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 58

HMK04 62

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HMK25 66

In-line Cartridge Filters

FLK90 75

FLK110 78

FLK125 81

DPK350 84

HDK06 88

W041 92

HFK08 96

HMK03

Max Flow: 25 gpm (95 lpm)

Donaldson FILTRATION SOLUTIONS

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

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



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 $\beta_{6(c)}$=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

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

Filter Collapse Ratings
- 290 psid / 20 bar

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

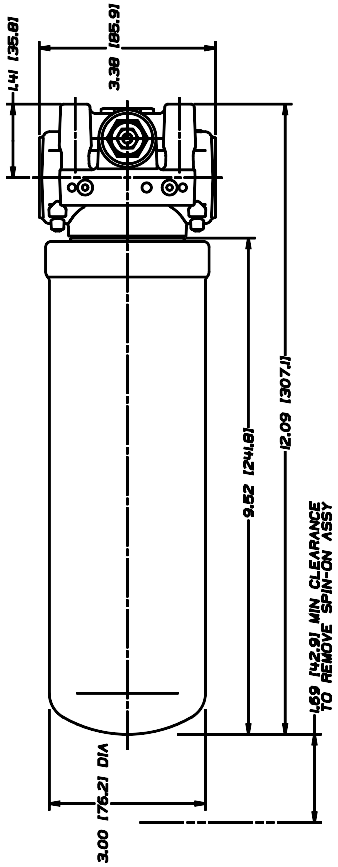
*Per T3.10.17 NFPA

HMK03 Specification Illustrations

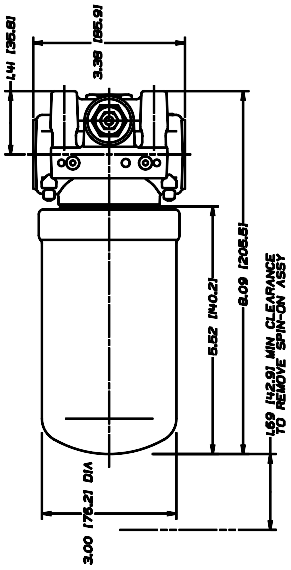
ASSEMBLY - SIDE VIEW

All dimensions are shown in inches [millimeters].

Long Assembly

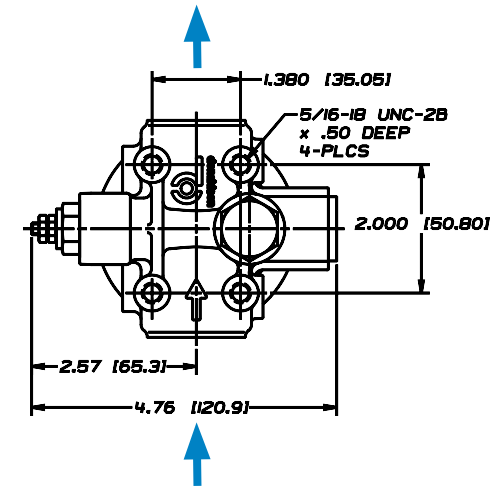


Short Assembly

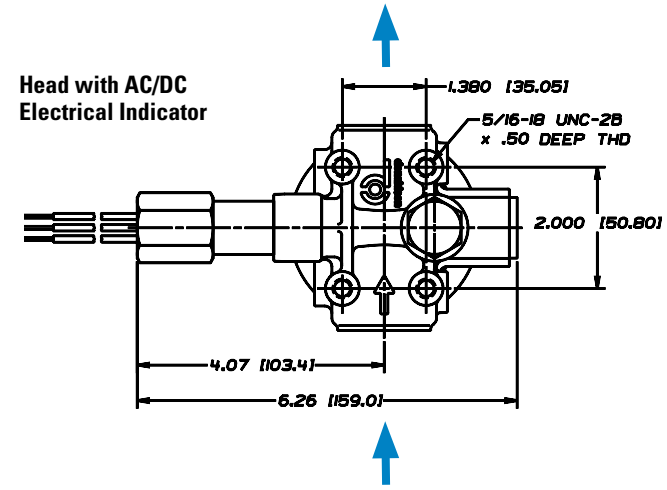


HEAD - TOP VIEW WITH INDICATORS

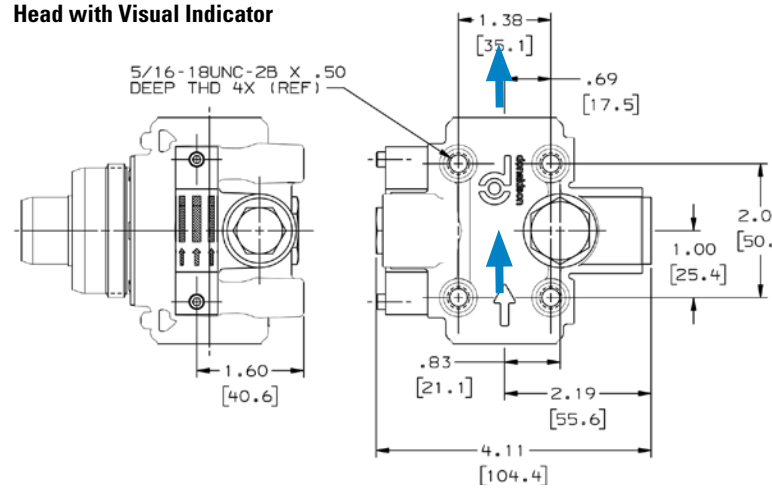
Head with DC Electrical Indicator



Head with AC/DC Electrical Indicator



Head with Visual Indicator



HMK03 Components

Filter Choices

Media Type	$\beta_{x(c)} = 1000$ Rating based on ISO 16889	Length		Part No.	Comments
		in	mm		
Synteq Synthetic	6 µm	5.5	140	P170308	Nitrile
	6 µm	9.5	242	P170309	Nitrile
	11 µm	5.5	140	P170310	Nitrile
	11 µm	9.5	242	P170311	Nitrile
	23 µm	5.5	140	P170312	Nitrile
	23 µm	9.5	242	P170313	Nitrile

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



HMK03 Head

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

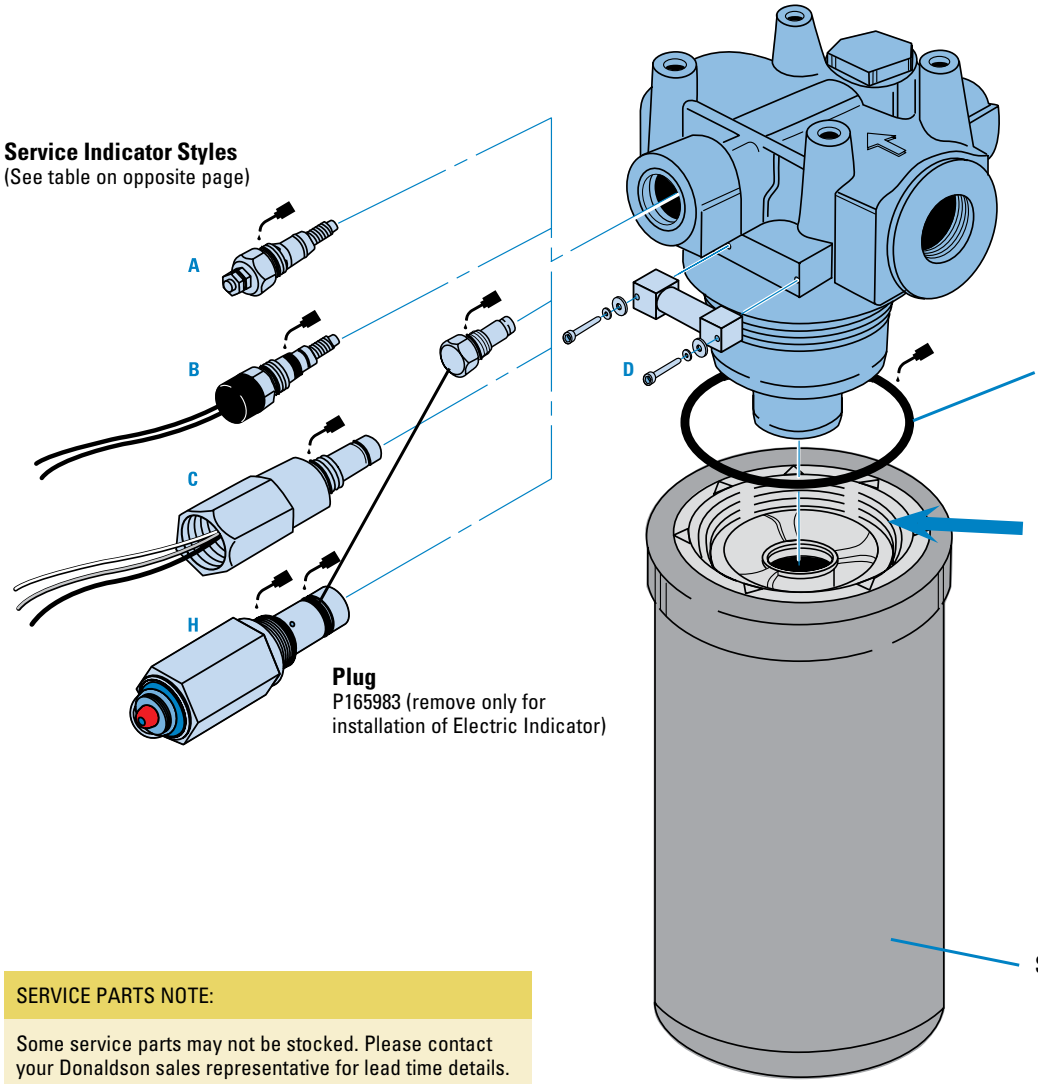
*Head is machined to accept optional electrical indicators.
See Indicator list at right for the available choices.

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

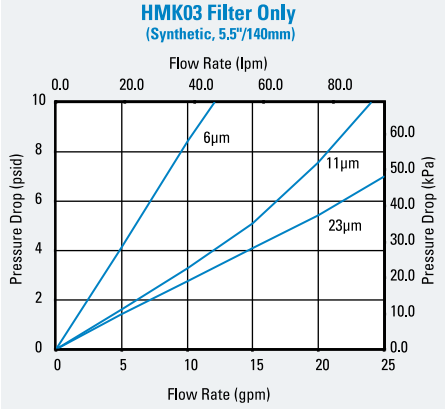


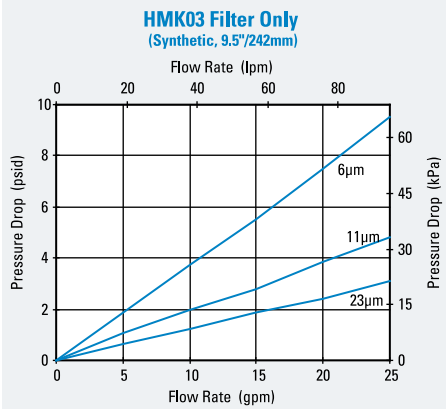
NOTE:
Lubricate filter-to-head threads when installing new filter to prevent thread damage. Heavyweight gear lube is recommended.

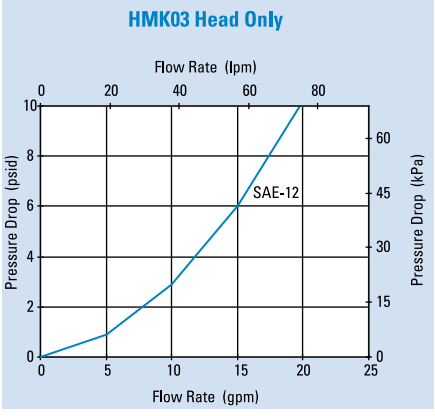
SERVICE PARTS NOTE:

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

Performance Data







HMK04/24

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

Donaldson FILTRATION SOLUTIONS

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: 35 gpm / 133 lpm

HMK24: 60 gpm / 227 lpm

Applications

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



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. Nitrile seals are standard; fluorocarbon 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 1¼" 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)

Filter Collapse Ratings

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

Housing Fatigue Strength Ratings*

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

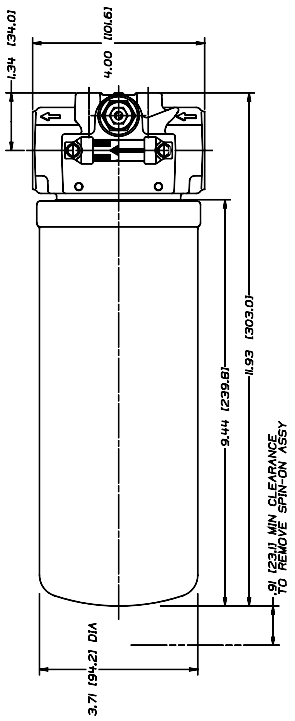
*Per T3.10.17 NFPA

HMK04/24 Specification Illustrations

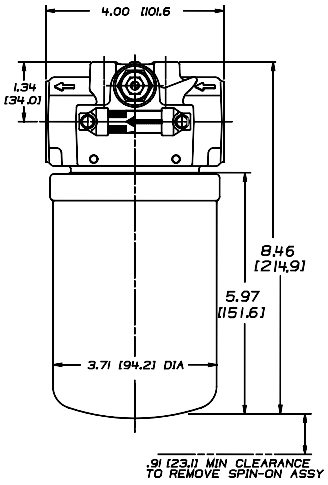
ASSEMBLY - SIDE VIEW

All dimensions are shown in inches [millimeters].

Long Assembly

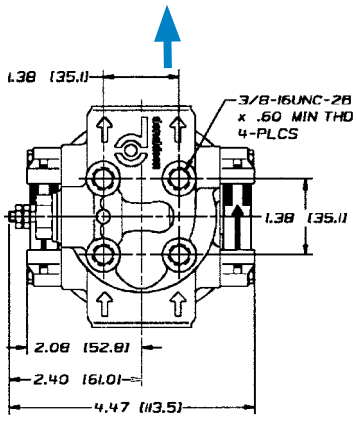


Short Assembly

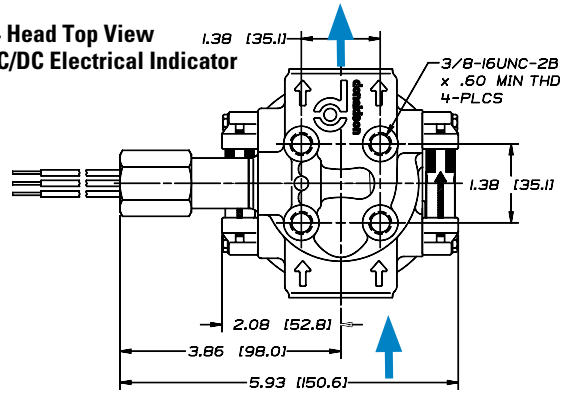


HEAD - TOP & SIDE VIEWS

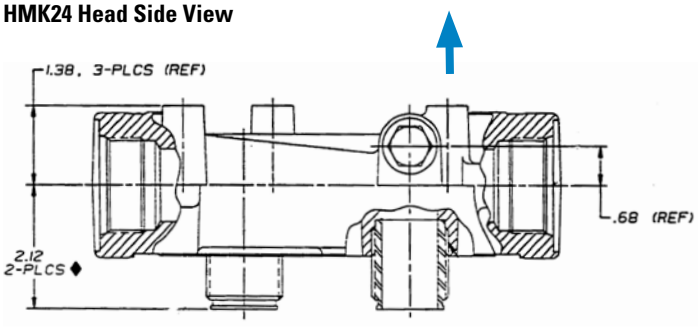
HMK04 Head Top View with DC Electrical Indicator



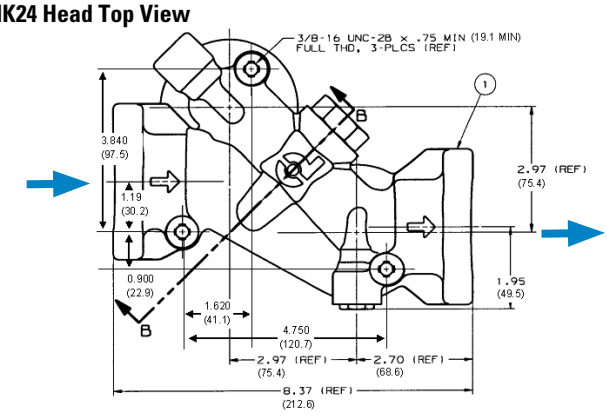
HMK04 Head Top View with AC/DC Electrical Indicator



HMK24 Head Side View



HMK24 Head Top View



HMK04/24

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

Donaldson FILTRATION SOLUTIONS

HMK04/24 Components

Filter Choices

Media Type	$\alpha_{x(c)} = 1000$ Rating based on ISO 23369	$\beta_{x(c)} = 2$ Rating based on ISO 16889	$\beta_{x(c)} = 1000$ Rating based on ISO 16889	Length in	Length mm	Part No.	Comments
Synteq Synthetic			<4 µm	9.4	240	P165185	[1]Fluorocarbon O-Ring. Compatible with water glycol
			6 µm	5.97	152	P165354	
			6 µm	9.4	240	P165332	
Alpha-Web	10 µm			5.97	152	DBH3542	
Synteq Synthetic			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]Fluorocarbon O-Ring. Compatible with water glycol
			14 µm	9.4	240	P177047	
			22 µm	9.4	240	P164059	[1]Fluorocarbon O-Ring. Compatible with water glycol
			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	

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 nitrile are appropriate for most applications involving petroleum oil. Filters with seals made of fluorocarbon 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.



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

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

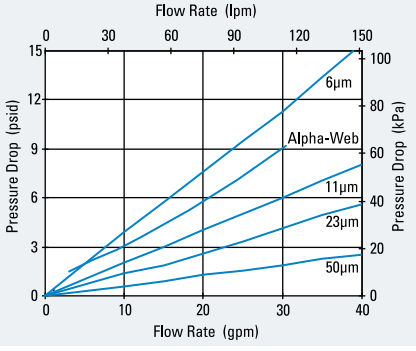
[1]Reference illustration on next page for service indicator styles.

Parallel Flow

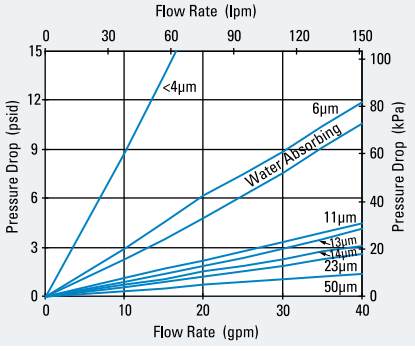


Performance Data

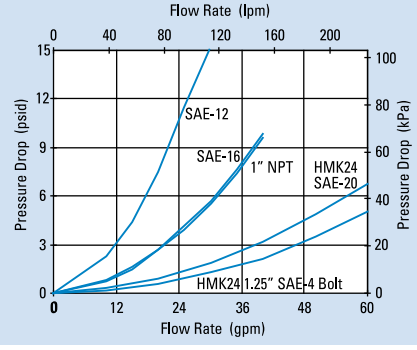
HMK04 Filter Only
(Synthetic, 6"/152mm)



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

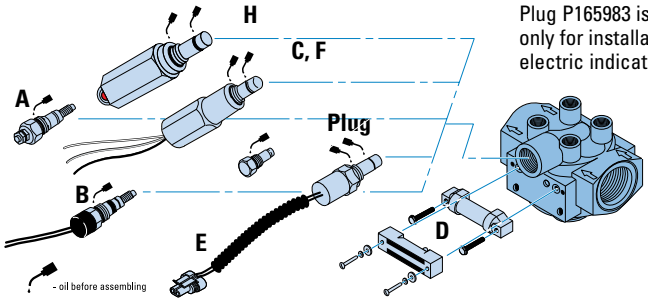


HMK04/24 Head Only



Head Choices for HMK04 (single)

Port Size	Bypass Rating	Standard Indicator Style & Location[1,2]	Indicator Options	Head Part No.
¾" NPT	25 psi / 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 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
[1]All electric models have a maximum operating temperature of 250°F / 121°C.
[2]All non-electric models have a maximum operating temperature of 180°F / 82°C.
[3]Complete details on all service indicators can be found in the accessories section..

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



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

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]	Description
Electric Models[1]			
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)

Donaldson FILTRATION SOLUTIONS

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: 50 gpm / 189 lpm

HMK25: 100 gpm / 379 lpm

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



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. Nitrile seals are standard. Fluorocarbon 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 1¼" NPT
- HMK05 SAE-20 O-Ring
- HMK25 1½" NPT
- HMK25 SAE-24 O-Ring
- HMK25 1½" 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)

Filter Collapse Ratings
- 200 psi / 13.8 bar

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 Head Construction
- Standard Head Cast Aluminum
- Ductile Iron Available in HMK25

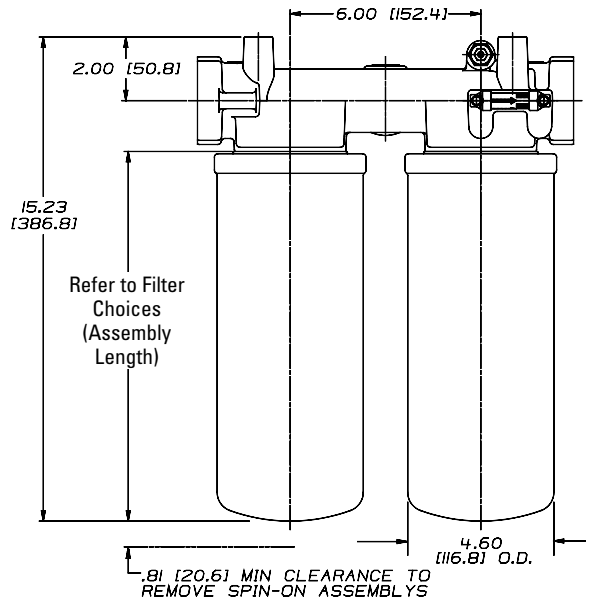
*Per T3.10.17 NFPA

HMK05/25 Specification Illustrations

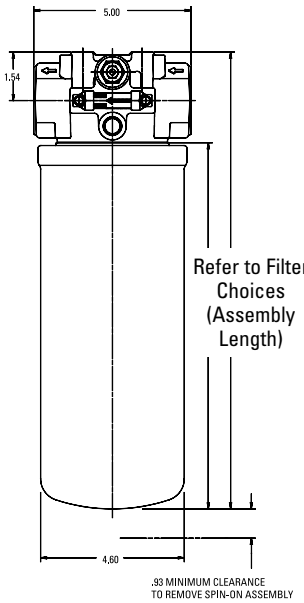
ASSEMBLY - SIDE VIEW

All dimensions are shown in inches [millimeters].

HMK25

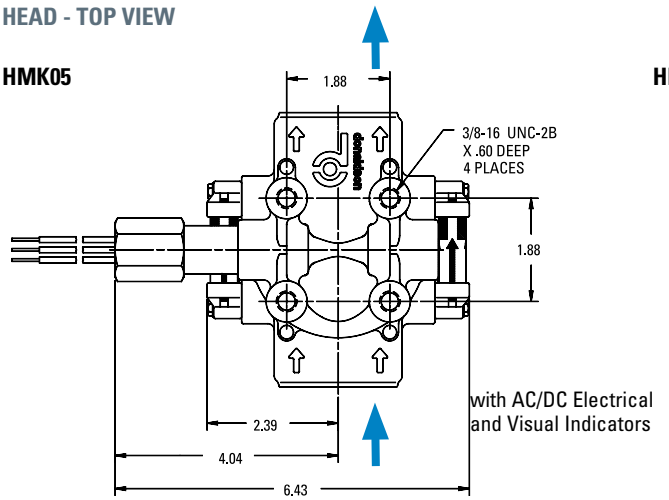


HMK05



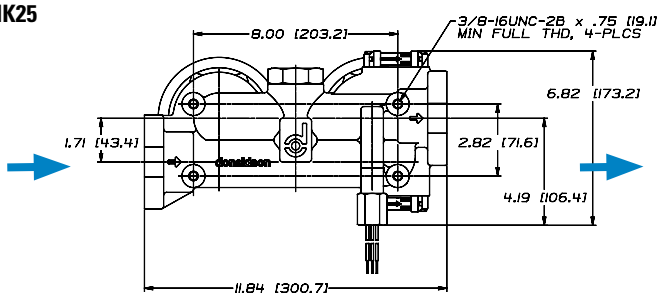
HEAD - TOP VIEW

HMK05

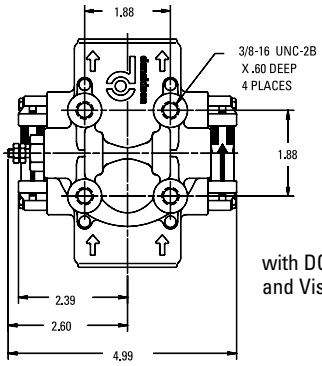


with AC/DC Electrical and Visual Indicators

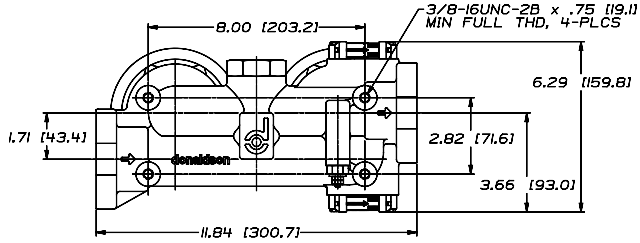
HMK25



with AC/DC Electrical and Visual Indicators



with DC Electrical and Visual Indicators



with DC Electrical and Visual Indicators

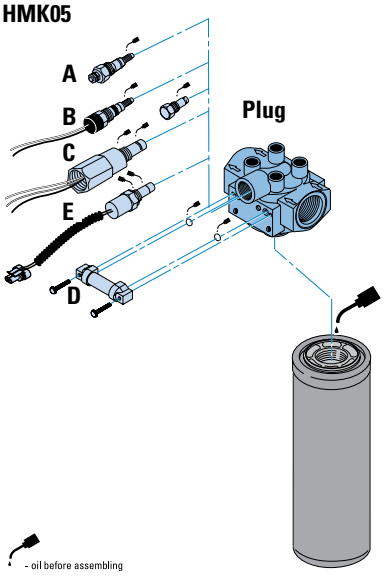
HMK05/25 Components

Filter Choices

Media Type	$\alpha_{x(c)} = 1000$ Rating based on ISO 23369	$\beta_{x(c)} = 2$ Rating based on ISO 16889	$\beta_{x(c)} = 1000$	Length in	Length mm	Part No.	Comments
Synteq Synthetic			<4 µm	14.2	361	P564468	[1]Fluorocarbon, epoxy. Compatible with water glycol.
			6 µm	11.6	294	P165675	
			5 µm	11.6	294	P171274	[1]Fluorocarbon, epoxy. Compatible with water glycol.
			6 µm	14.2	361	P179763	
Alpha-Web	10 µm			14.2	361	DBH0949	
Synteq Synthetic			11 µm	7.6	193	P176207	
			11 µm	11.6	294	P165659	
			13 µm	11.6	294	P573996	[1]Fluorocarbon, epoxy. Compatible with water glycol.
			11 µm	14.2	361	P170949	
			23 µm	7.6	193	P176208	
			23 µm	11.6	294	P165569	
			22 µm	11.6	294	P171276	[1]Fluorocarbon, epoxy. Compatible with water glycol.
			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	

Service Parts

HMK05

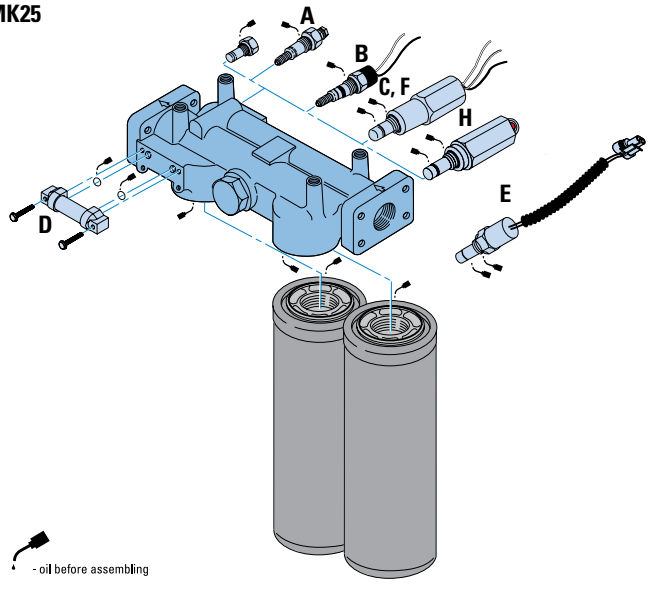


Filter Notes: Refer to table in the Technical Reference Guide for fluid compatibility with our filter media. Thread size is 1 3/4"-12 UNF-2B.
[1]Filters with seals made of nitrile are appropriate for most applications involving petroleum oil. Filters with seals made of fluorocarbon are required when 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.	Style[3]	Description
Electric Models[1]			
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
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)	

HMK25



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

Indicator Notes [1]All electric models have a maximum operating temperature of 250°F/ 114°C. [2]All non-electric models have a maximum operating temperature of 180°F/ 82°C. [3]Complete details on all service indicators can be found in the accessories section.

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
	25 psi / 172 KPa	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
	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 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	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

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
[1]Donaldson uses the inlet port as the reference point. "Left side," for instance, means the indicator mounts on the Left side when you face the inlet port.
[2]May be purchased separately.
[3]Complete details on all service indicators can be found in the accessories section.



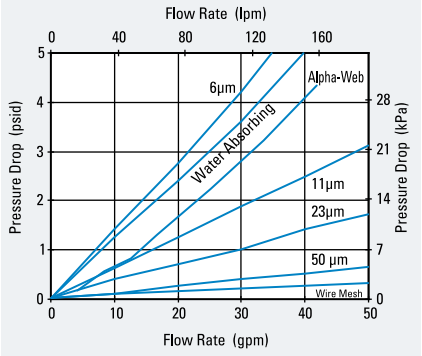
3-Port Head

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.

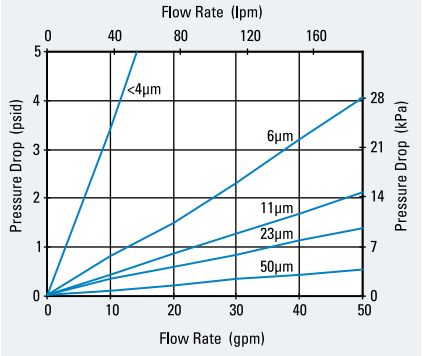
NOTE:
Lubricate filter-to-head threads when installing new filter to prevent thread damage. Heavyweight gear lube is recommended.

Performance Data

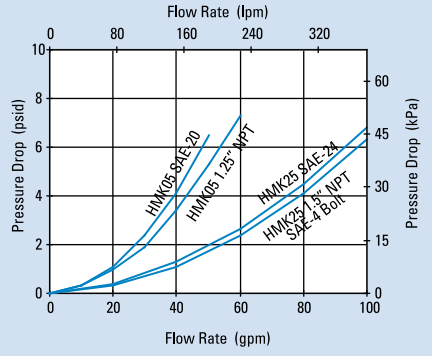
HMK05 Filter Only
(Synthetic, 11.6"/294mm)



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



HMK05/25 Head Only



HNK04/05

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

Donaldson FILTRATION SOLUTIONS

HNK04/05 DURAMAX® Spin-On Filters

Working Pressures to:

HNK04: 500 psi / 3450 kPa / 34.5 bar
HNK05: 350 psi / 2415 kPa / 24.1 bar

Rated Static Burst to:

HNK04: 1000 psi / 6895 kPa / 69 bar
HNK05: 800 psi / 5515 kPa / 55 bar

Flow Range To:

HNK04: 35 gpm / 133 lpm
HNK05: 50 gpm / 189 lpm

Applications

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



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 Filter Lengths

- 04 short: 5.97" / 151.7mm
- 04 long: 9.44" / 239.8mm
- 05 short: 11.63" / 295.4mm
- 05 long: 14.24" / 361.7mm

Standard Bypass Ratings

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

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)

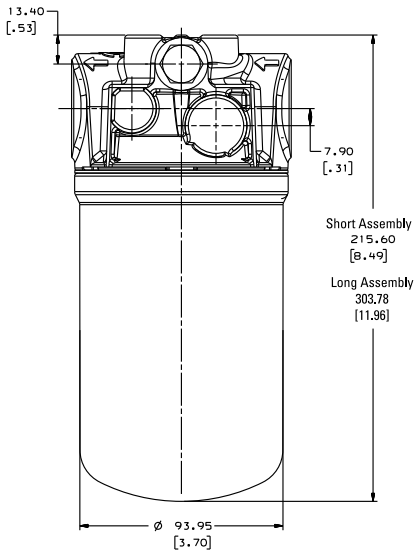
Filter Collapse Ratings

- 235 psi / 1621 kPa / 16.2 bar

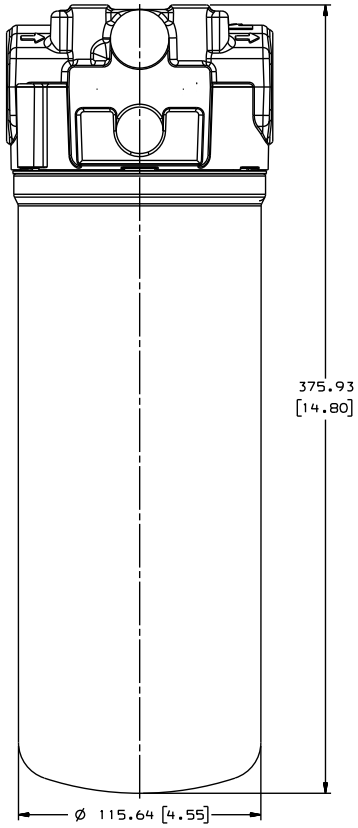
HNK04/05 Specification Illustrations

HNK04 SPIN-ON ASSEMBLY - SIDE VIEW

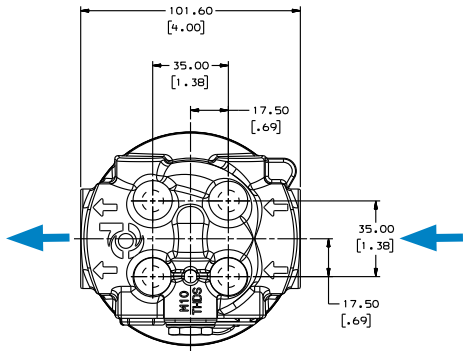
All dimensions are shown in inches [millimeters].



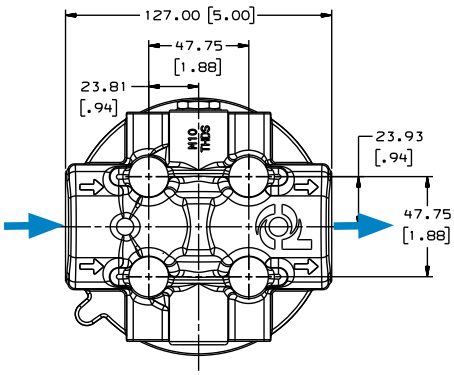
HNK05 SPIN-ON ASSEMBLY - SIDE VIEW



HNK04 HEAD - TOP VIEW



HNK05 HEAD - TOP VIEW



HNK04/05 Components

Filter Choices for HNK04

Media Type	$\beta_{x(c)} = 1000$	Length		Part No.
	Rating based on ISO 16889	in	mm	
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
	23 µm	9.44	239.8	P576047

Filter Choices for HNK05

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

Head Choices for HNK04

Port Size	Bypass Rating	Part No.	Indicators	Style	Mounting Threads
SAE-12	50 psi / 3.5 bar	P568856	none	optional elect.	M10x1.5-6H
SAE-12	No bypass	P568857	none	optional elect.	M10x1.5-6H
SAE-16	50 psi / 3.5 bar	P568858	none	optional elect.	M10x1.5-6H
SAE-16	No bypass	P568859	none	optional elect.	M10x1.5-6H

Head Choices for HNK05

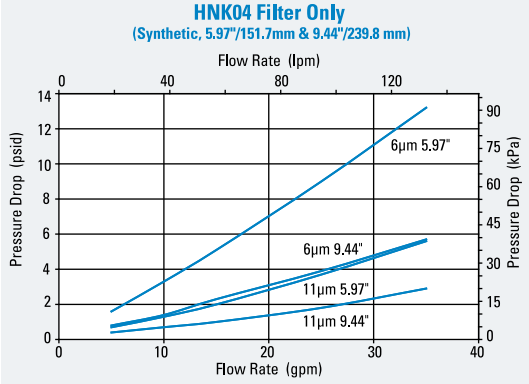
Port Size	Bypass Rating	Part No.	Indicators	Style	Mounting Threads
SAE-20	50 psi / 3.5 bar	P568860	none	optional elect.	M10x1.5-6H
SAE-20	No bypass	P568861	none	optional elect.	M10x1.5-6H

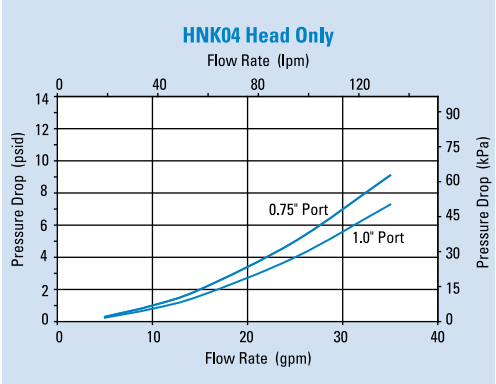


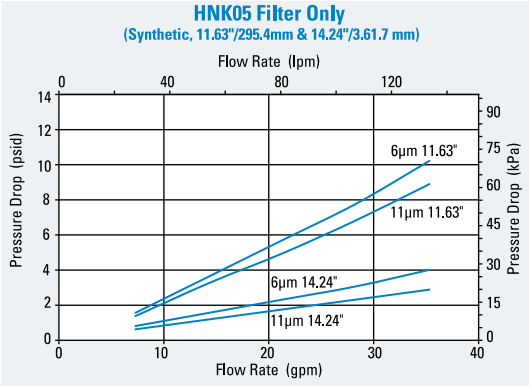
Indicator Choices

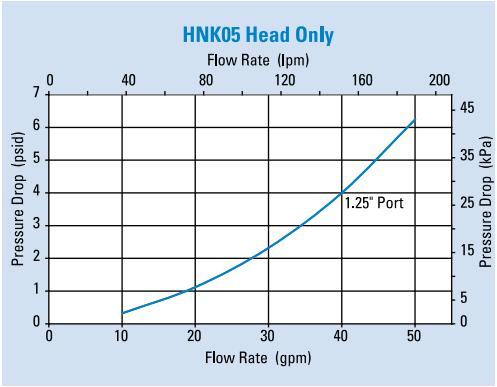
Set Point/Type	Part No.	Description
50 psi / 345 kPa	P165194	Electric Single post DC
25 psi / 172 kPa	P575334	Visual Indicator, Pop up
50 psi / 345 kPa	P575335	Visual Indicator, Pop up

Performance Data

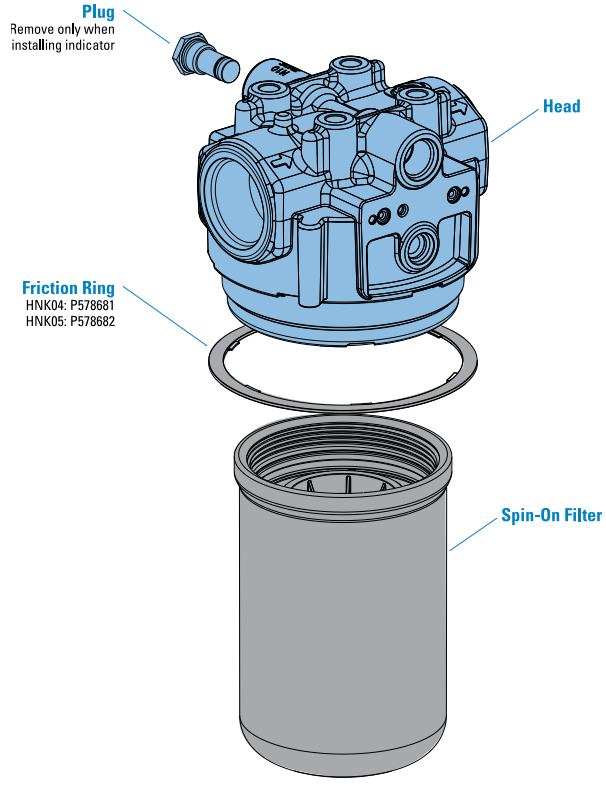


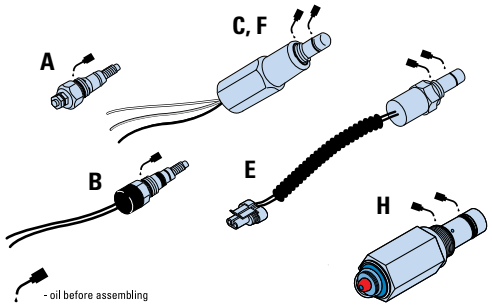






Service Parts





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.

Features

The FLK assembly is a robust, reusable housing with a disposable cartridge design. The versatile filter head accommodates multiple housing lengths. Raised hand grips make it easy to remove the housing from the head without special servicing tools. The oil drain port on the bottom of the housing allows cleaner, easier servicing. The filter tabs lock into place – simplifying positioning during reassembly.

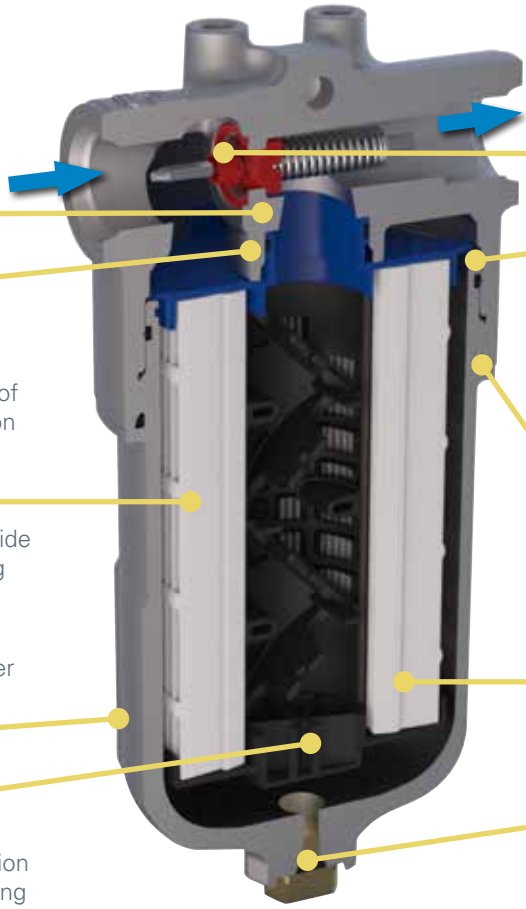
A unique sealing technology protects systems from harmful ingressed contaminants and cross contamination. The RadialSeal™ interface increases surface area to provide a robust connection with superior vibration resistance. Extended surface area gives advanced filtration performance. Donaldson's proprietary Synteq™ media technology delivers better pressure drop and contaminant holding capacity than standard filter media.

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



Locking Grab Handles

Cleaner, easier servicing



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

RadialSeal™ Sealing Technology

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

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

Anti-dust Seal

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

Industrial Hand Grips

No special servicing tools needed

Synteq 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

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

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 paste.

Beta Rating
- Performance to $\beta_{<6(c)}$=1000

Porting Size Options
- SAE-12 O-Ring
- SAE-16 O-Ring

Replacement Filter Lengths
- 4.21" / 107mm
- 8.23" / 209mm

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)

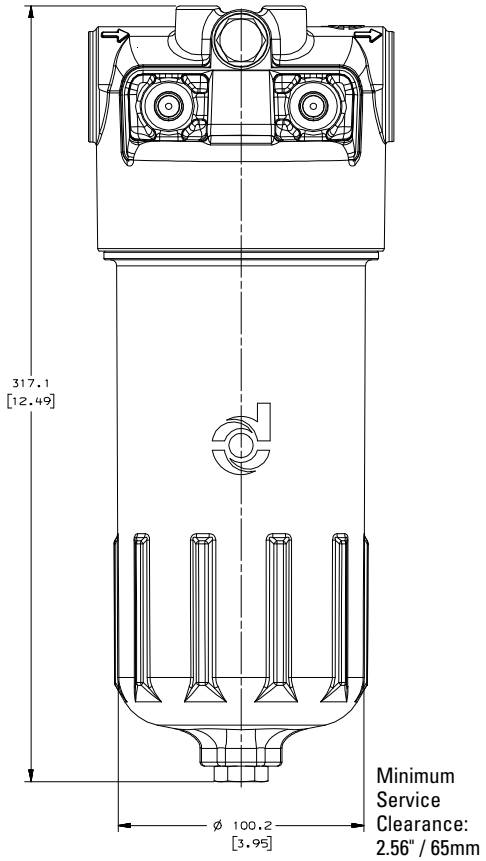
FLK90
Max Flow: 40 gpm (151 lpm)

Donaldson FILTRATION SOLUTIONS

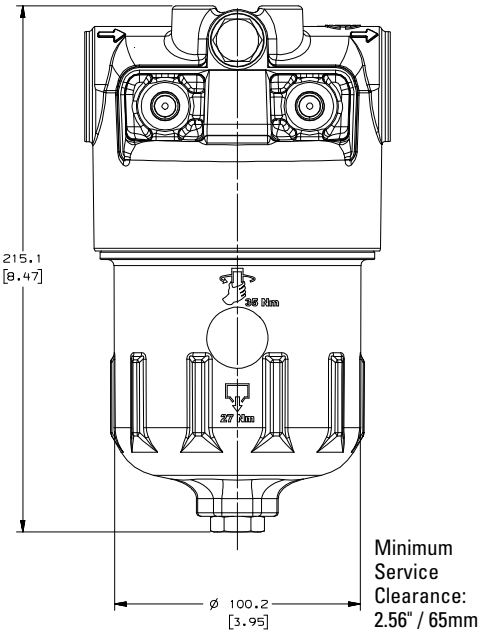
FLK Specification Illustrations

LONG ASSEMBLY - SIDE VIEW

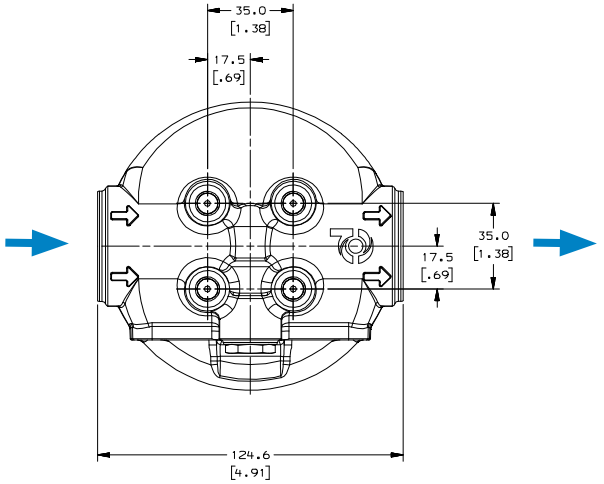
All dimensions are shown in millimeters [inches].



SHORT ASSEMBLY - SIDE VIEW



HEAD - TOP VIEW



FLK90 Components

Filter Choices

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

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

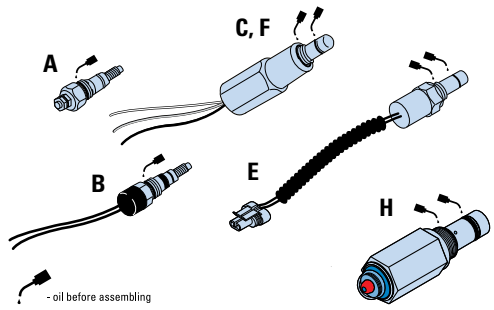
Housing Choices

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

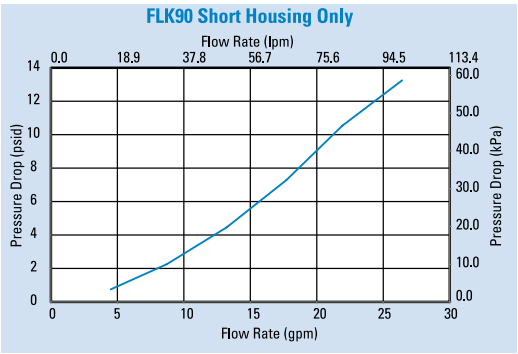
Service Indicator Choices

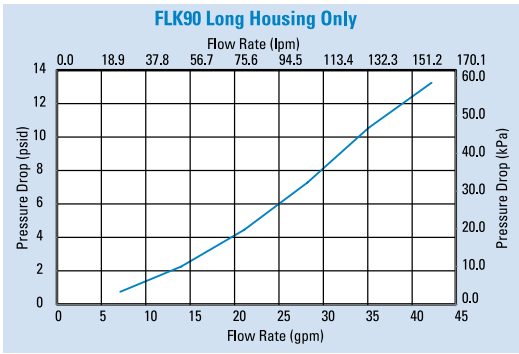
Use with Bypass Valve Pressure of:	Indicator Part No.	Style[2]	Description
Electric Models[1]			
50 psi / 345 kPa	P165194	A	Single post DC. N.O.
50 psi / 345 kPa	P574968	B	DC 2-wire.
50 psi / 345 kPa	P574967	E	DC 2-wire.
50 psi / 345 kPa	P575549	F	DC 3-wire.
50 psi / 345 kPa	P174396	C	AC/DC 3-wire.
25 psi / 172.5 kPa	P575334	H	Visual pop up
50 psi / 345 kPa	P575335	H	Visual pop up

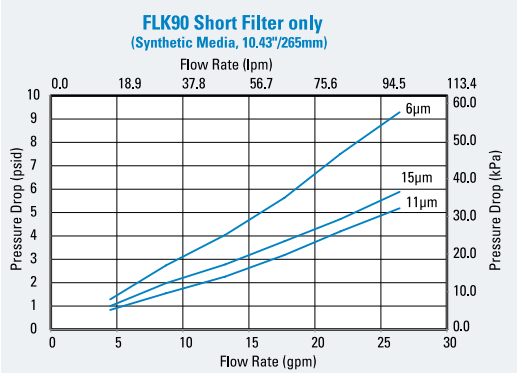
Indicator Notes
[1]All electric models have a maximum operating temperature of 250°F / 121°C.
[2]Complete details on all service indicators can be found in the accessories section.

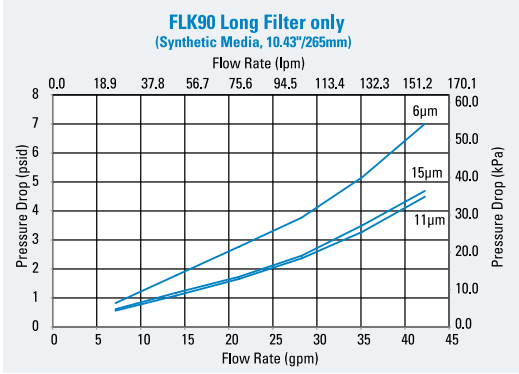


Performance Data









FLK110
Max Flow: 42 gpm (159 lpm)

Donaldson FILTRATION SOLUTIONS

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

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 paste.

Beta Rating
- Performance to $\beta_{<6(c)}$=1000

Porting Size Options
- SAE-20 O-Ring

Replacement Filter Lengths
- 7.4" / 187.9mm
- 10.43" / 264.9mm

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

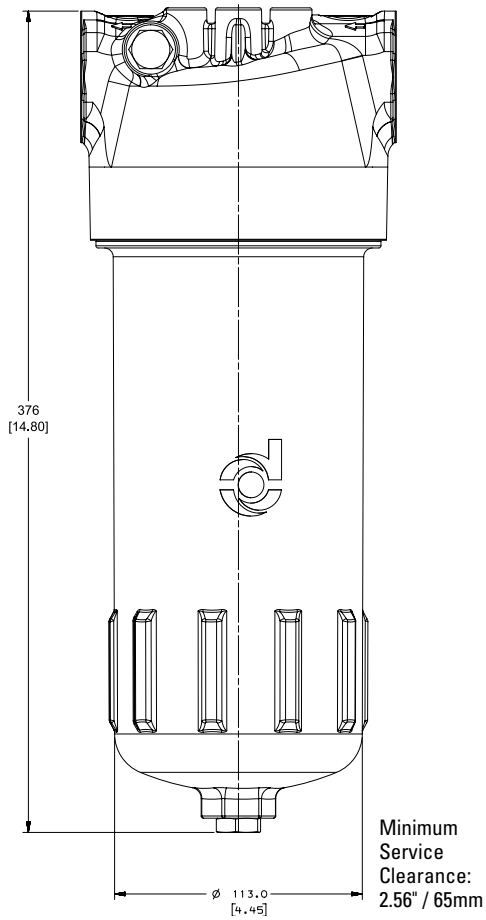
Operating Temperatures
- -40° to 250°F (-40° to 121°C)

Filter Collapse Ratings
- 145 psid / 1000 kPa / 10 bar (standard)

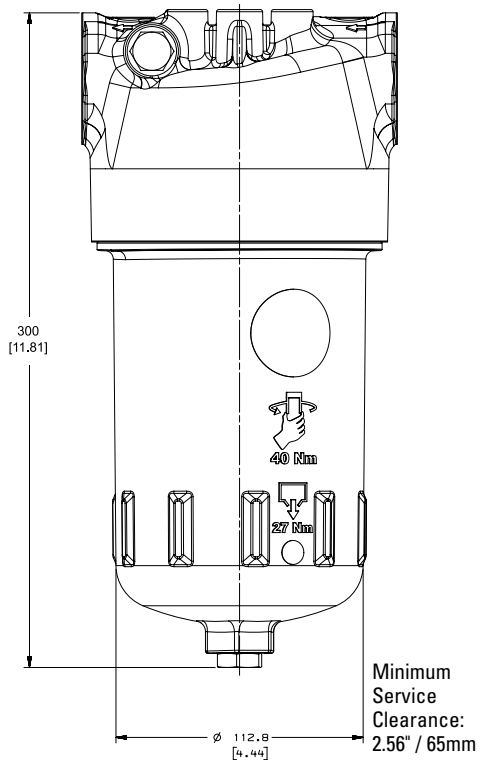
FLK Specification Illustrations

LONG ASSEMBLY - SIDE VIEW

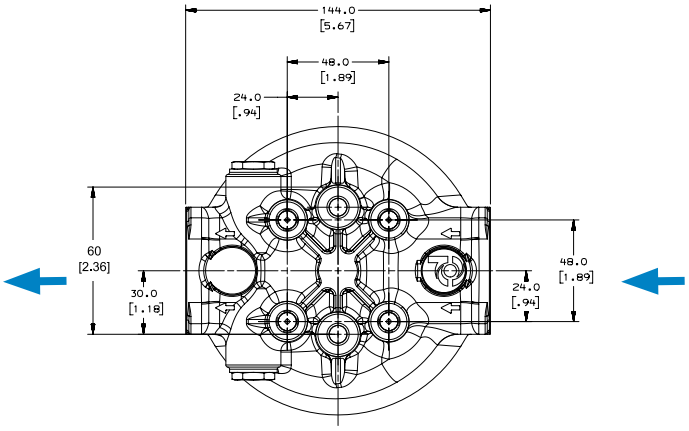
All dimensions are shown in millimeters [inches].



SHORT ASSEMBLY - SIDE VIEW



HEAD - TOP VIEW



FLK110
Max Flow: 42 gpm (159 lpm)

Donaldson FILTRATION SOLUTIONS

FLK110 Components

Filter Choices

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

Head Choices

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

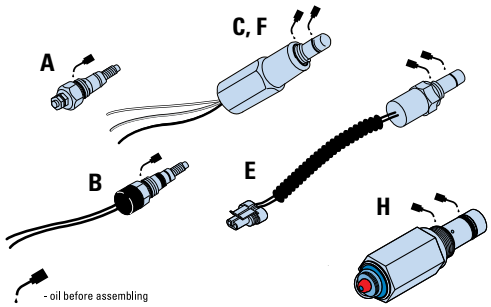
Housing Choices

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

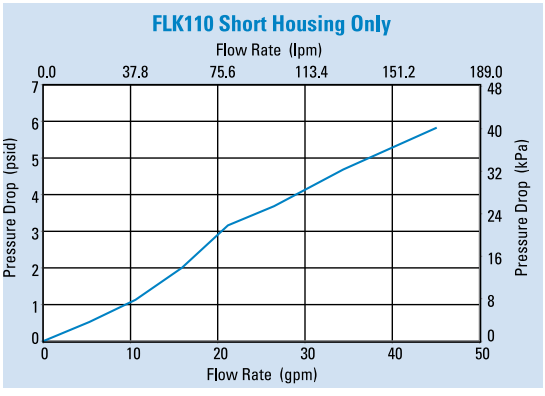
Service Indicator Choices

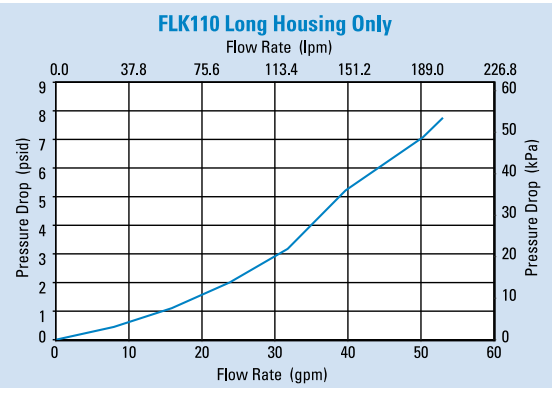
Use with Bypass Valve Pressure of:	Indicator Part No.	Style[2]	Description
Electric Models[1]			
50 psi / 345 kPa	P165194	A	Single post DC. N.O.
50 psi / 345 kPa	P574968	B	DC 2-wire
50 psi / 345 kPa	P574967	E	DC 2-wire
50 psi / 345 kPa	P575549	F	DC 3-wire
50 psi / 345 kPa	P174396	C	AC/DC 3-wire
25 psi / 172.5 kPa	P575334	H	Visual pop up
50 psi / 345 kPa	P575335	H	Visual pop up

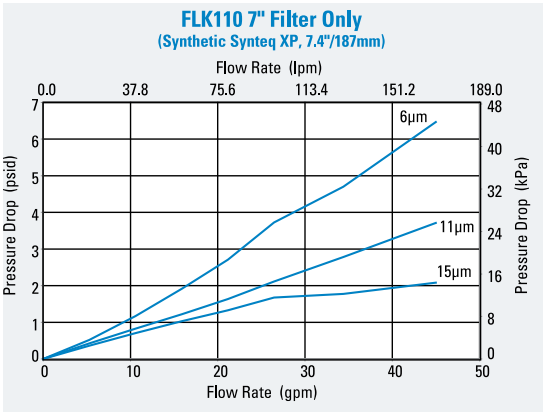
Indicator Notes
[1]All electric models have a maximum operating temperature of 250°F / 121°C.
[2]Complete details on all service indicators can be found in the accessories section.

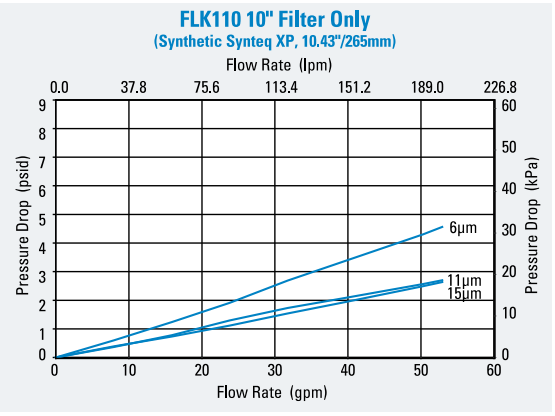


Performance Data









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 paste.

Beta Rating
- Performance to $\beta_{<6(c)}$=1000

Porting Size Options
- 2" SAE 4 Bolt Flange Code 61

Replacement Filter Lengths
- 10.85" / 275.7mm

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)

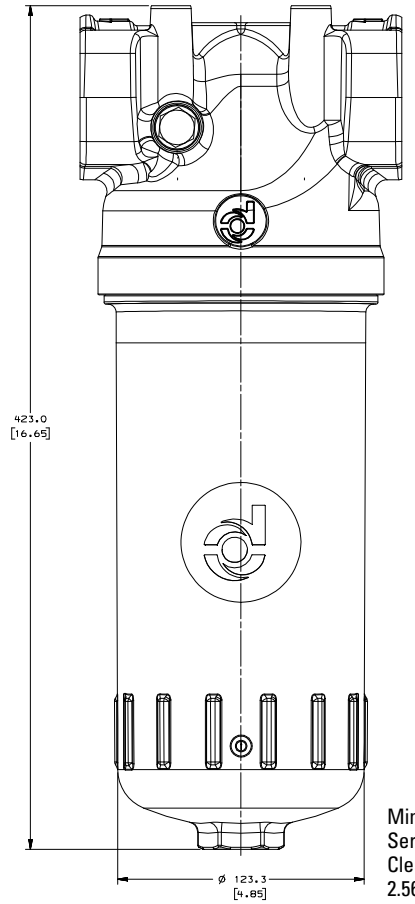
Filter Collapse Ratings
- 145 psid / 1000 kPa / 10 bar (standard)

FLK125
Max Flow: 85 gpm (322 lpm)

FLK Specification Illustrations

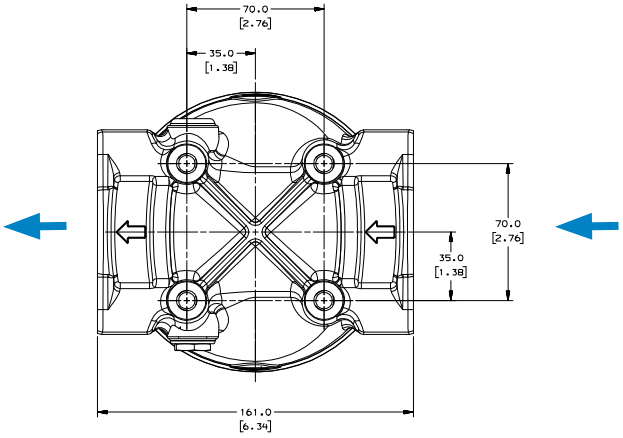
LONG ASSEMBLY - SIDE VIEW

All dimensions are shown in millimeters [inches].



Minimum Service Clearance: 2.56" / 65mm

HEAD - TOP VIEW



FLK125 Components

Filter Choices

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

Head Choices

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

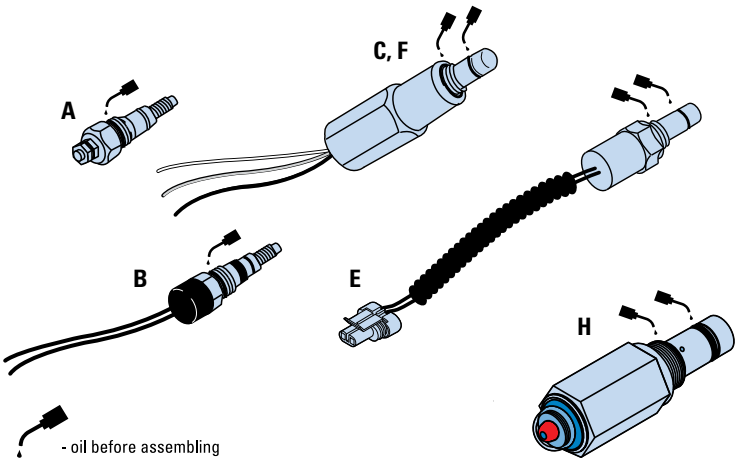
Housing Choices

Part No.	Comments
P767089	Long length assembly

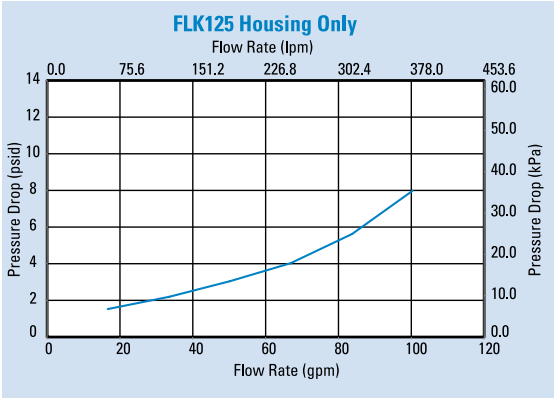
Service Indicator Choices

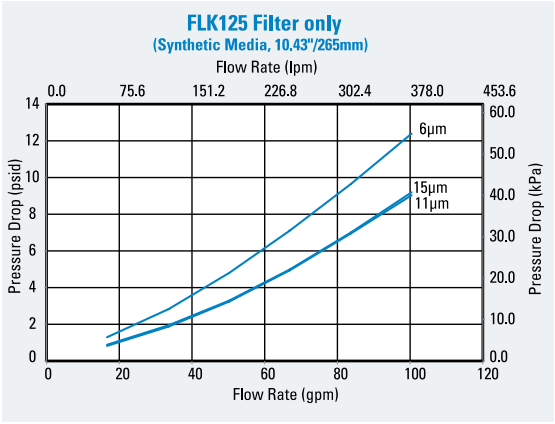
Use with Bypass Valve Pressure of:	Indicator Part No.	Style[2]	Description
Electric Models[1]			
50 psi / 345 kPa	P165194	A	Single post DC. N.O.
50 psi / 345 kPa	P574968	B	DC 2-wire
50 psi / 345 kPa	P574967	E	DC 2-wire
50 psi / 345 kPa	P575549	F	DC 3-wire
50 psi / 345 kPa	P174396	C	AC/DC 3-wire
25 psi / 172.5 kPa	P575334	H	Visual pop up
50 psi / 345 kPa	P575335	H	Visual pop up

Indicator Notes
[1]All electric models have a maximum operating temperature of 250°F / 121°C.
[2]Complete 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 housings 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
- Housing 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
- 1-½" SAE 4-Bolt Flange Code 61

Replacement Filter Lengths
- 14.62" / 371mm

Standard Bypass Ratings
- 50 psi / 345 kPa / 3.5 bar
- No bypass

Assembly Weight
- 44 lbs / 20 kg

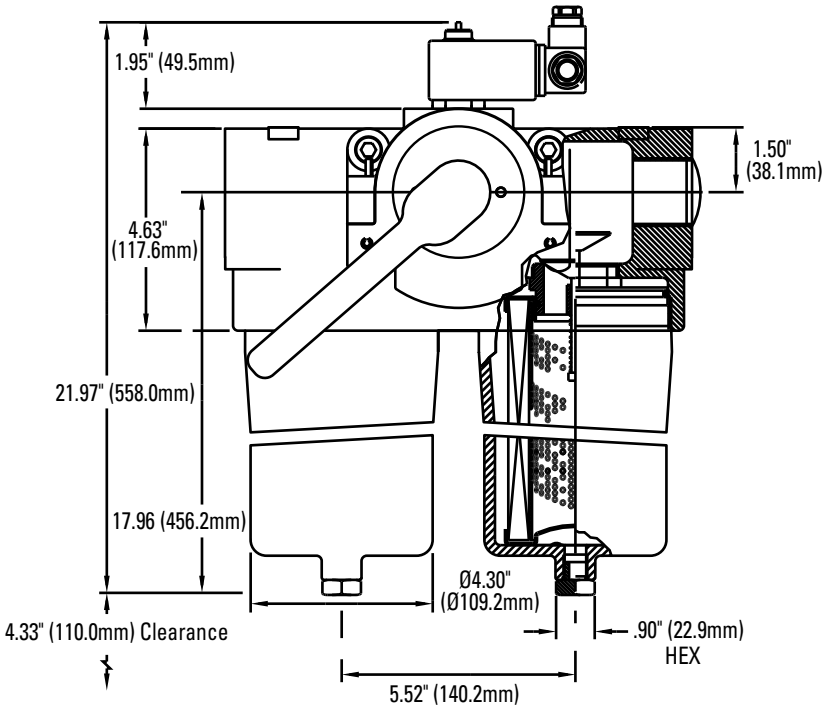
Operating Temperatures
- -40° to 250°F (-40° to 121°C)

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

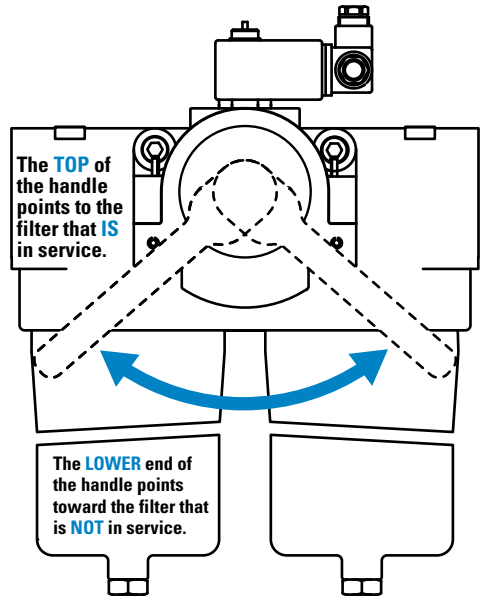
DPK350 Specification Illustrations

ASSEMBLY - SIDE VIEW

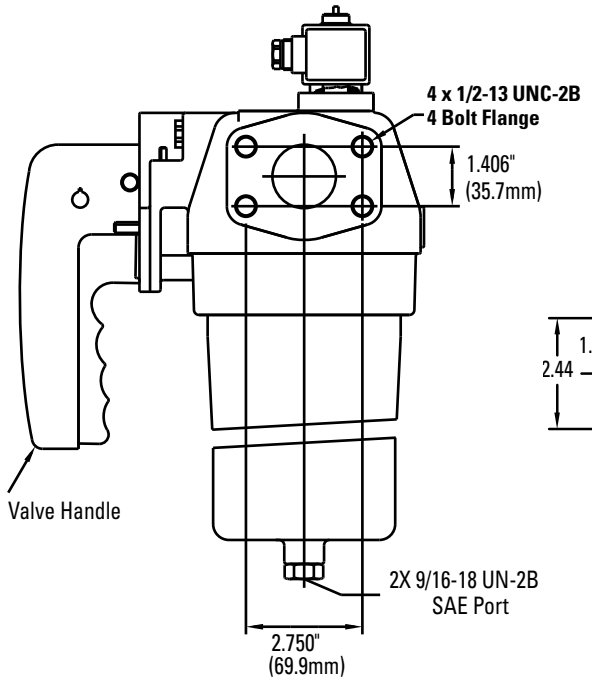
All dimensions are shown in millimeters [inches].

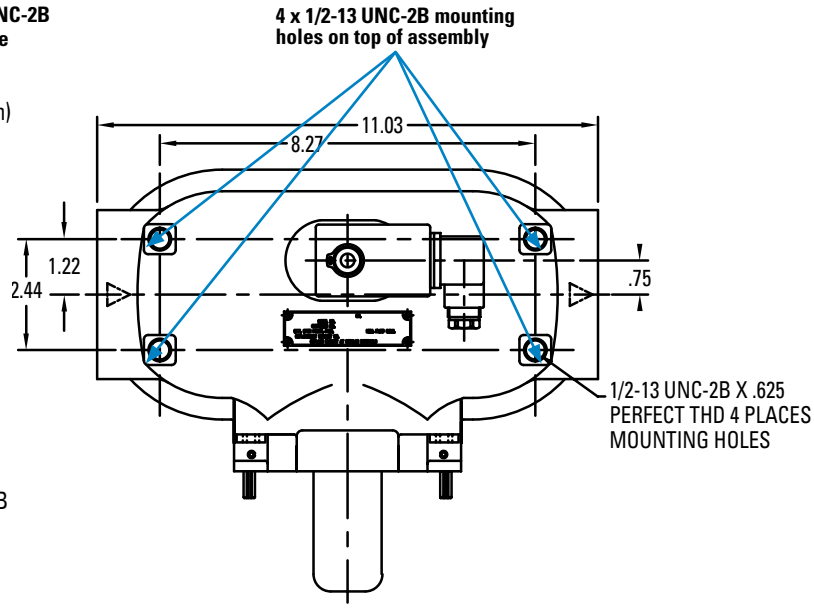


The handle shifts fluid flow from one filter to the other.



HEAD - TOP VIEW





DPK350 Components

Filter Choices

Media Type	$\beta_{x(c)} = 1000$ Rating based on ISO 16889	Length		Part No.	Comments
		in	mm		
DT Synthetic	5 µm	14.62	371	P567101	
	5 µm	14.69	373	P560716	High collapse
	8 µm	14.62	371	P567102	
	12 µm	14.62	371	P567103	
	23 µm	14.62	371	P567104	
	27 µm	14.69	373	P560718	High collapse

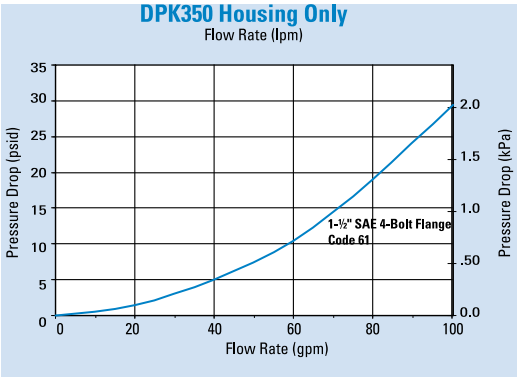
Assembly Choices

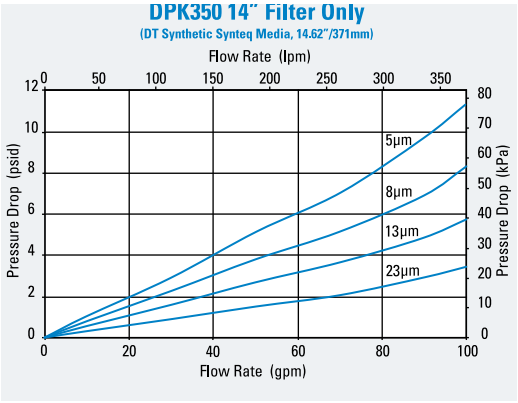
Part No.	Port Connections	Bypass Valve	Comments
P577024	1-½" SAE 4-bolt flange code 61	No bypass	Filter elements not included with assembly.
P577025	1-½" SAE 4-bolt flange code 61	50 psi (3.4 bar) bypass	Filter elements not included with assembly.

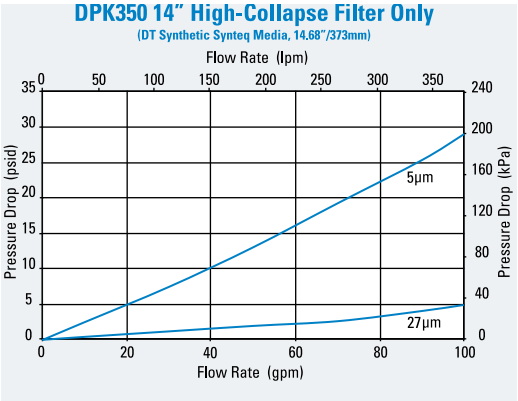
Service Indicator Choices

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

Performance Data







HDK06
Max Flow: 150 gpm (568 lpm)

Donaldson FILTRATION SOLUTIONS

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

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



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. Nitrile 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.

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

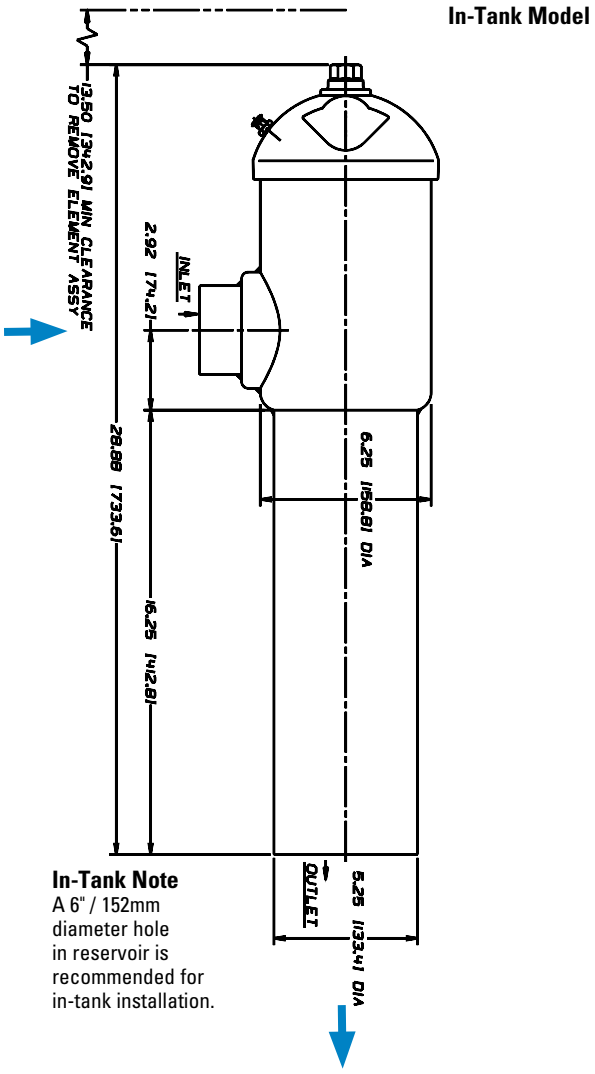
Filter Collapse Ratings
- 100 psid / 690 kPa / 6.9 bar

HDK06 Specification Illustrations

ASSEMBLY - SIDE VIEW

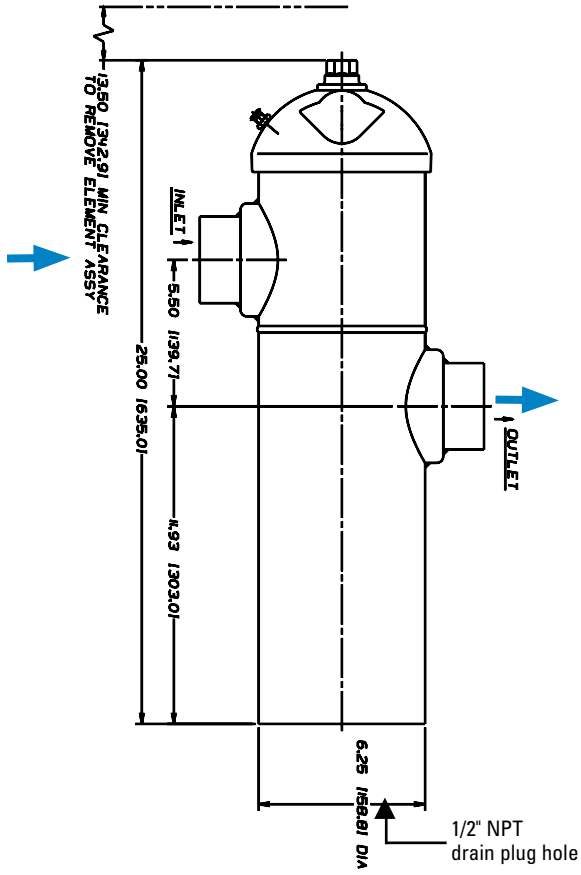
All dimensions are shown in inches [millimeters].

In-Tank Model

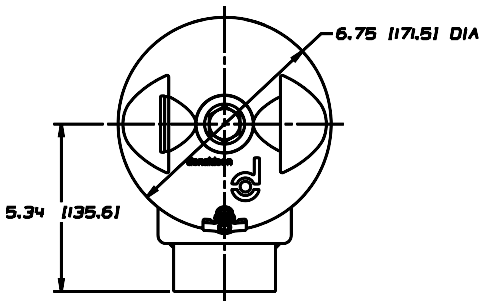


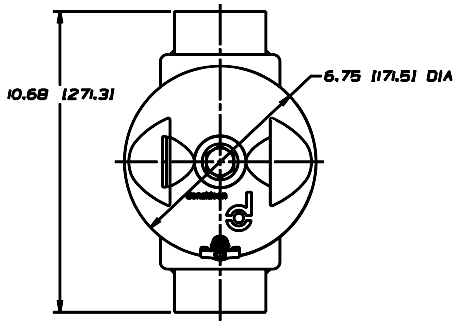
In-Tank Note
A 6" / 152mm diameter hole in reservoir is recommended for in-tank installation.

In-Line Model



HEAD - TOP VIEW





HDK06
Max Flow: 150 gpm (568 lpm)

Donaldson FILTRATION SOLUTIONS

HDK06 Components

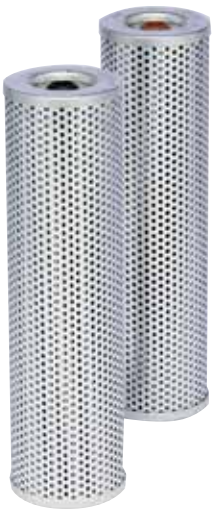
Filter Choices

Media Type	$\beta_{x(c)} = 2$	$\beta_{x(c)} = 1000$	Length		Part No.
	Rating based on ISO 16889		in	mm	
Synteq Synthetic		<4 µm	16.00	406	P161016
		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 nitrile seals, which are appropriate for most applications involving petroleum oil. Filters with seals made of fluorocarbon 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.

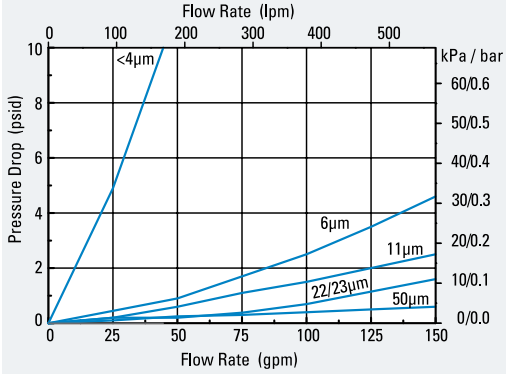
Assembly Choices

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

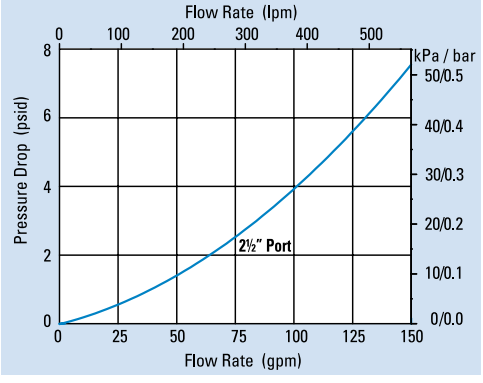


Performance Data

HDK06 Filters Only



HDK06 Head Only



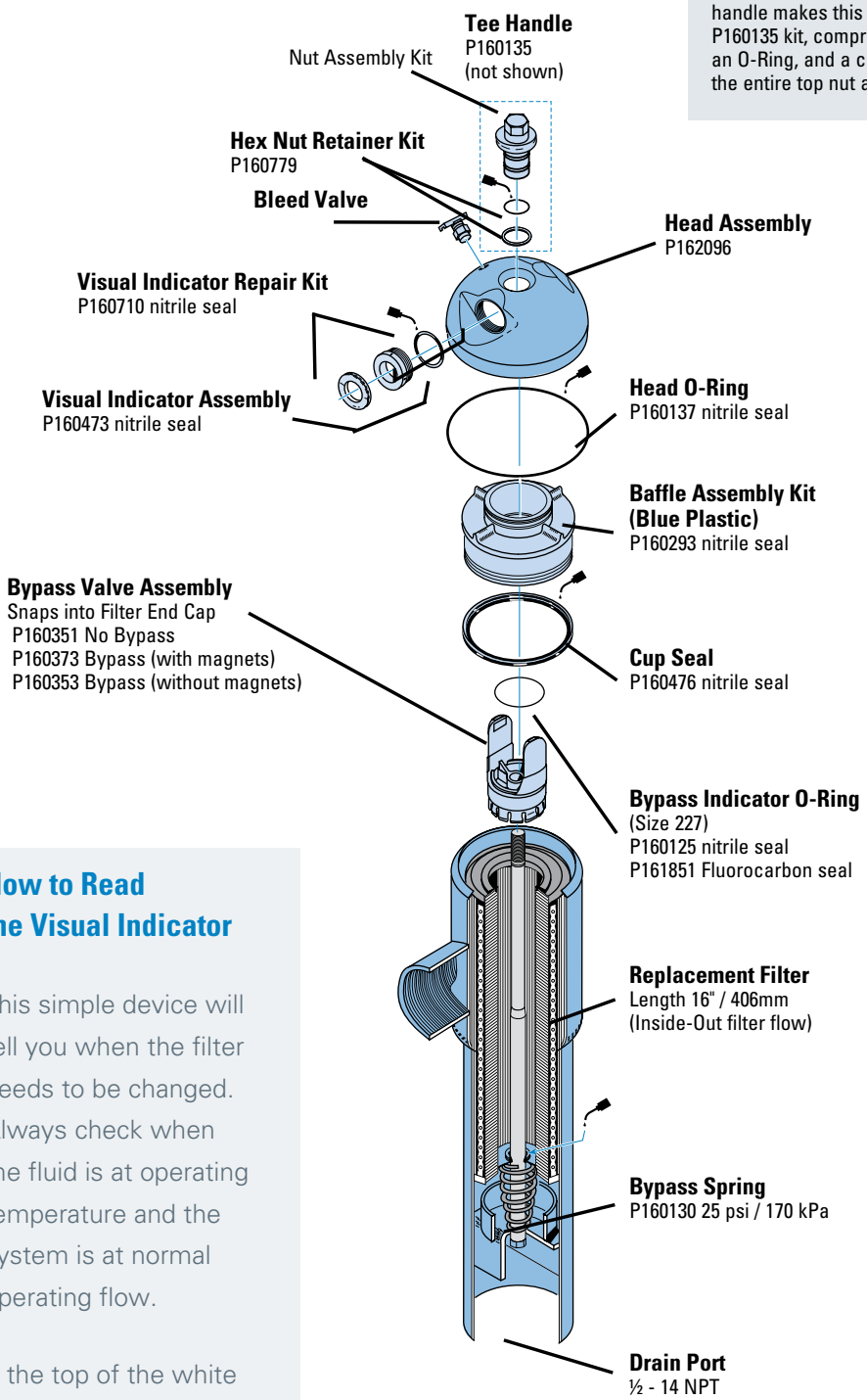
HDK06 Service Parts

SERVICE PARTS NOTE:

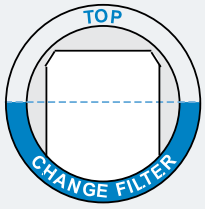
Some service parts may not be stocked. Please contact your Donaldson sales representative for lead time details.

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.

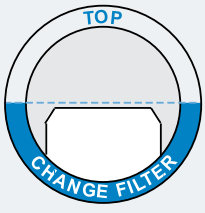


How to Read the Visual Indicator



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.



Filter Needs Service

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

W041

Max Flow: 300 gpm (1135 lpm)

Donaldson FILTRATION SOLUTIONS

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

Porting Size Options
- 2" or 2½"SAE 4-Bolt Flange Code 61

Replacement Filter Lengths
- 16.74" / 425.3mm
- 38.62" / 980.9mm

Standard Bypass Ratings
- 50 psi / 345 kPa / 3.5 bar

Housing Weight
- 16.74": 48.5 lbs / 22.0 kg
- 38.62": 86.2 lbs / 39.2 kg

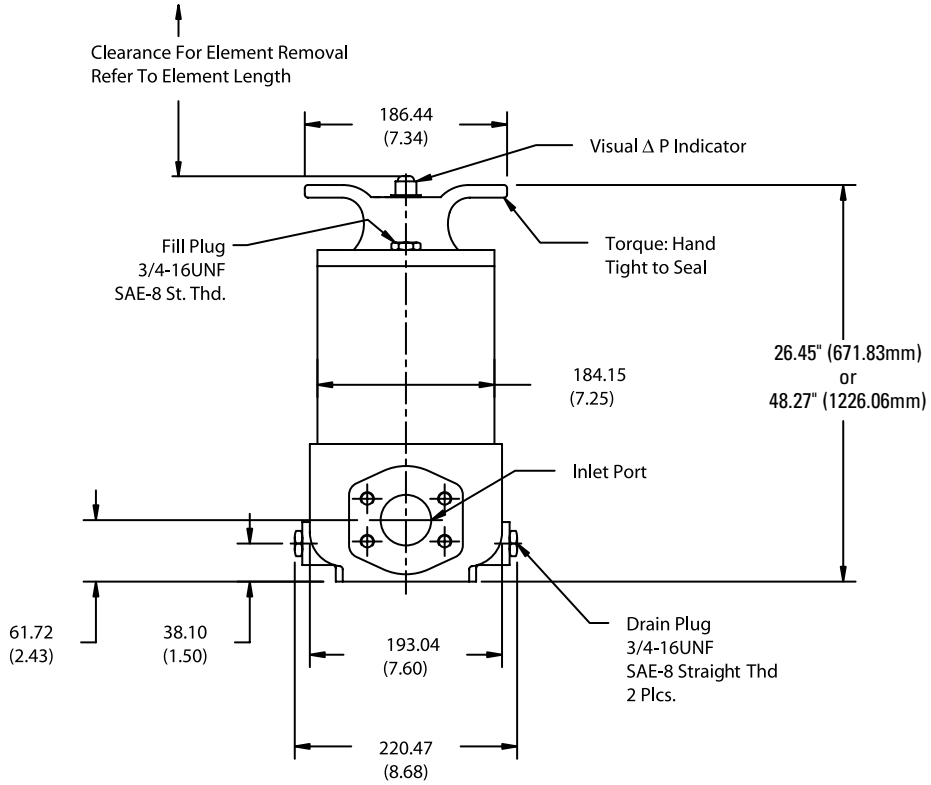
Operating Temperatures
- -20°F to 250°F / -29° to 121°C

Filter Collapse Ratings
- 150 psid / 1034 kPa / 10.3 bar (standard)

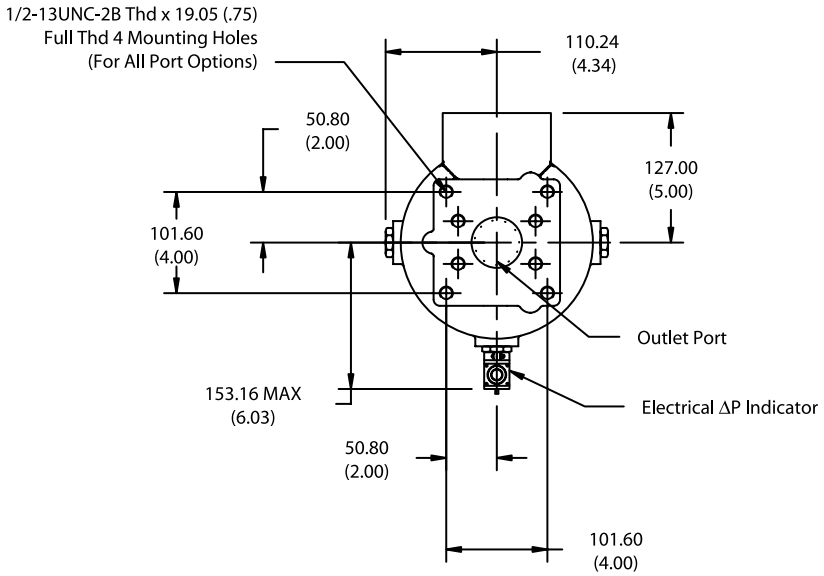
W041 Specification Illustrations

ASSEMBLY - SIDE VIEW

All dimensions are shown in millimeters [inches].



HEAD - BOTTOM VIEW





W041

Max Flow: 300 gpm (1135 lpm)

Donaldson FILTRATION SOLUTIONS

W041 Components

Filter Choices

Media Type	$\beta_{x(c)}$ = 1000 Rating based on ISO 16889	Length		Part No.	Comments
		in	mm		
DT Synthetic	<4 µm	16.74	425	P566239	DT-8300-16-2UM
	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	Absorbs 2,000 ml water @ 25 psid

Filter Notes: All Donaldson DT filters utilize glass fiber media with an acrylic-based resin system for the ultimate in chemical compatibility. All Donaldson DT filters are potted and seam-sealed with acrylic-based adhesives. Standard collapse designs are double wire-backed using acrylic-coated steel mesh for maximum pleat support and dirt capacity. Extended life designs are double wire-backed using acrylic-coated steel mesh. Fluorocarbon seals are standard on all Donaldson DT filters.

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	Fluorocarbon	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	Fluorocarbon	Port Machined & Plugged	39" (990.6mm)	48.27" (1226.1mm)	P574219
2" SAE 4 Bolt Flange Code 61	50 psi / 3.45 bar	Fluorocarbon	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	Fluorocarbon	Port Machined & Plugged	16" (406.4mm)	26.45" (671.8mm)	P575921

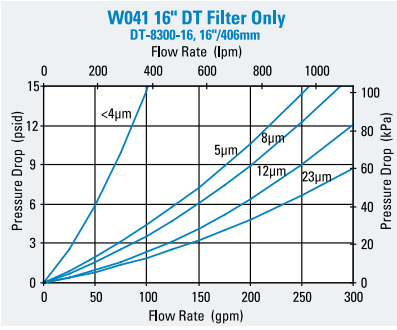
Indicator Choices

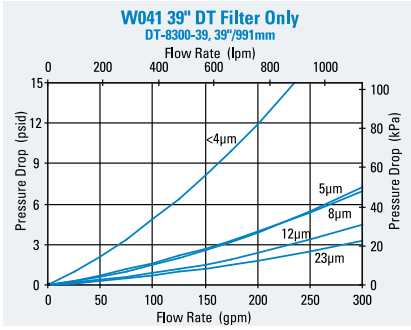
Indicator Pressure Setting	Connector Style	Seal Material	Part No.	Thermal Lockout	Surge Control	Reset
Visual Pop-up Models						
35 psi / 241 kPa	NA	Nitrile	P572347	No	No	Auto
35 psi / 241 kPa	NA	Nitrile	P572348	Yes	Yes	Manual
35 psi / 241 kPa	NA	Fluorocarbon	P567456	Yes	Yes	Manual
Electrical / Visual Models						
35 psi / 241 kPa	Hirschman	Nitrile	P572327	No	No	Auto
35 psi / 241 kPa	Brad Harrison	Nitrile	P572329	No	No	Auto
35 psi / 241 kPa	Hirschman	Nitrile	P572384	Yes	Yes	Manual
35 psi / 241 kPa	Hirschman	Fluorocarbon	P567458	Yes	Yes	Manual
35 psi / 241 kPa	Brad Harrison	Nitrile	P572385	Yes	Yes	Manual
35 psi / 241 kPa	3 wire flying leads	Nitrile	P572349	No	No	Auto
Electrical Models						
35 psi / 241 kPa	Hirschman	Nitrile	P572359	No	No	Auto
35 psi / 241 kPa	Brad Harrison	Nitrile	P572361	No	No	Auto

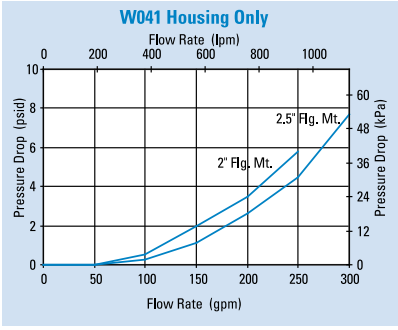
Service Part Choices

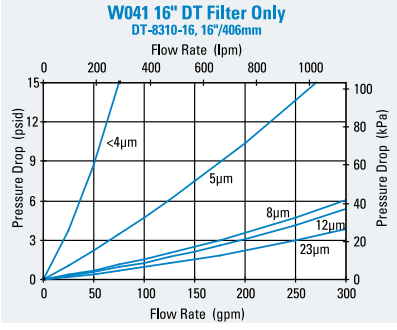
Part No.	Description
X011156	Head/Bowl/Housing Seal Kit - nitrile
X011157	Head/Bowl/Housing Seal Kit - fluorocarbon

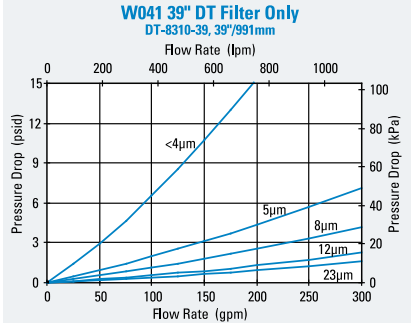
Performance Data











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

Applications

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



In-line model shown

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.

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 Collapse Ratings

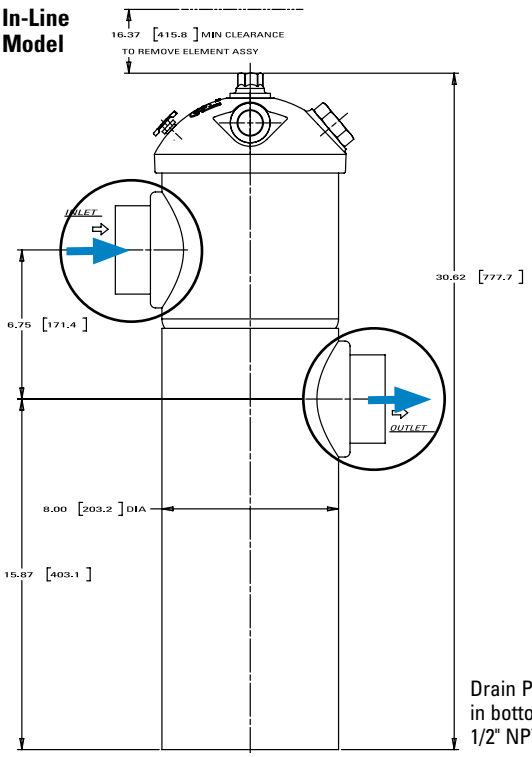
- 75 psi / 517 kPa / 5.2 bar (synthetic)
- 100 psi / 689 kPa / 6.9 bar (wire mesh)

HFK08 Specification Illustrations

ASSEMBLY - SIDE VIEW

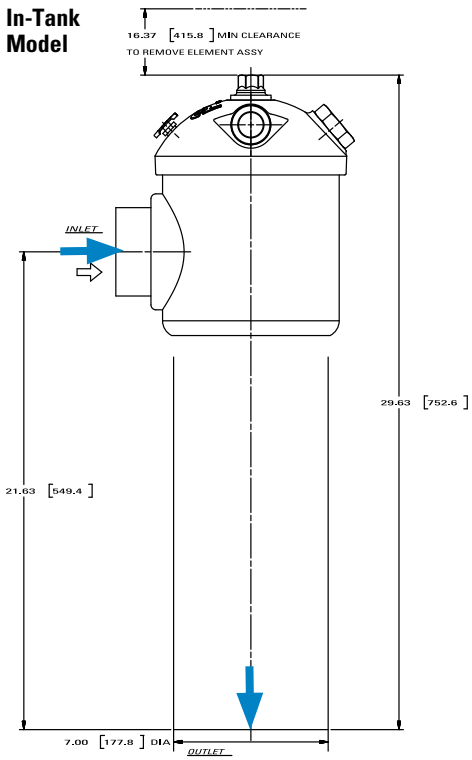
All dimensions are shown in inches [millimeters].

In-Line Model



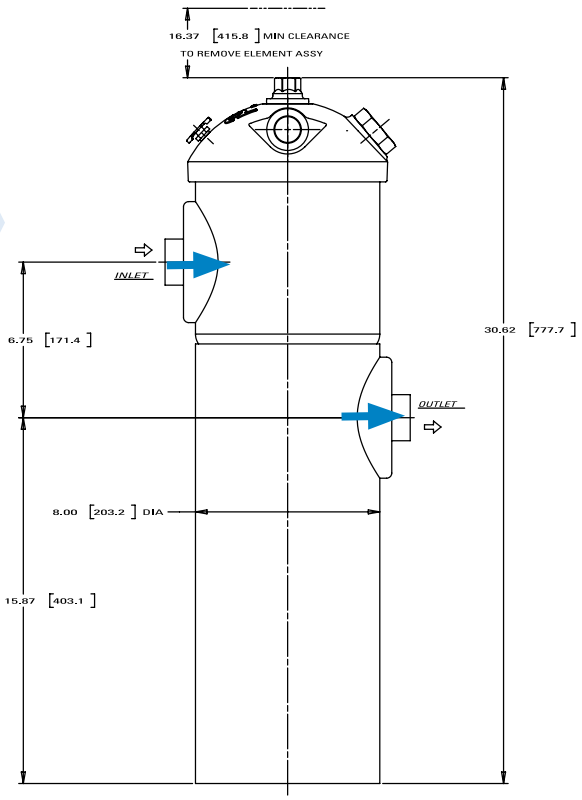
Drain Plug in bottom: 1/2" NPT

In-Tank Model

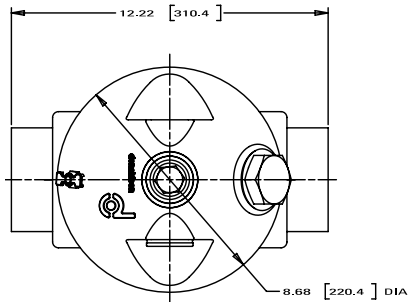


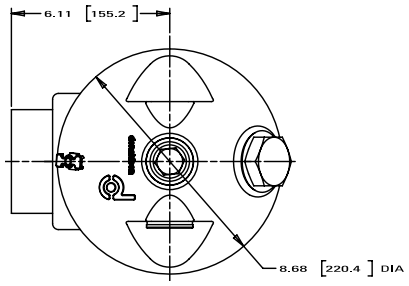
K080087 In-Line Model

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



HEAD - TOP VIEWS





HFK08

Max Flow: 300 gpm (1135 lpm)

Donaldson FILTRATION SOLUTIONS

HFK08 Components

Filter Choices

Media Type	$\beta_{x(c)} = 2$	$\beta_{x(c)} = 1000$	Length		Part No.
	Rating based on ISO 16889		in	mm	
Synteq Synthetic		<4 µm	18.00	457	P164407 fluorocarbon 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

Filter Notes
Standard HFK08 replacement filters have nitrile seals, which are appropriate for most applications involving petroleum oil. Filters with seals made of fluorocarbon 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.

Filter Assemblies

Port Size	Bypass Rating	Indicator Style[1] & 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 fluorocarbon seal
SAE-20	25 psi / 172.5 kPa	Visual, Right side	K080087, In-Line	18"/457mm	P164405

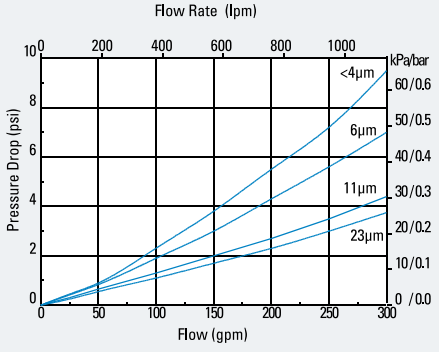
Assembly Notes
[1]Donaldson uses the inlet port as the reference point. "Left side," for instance, means that the indicator mounts on the side of the filter head that is on your left when you face the inlet port.



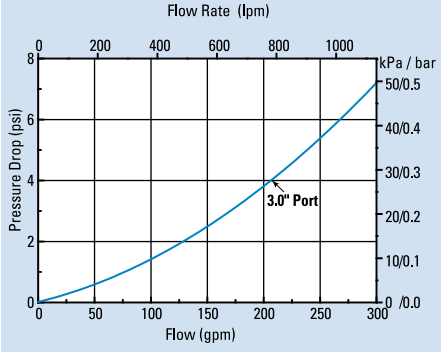
The K080087 model has features that are perfect for kidney loop filtration.

Performance Data

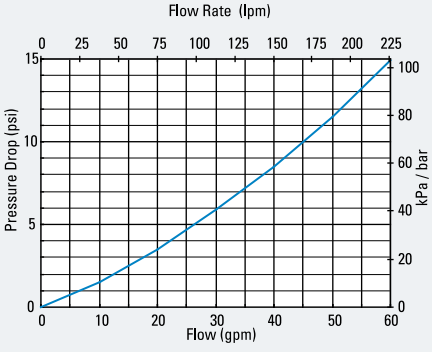
HFK08 Filter Only



HFK08 Housing Only



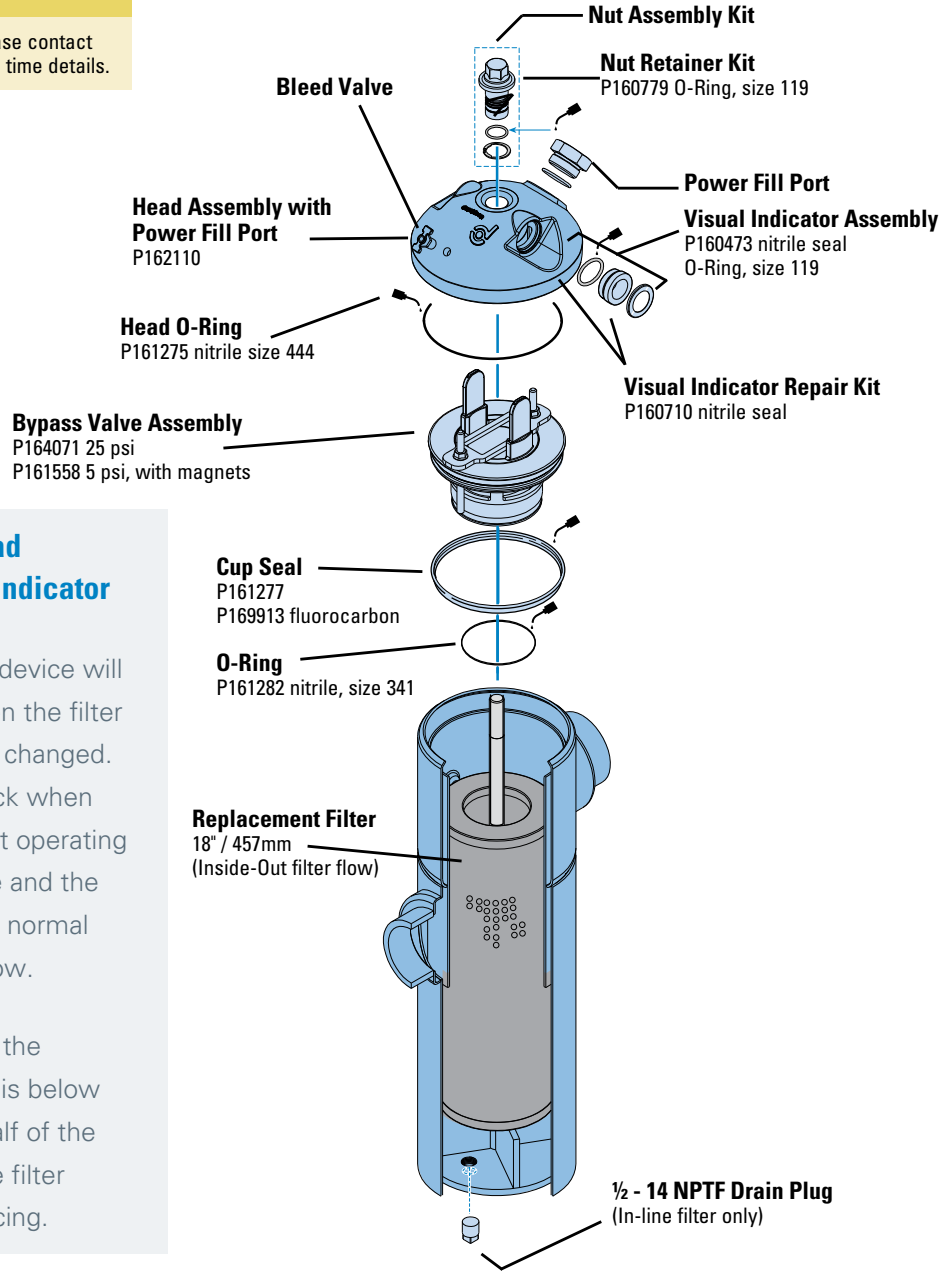
K080087 Assembly (with Filter)

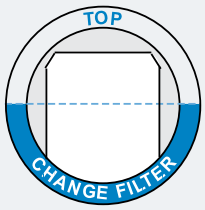


HFK08 Service Parts

SERVICE PARTS NOTE:

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

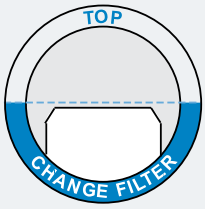




Filter OK

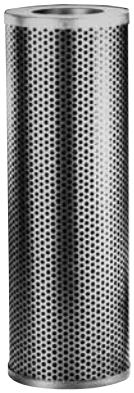
How to Read the Visual Indicator

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.



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

