Size Options

• 1-1/2" SAE 4-Bolt Flange Code 61

• 14.62" / 371 mm

Filter Collapse Ratings

Replacement Filter Lengths

- 300 psid / 207 kPa / 21 bar (standard)
- 3045 psid / 2100 kPa / 210 bar (high collapse)

Self locking transfer valve

Assembly Weight

• 44 lbs / 20 kg

Operating Temperatures

• -40° to 250°F (-40° to 121°C)

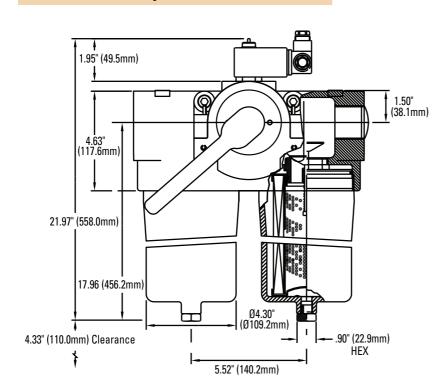
Standard Bypass Ratings

- 50 psi / 345 kPa / 3.5 bar
- No bypass

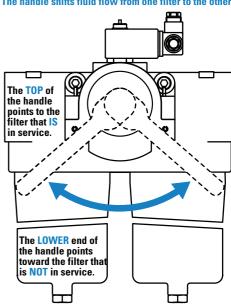


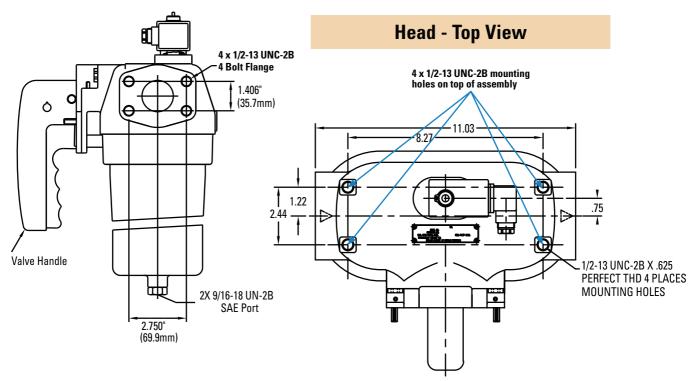
DPK350 Specification Illustrations

Assembly - Side Views



The handle shifts fluid flow from one filter to the other.







DPK350 Components

Assembly Choices

Part No.	Port Connections	Bypass Valve	Comments	
P577024	1-½" SAE 4-bolt flange code 61	No bypass	Filter elements not included with assembly. Please select filter elements from list below	
P577025	1-½" SAE 4-bolt flange code 61	50 psi (3.4 bar) bypass	Filter elements not included with assembly. Please select filter elements from list below	

Filter Choices

Media	$B_{x(c)} = 1000$	Len	igth	Donaldson	Comments
Туре	Rating based on ISO 16889	in	mm	Part No.	
DT Synteq	5 μm	14.62	371	P567101	
Synthetic	8 μm	14.62	371	P567102	
	13 µm	14.62	371	P567103	
	23 μm	14.62	371	P567104	
	5 μm	14.69	373	P560716	High collapse
	27 μm	14.69	373	P560718	High collapse

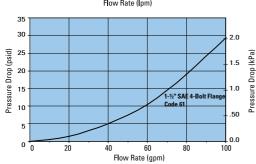
Service Indicator Choices

Use with Bypass	Indicator	Seal	Connector
Valve Pressure of:	Part No.	Material	Style
Visual / Electric Mode	ls		
50 psi / 345 kPa	P577029	Viton seal	Hirschman
Visual Models			
50 psi / 345 kPa	P577028	Viton seal	Manual reset

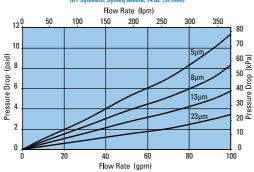


Performance Data

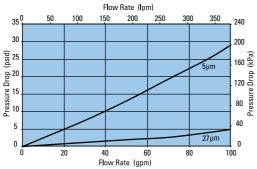
DPK350 Housing Only Flow Rate (Ipm)



DPK350 14" Filter Only DT Synthetic Synteq Media, 14.62"/371mm



DPK350 14" High-Collapse Filter Only



W061 In-Line Cartridge Filters

Working 600 psi 4140 kPa 41.4 bar

Rated Static 1500 psi 10,342 kPa 103 bar

Fatigue 300 psi 2070 kPa 21 bar

Flow Range To: 100 gpm 379 lpm



Applications

- In-Plant Systems
- Meets HF3 Specification
- Mobile Equipment

Features

The W061 filter assembly contains the popular HF3 filter. Quick filter change outs are accomplished with the use of our easily serviceable ring assembly. Donaldson DT high-performance 4-layer media is offered in a variety of designs. Five different media grades are offered. Donaldson filters core collapse options range from 150 to 3,000 psi. The differential pressure indicator line is designed to work with a wide assortment of bypass valves. Thermal lockout and surge control are two key features incorporated in many of the differential pressure indicators.

- Assembly length code 2 conforms to HF3 specifications
- Wide range of indicator options
- Three housing length options for design flexibility
- Head material: cast iron
- Housing material: steel
- Bleed plug in head

Beta Rating

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

Porting Size Options

• SAE-12, SAE-16 O-ring

Replacement Filter Lengths

- 4.59" / 116.7 mm
- 8.22" / 208.8 mm
- 12.91" / 327.8 mm

Filter Collapse Ratingsz

• 150 psi / 1034 kPa / 10.3 bar (standard)

Standard Bypass Ratings

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

Assembly Weight

• 4.59": 7.9 lbs / 3.6 kg

• 8.22": 8.9 lbs / 4.0 kg

• 12.91": 10.2 lbs / 4.6 kg

Operating Temperatures

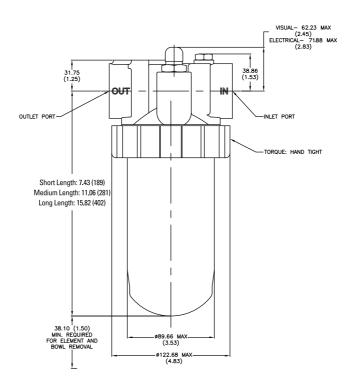
• -20° to 250°F (-29° to 121°C)



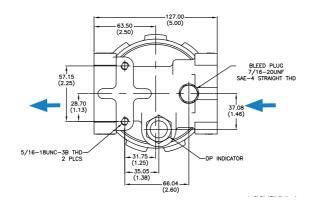


All dimensions are shown in millimeters [inches].

Assembly - Side View



Head - Top View



Max Flow: 100 gpm (379 lpm)



W061 Components

High-Performance DT Filter Choices

Hign-P	'ertorma	ince D i	FIITE	er U	ioices	
Media	$B_{x(c)} = 2$	$B_{x(c)} = 1000$	Len	gth	Donaldson	Comments
Гуре		d on ISO 16889	in	mm	Part No.	
OT Synteq		<4 μm	4.59	117	P566204	DT-9600-4-2UM
Synthetic		5 μm	4.59	117	P566205	DT-9600-4-5UM
		8 µm	4.59	117	P566206	DT-9600-4-8UM
		12 µm	4.59	117	P566207	DT-9600-4-14UM
		23 µm	4.59	117	P566208	DT-9600-4-25UM
		5 μm	4.59	117	P566364	DT-9601-4-5UM, High collapse
		12 µm	4.59	117	P566365	DT-9601-4-14UM, High collapse
		<4 μm	8.22	209	P566209	DT-9600-8-2UM
		5 μm	8.22	209	P566210	DT-9600-8-5UM
		8 µm	8.22	209	P566211	DT-9600-8-8UM
		12 µm	8.22	209	P566212	DT-9600-8-14UM
		23 µm	8.22	209	P566213	DT-9600-8-25UM
		5 μm	8.22	209	P566366	DT-9601-8-5UM, High collapse
		12 µm	8.22	209	P566367	DT-9601-8-14UM, High collapse
		<4 μm	8.23	209	P567875	DX2-9600-8-2UM
		5 μm	8.23	209	P565122	DX2-9600-8-5UM
		8 μm	8.23	209	P565123	DX2-9600-8-8UM
		12 µm	8.23	209	P564936	DX2-9600-8-14UM
		<4 μm	12.91	328	P566214	DT-9600-13-2UM
		5 μm	12.91	328	P566215	DT-9600-13-5UM
		8 µm	12.91	328	P566216	DT-9600-13-8UM
		12 µm	12.91	328	P566217	DT-9600-13-14UM
		23 µm	12.91	328	P566218	DT-9600-13-25UM
		5 μm	12.87	327	P566368	DT-9601-13-5UM, High collapse
		12 µm	12.87	327	P566369	DT-9601-13-14UM, High collapse
		<4 μm	12.87	327	P567876	DX2-9600-13-2UM
		5 μm	12.87	327	P565188	DX2-9600-13-5UM
		8 μm	12.87	327	P565189	DX2-9600-13-8UM
		12 μm	12.87	327	P565187	DX2-9600-13-14UM
Vater	10 μm		8.23	209	P569528	Absorbs 130 ml water @ 25 psid
	<u>-</u>					· · · · · · · · · · · · · · · · · · ·

12.87

327

P569529



- Filter Notes:
 All Donaldson DT and DX2 filters utilize glass fiber media with an epoxy-based resin system for the ultimate in chemical compatibility.

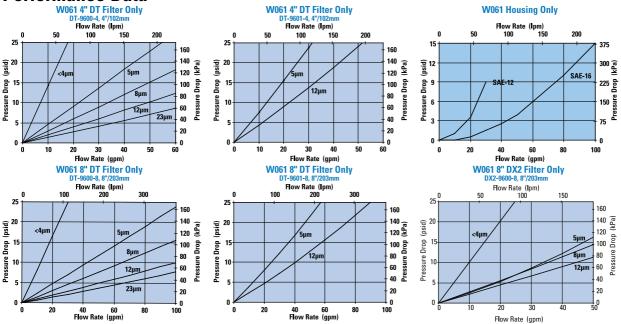
 • All Donaldson DT and DX2 filters are potted with
- epoxy-based adhesives.
- Standard collapse DT designs are double wire-backed using epoxy-coated steel mesh for maximum pleat
- support and dirt capacity.

 DT high collapse designs are potted into machined aluminum end caps for greater filter integrity in critical
- Viton[®] seals are standard on all Donaldson DT and

Performance Data

10 µm

Absorbing



Absorbs 220 ml water @ 25 psid





Head Assembly Choices

Port	Bypass	Seal Material	Indicator Style	Donaldson
Size	Rating	Material	& Location	Part No.
SAE-12 O-Ring	50 psi / 3.45 bar	Buna-N	Port Machined & Plugged	P574242
SAE-16 O-Ring	50 psi / 3.45 bar	Buna-N	Port Machined & Plugged	P574243
SAE-16 O-Ring	25 psi / 1.72 bar	Viton	Port Machined & Plugged	P575929

Housing Choices

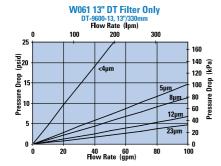
daoiiig			
Housing	Seal	Donaldson	
Length	Material	Part No.	
4" (101.6mm)	Buna-N	X011115	
8" (203.2mm)	Buna-N	X011111	
13" (330.2mm)	Buna-N	X011117	

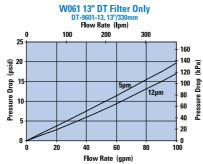
Indicator Choices

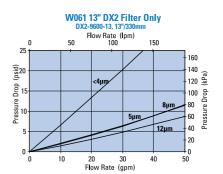
	11.01000					
Indicator	Connector	Seal	Donaldson	Thermal	Surge	Reset
Pressure Setting	Style	Material	Part No.	Lockout	Control	
Visual Pop-up Mo	odels					
15 psi / 103 kPa	NA	Buna-N	P572345	No	No	Auto
35 psi / 241 kPa	NA	Buna-N	P572347	No	No	Auto
35 psi / 241 kPa	NA	Buna-N	P572348	Yes	Yes	Manual
35 psi / 241 kPa	NA	Viton	P567456	Yes	Yes	Manual
Electrical / Visua	l Models					
15 psi / 103 kPa	Hirschman	Buna-N	P572323	No	No	Auto
35 psi / 241 kPa	Hirschman	Buna-N	P572327	No	No	Auto
35 psi / 241 kPa	Brad Harrison	Buna-N	P572329	No	No	Auto
35 psi / 241 kPa	Hirschman	Buna-N	P572384	Yes	Yes	Manual
35 psi / 241 kPa	Hirschman	Viton	P567458	Yes	Yes	Manual
15 psi / 103 kPa	3 wire flying leads	Buna-N	P572342	No	No	Auto
35 psi / 241 kPa	3 wire flying leads	Buna-N	P572349	No	No	Auto
Electrical Models	3					
15 psi / 103 kPa	Hirschman	Buna-N	P572355	No	No	Auto
35 psi / 241 kPa	Hirschman	Buna-N	P572359	No	No	Auto
35 psi / 241 kPa	Brad Harrison	Buna-N	P572361	No	No	Auto

Head/Bowl/Housing Seal Kits

Donaldson Part No.	Material
X011160	Buna
X011161	Viton









HDK06 In-Line/Tank Mount Filters

Working 350 psi 2415 kPa 24.1 bar

Rated Static 500 psi 3450 kPa 34.5 bar

Flow Range To: 150 gpm 568 lpm



In-line model shown

Features

HDK06 filters come in two styles: In-line and tank mount. Both styles feature a die cast aluminum head and steel body for strength and durability; service is made easier with a single, center retention bolt on top of the head. Filter flow is inside to outside. Buna-N® seals are standard.

HDK06 assemblies come complete with our $\beta_{g(c)}$ =1000 rated SynteqTM filter cartridge. Other ratings are available, depending on your cleanliness requirements. HDK06 comes with an easy-to-read visual service indicator.

Beta Rating

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

Porting Size Options

• 21/2" NPT

Replacement Filter Lengths

• 16.00" / 406mm

Standard Bypass Ratings

• 25 psi / 172.5 kPa / 1.7 bar

Assembly Weight

• 39.25 lbs / 18 kg

Operating Temperatures

- -20°F to 250°F
- -29°C to 121°C

Filter Burst Ratings

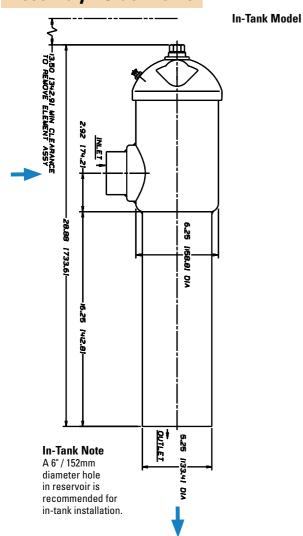
•100 psid / 690 kPa / 6.9 bar



HDK06 Specification Illustrations

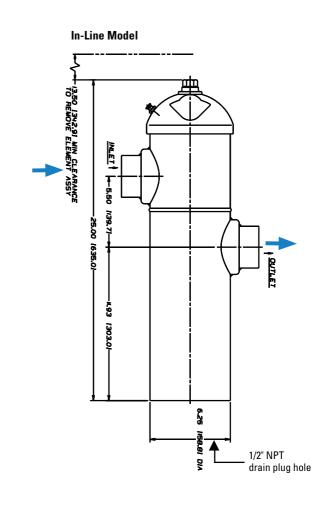
All dimensions are shown in inches [millimeters].

Assembly - Side Views

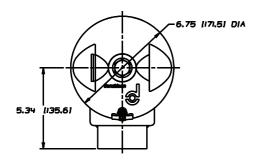


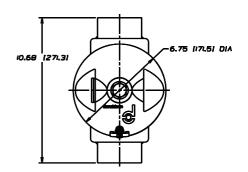
Applications

- Cooling Circuits
- Fluid Conditioning Systems
- Lube Oil Systems
- Return Lines
- Suction Lines



Head - Top Views







HDK06 Components

Assembly Choices

Style	Part No.	Port Size	Bypass Rating	Indicator	Includes Filter Cartridge
In-Tank	K060173	21/2" NPT	25 psi / 172.5 kPa	Visual	P176221
In-Line	K060160	2½" NPT	25 psi / 172.5 kPa	Visual	P176221

Filter Choices

Media	$B_{x(c)} = 2$	$B_{x(c)} = 2$ $B_{x(c)} = 1000$		gth	Donaldson
Туре	Rating base	d on ISO 16889	in	mm	Part No.
Synteq		<4 µm	16.00	406	P161016
Synthetic		6 µm	16.00	406	P165628
		11 µm	16.00	406	P176221
		22 μm	16.00	406	P161571
		23 µm	16.00	406	P164699
		50 μm	16.00	406	P166597
Wire Mesh	150 µm		11.6	294	P160700

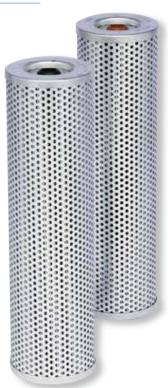
Filter Notes

Standard HDK06 replacement filters have Buna-N® seals, which are appropriate for most applications involving petroleum oil. Filters with seals made of fluorocarbon elastomer (such as Viton® and Fluorel®) are required when using diester, phosphate ester fluids, water glycol, water/oil emulsions, and HWCF (high water content fluids) over 150°F.

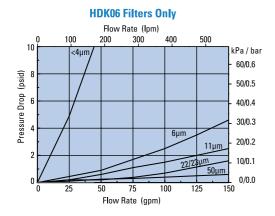
HDK06 filters are inside to outside reverse flow 4.39" (112mm) OD.

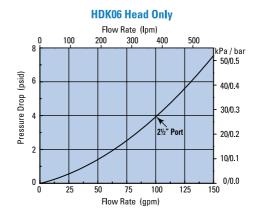
Refer to the table in the Technical Reference Guide for fluid compatibility with our filter media.

Viton® is a registered trademarks of E. I. DuPont de Nemours and Company. Fluorel® is a registered trademark of 3M Company.



Performance Data





HDK06 Service Parts

SEDVICE DARTS NOTE

Some service parts may not be stocked. Please contact your Donaldson sales representative for lead time details.

Optional Tee Handle for Easier Servicing

The first step in changing the HDK06 cartridge is loosening the top nut with a wrench. Our optional tee handle makes this job easier. The P160135 kit, comprised of the handle, an o-ring, and a clip ring, replaces the entire top nut assembly.

Head Assembly P162096

Tee Handle

(not shown)

P160135

Nut Assembly Kit

Hex Nut Retainer Kit

Bleed Valve

P160779

Visual Indicator Repair Kit P160710 Buna-N® Seal

Visual Indicator Assembly P160473 Buna-N® Seal **Head O-Ring** P160137 Buna-N® seal

Baffle Assembly Kit (Blue Plastic)

P160293 Buna-N® seal

Bypass Valve Assembly Snaps into Filter End Cap

P160351 No Bypass
P160373 Bypass (with magne

P160373 Bypass (with magnets) P160353 Bypass (without magnets)



Bypass Indicator O-Ring

(Size 227) P160125 Buna-N® seal P161851 Fluorocarbon seal

Replacement Filter

Length 16" / 406mm (Inside-Out filter flow)

TOP

T:14-:: 01/



Filter OK

This simple device will tell you when the filter needs to be changed. Always check when the fluid is at operating temperature and the system is at normal operating flow.

How to Read

the Visual Indicator

If the top of the white panel is below the lower half of the window, the filter needs servicing.



Drain Port ½ - 14 NPT

 $\textsc{Buna-N}^{\circledR}$ is a registered trademark of E. I. DuPont de Nemours and Company.

W041 In-Line Cartridge Filters

Working 500 psi 3450 kPa 34.5 bar

Rated Static 1500 psi 10,342 kPa 103.5 bar

Flow Range To: 300 gpm 1135 lpm



Applications

- Fluid Conditioning Systems
- In-Plant Systems
- Lube Oil Systems

Features

The W041 high flow filter combines the best features of a base-mounted assembly; several inlet port options, top cover filter servicing for ease of maintenance and a wide selection of service indicators. The W041 all-aluminum head design and plated steel cylinder provides a strong, durable, and dependable unit. We offer standard features like deep pleat filters for higher dirt holding capacity and our standard Donaldson DT 4-layer media filter construction. This technology, combined with many other standard features, is ideal for today's applications in pulp and paper, power generation and steel mill applications. Five standard grades of media are offered. Thermal lockout and surge control are two key features incorporated in many of the differential pressure indicators.

- Large T-handle for fast servicing without tools
- Wide range of indicator options
- Two filter length options for design flexibility
- Base material: aluminum

- · Cylinder material: steel
- · Cover material: cast iron
- Two drain plugs in base
- Bleed/fill plug in cover

Beta Rating (per ISO 16889)

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

Porting Size Options

• 2" or 21/2"SAE 4-Bolt Flange Code 61

Replacement Filter Lengths

- 16.74" / 425.3 mm
- 38.62" / 980.9 mm

Filter Collapse Ratings

• 150 psid / 1034 kPa / 10.3 bar (standard)

Housing Weight

• 16.74": 48.5 lbs / 22.0 kg

• 38.62": 86.2 lbs / 39.2 kg

Operating Temperatures

• -20°F to 250°F / -29° to 121°C

Standard Bypass Ratings

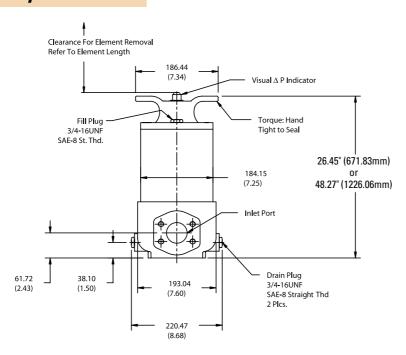
• 50 psi / 345 kPa / 3.5 bar



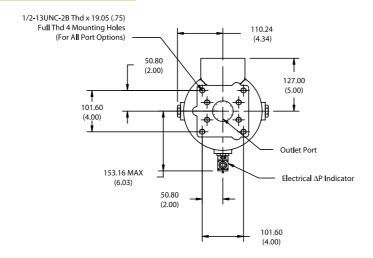


All dimensions are shown in millimeters [inches].

Assembly - Side View



Head - Bottom View





W041 Components

High-Performance DT Filter Choices

Media	$B_{v(c}) = 1000$	Len		Donaldson	Comments
	Rating based on ISO 16889	in	_	Part No.	Comments
Туре			mm		
DT Synteq	<4 μm	16.74	425	P566239	DT-8300-16-2UM
Synthetic	5 μm	16.74	425	P566240	DT-8300-16-5UM
	8 μm	16.74	425	P566241	DT-8300-16-8UM
	12 μm	16.74	425	P566242	DT-8300-16-14UM
	23 μm	16.74	425	P566243	DT-8300-16-25UM
	<4 μm	38.62	981	P566244	DT-8300-39-2UM
	5 μm	38.62	981	P566245	DT-8300-39-5UM
	8 μm	38.62	981	P566246	DT-8300-39-8UM
	12 μm	38.62	981	P566247	DT-8300-39-14UM
	23 μm	38.62	981	P566248	DT-8300-39-25UM
	<4 μm	16.10	409	P566249	DT-8310-16-2UM
	5 μm	16.10	409	P566250	DT-8310-16-5UM
	8 μm	16.10	409	P566251	DT-8310-16-8UM
	12 μm	16.10	409	P566252	DT-8310-16-14UM
	23 μm	16.10	409	P566253	DT-8310-16-25UM
	<4 μm	37.94	964	P566254	DT-8310-39-2UM
	5 μm	37.94	964	P566255	DT-8310-39-5UM
	8 μm	37.94	964	P566256	DT-8310-39-8UM
	12 μm	37.94	964	P566257	DT-8310-39-14UM
	23 μm	37.94	964	P566258	DT-8310-39-25UM
Water Absorbing	10 μm	37.94	964	P578277	

Filter Notes

All Donaldson DT filters utilize glass fiber media with an epoxy-based resin system for the ultimate in chemical compatibility.
All Donaldson DT filters are potted and seam-sealed

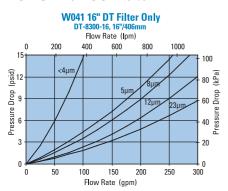
with epoxy-based adhesives.

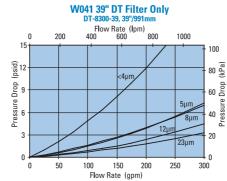
Standard collapse designs are double wire-backed using enoxy-coated steel mesh for maximum pleat

using epoxy-coated steel mesh for maximum pleat support and dirt capacity. Extended life designs are double wire-backed using epoxy-coated steel mesh. Viton® seals are standard on all Donaldson DT

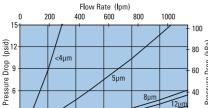
filters. Viton® is a registered trademarks of E. I. DuPont de Nemours and Company.

Performance Data







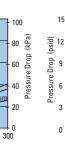


150

Flow Rate (gpm)

250

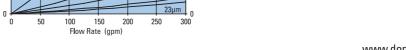
W041 16" DT Filter Only





W041 39" DT Filter Only

Flow Rate (Ipm)



20 12μm_



Filter Assembly Choices

Size	Rating	Material	Indicator Port	Housing Length	Assembly Length	Part No.
2" SAE 4 Bolt Flange Code 61	50 psi / 3.45 bar	Viton	Port Machined & Plugged	16" (406.4mm)	26.45" (671.8mm)	P574218
2-1/2" SAE 4 Bolt Flange Code 61	50 psi / 3.45 bar	Viton	Port Machined & Plugged	39" (990.6mm)	48.27" (1226.1mm)	P574219
2" SAE 4 Bolt Flange Code 61	50 psi / 3.45 bar	Viton	Port Machined & Plugged	39" (990.6mm)	48.27" (1226.1mm)	P575920
2-1/2" SAE 4 Bolt Flange Code 61	50 psi / 3.45 bar	Viton	Port Machined & Plugged	16" (406.4mm)	26.45" (671.8mm)	P575921

Indicator Choices

Connector	Seal	Donaldson	Thermal	Surge	Reset
Style	Material	Part No.	Lockout	Control	
dels					
NA	Buna-N	P572347	No	No	Auto
NA	Buna-N	P572348	Yes	Yes	Manual
NA	Viton	P567456	Yes	Yes	Manual
Models					
Hirschman	Buna-N	P572327	No	No	Auto
Brad Harrison	Buna-N	P572329	No	No	Auto
Hirschman	Buna-N	P572384	Yes	Yes	Manual
Hirschman	Viton	P567458	Yes	Yes	Manual
Brad Harrison	Buna-N	P572385	Yes	Yes	Manual
3 wire flying leads	Buna-N	P572349	No	No	Auto
Electrical Models					
Hirschman	Buna-N	P572359	No	No	Auto
Brad Harrison	Buna-N	P572361	No	No	Auto
	Style dels NA NA NA Models Hirschman Brad Harrison Hirschman Brad Harrison 3 wire flying leads Hirschman	Style Material dels NA Buna-N NA Viton Models Hirschman Buna-N Hirschman Buna-N Hirschman Buna-N Hirschman Viton Brad Harrison Buna-N Hirschman Viton Brad Harrison Buna-N Hirschman Buna-N Hirschman Buna-N Hirschman Buna-N Buna-N Buna-N Buna-N Buna-N	Style Material Part No. dels NA Buna-N P572347 NA Buna-N P572348 NA Viton P567456 Models Witschman Buna-N P572327 Brad Harrison Buna-N P572329 Hirschman Buna-N P572384 Hirschman Viton P567458 Brad Harrison Buna-N P572385 3 wire flying leads Buna-N P572349 Hirschman Buna-N P572359	Style Material Part No. Lockout dels NA Buna-N P572347 No NA Buna-N P572348 Yes NA Viton P567456 Yes Models Hirschman Buna-N P572327 No Brad Harrison Buna-N P572329 No Hirschman Viton P567458 Yes Brad Harrison Buna-N P572385 Yes 3 wire flying leads Buna-N P572349 No Hirschman Buna-N P572359 No	Style Material Part No. Lockout Control dels NA Buna-N P572347 No No NA Buna-N P572348 Yes Yes NA Viton P567456 Yes Yes Models W Wo No No Brad Harrison Buna-N P572327 No No No Hirschman Buna-N P572329 No No No Hirschman Viton P572384 Yes Yes Brad Harrison Buna-N P572385 Yes Yes 3 wire flying leads Buna-N P572349 No No Hirschman Buna-N P572359 No No

Head/Bowl/Housing Seal Kits

Donaldson Part No.	Material
X011156	Buna
X011157	Viton



HFK08 In-Line/Tank Mount Filters

Working	350 psi
Pressures to:	2415 kPa
	24.1 bar

Rated Static	500 psi
Burst to:	3450 kPa
Darse to.	34 5 bar

Flow Range To:	300 gpm 1135 lpm
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Features

HFK08 is available in two styles: in-line and in-tank. Both styles feature a cast aluminum head and steel body for maximum strength and durability. Its single, center retention bolt simplifies servicing. Flow is from inside to outside of the filter cartridge.

Three in-stock HFK08 models offer our proprietary Synteq™ synthetic media designed especially for liquid filtration. A wider range of filter media is available to purchase separately, as are fluoroelastomer seals. A visual service indicator is built into the HFK08 head.



In-line model shown

Beta Rating

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

Porting Size Options

- 3" NPT
- SAE-20 O-ring

Replacement Filter Lengths

• 18.00" / 457mm

Standard Bypass Ratings

• 25 psi / 172.5 kPa / 1.7 bar

Assembly Weight

• 55.4 lbs / 25.12 kg

Operating Temperatures

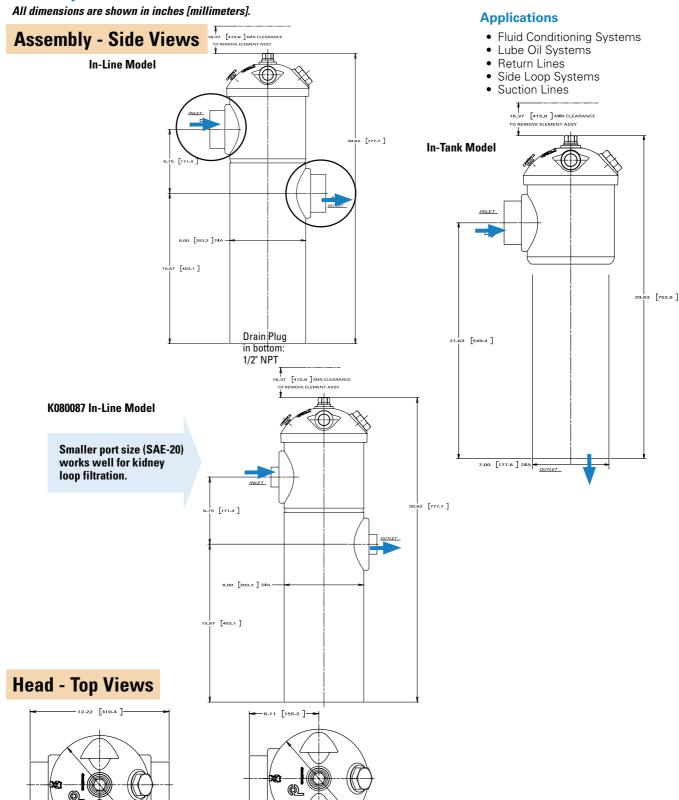
- -20°F to 250°F
- -29°C to 121°C

Filter Burst Ratings

- 75 psi / 517 kPa / 5.2 bar (synthetic)
- 100 psi / 689 kPa / 6.9 bar (wire mesh)

MEDIUM PRESSURE FILTERS

HFK08 Specification Illustrations



8.68 [220.4] DIA

HFK08 Components

Filter Assemblies

Port	Bypass	Indicator Style1	Assembly	Length	Filter
Size	Rating	& Location	Part No.	(in./mm)	Part No.
3" NPT	25 psi / 172.5 kPa	Visual, Left side	K080051, In-Tank	18"/457mm	P164703
		Visual, Right side	K080033, In-Line	18"/457mm	P164703
			K080085, In-Line	18"/457mm	P164407 Viton® Seal
SAE-20	25 psi / 172.5 kPa	Visual, Right side	K080087, In-Line	18"/457mm	P164405

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. Viton® is a registered trademarks of E. I. DuPont de Nemours and Company

Filter Choices

Media	$\beta_{x(c)} = 2$	$B_{x(c)} = 1000$	Length		Donaldson
Туре	Rating base	d on ISO 16889	in	mm	Part No.
Synteq Synthetic		<4 μm	18.00	457	P164407 Viton® seal
		<4 μm	18.00	457	P164405
		6 μm	18.00	457	P166462
		11 µm	18.00	457	P176222
		23 µm	18.00	457	P164703
Wire Mesh	45 μm		18.00	457	P173573
	150 µm		18.00	457	P163945

Standard HFK08 replacement filters have Buna-N® seals, which are appropriate for most applications involving petroleum oil. Filters with seals made of fluorocarbon elastomer (such as Viton® and Fluorel®) are required when using diester, phosphate ester fluids, water glycol, water/oil emulsions, and HWCF (high water content fluids) over 150°F. HFK08 filters are inside to outside reverse flow 4.39" (112mm) OD.

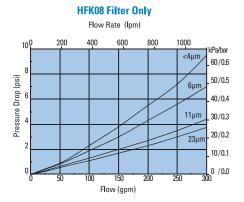
Refer to the table in the Technical Reference Guide for fluid compatibility with our filter media.

Viton® is a registered trademarks of E. I. DuPont de Nemours and Company Fluorel® is a registered trademark of 3M Company.

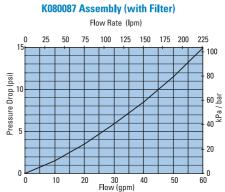


The K080087 model has features that are perfect for kidney loop filtration.

Performance Data







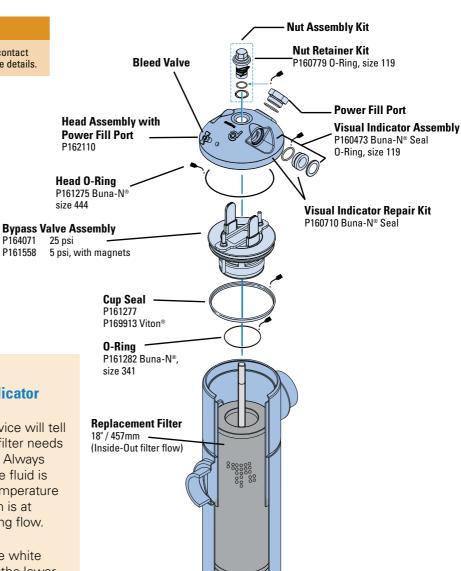




HFK08 Service Parts

SERVICE PARTS NOTE:

Some service parts may not be stocked. Please contact your Donaldson sales representative for lead time details.







Filter Needs Service

How to Read the Visual Indicator

This simple device will tell you when the filter needs to be changed. Always check when the fluid is at operating temperature and the system is at normal operating flow.

If the top of the white panel is below the lower half of the window, the filter needs servicing.



Buna-N $^{\rm @}$ and Viton $^{\rm @}$ are a registered trademarks of E. I. DuPont de Nemours and Company.

½ - 14 NPTF Drain Plug (In-line filter only)