

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

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In-line Cartridge Filters

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HMK03

Max Flow: 25 gpm (95 lpm)



HMK03 DURAMAX® Spin-On Filters

Working Pressures to: 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 assemblies. 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 $\beta_{6(c)}=1000$

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

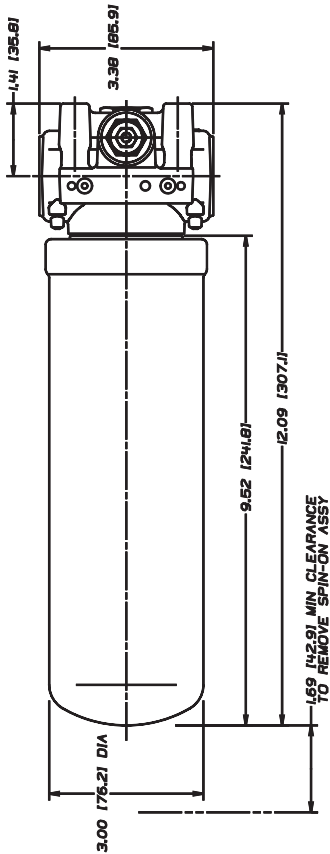


HMK03 Specification Illustrations

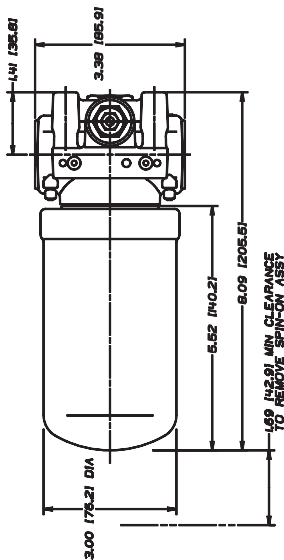
All dimensions are shown in inches [millimeters].

Assembly - Side Views

Long Assembly

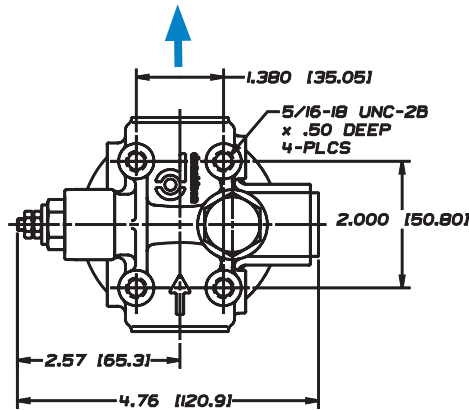


Short Assembly

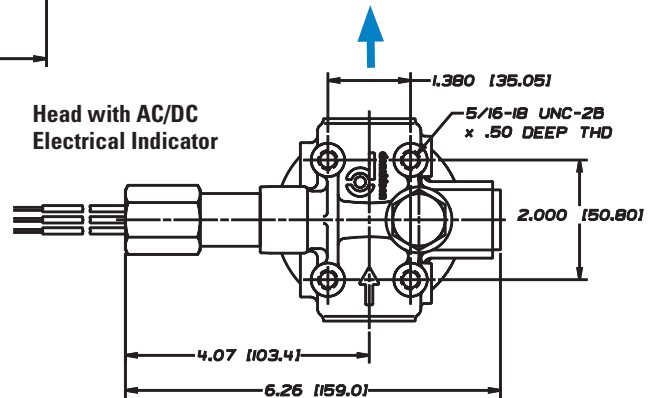


Head - Top View with Indicators

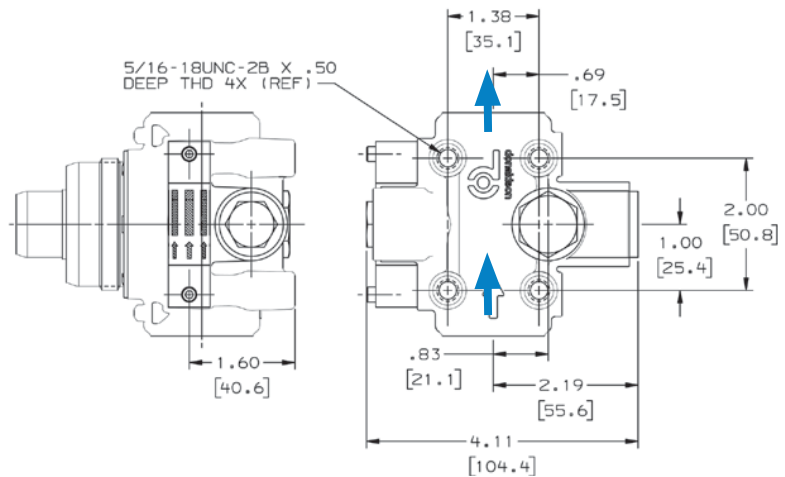
Head with DC Electrical Indicator



Head with AC/DC Electrical Indicator



Head with Visual Indicator



Applications

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



HMK03
Max Flow: 25 gpm (95 lpm)



HMK03 Components

Filter Choices

Media Type	$\beta_{x(c)} = 1000$ Rating based on ISO 16889	Length		Donaldson Part No.	Comments
		in	mm		
Synteq Synthetic	6 μ m	5.5	140	P170308	Buna-N
	6 μ m	9.5	242	P170309	Buna-N
	11 μ m	5.5	140	P170310	Buna-N
	11 μ m	9.5	242	P170311	Buna-N
	23 μ m	5.5	140	P170312	Buna-N
	23 μ m	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 Size	Bypass Rating	Indicator	Head 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

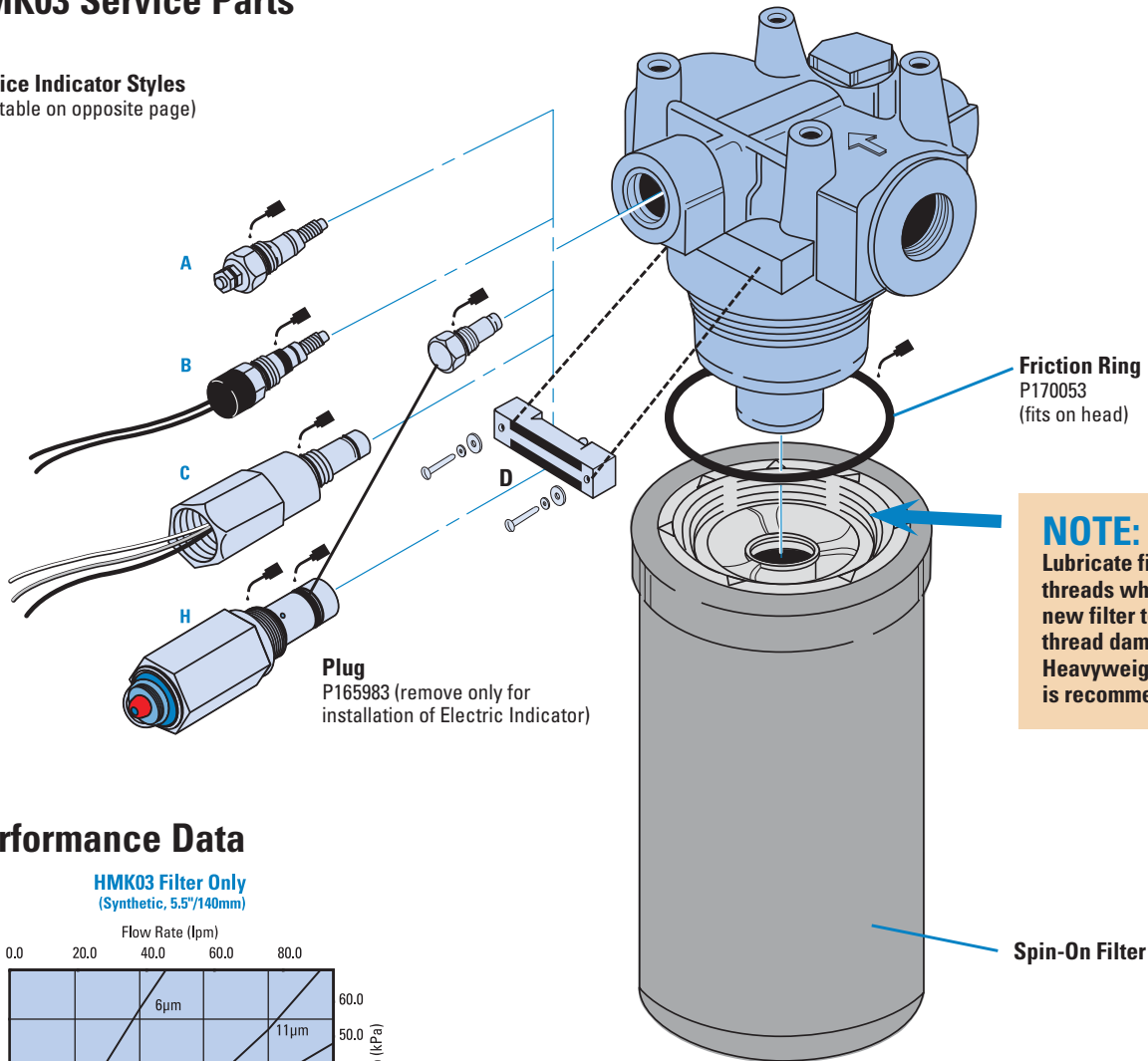
Use with Bypass Valve Pressure of:	Part No.	Style ²	Description ¹
25 psi / 172.5 kPa	P171143	B	Electric 2-wire DC
	P173944	C	Electric 3-wire AC/DC
	P165965	D	Visual
	P575334	H	Visual, pop up
50 psi / 345 kPa	P165194	A	Electric Single post DC
	P574968	B	Electric 2-wire DC
	P174396	C	Electric 3-wire AC/DC
	P575335	H	Visual, pop up
	P574967	E	DC 2-wire.

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.

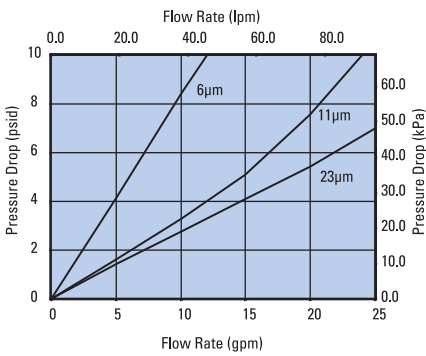
HMK03 Service Parts

Service Indicator Styles
(See table on opposite page)

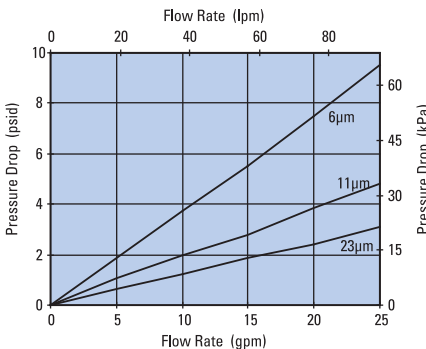


Performance Data

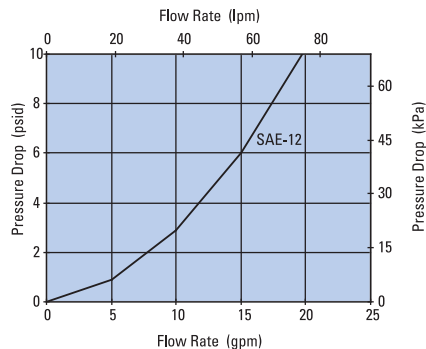
HMK03 Filter Only
(Synthetic, 5.5"/140mm)



HMK03 Filter Only
(Synthetic, 9.5"/242mm)



HMK03 Head Only



SERVICE PARTS NOTE:

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



HMK04/24

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



HMK04/24 DURAMAX® Spin-On Filters

Working Pressures to: 500 psi
3450 kPa
35 bar

Rated Static Burst to: 1000 psi
6895 kPa
69 bar

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



Parallel Flow

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 3/4", 1" NPT
- HMK04 SAE-12, SAE-16 O-ring
- HMK24 SAE-20, O-ring
- HMK24 1 1/4" 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 short 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

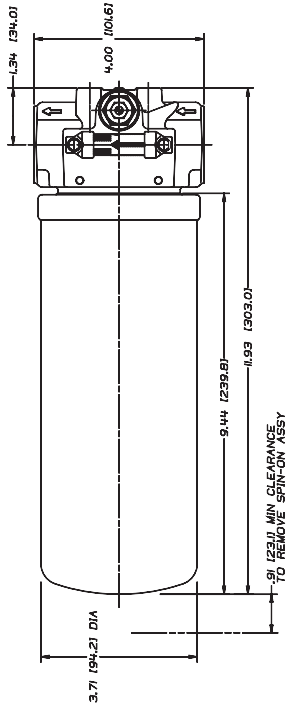
- 150 psid / 10 bar
- 300 psid / 20 bar also available

HMK04/24 Specification Illustrations

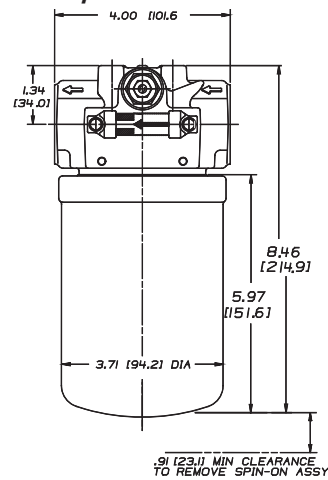
All dimensions are shown in inches [millimeters].

Assembly - Side Views

Long Assembly

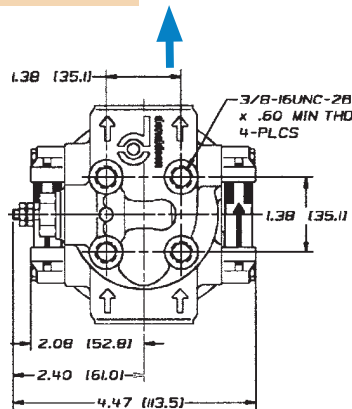


Short Assembly

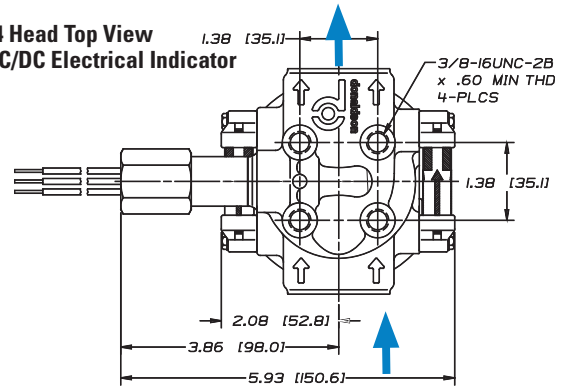


Head - Top & Side Views

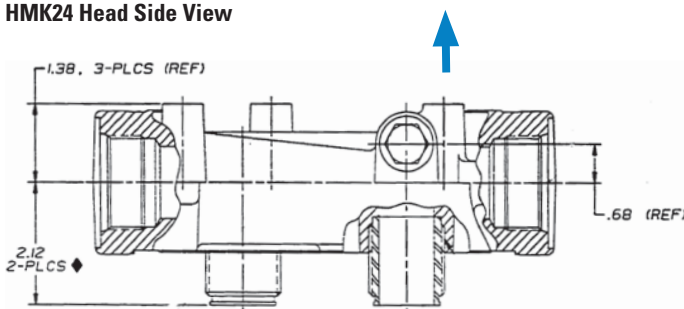
HMK04 Head Top View with DC Electrical Indicator



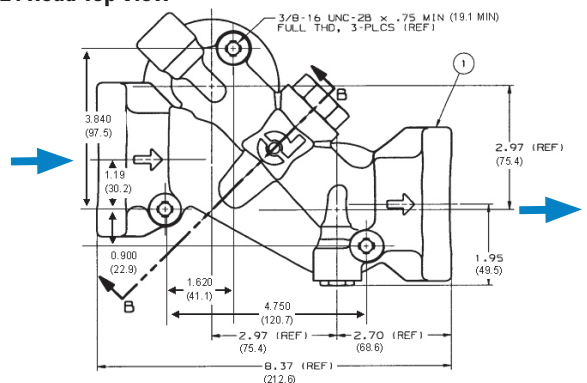
HMK04 Head Top View with AC/DC Electrical Indicator



HMK24 Head Side View



HMK24 Head Top View



Applications

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



HMK04/24
Max Flow: 35 gpm (133 lpm) / 60 gpm (227 lpm)



HMK04/24 Components

Filter Choices

Media Type	$\beta_{x(c)} = 2$ Rating based on ISO 16889	$\beta_{x(c)} = 1000$	Length		Donaldson Part No.	Comments
			in	mm		
Synteq Synthetic	<4 μm		9.4	240	P165185	¹ Viton® O-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	¹ Viton O-ring
	14 μm		9.4	240	P177047	
	22 μm		9.4	240	P164059	¹ Viton 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	



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 fluorocopolymer) are required when using diester, phosphate ester fluids, water glycol, water/oil emulsions and HWCF (high water content fluids) over 150°F. Donaldson offers both types.
- Buna-N® Viton® are a registered trademarks of E. I. DuPont de Nemours and Company.

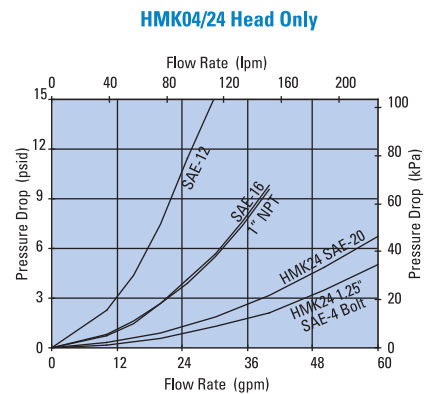
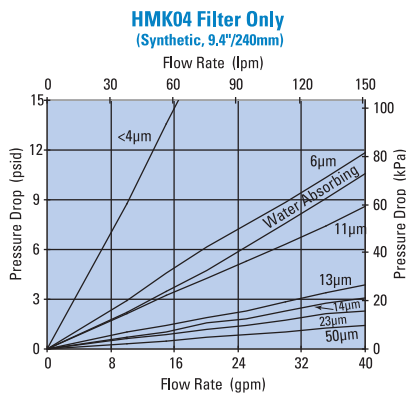
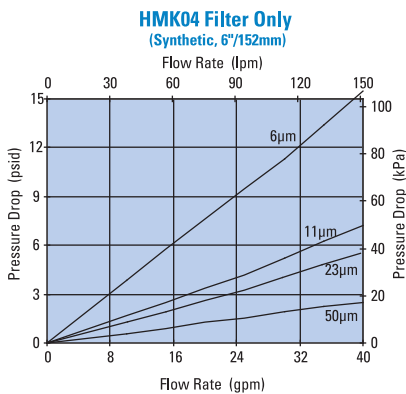
Head Choices for HMK24 (double)



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

¹Reference illustration on next page for service indicator styles.

Performance Data



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 / 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	None	P165434	
No Bypass	D (Visual), Left Side (50 psi)	None	None	P173750	
		D (Visual), Left Side (50 psi)	None	P173750	
SAE-12 O-Ring (3 ports)	50 psi / 345 kPa	A (Electrical, P165194)	B,C	P167529	
1" NPT	25 psi / 172 kPa	D (Visual), Both Sides	A, B, C	P166086	
		None	None	P169309	
		D (Visual), Left Side	None	P166416	
SAE-16 O-Ring	15 psi / 100 kPa	None	A, B, C, E, F	P176569	
SAE-16 O-Ring	25 psi / 172 kPa	None	None	P163681	
		D (Visual), Left Side	None	P166417	
		D (Visual), Both Sides	A, B, C	P166088	
		E (Electrical, P177361)	None	P176568	
		A (Electrical, P162400)	B, C	P165537	
		No Bypass	D (Visual), Both Sides (25 psi)	A, B, C	P166664
		A (Electrical, P162400)	B, C	P166902	
		50 psi / 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	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	

NOTE:

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



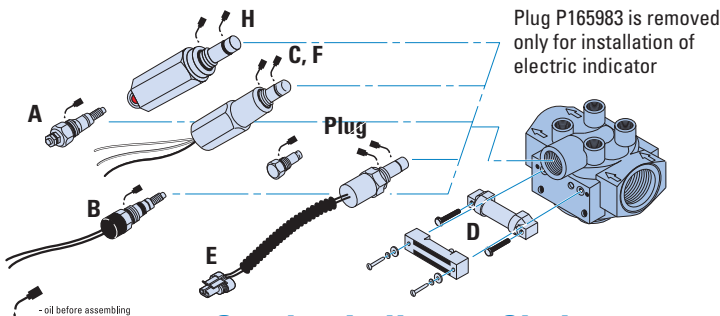
Head Notes

¹Reference illustration below for indicator styles.
²Donaldson uses the inlet port as the reference point. "Left side," for instance, means that the indicator mounts on the side of the filter head that is on your left when you face the inlet port.

3-Port Head for Charge Pumps



The **P167529** head is designed with a 50 psi / 3.45 bar third port bypass valve that diverts all bypass flow back to the reservoir, instead of going straight through the head and into the system as it does in 2-ported heads. Unfiltered fluid is NOT allowed into the system in the case of plugged filters. Designed primarily for charge pump applications.



Service Indicator Choices

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

Indicator Notes
¹All electric models have a maximum operating temperature of 250°F / 121°C.
²All non-electric models have a maximum operating temperature of 180°F / 82°C.
³Complete details on all service indicators can be found in the accessories section.

Service Indicator Choices

Use with Bypass Valve Pressure of:	Indicator Part No.	Style ³	Description
Electric Models¹			
5 psi / 34.5 kPa	P163642	A	Single post DC.
15 psi / 103 kPa	P163601	A	Single post DC.
25 psi / 172.5 kPa	P163839	A	Single post DC. N.C.
25 psi / 172.5 kPa	P162400	A	Single post DC. N.O.
25 psi / 172.5 kPa	P171143	B	DC 2-wire.
25 psi / 172.5 kPa	P173944	C	AC/DC 3-wire.
50 psi / 345 kPa	P165194	A	Single post DC. N.O.
50 psi / 345 kPa	P574968	B	DC 2-wire.
50 psi / 345 kPa	P574967	E	DC 2-wire.
50 psi / 345 kPa	P575549	F	DC 3-wire.
50 psi / 345 kPa	P174396	C	AC/DC 3-wire.



HMK05/25
 Max Flow: 50 gpm (189 lpm) / 100 gpm (379 lpm)



HMK05/25 DURAMAX® Spin-On Filters

Working Pressures to: 350 psi
 2415 kPa
 24.2 bar

Rated Static Burst to: 800 psi
 5520 kPa
 55.2 bar

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



Parallel Flow

Features

HMK05 (single) and HMK25 (double) Duramax spin-on filters are perfect for high-flow applications, featuring a heavy-duty steel body and die-cast top plate for added strength. A special head-to-canister O-Ring seal prevents leakage. 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 $\beta_{<4(c)} = 1000$

Porting Size Options

- HMK05 1 1/4" NPT
- HMK05 SAE-20 O-ring
- HMK25 1 1/2" NPT
- HMK25 SAE-24 O-ring
- HMK25 1 1/2" SAE 4-Bolt Flange Code 61

Replacement Filter Lengths

- 7.6" / 193mm
- 11.63" / 295.4mm
- 14.2" / 361mm

Standard Bypass Ratings

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

Assembly Weight

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

Operating Temperatures

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

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

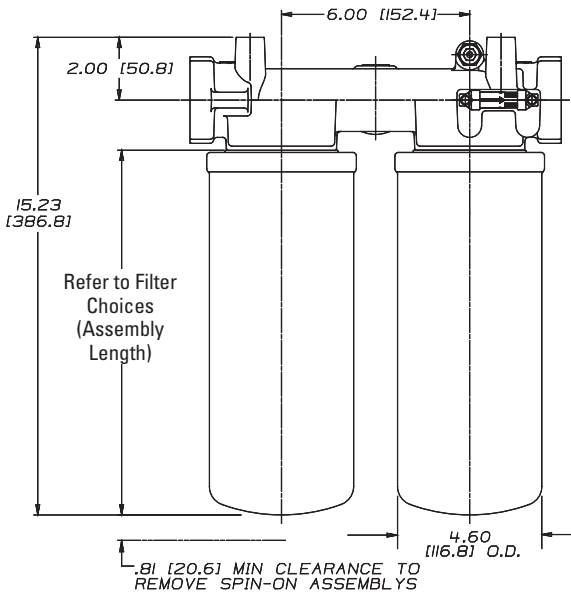
- Standard Head Cast Aluminum
- Ductile Iron Available in HMK25

HMK05/25 Specification Illustrations

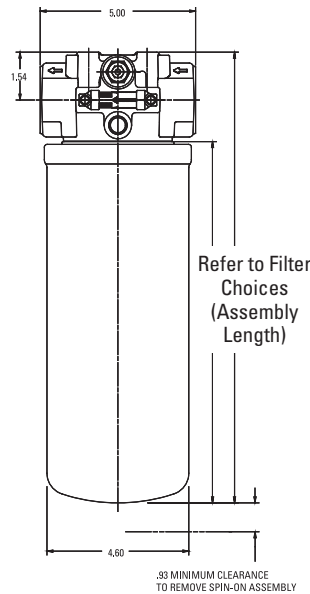
All dimensions are shown in inches [millimeters].

Assembly - Side Views

HMK25



HMK05

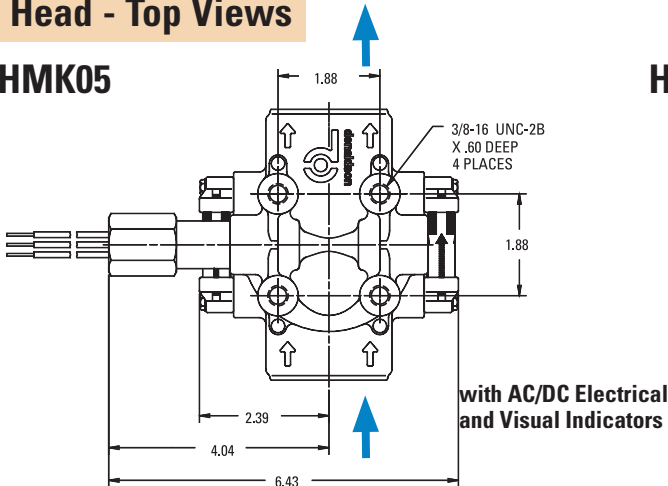


Applications

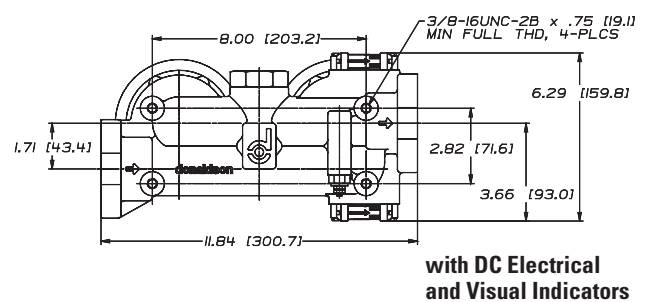
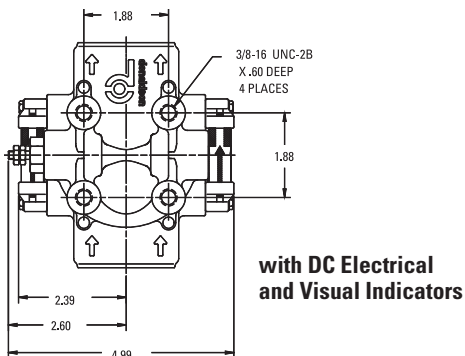
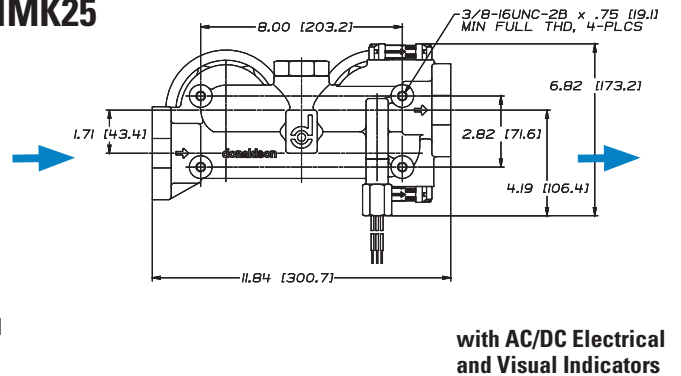
- Case Drains
- Cooling Circuits
- Fluid Conditioning Systems
- Fuel Transfer
- Hydrostatic Charge Pumps
- Lube Oil Systems
- Power Transmissions
- Return Lines
- Side Loop Systems

Head - Top Views

HMK05



HMK25





HMK05/25

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



HMK05/25 Components

Filter Choices

Media Type	$\beta_{x(c)} = 2$ Rating based on ISO 16889	$\beta_{x(c)} = 1000$	Length		Donaldson Part No.	Comments
			in	mm		
Synteq Synthetic	<4 μm		14.2	361	P564468	¹ Viton, Epoxy
	6 μm		11.6	294	P165675	
	6 μm		11.6	294	P171274	¹ Viton, 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	¹ Viton, 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	¹ Viton 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 1 3/4"-12 UNF-2B
- ¹Filters with seals made of Buna-N[®] are appropriate for most applications involving petroleum oil. Filters with seals made of Viton[®] (a fluorocarbon 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.

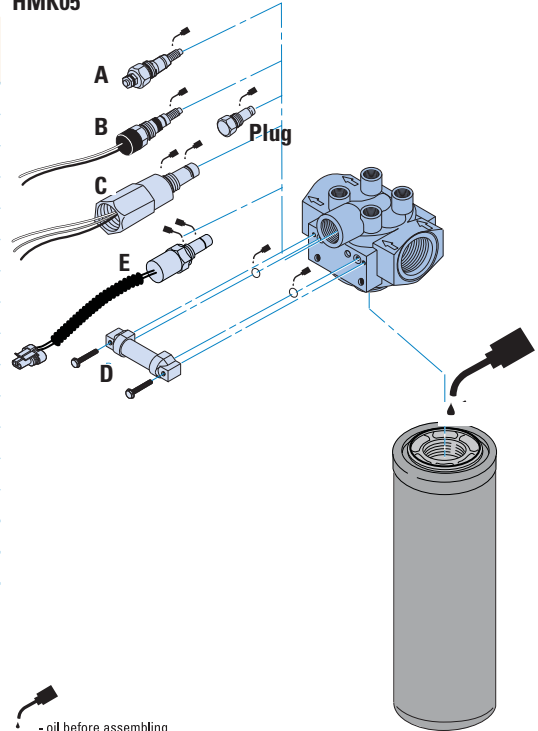
Oil Service Indicator Options

Use with Bypass Valve Pressure of:	Indicator Part No.	Indicator Style ³	Description
Electric Models¹			
5 psi / 34.5 kPa	P163642	A	Single post DC
15 psi / 103 kPa	P163601	A	Single post DC.
25 psi / 172.5 kPa	P163839	A	Single post DC. N.C.
25 psi / 172.5 kPa	P162400	A	Single post DC. N.O.
25 psi / 172.5 kPa	P171143	B	DC 2-wire
25 psi / 172.5 kPa	P173944	C	AC/DC 3-wire
50 psi / 345 kPa	P165194	A	Single post DC. N.O.
50 psi / 345 kPa	P574968	B	DC 2-wire
50 psi / 345 kPa	P574967	E	DC 2-wire
50 psi / 345 kPa	P575549	F	DC 3-wire
50 psi / 345 kPa	P174396	C	AC/DC 3-wire

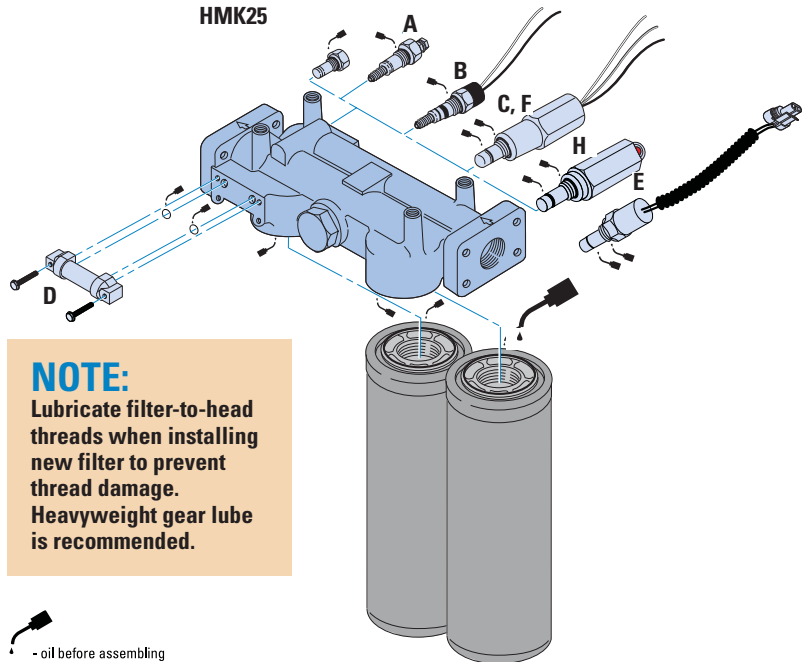
Use with Bypass Valve Pressure of:	Indicator Part No.	Indicator Style ³
Visual Models (Non-Electric)²		
15 psi / 103 kPa	P162642	D
25 psi / 172.5 kPa	P162696	D
50 psi / 345 kPa	P167580	D
N/A	P165984	(blank plate)
25 psi / 172.5 kPa	P165965	D Heavy-duty
50 psi / 345 kPa	P574177	D Heavy-duty
25 psi / 172.5 kPa	P575334	H (Pop up)
50 psi / 345 kPa	P575335	H (Pop up)

Service Parts

HMK05



HMK25



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

- oil before assembling

Indicator Notes

- ¹All electric models have a maximum operating temperature of 250°F/ 114°C.
- ²All non-electric models have a maximum operating temperature of 180°F/ 82°C.
- ³Complete 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)

Port Size	Bypass Rating	Standard Indicator Style & Location ¹	Indicator Options ²	Part No.
1¼" NPT	25 psi / 172 KPa	D (Visual), Both Sides (25 psi)	A, B, C, E, F	P167294
1¼" NPT	25 psi / 172 kPa	A (Electrical) (25 psi)	A, B, C, E, F	P167621
		D (Visual), Left Side (25 psi)	D	P167622
SAE-20 O-Ring	25 psi / 172 KPa	D (Visual), Both Sides (25 psi)	A, B, C, E, F	P165973
		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 Size	Bypass Rating	Indicator Style & Location ¹	Indicator Options ²	Part No.
1½" NPT	25 psi / 172 KPa	D (Visual), Left side only	A,B,C,E,F	P169985
1½" SAE 4-Bolt Flange	25 psi / 172 kPa	D (Visual), Both sides	A,B,C,E,F	P167296
		No Bypass	D (Visual), Both Sides	A,B,C,E,F
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 Size	Bypass Rating	Indicator Style & Location ¹	Indicator Options ²	Part No.
1¼" SAE 4-Bolt Flange (3rd port: 1" SAE 4-Bolt)	50 psi / 345 kPa	None	A,B,C,E,F	P561924

Head Notes

¹Donaldson 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.

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

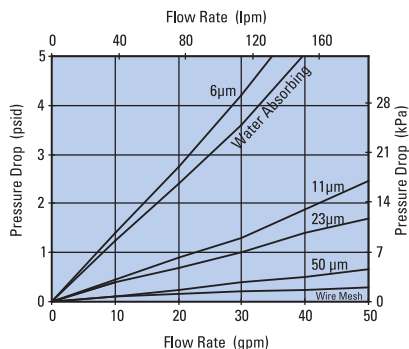
3-Port Head



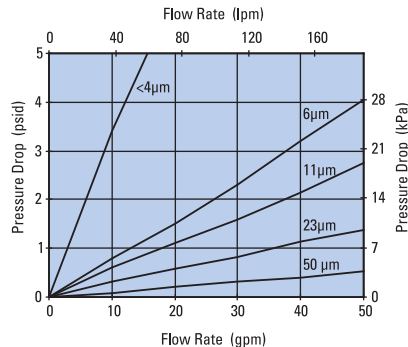
The **P561924** head is designed with a 50 psi / 3.45 bar third port bypass valve that diverts all bypass flow back to the reservoir, instead of going straight through the head and into the system as it does in 2-ported heads. Unfiltered fluid is NOT allowed into the system in the case of plugged filters.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

Performance Data

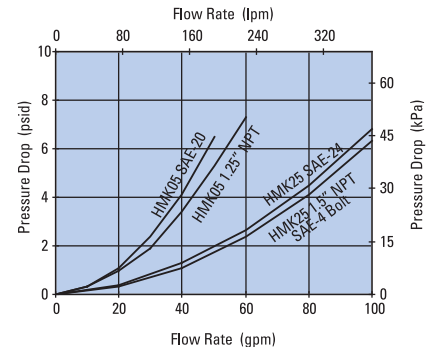
HMK05 Filter Only
(Synthetic, 11.6"/294mm)



HMK05 Filter Only
(Synthetic, 14.2"/361mm)



HMK05/25 Head Only





HNK04/05

Max Flow: 35 gpm (133 lpm) / 50 gpm (189 lpm)



HNK04/05 DURAMAX® Spin-On Filters

Working Pressures to:	HNK04	HNK05
	500 psi	350 psi
	3450 kPa	2415 kPa
	34.5 bar	24.1 bar

Rated Static Burst to:	HNK04	HNK05
	1000 psi	800 psi
	6895 kPa	5515 kPa
	69 bar	55 bar

Flow Range To:	HNK04	HNK05
	35 gpm	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



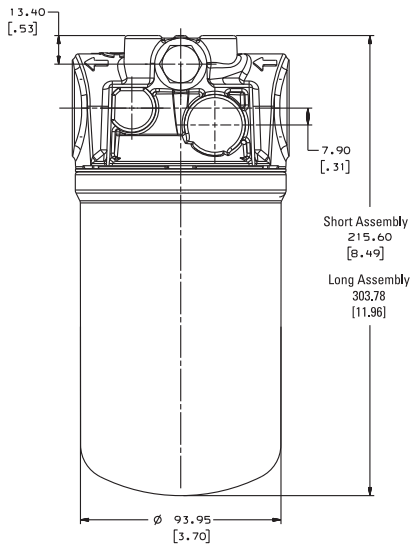
HNK04/05 Specification Illustrations

All dimensions are shown in inches [millimeters].

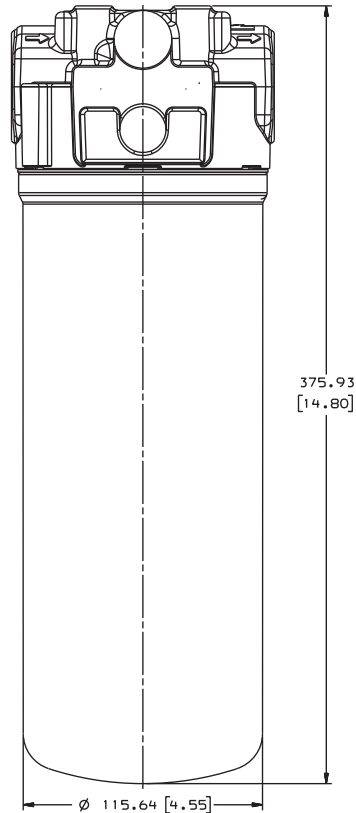
Applications

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

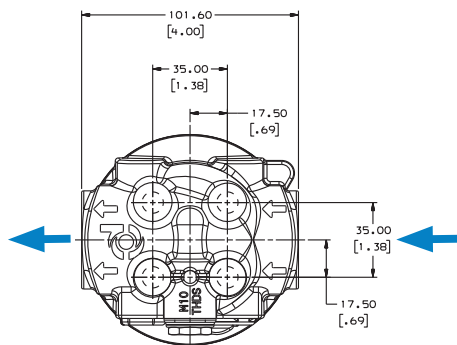
HNK04 Spin-on Assembly - Side View



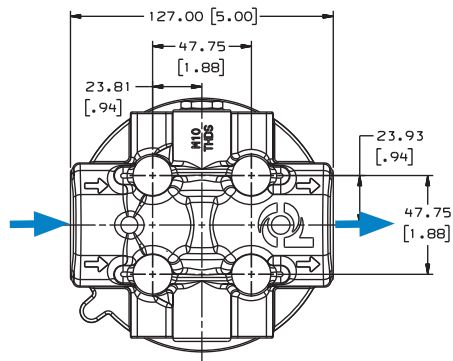
HNK05 Spin-on Assembly - Side View



HNK04 Head - Top View



HNK05 Head - Top View





HNK04/05

Max Flow: 35 gpm (133 lpm) / 50 gpm (189 lpm)



HNK04/05 Components

Head Choices for HNK04

Port Size	Bypass Rating	Part Number	Indicators	Style	Mounting 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 Size	Bypass Rating	Part Number	Indicators	Style	Mounting 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 Type	$\beta_{x(e)} = 1000$ Rating based on ISO 16889	Length		Donaldson Part No.
		in	mm	
Synteq Synthetic	6 μ m	5.97	151.7	P569203
	6 μ m	9.44	239.8	P569204
	11 μ m	5.97	151.7	P569205
	11 μ m	9.44	239.8	P569206

Filter Choices for HNK05

Media Type	$\beta_{x(e)} = 1000$ Rating based on ISO 16889	Length		Donaldson Part No.
		in	mm	
Synteq Synthetic	6 μ m	11.63	295.4	P569209
	6 μ m	14.24	361.7	P569210
	11 μ m	11.63	295.4	P569211
	11 μ m	14.24	361.7	P569212

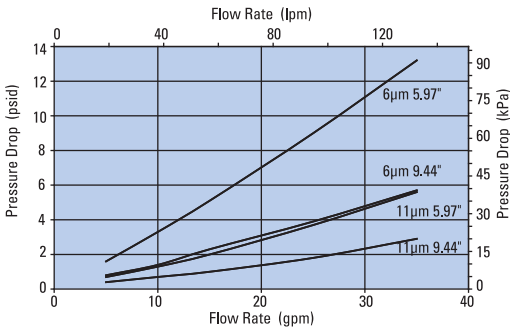
Filter Notes

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

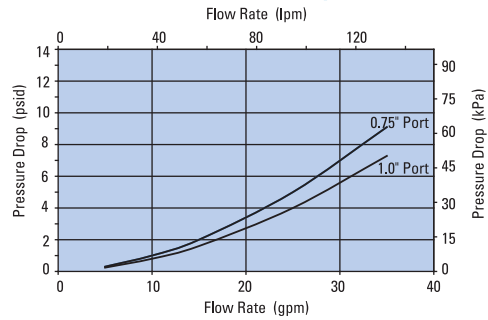


Performance Data

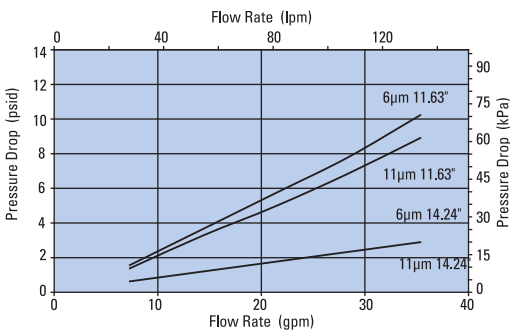
HNK04 Filter Only
(Synthetic, 5.97"/151.7mm & 9.44"/239.8 mm)



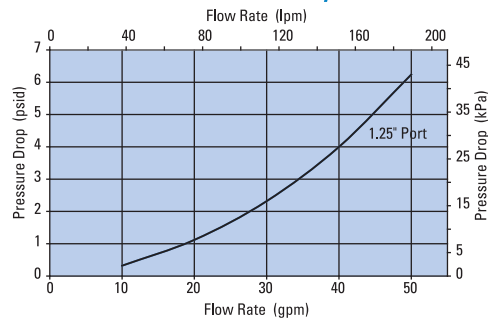
HNK04 Head Only



HNK05 Filter Only
(Synthetic, 11.63"/295.4mm & 14.24"/361.7 mm)

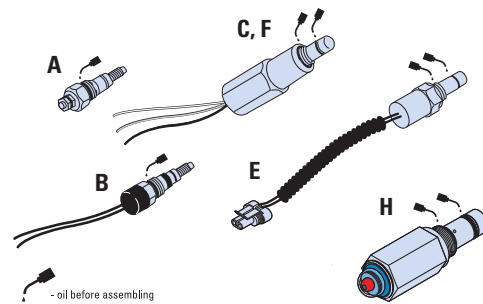
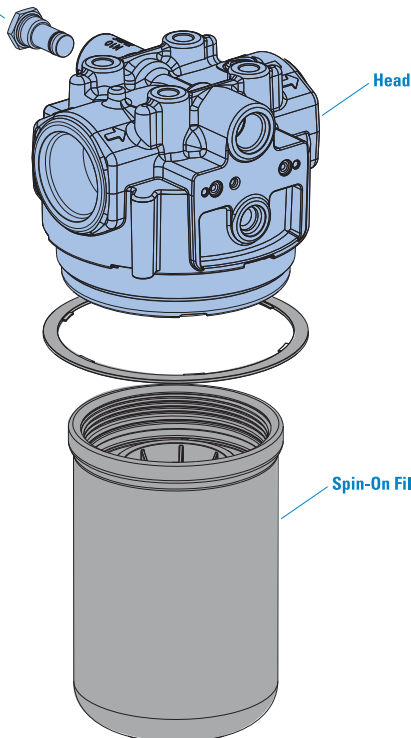


HNK05 Head Only



Service Parts

Plug
Remove only when installing indicator



SERVICE PARTS NOTE:

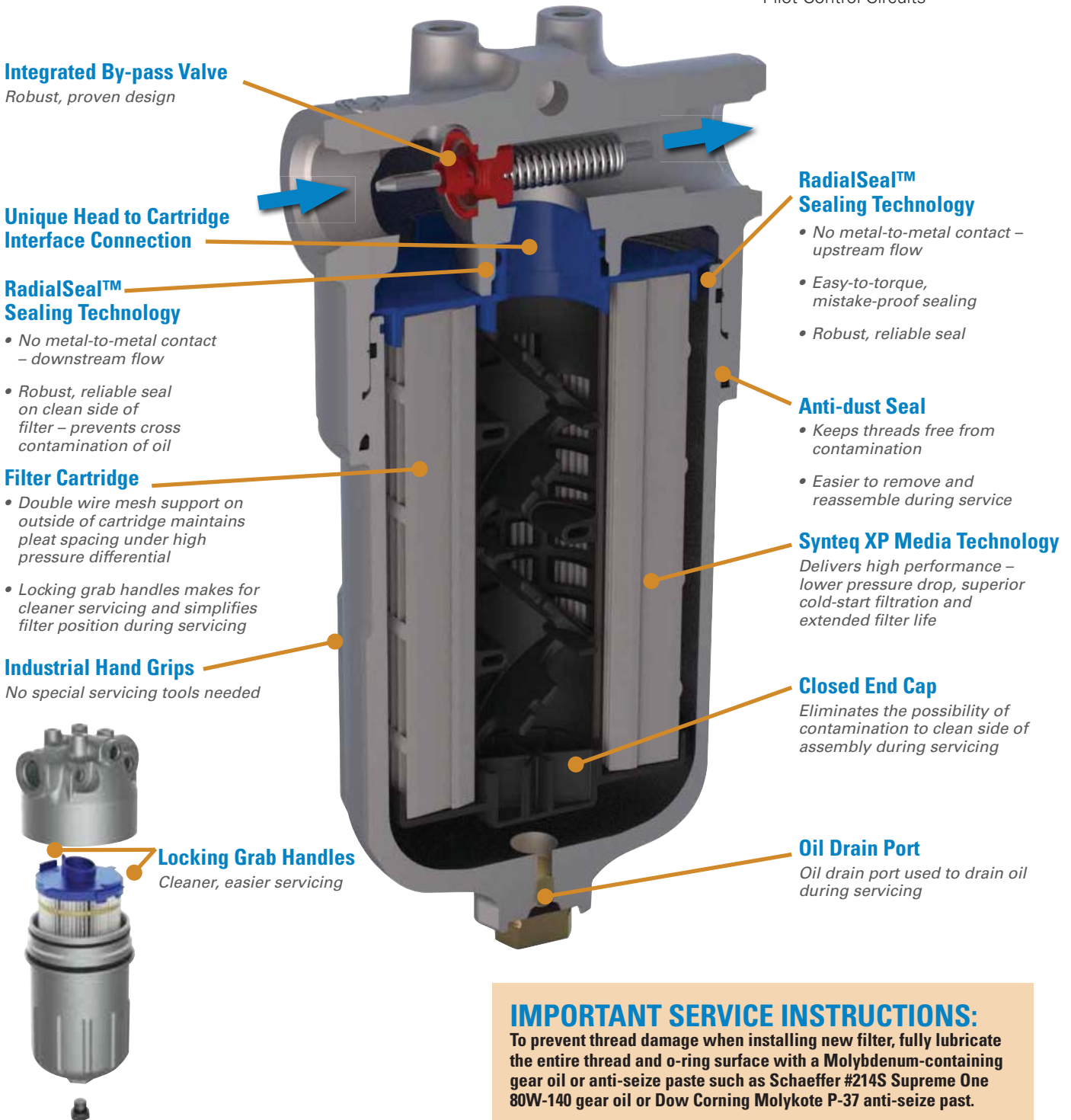
Some service parts may not be stocked. Please contact your Donaldson sales representative for lead time details.



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

Applications

- Hydrostatic Charge Pumps
- Hydrostatic Transmission
- Pilot Control Circuits



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 Pressures to: 580 psi
4002 kPa
40 bar

Rated Static Burst to: 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 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-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)

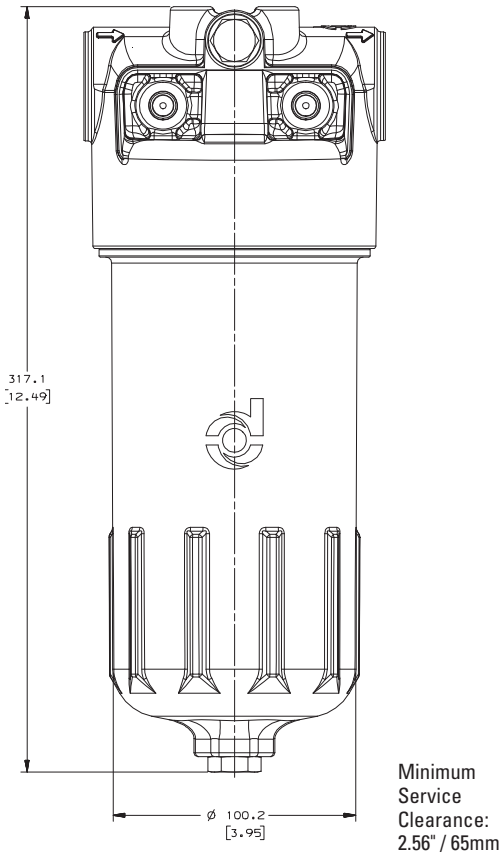


FLK90
Max Flow: 40 gpm (151 lpm)

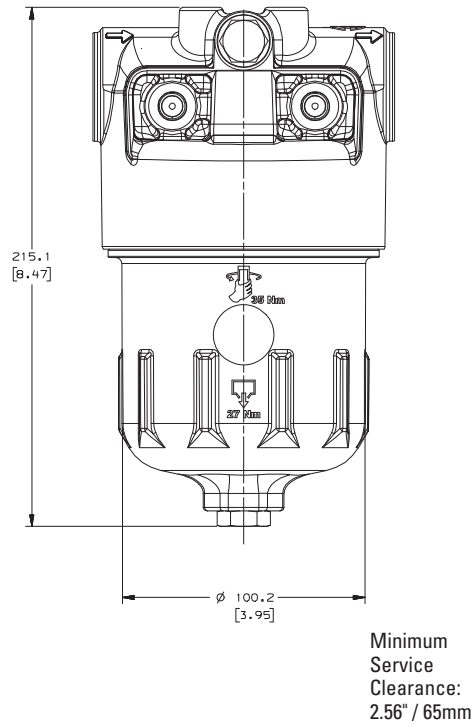


FLK Specification Illustrations

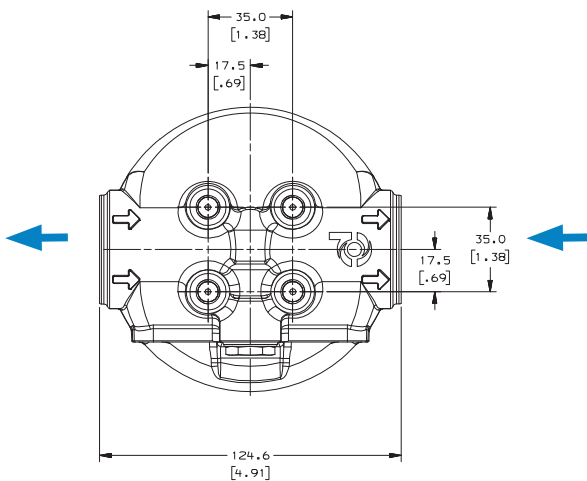
Long Assembly - Side View



Short Assembly - Side View



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

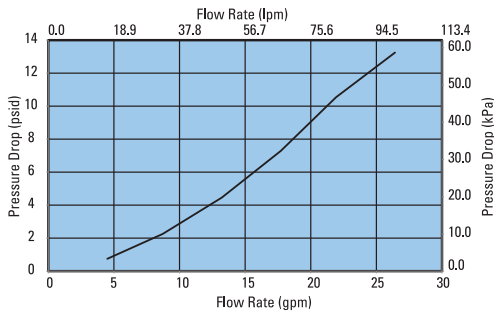
Part No.	Comments
P766990	Short length assembly
P766961	Long length assembly

Filter Choices

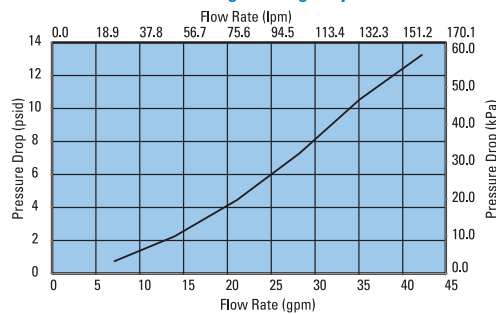
Media Type	$\beta_{x(c)} = 1000$ Rating based on ISO 16889	Length in mm	Donaldson Part No.
Short Length Assembly			
Synteq XP	6 μm	4.21	107 P767128
Synthetic	11 μm	4.21	107 P766987
	15 μm	4.21	107 P767129
Long Length Assembly			
Synteq XP	6 μm	8.23	209 P767130
Synthetic	11 μm	8.23	209 P766959
	15 μm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

Performance Data

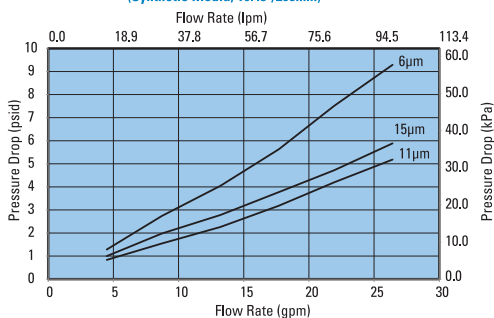
FLK90 Short Housing Only



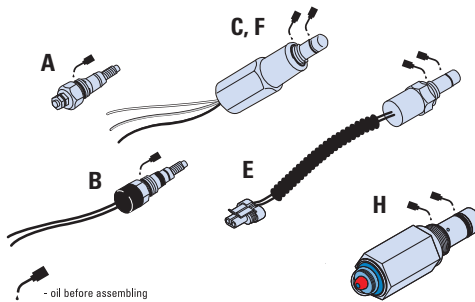
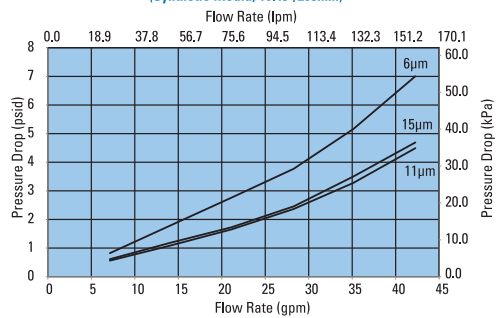
FLK90 Long Housing Only



FLK90 Short Filter only
(Synthetic Media, 10.43"/265mm)



FLK90 Long Filter only
(Synthetic Media, 10.43"/265mm)



Service Indicator Choices

Use with Bypass Valve Pressure of:	Indicator Part No.	Style ²	Description
Electric Models¹			
50 psi / 345 kPa	P165194	A	Single post DC. N.O.
50 psi / 345 kPa	P574968	B	DC 2-wire.
50 psi / 345 kPa	P574967	E	DC 2-wire.
50 psi / 345 kPa	P575549	F	DC 3-wire.
50 psi / 345 kPa	P174396	C	AC/DC 3-wire.
25 psi / 172.5 kPa	P575334	H	Visual pop up
50 psi / 345 kPa	P575335	H	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.



FLK110
Max Flow: 42 gpm (159 lpm)



FLK110 In-Line Cartridge Filters

Working Pressures to: 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
- 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-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

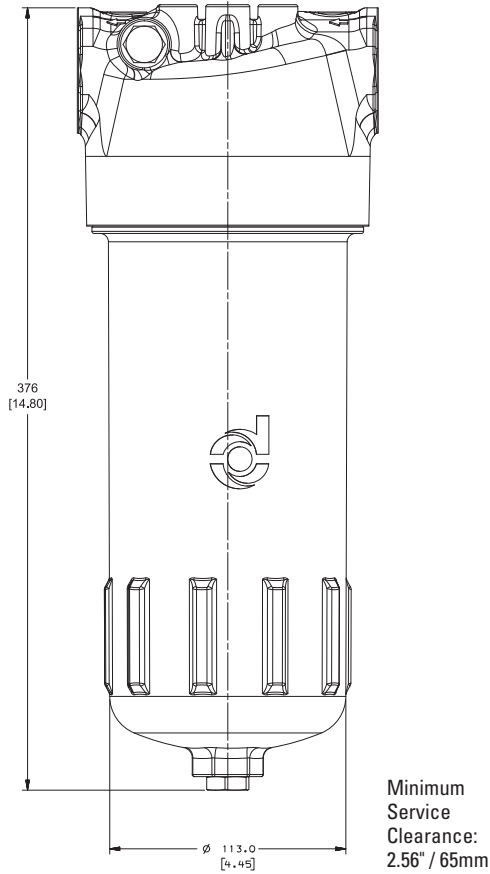
Operating Temperatures

- -40° to 250°F (-40° to 121°C)

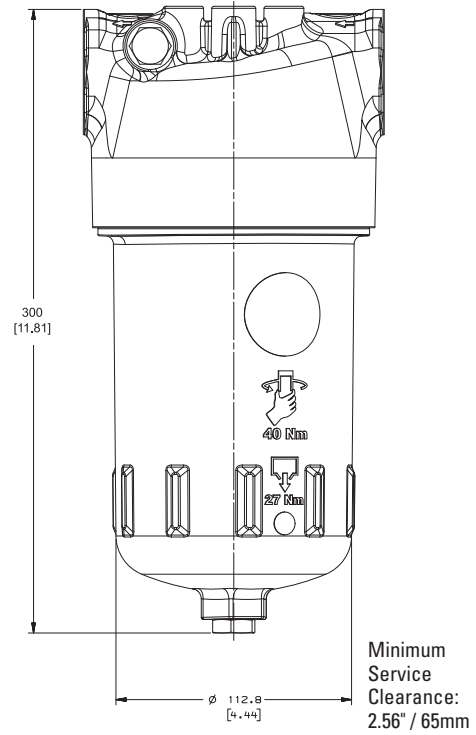


FLK Specification Illustrations

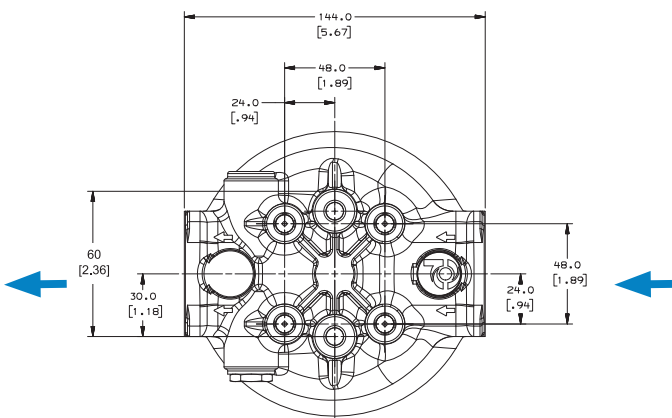
Long Assembly - Side View



Short Assembly - Side View



Head - Top View



Applications

- Hydrostatic Charge Pumps
- Hydrostatic Transmission
- Pilot Control Circuits



FLK110
Max Flow: 42 gpm (159 lpm)



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

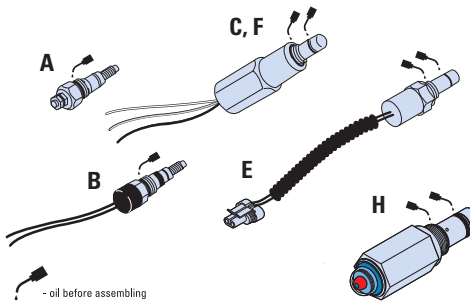
Media Type	$\beta_{x(e)} = 1000$ Rating based on ISO 16889	Length in mm	Donaldson Part No.
Short Length Assembly			
Synteq XP	6 μm	7.4 187	P766847
Synthetic	11 μm	7.4 187	P766813
	15 μm	7.4 187	P767012
Long Length Assembly			
Synteq XP	6 μm	10.43 265	P767010
Synthetic	11 μm	10.43 265	P766811
	15 μm	10.43 265	P767011

Service Indicator Choices

Use with Bypass Valve Pressure of:	Indicator Part No.	Style ²	Description
Electric Models¹			
50 psi / 345 kPa	P165194	A	Single post DC. N.O.
50 psi / 345 kPa	P574968	B	DC 2-wire
50 psi / 345 kPa	P574967	E	DC 2-wire
50 psi / 345 kPa	P575549	F	DC 3-wire
50 psi / 345 kPa	P174396	C	AC/DC 3-wire
25 psi / 172.5 kPa	P575334	H	Visual pop up
50 psi / 345 kPa	P575335	H	Visual pop up

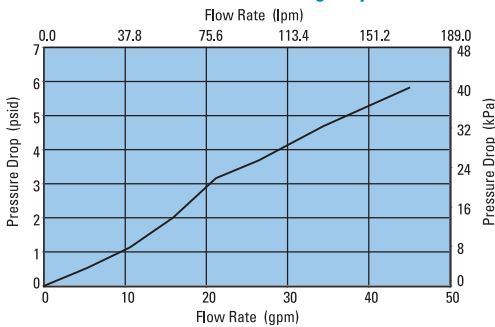
Indicator Notes

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.

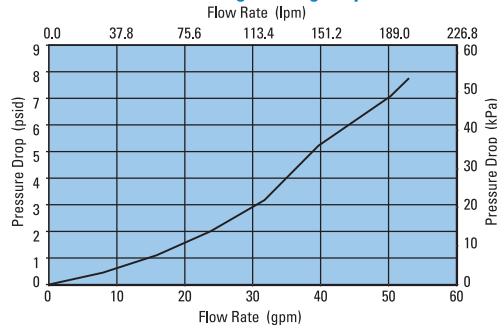


Performance Data

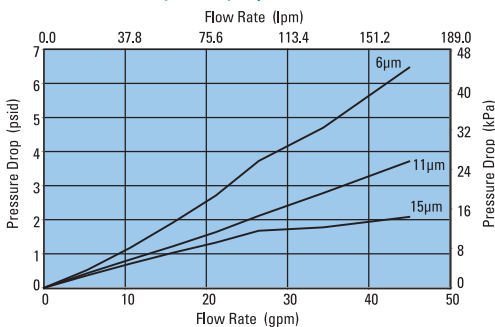
FLK110 Short Housing Only



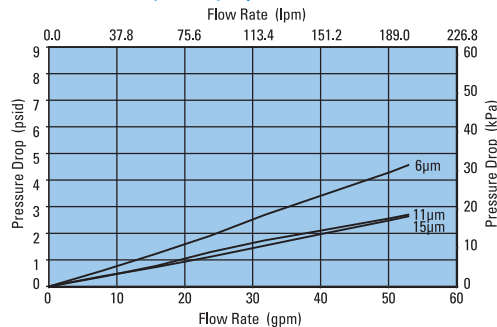
FLK110 Long Housing Only



FLK110 7" Filter Only
(Synthetic Synteq XP, 7.4"/187mm)



FLK110 10" Filter Only
(Synthetic Synteq XP, 10.43"/265mm)



FLK125 In-Line Cartridge Filters

Working Pressures to: 508 psi
3505 kPa
35.1 bar

Rated Static Burst to: 2000 psi
13,790 kPa
138 bar

Flow Range To: 85 gpm
322 lpm

Applications

- Hydrostatic Charge Pumps
- Hydrostatic Transmission
- Pilot Control Circuits



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 $\beta_{-6(c)}=1000$

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)

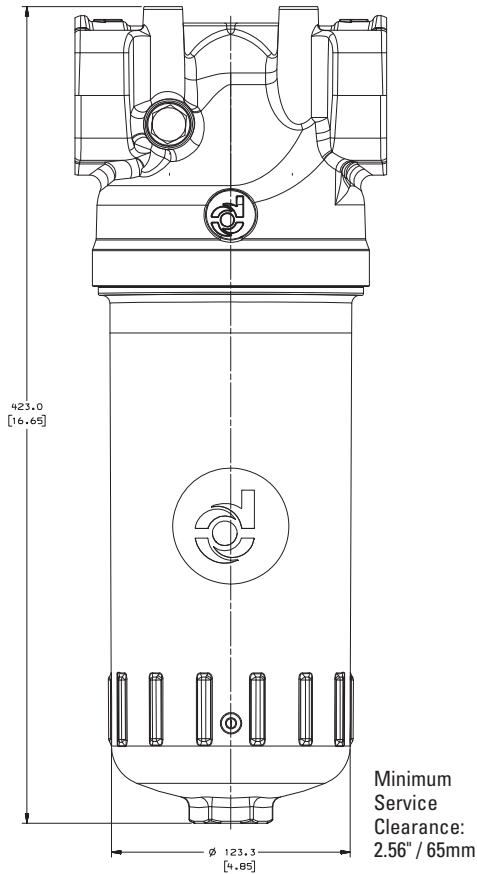


FLK125
 Max Flow: 85 gpm (322 lpm)

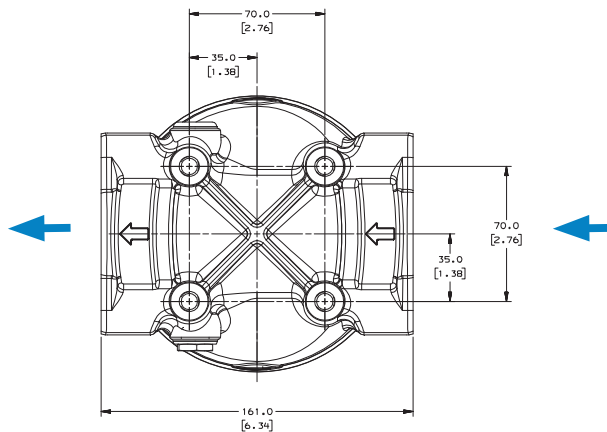


FLK Specification Illustrations

Long Assembly - Side View



Head - Top View



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

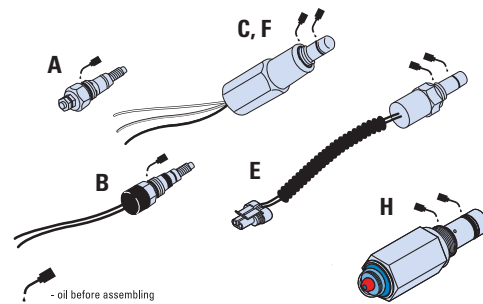
Media Type	$\beta_{x(c)} = 1000$ Rating based on ISO 16889	Length		Donaldson Part No.
		in	mm	
Synteq XP	6 μm	10.85	275.7	P767084
Synthetic	11 μm	10.85	275.7	P767104
	15 μm	10.85	275.7	P767106

Service Indicator Choices

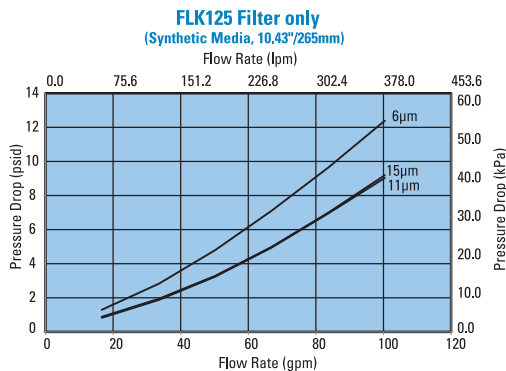
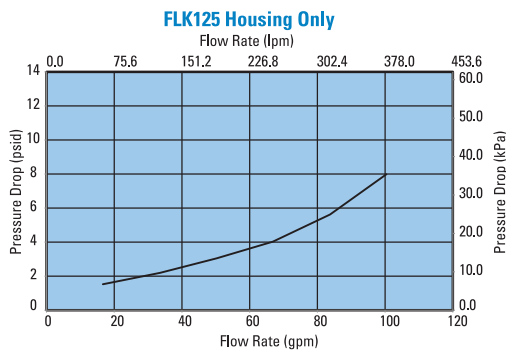
Use with Bypass Valve Pressure of:	Indicator Part No.	Style ²	Description
Electric Models¹			
50 psi / 345 kPa	P165194	A	Single post DC. N.O.
50 psi / 345 kPa	P574968	B	DC 2-wire
50 psi / 345 kPa	P574967	E	DC 2-wire
50 psi / 345 kPa	P575549	F	DC 3-wire
50 psi / 345 kPa	P174396	C	AC/DC 3-wire
25 psi / 172.5 kPa	P575334	H	Visual pop up
50 psi / 345 kPa	P575335	H	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





DPK350
Max Flow: 100 gpm (379 lpm)



DPK350 In-Line Cartridge Filters

Working Pressures to: 350 psi
2400 kPa
24 bar

Rated Static Burst to: 700 psi
4800 kPa
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
- Self locking transfer valve
- Automatic bleed-over valve

Beta Rating

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

Porting Size Options

- 1-1/2" SAE 4-Bolt Flange Code 61

Replacement Filter Lengths

- 14.62" / 371 mm

Filter Collapse Ratings

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

Assembly Weight

- 44 lbs / 20 kg

Operating Temperatures

- -40° to 250°F (-40° to 121°C)

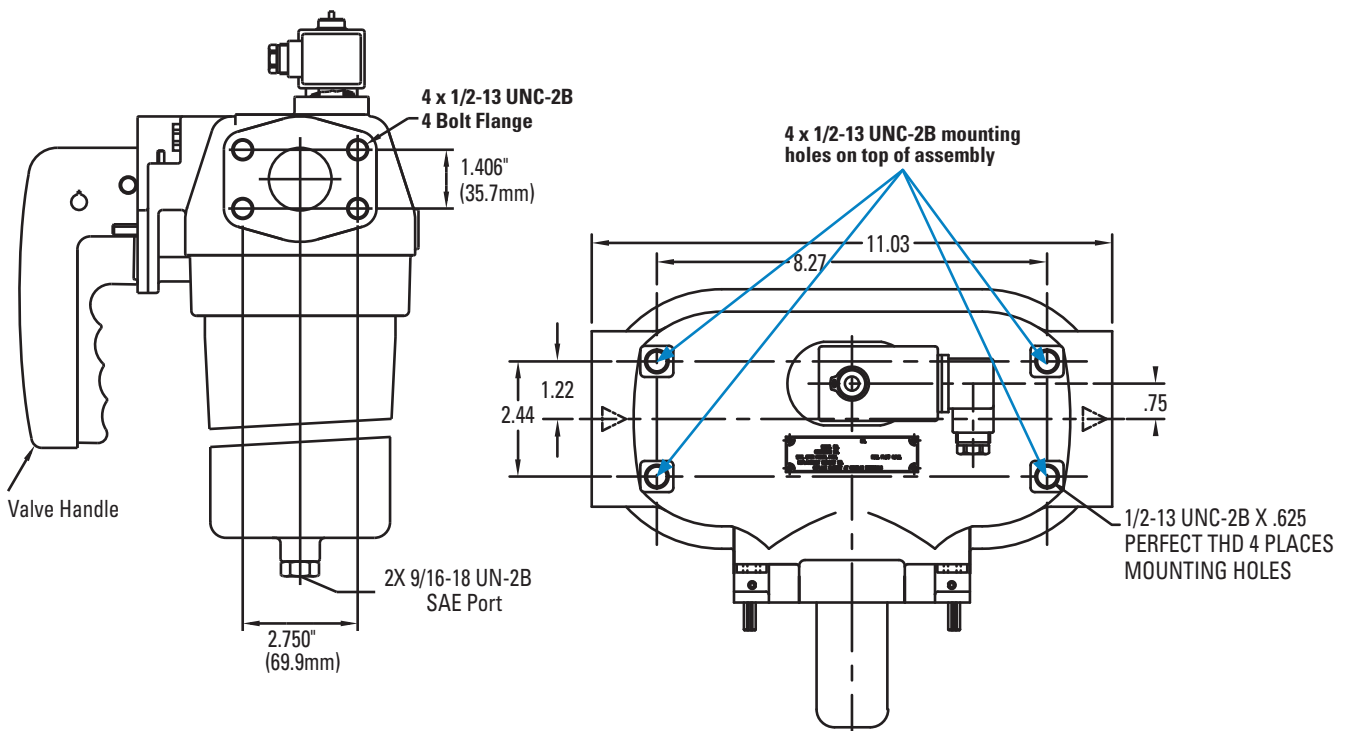
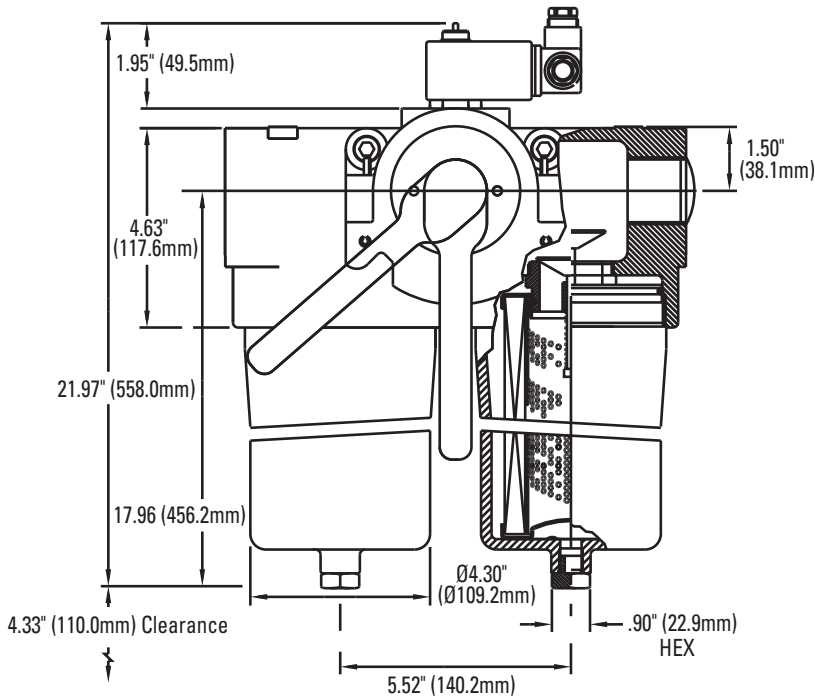
Standard Bypass Ratings

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



DPK350 Specification Illustrations

DPF350 Assembly - Side Views





DPK350
 Max Flow: 100 gpm (379 lpm)



DPK350 Components

Assembly Choices

Part No.	Port Connections	Bypass Valve
P577024	1-½" SAE 4-bolt flange code 61	No bypass
P577025	1-½" SAE 4-bolt flange code 61	50 psi (3.4 bar) bypass

Filter Choices

Media Type	$\beta_{x(e)} = 1000$ Rating based on ISO 16889	Length		Donaldson Part No.	Comments
		in	mm		
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

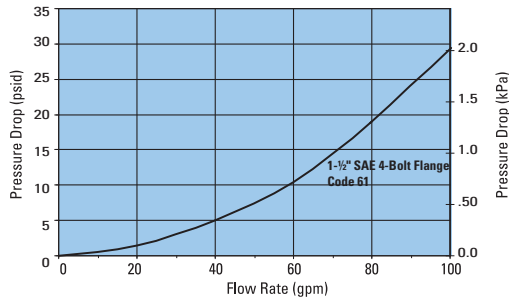
Use with Bypass Valve Pressure of:	Indicator Part No.	Seal Material	Connector Style
Visual / Electric Models			
50 psi / 345 kPa	P577029	Viton seal	Hirschman
Visual Models			
50 psi / 345 kPa	P577028	Viton seal	Manual reset



Performance Data

DPK350 Housing Only

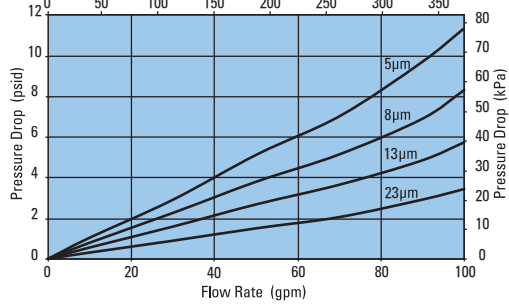
Flow Rate (lpm)



DPK350 14" Filter Only

(DT Synthetic Synteq Media, 14.62"/371mm)

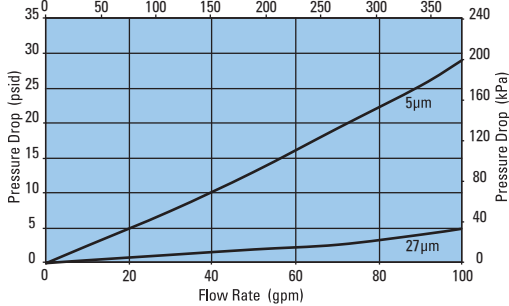
Flow Rate (lpm)



DPK350 14" High-Collapse Filter Only

(DT Synthetic Synteq Media, 14.68"/373mm)

Flow Rate (lpm)





W061

Max Flow: 100 gpm (379 lpm)



W061 In-Line Cartridge Filters

Working Pressures to: 600 psi
4140 kPa
41.4 bar

Rated Static Burst to: 1500 psi
10,342 kPa
103 bar

Fatigue Pressure Rating: 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 Ratings

- 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

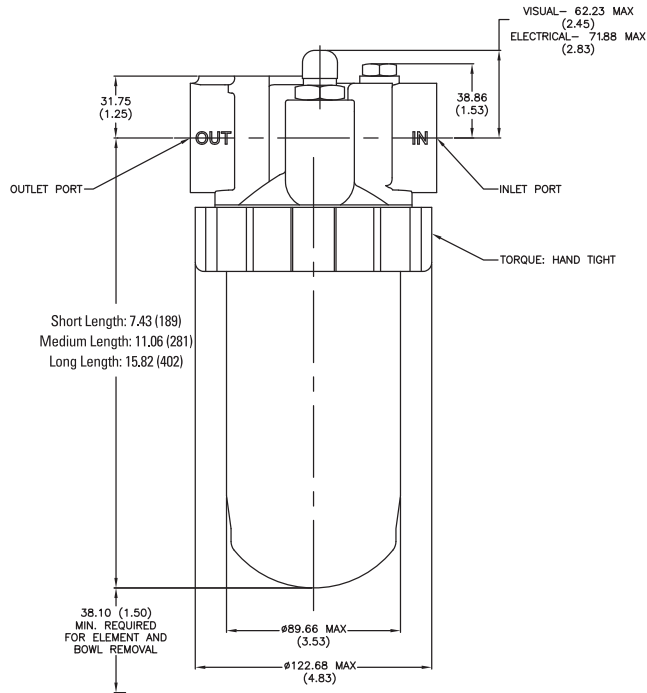
- -20° to 250°F (-29° to 121°C)



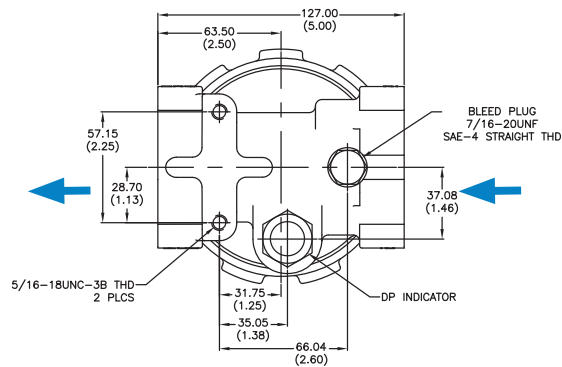
W061 Specification Illustrations

All dimensions are shown in millimeters [inches].

Assembly - Side View



Head - Top View





W061
Max Flow: 100 gpm (379 lpm)



W061 Components

High-Performance DT Filter Choices

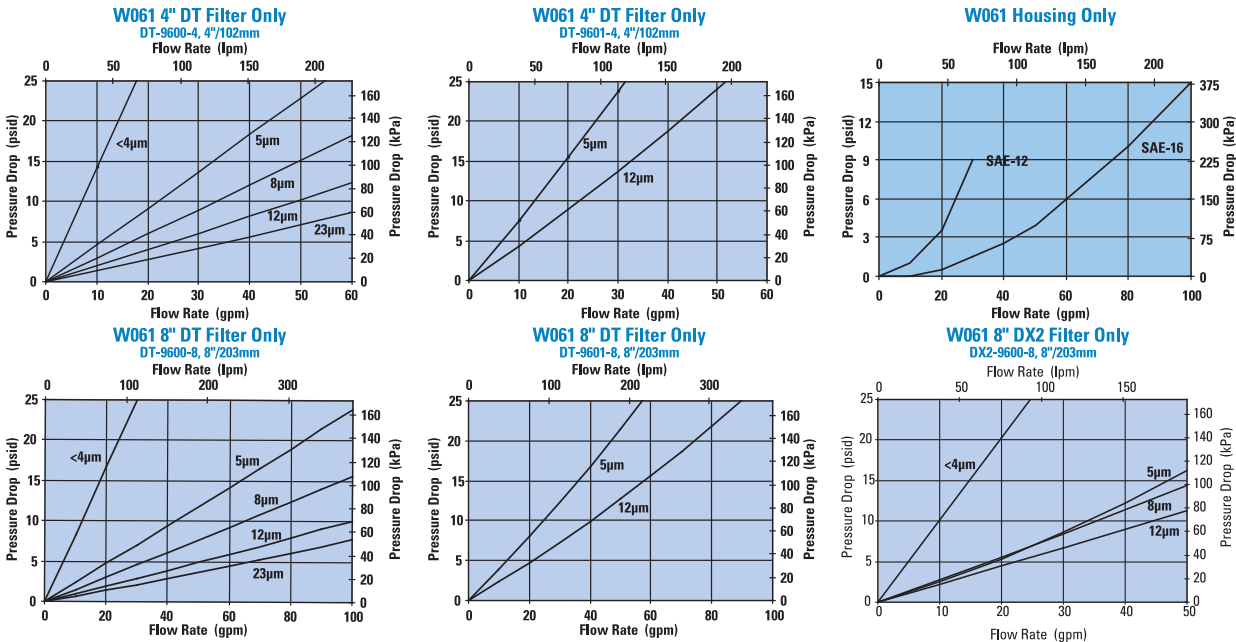
Media Type	$\beta_{x(c)} = 2$	$\beta_{x(c)} = 1000$	Length		Donaldson Part No.	Comments
	Rating based on ISO 16889		in	mm		
DT Synteq	<4 μm	5 μm	4.59	117	P566204	DT-9600-4-2UM
Synthetic	5 μm	8 μm	4.59	117	P566205	DT-9600-4-5UM
	8 μm	12 μm	4.59	117	P566206	DT-9600-4-8UM
	12 μm	23 μm	4.59	117	P566207	DT-9600-4-14UM
	23 μm	5 μm	4.59	117	P566208	DT-9600-4-25UM
	5 μm	12 μm	4.59	117	P566364	DT-9601-4-5UM, High collapse
	12 μm	<4 μm	4.59	117	P566365	DT-9601-4-14UM, High collapse
	<4 μm	5 μm	8.22	209	P566209	DT-9600-8-2UM
	5 μm	8 μm	8.22	209	P566210	DT-9600-8-5UM
	8 μm	12 μm	8.22	209	P566211	DT-9600-8-8UM
	12 μm	23 μm	8.22	209	P566212	DT-9600-8-14UM
	23 μm	5 μm	8.22	209	P566213	DT-9600-8-25UM
	5 μm	12 μm	8.22	209	P566366	DT-9601-8-5UM, High collapse
	12 μm	<4 μm	8.22	209	P566367	DT-9601-8-14UM, High collapse
	<4 μm	5 μm	8.23	209	P567875	DX2-9600-8-2UM
	5 μm	8 μm	8.23	209	P565122	DX2-9600-8-5UM
	8 μm	12 μm	8.23	209	P565123	DX2-9600-8-8UM
	12 μm	<4 μm	8.23	209	P564936	DX2-9600-8-14UM
	<4 μm	5 μm	12.91	328	P566214	DT-9600-13-2UM
	5 μm	8 μm	12.91	328	P566215	DT-9600-13-5UM
	8 μm	12 μm	12.91	328	P566216	DT-9600-13-8UM
12 μm	23 μm	12.91	328	P566217	DT-9600-13-14UM	
23 μm	5 μm	12.91	328	P566218	DT-9600-13-25UM	
5 μm	12 μm	12.87	327	P566368	DT-9601-13-5UM, High collapse	
12 μm	<4 μm	12.87	327	P566369	DT-9601-13-14UM, High collapse	
<4 μm	5 μm	12.87	327	P567876	DX2-9600-13-2UM	
5 μm	8 μm	12.87	327	P565188	DX2-9600-13-5UM	
8 μm	12 μm	12.87	327	P565189	DX2-9600-13-8UM	
12 μm		12.87	327	P565187	DX2-9600-13-14UM	
Water	10 μm		8.23	209	P569528	Absorbs 130 ml water @ 25 psid
Absorbing	10 μm		12.87	327	P569529	Absorbs 220 ml water @ 25 psid



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 applications.
- Viton® seals are standard on all Donaldson DT and DX2 filters.

Performance Data





Head Assembly Choices

Port Size	Bypass Rating	Seal Material	Indicator Style & Location	Donaldson 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

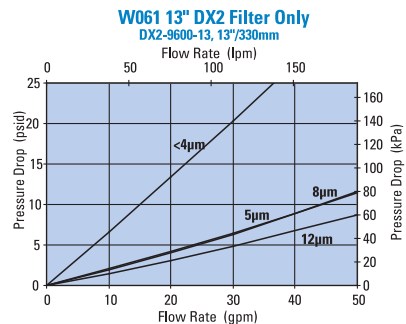
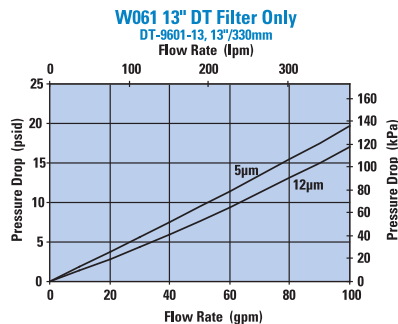
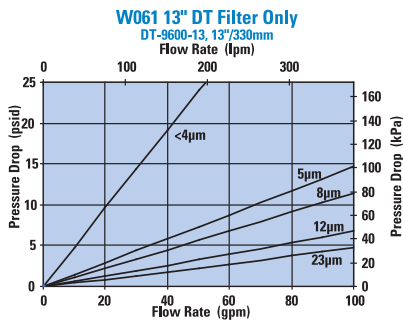
Housing Length	Seal Material	Donaldson Part No.
4" (101.6mm)	Buna-N	X011115
8" (203.2mm)	Buna-N	X011111
13" (330.2mm)	Buna-N	X011117

Indicator Choices

Indicator Pressure Setting	Connector Style	Seal Material	Donaldson Part No.	Thermal Lockout	Surge Control	Reset
Visual Pop-up Models						
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 / Visual 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						
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

Max Flow: 150 gpm (568 lpm)



HDK06 In-Line/Tank Mount Filters

Working Pressures to: 350 psi
2415 kPa
24.1 bar

Rated Static Burst to: 500 psi
3450 kPa
34.5 bar

Flow Range To: 150 gpm
568 lpm

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 $\beta_{9(c)}=1000$ rated Synteq™ filter cartridge. Other ratings are available, depending on your cleanliness requirements. HDK06 comes with an easy-to-read visual service indicator.



In-line model shown

Beta Rating

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

Porting Size Options

- 2½" 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

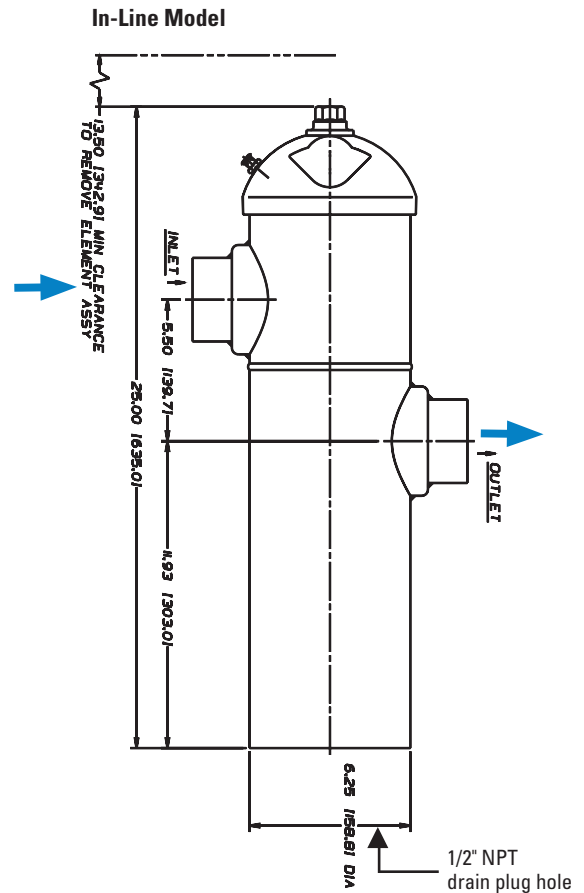
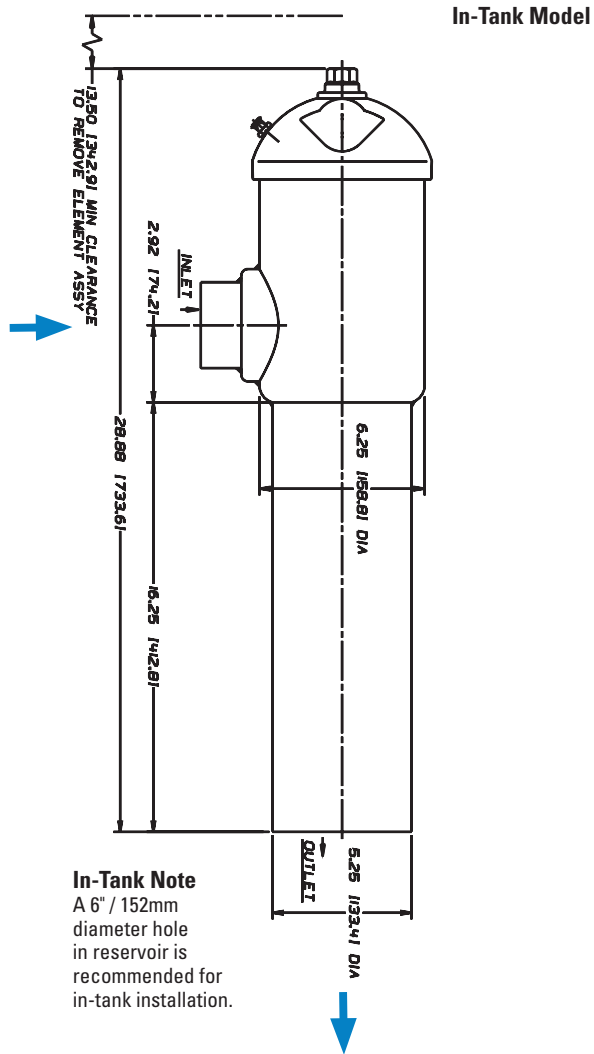
- 100 psid / 690 kPa / 6.9 bar



HDK06 Specification Illustrations

All dimensions are shown in inches [millimeters].

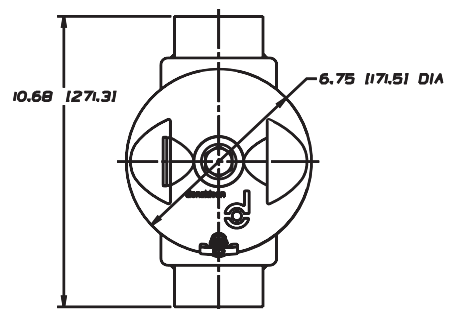
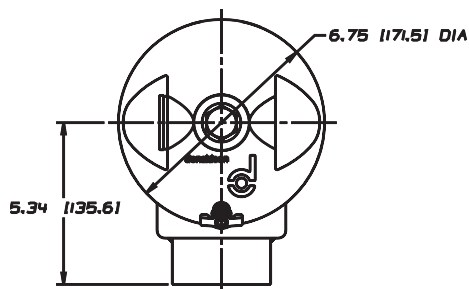
Assembly - Side Views



Applications

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

Head - Top Views



MEDIUM PRESSURE FILTERS

HDK06
Max Flow: 150 gpm (568 lpm)

HDK06 Components

Assembly Choices

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

Filter Choices

Media Type	$\beta_{x(e)} = 2$		$\beta_{x(e)} = 1000$		Length	Donaldson Part No.
	Rating based on ISO 16889					
	in	mm	in	mm		
Synthetic	<4 μm	16.00	406	16.00	406	P161016
	6 μm	16.00	406	16.00	406	P165628
	11 μm	16.00	406	16.00	406	P176221
	22 μm	16.00	406	16.00	406	P161571
	23 μm	16.00	406	16.00	406	P164699
Wire Mesh	150 μm	11.6	294	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 Filters Only

This graph plots Pressure Drop (psid) on the y-axis (0 to 10) against Flow Rate (lpm) on the top x-axis (0 to 500) and Flow Rate (gpm) on the bottom x-axis (0 to 150). The y-axis also has a secondary scale in kPa / bar (0/0.0 to 10/0.6). Five curves represent different media types: <4 μm , 6 μm , 11 μm , 22/23 μm , and 50 μm . The <4 μm curve shows the highest pressure drop, reaching approximately 10 psid at 150 gpm.

HDK06 Head Only

This graph plots Pressure Drop (psid) on the y-axis (0 to 8) against Flow Rate (lpm) on the top x-axis (0 to 500) and Flow Rate (gpm) on the bottom x-axis (0 to 150). The y-axis also has a secondary scale in kPa / bar (0/0.0 to 8/0.5). A single curve is shown for a 2½" Port, reaching approximately 8 psid at 150 gpm.

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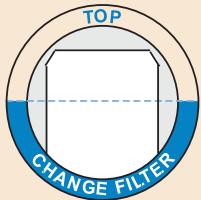
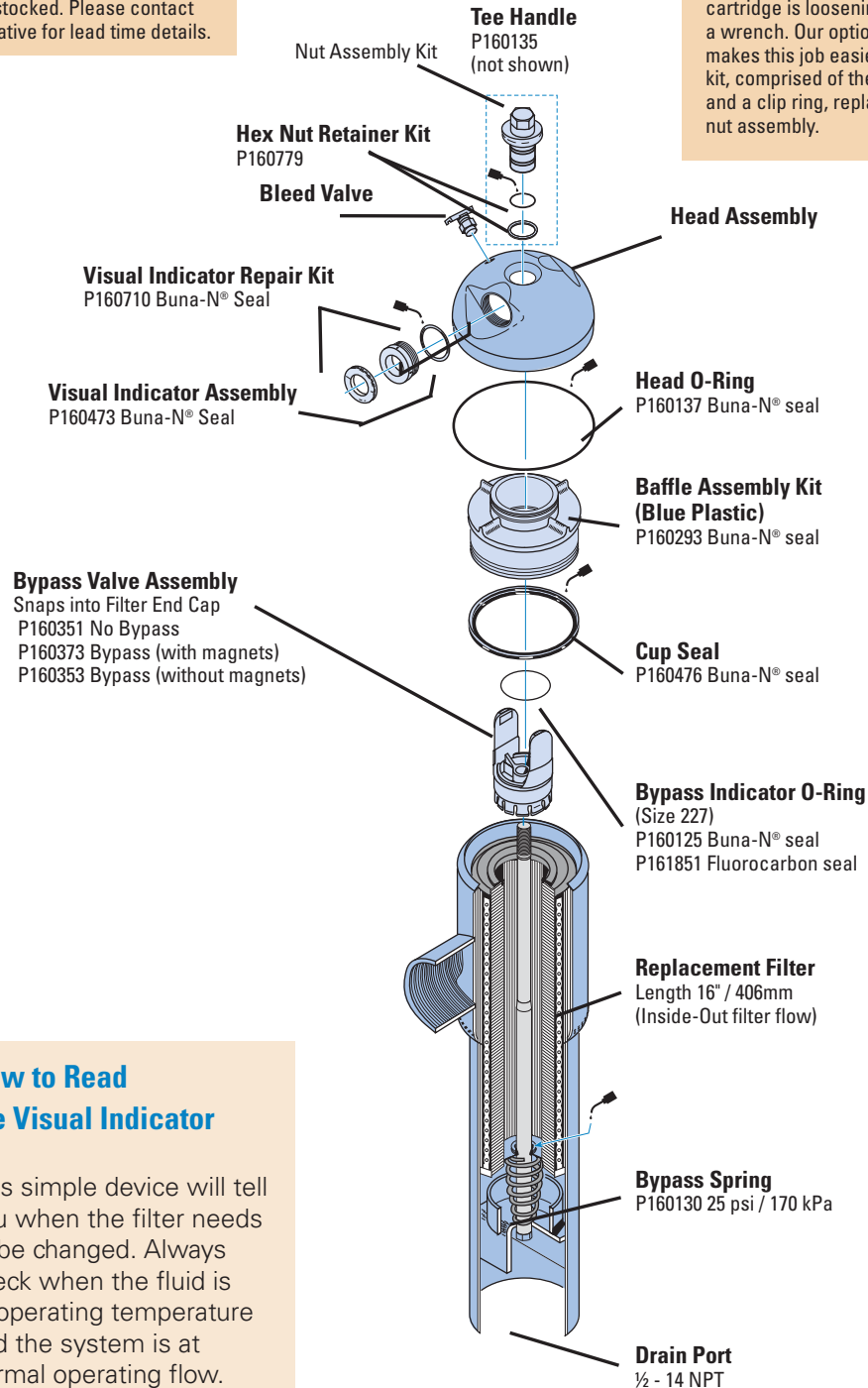
HDK06 Service Parts

SERVICE PARTS NOTE:

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

Optional Tee Handle for Easier Servicing

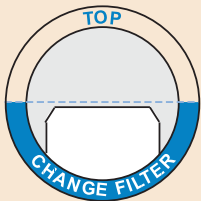
The first step in changing the HDK06 cartridge is loosening the top nut with a wrench. Our optional tee handle makes this job easier. The P160135 kit, comprised of the handle, an o-ring, and a clip ring, replaces the entire top nut assembly.



Filter OK

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.



Filter Needs Service

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

Buna-N® is a registered trademark of E. I. DuPont de Nemours and Company.



W041

Max Flow: 300 gpm (1135 lpm)



W041 In-Line Cartridge Filters

Working Pressures to: 500 psi
3450 kPa
34.5 bar

Rated Static Burst to: 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 2½" 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

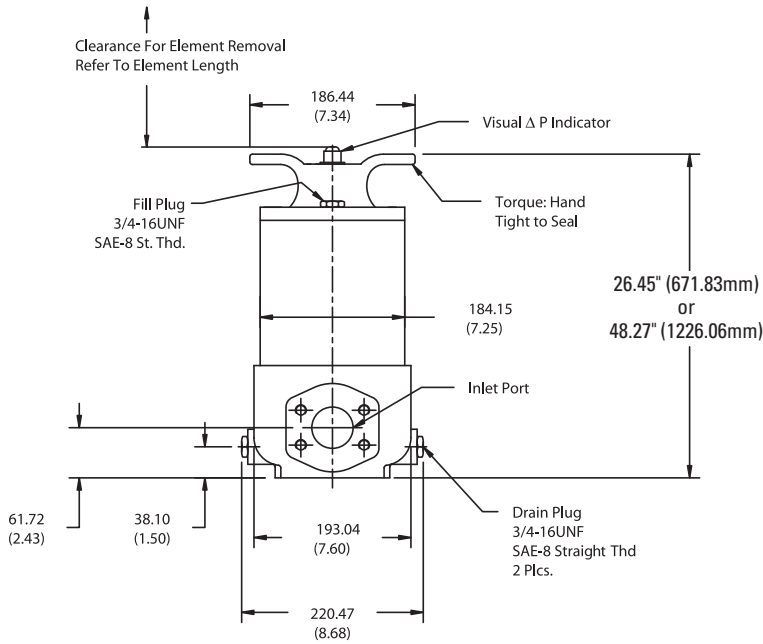
- 50 psi / 345 kPa / 3.5 bar



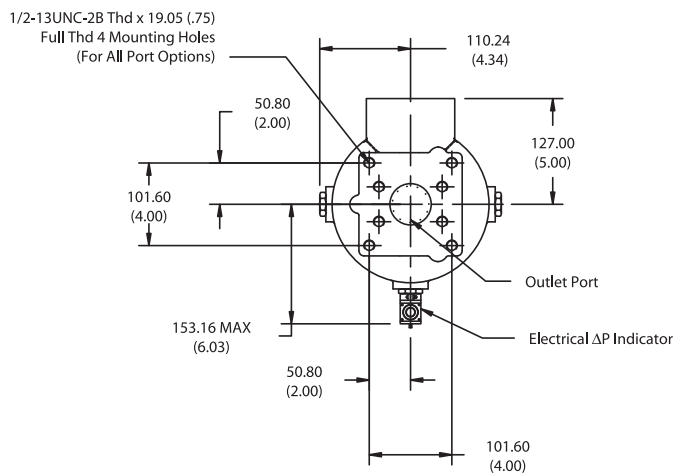
W041 Specification Illustrations

All dimensions are shown in millimeters [inches].

Assembly - Side View



Head - Bottom View





W041

Max Flow: 300 gpm (1135 lpm)



W041 Components

High-Performance DT Filter Choices

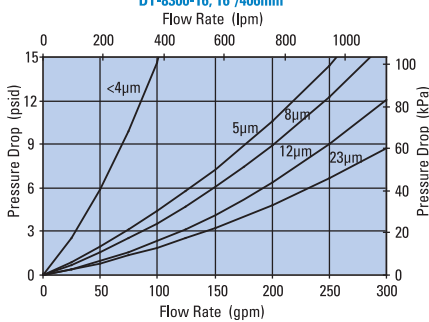
Media Type	$\beta_{x/c} = 1000$ Rating based on ISO 16889	Length in mm	Donaldson Part No.	Comments
DT Synteq	<4 μm	16.74 425	P566239	DT-8300-16-2UM
Synthetic	5 μm	16.74 425	P566240	DT-8300-16-5UM
	8 μm	16.74 425	P566241	DT-8300-16-8UM
	12 μm	16.74 425	P566242	DT-8300-16-14UM
	23 μm	16.74 425	P566243	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	

Filter Notes

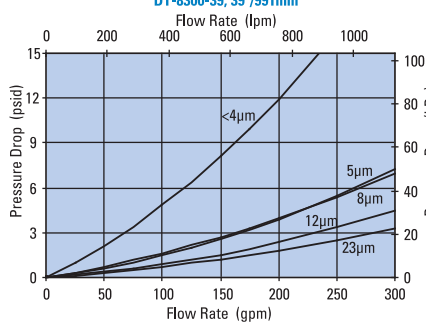
All Donaldson DT filters utilize glass fiber media with an epoxy-based resin system for the ultimate in chemical compatibility. All Donaldson DT filters are potted and seam-sealed with epoxy-based adhesives. Standard collapse designs are double wire-backed using epoxy-coated steel mesh for maximum pleat 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 trademark of E. I. DuPont de Nemours and Company.

Performance Data

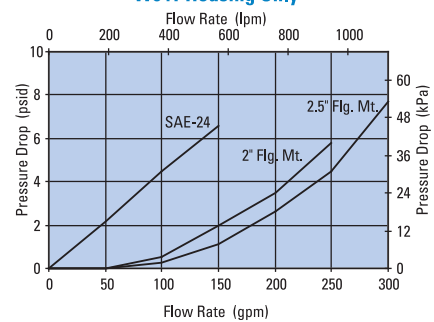
W041 16" DT Filter Only
DT-8300-16, 16"/406mm



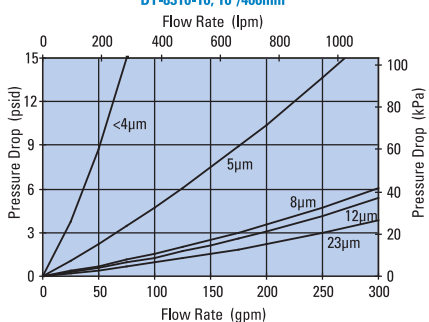
W041 39" DT Filter Only
DT-8300-39, 39"/991mm



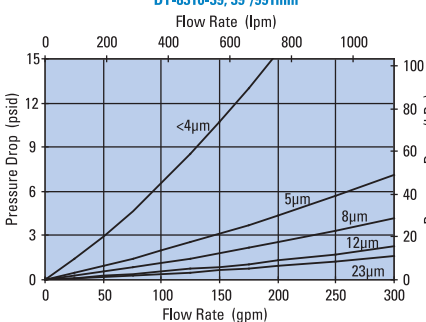
W041 Housing Only



W041 16" DT Filter Only
DT-8310-16, 16"/406mm



W041 39" DT Filter Only
DT-8310-39, 39"/991mm



Filter Assembly Choices

Size	Rating	Material	& Location	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

Indicator Pressure Setting	Connector Style	Seal Material	Donaldson Part No.	Thermal Lockout	Surge Control	Reset
Visual Pop-up Models						
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 / Visual Models						
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
35 psi / 241 kPa	Brad Harrison	Buna-N	P572385	Yes	Yes	Manual
35 psi / 241 kPa	3 wire flying leads	Buna-N	P572349	No	No	Auto
Electrical Models						
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
X011156	Buna
X011157	Viton



HFK08

Max Flow: 300 gpm (1135 lpm)



HFK08 In-Line/Tank Mount Filters

Working Pressures to: 350 psi
2415 kPa
24.1 bar

Rated Static Burst to: 500 psi
3450 kPa
34.5 bar

Flow Range To: 300 gpm
1135 lpm

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)

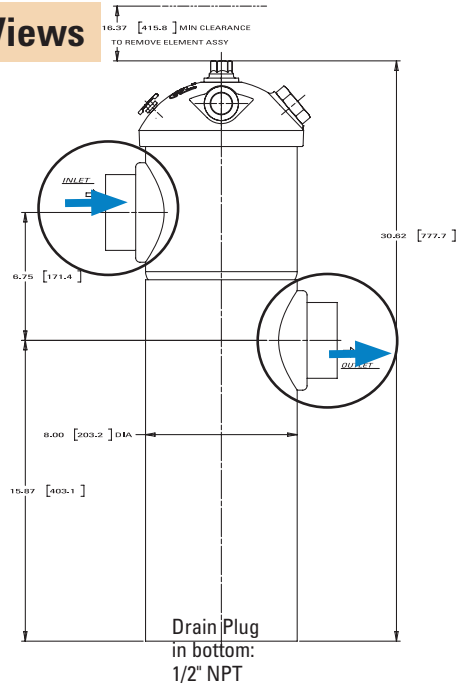


HFK08 Specification Illustrations

All dimensions are shown in inches [millimeters].

Assembly - Side Views

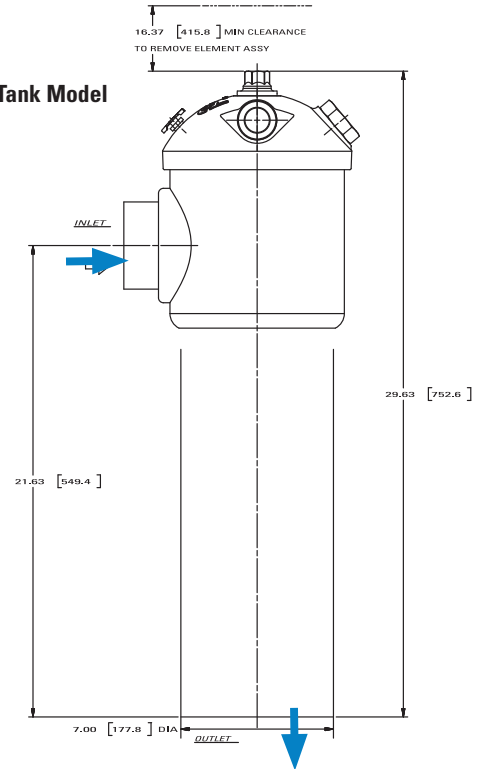
In-Line Model



Applications

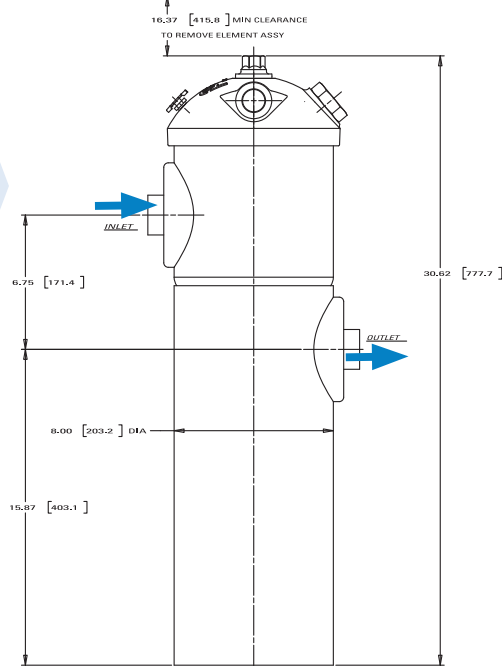
- Fluid Conditioning Systems
- Lube Oil Systems
- Return Lines
- Side Loop Systems
- Suction Lines

In-Tank Model

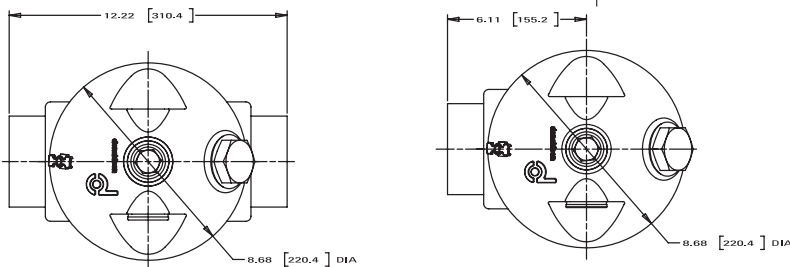


K080087 In-Line Model

Smaller port size (SAE-20) works well for kidney loop filtration.



Head - Top Views





HFK08
Max Flow: 300 gpm (1135 lpm)



HFK08 Components

Filter Assemblies

Port Size	Bypass Rating	Indicator Style1 & Location	Assembly Part No.	Length (in./mm)	Filter 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

Assembly Notes

¹Donaldson 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 Type	$\beta_{x(e)} = 2$ Rating based on ISO 16889	$\beta_{x(e)} = 1000$	Length		Donaldson Part No.
			in	mm	
Synteq Synthetic		<4 μ m	18.00	457	P164407 Viton® seal
		<4 μ m	18.00	457	P164405
		6 μ m	18.00	457	P166462
		11 μ m	18.00	457	P176222
		23 μ m	18.00	457	P164703
Wire Mesh		45 μ m	18.00	457	P173573
		150 μ m	18.00	457	P163945

Filter Notes

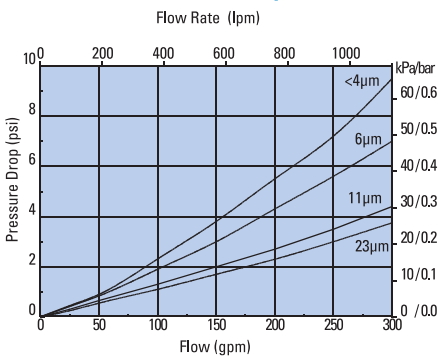
Standard HDK06 replacement filters have Buna-N® seals, which are appropriate for most applications involving petroleum oil. Filters with seals made of fluorocarbon elastomer (such as Viton® and Fluorel®) are required when using diester, phosphate ester fluids, water glycol, water/oil emulsions, and HWCF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



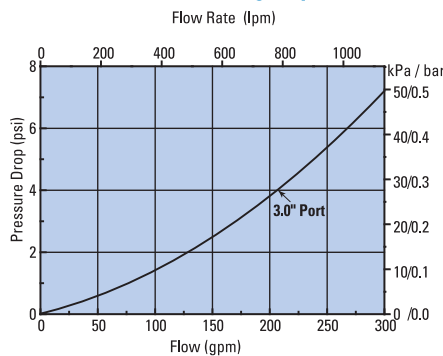
The K080087 model has features that are perfect for kidney loop filtration.

Performance Data

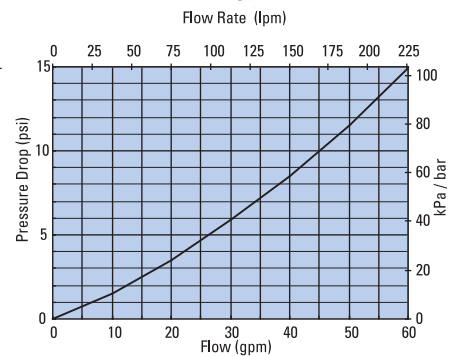
HFK08 Filter Only



HFK08 Housing Only



K080087 Assembly (with Filter)

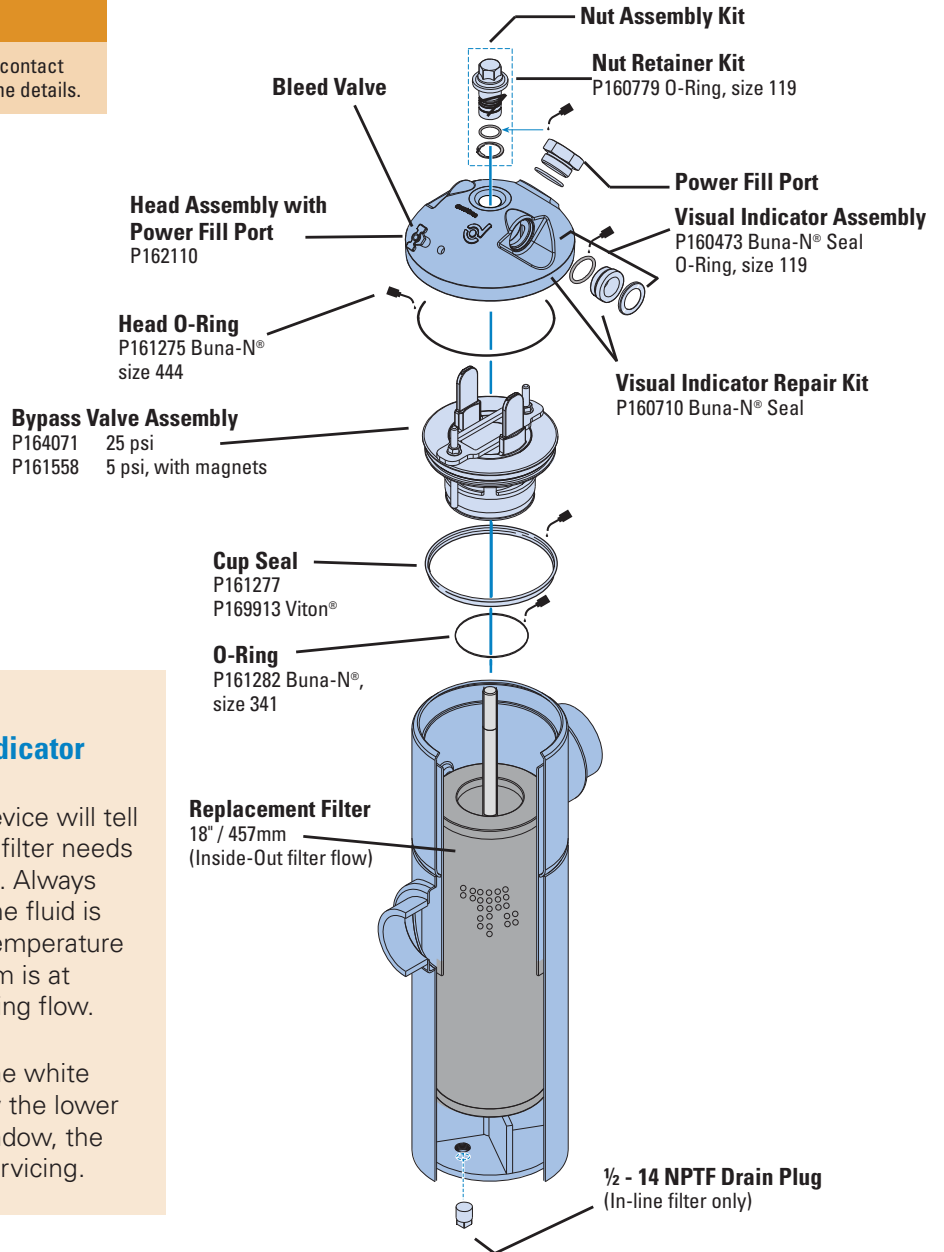




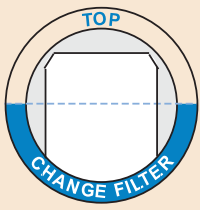
HFK08 Service Parts

SERVICE PARTS NOTE:

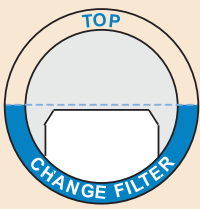
Some service parts may not be stocked. Please contact your Donaldson sales representative for lead time details.



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.



HFK08 replacement filters are available with synthetic or wire mesh media.



Donaldson Delivers
Performance
Under **Any**
Pressure.



www.donaldsonfilters.com

PRODUCT INFORMATION



www.donaldsonfilters.com