



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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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 $\beta_{0.1} = 1000$

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

Applications

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



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*

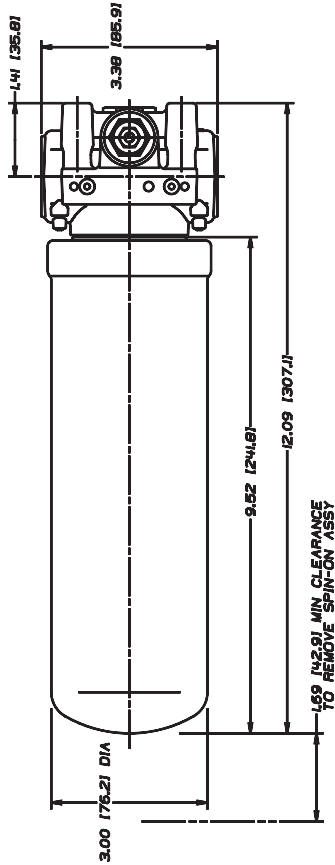
- 100,000 Cycles: 0-1000 psi / 0-6895 kPa / 68 bar
- 300,000 Cycles: 0-800 psi / 0-5516 kPa / 55 bar
- 1,000,000 Cycles: 0-700 psi / 0-4826 kPa / 48 bar

HMK03 Specification Illustrations

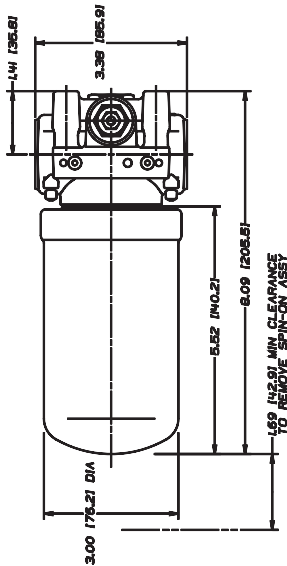
ASSEMBLY - SIDE VIEW

All dimensions are shown in inches [millimeters].

Long Assembly

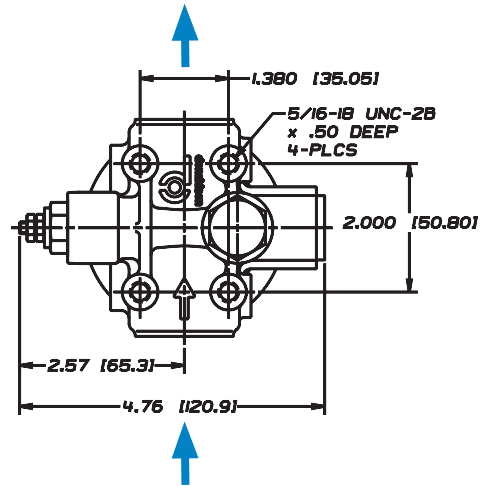


Short Assembly

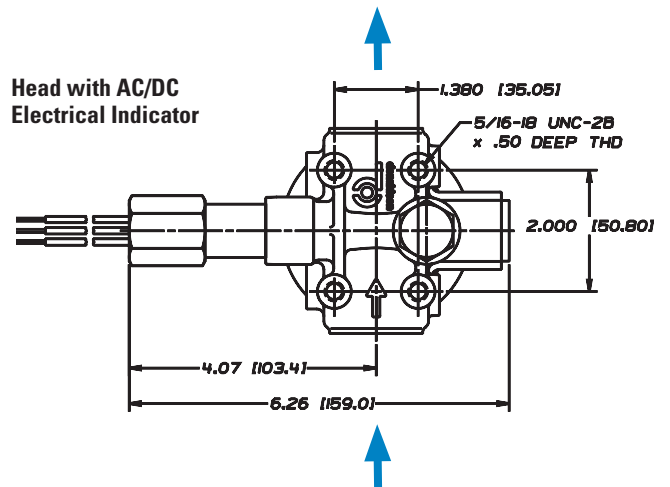


HEAD - TOP VIEW WITH INDICATORS

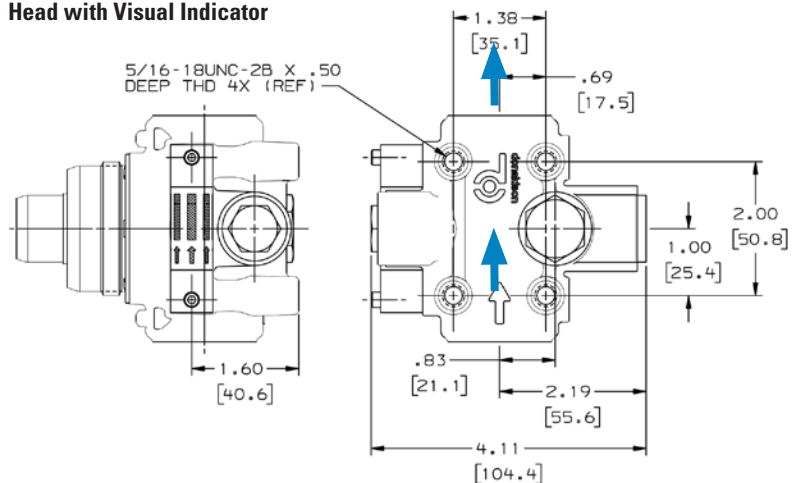
Head with DC Electrical Indicator



Head with AC/DC Electrical Indicator



Head with Visual Indicator





HMK03

Max Flow: 25 gpm (95 lpm)



HMK03 Components

Filter Choices

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

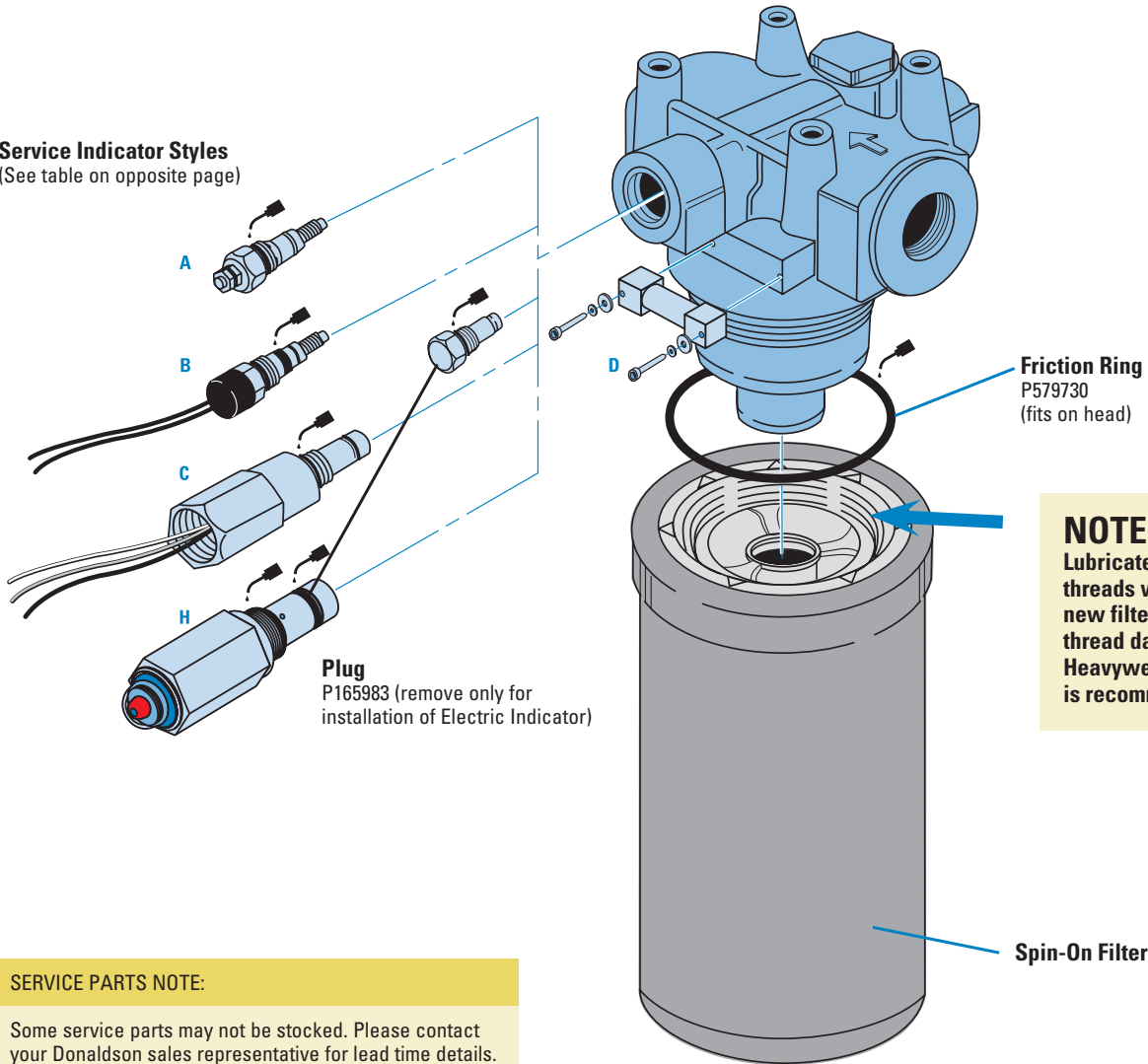
Use with Bypass Valve Pressure of:	Part No.	Style ²	Description ¹
25 psi / 172.5 kPa	P171143	B	Electric 2-wire DC
	P173944	C	Electric 3-wire AC/DC
	P165965	D	Visual
	P575334	H	Visual, pop up
50 psi / 345 kPa	P165194	A	Electric Single post DC
	P574968	B	Electric 2-wire DC
	P174396	C	Electric 3-wire AC/DC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

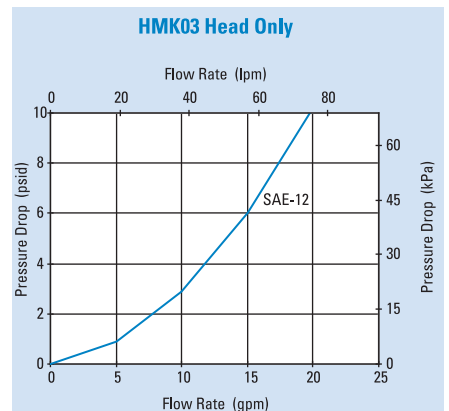
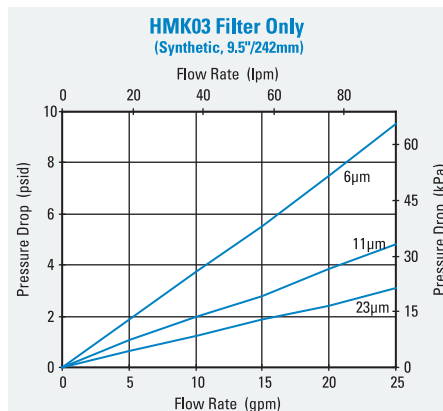
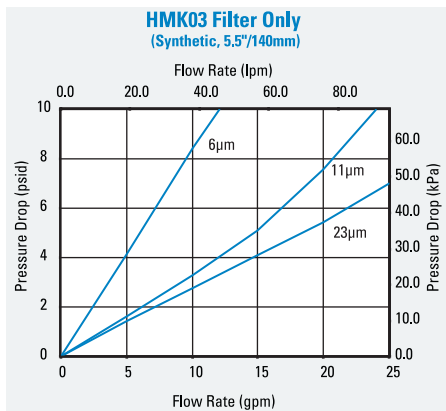
Service Indicator Styles
(See table on opposite page)



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)



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

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.



Parallel Flow

Beta Rating

- Performance to $\beta_{<40} = 1000$

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*

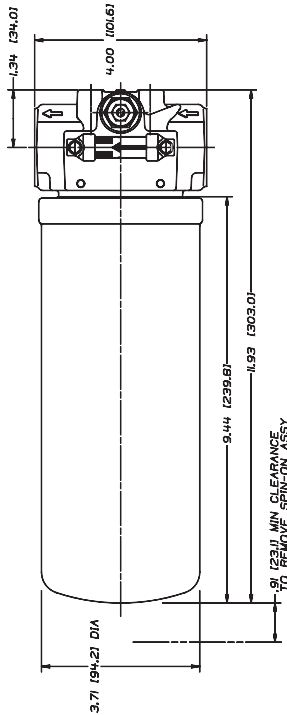
- 100,000 Cycles:
0-500 psi / 0-3450 kPa / 34.5 bar
- 300,000 Cycles:
0-400 psi / 0-2758 kPa / 27.6 bar
- 1,000,000 Cycles:
0-350 psi / 0-2415 kPa / 24 bar

HMK04/24 Specification Illustrations

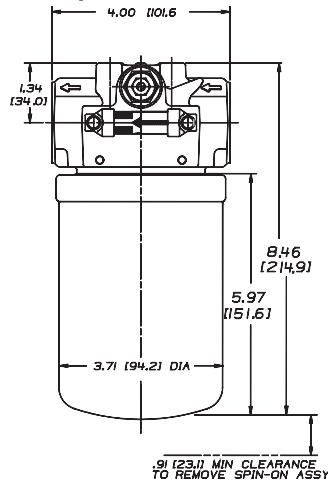
ASSEMBLY - SIDE VIEW

All dimensions are shown in inches [millimeters].

Long Assembly

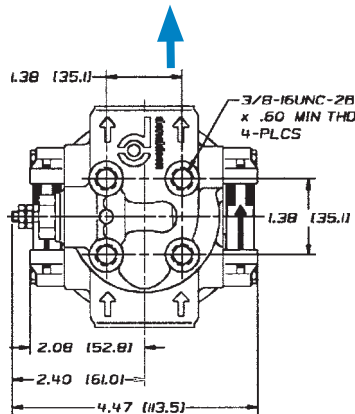


Short Assembly

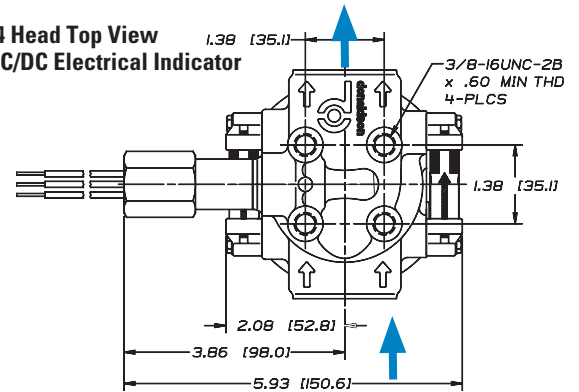


HEAD - TOP & SIDE VIEWS

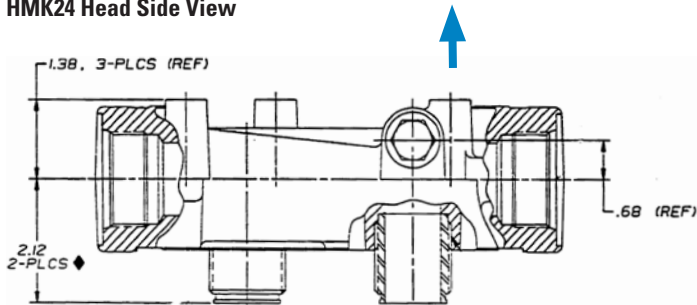
HMK04 Head Top View with DC Electrical Indicator



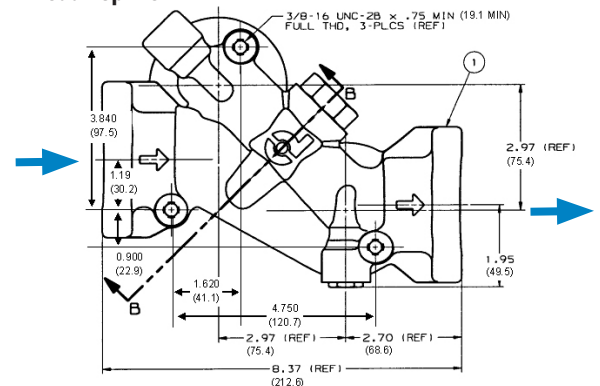
HMK04 Head Top View with AC/DC Electrical Indicator



HMK24 Head Side View



HMK24 Head Top View





HMK04/24

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



HMK04/24 Components

Filter Choices

Media Type	$\beta_{x(c)} = 2$	$\beta_{x(c)} = 1000$	Length		Part No.	Comments
	Rating based on ISO 16889		in	mm		
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	
		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	



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 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.

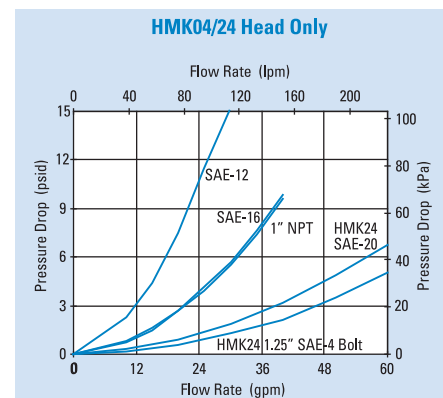
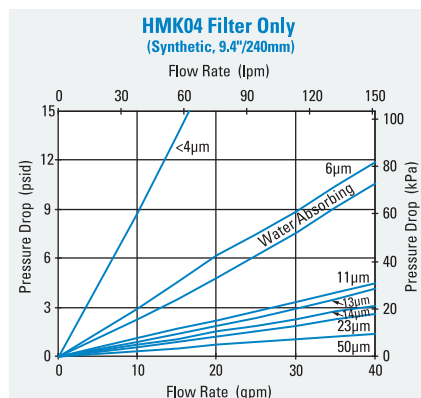
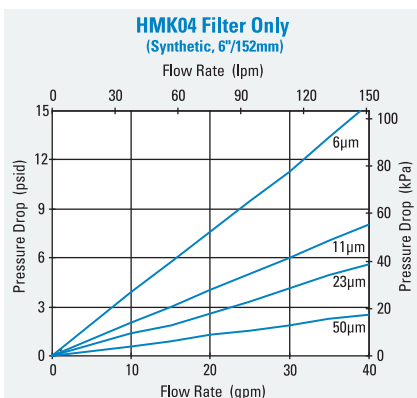
Head Choices for HMK24 (double)

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

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

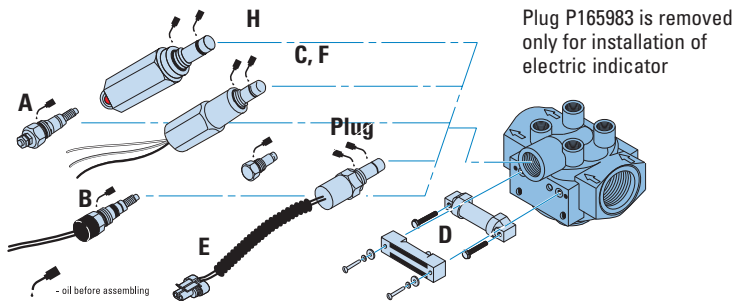


Head Notes: Reference illustration below for indicator styles. Donaldson uses the inlet port as the reference point. "Left side," for instance, means that the indicator mounts on the side of the filter head that is on your left when you face the inlet port.

3-Port Head for Charge Pumps



The P167529 head is designed with a 50 psi / 3.45 bar third port bypass valve that diverts all bypass flow back to the reservoir, instead of going straight through the head and into the system as it does in 2-ported heads. Unfiltered fluid is NOT allowed into the system in the case of plugged filters. Designed 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 ¹	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: 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



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. 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 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)

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

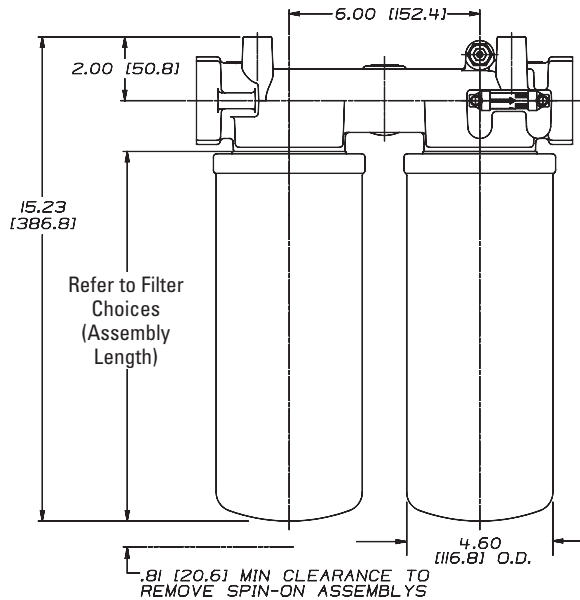
- Standard Head Cast Aluminum
- Ductile Iron Available in HMK25

HMK05/25 Specification Illustrations

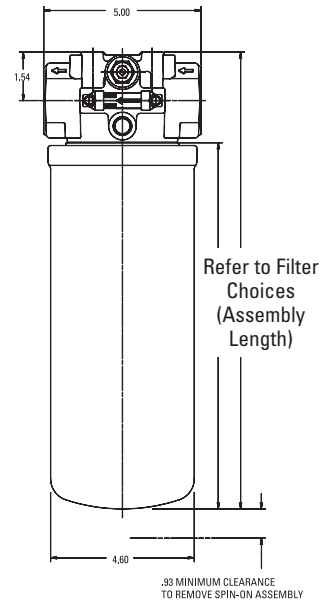
ASSEMBLY - SIDE VIEW

All dimensions are shown in inches [millimeters].

HMK25

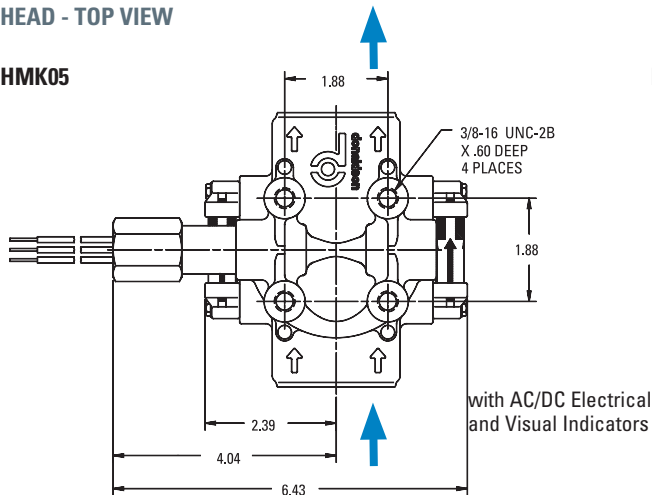


HMK05

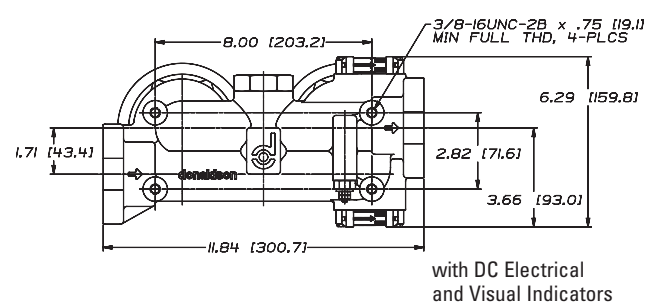
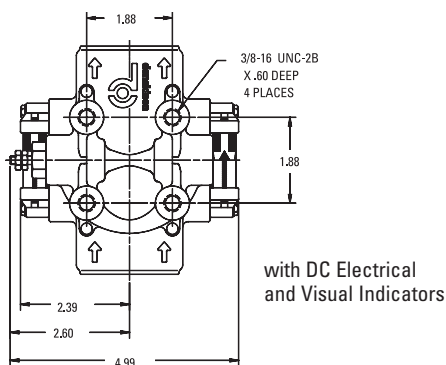
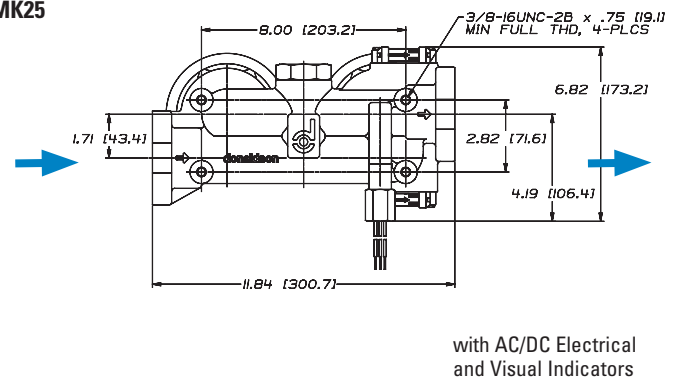


HEAD - TOP VIEW

HMK05



HMK25





HMK05/25

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



HMK05/25 Components

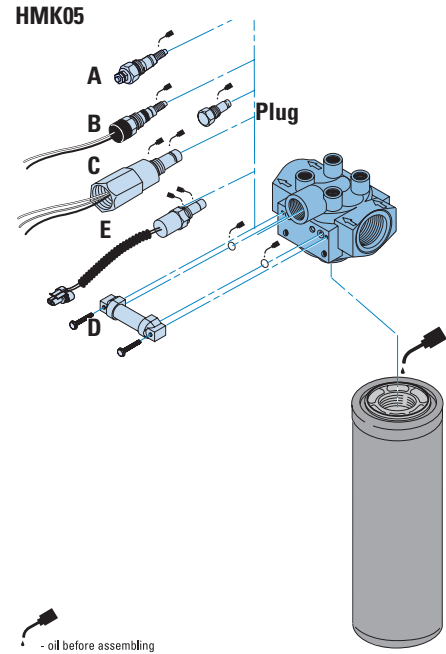
Filter Choices

Media Type	$\beta_{x(e)} = 2$	$\beta_{x(e)} = 1000$	Length		Part No.	Comments
	Rating based on ISO 16889		in	mm		
Synteq Synthetic		<4 μm	14.2	361	P564468	Fluorocarbon, epoxy. Compatible with water glycol.
		6 μm	11.6	294	P165675	
		5 μm	11.6	294	P171274	Fluorocarbon, epoxy. Compatible with water glycol.
		6 μm	14.2	361	P179763	
		11 μm	7.6	193	P176207	
		11 μm	11.6	294	P165659	
		13 μm	11.6	294	P573996	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	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	

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.

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.

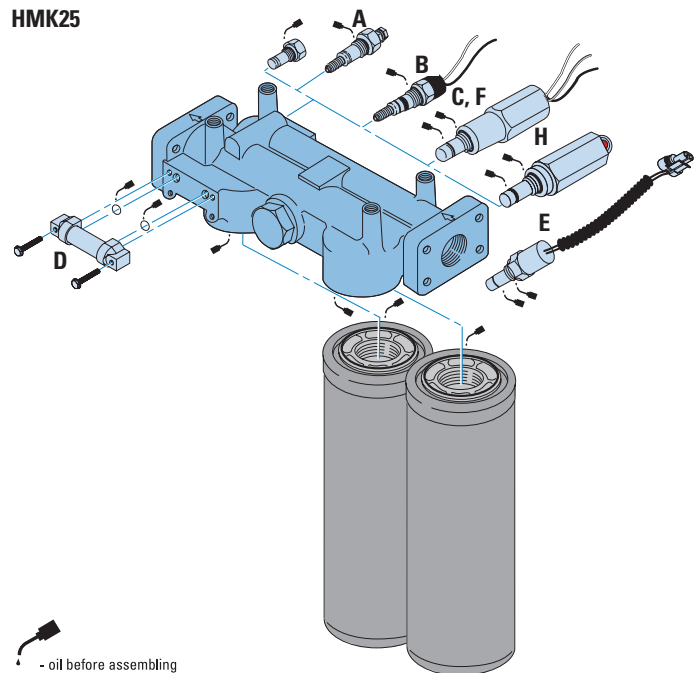
Service Parts



Oil Service Indicator Options

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
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 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.

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

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*



Dual Head

* 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



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.

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.

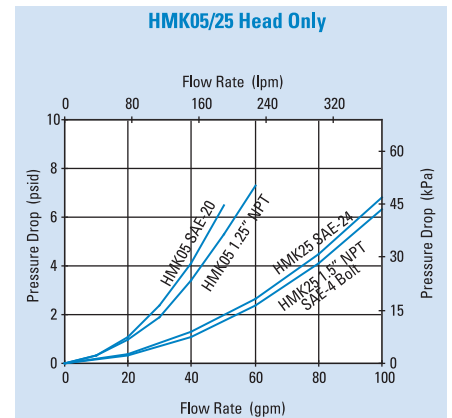
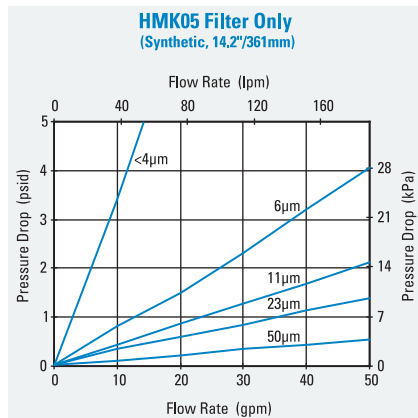
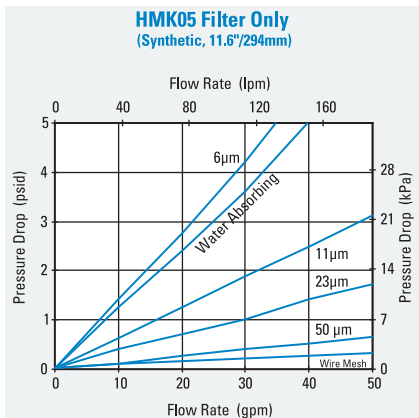
²May be purchased separately.

³Complete 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.

Performance Data





HNK04/05

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



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 $\beta_{100} = 1000$

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)

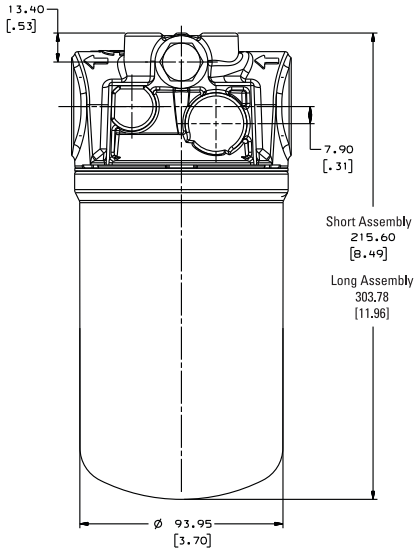
Filter Collapse Ratings

- 235 psi / 1621 kPa / 16.2 bar

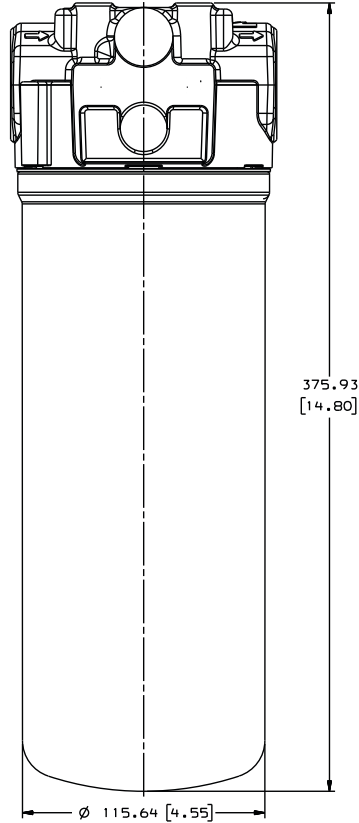
HNK04/05 Specification Illustrations

HNK04 SPIN-ON ASSEMBLY - SIDE VIEW

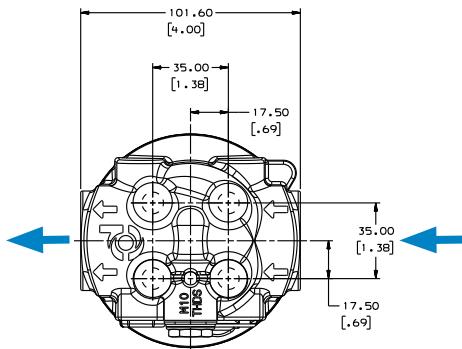
All dimensions are shown in inches [millimeters].



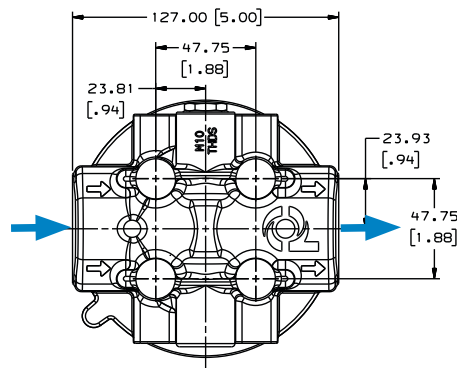
HNK05 SPIN-ON ASSEMBLY - SIDE VIEW



HNK04 HEAD - TOP VIEW



HNK05 HEAD - TOP VIEW





HNK04/05 Components

Filter Choices for HNK04

Media Type	$\beta_{x(e)} = 1000$	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

Filter Choices for HNK05

Media Type	$\beta_{x(e)} = 1000$	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

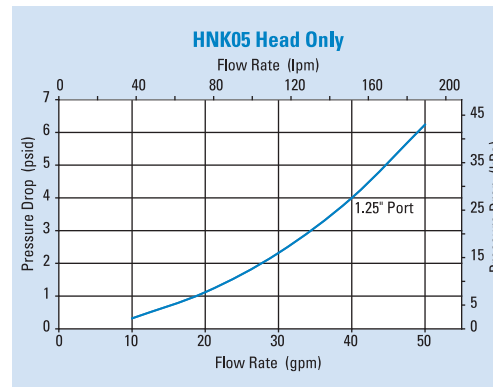
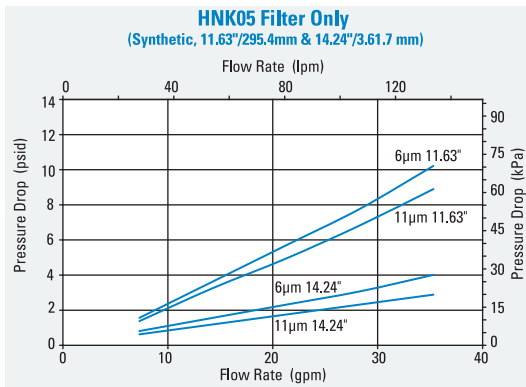
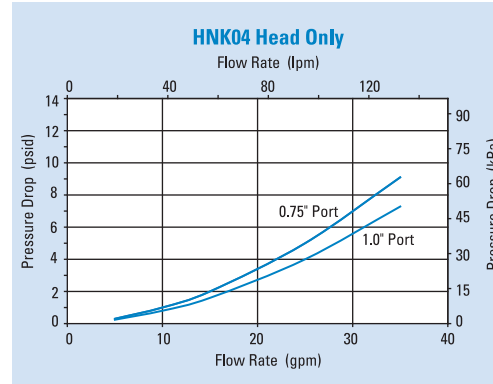
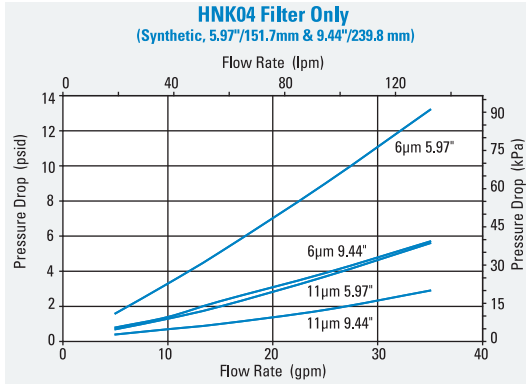
Port Size	Bypass Rating	Part No.	Indicators	Style	Mounting Threads
SAE-20	50 psi / 3.5 bar	P568860	none	optional elect.	M10x1.5-6H
SAE-20	No bypass	P568861	none	optional elect.	M10x1.5-6H

Indicator Choices

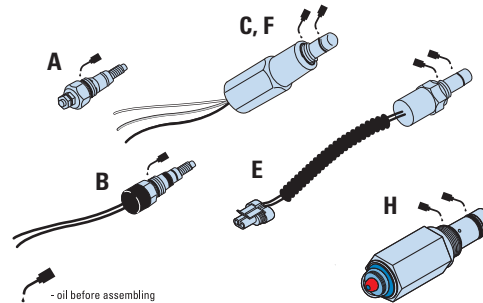
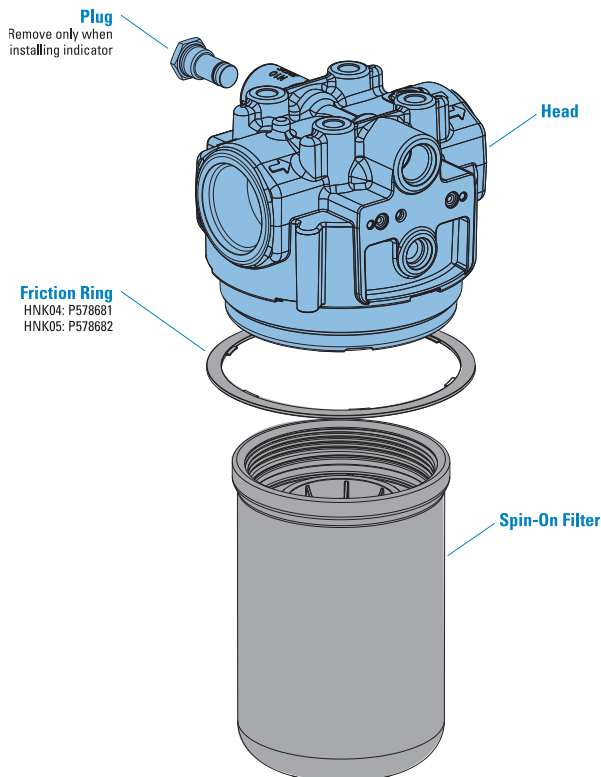
Set Point/Type	Part No.	Description
50 psi / 345 kPa	P165194	Electric Single post DC
25 psi / 172 kPa	P575334	Visual Indicator, Pop up
50 psi / 345 kPa	P575335	Visual Indicator, Pop up



Performance Data



Service Parts



SERVICE PARTS NOTE:

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



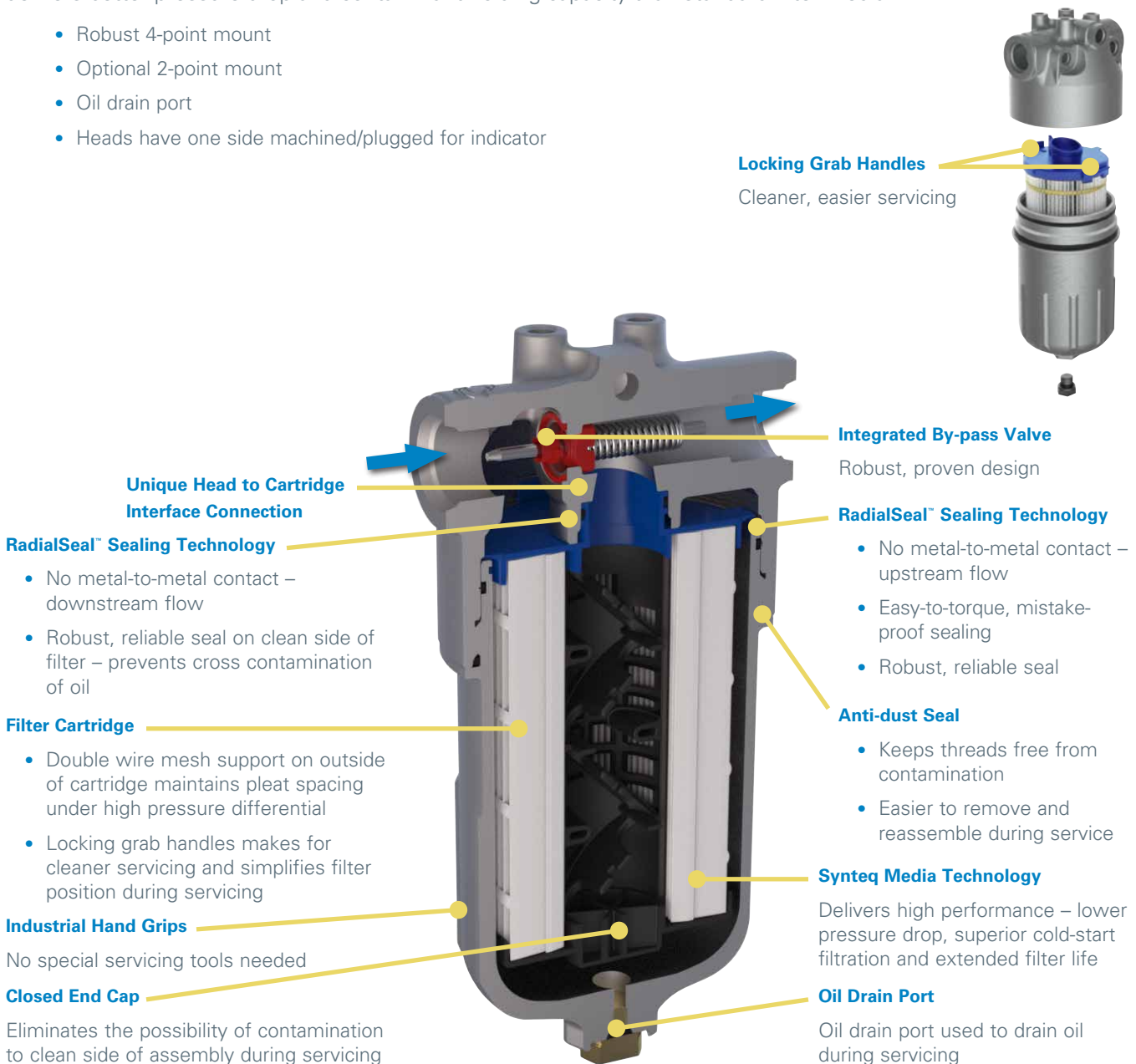
Our FLK hydraulic filtration systems are packed with innovative features that will deliver cleaner, mistake-proof filter servicing.

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



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 $\beta_{<60>}$ =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

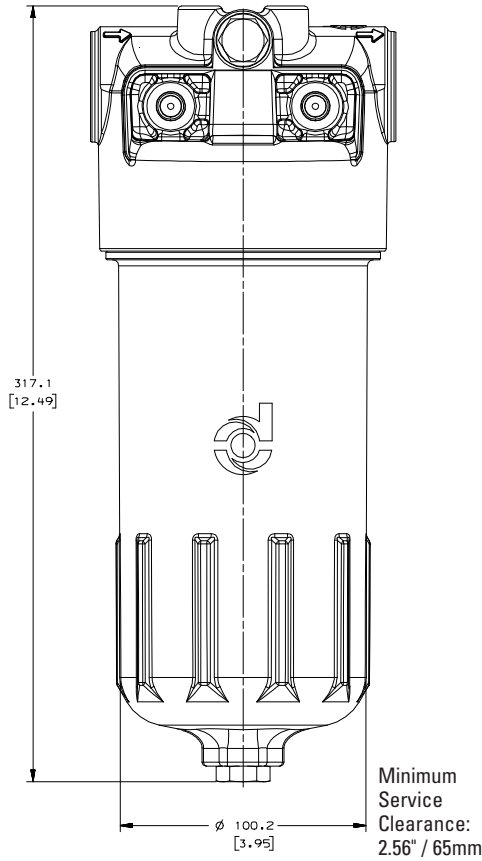
Max Flow: 40 gpm (151 lpm)



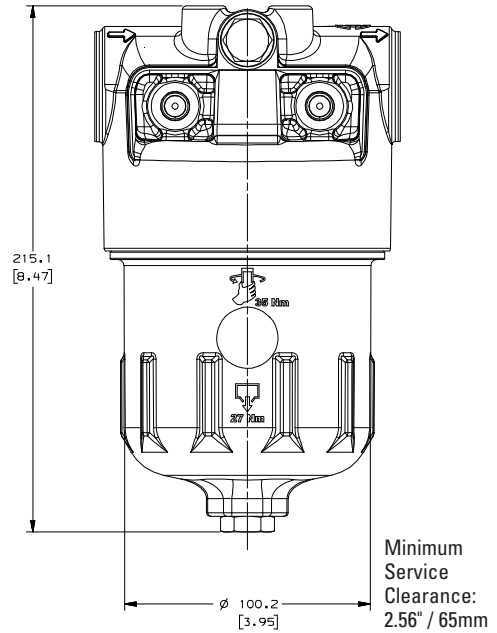
FLK Specification Illustrations

LONG ASSEMBLY - SIDE VIEW

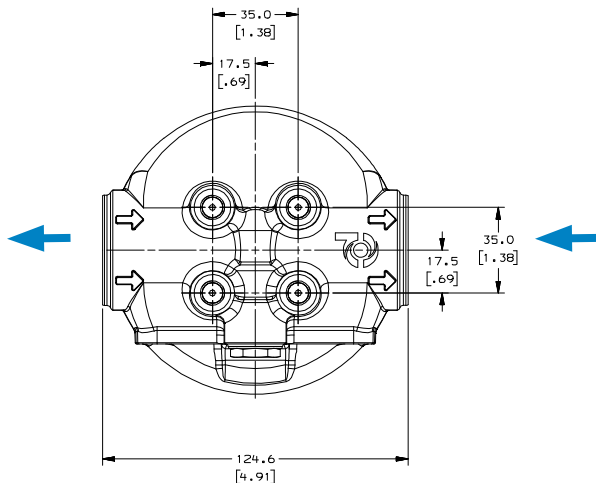
All dimensions are shown in millimeters [inches].



SHORT ASSEMBLY - SIDE VIEW



HEAD - TOP VIEW



FLK90 Components

Filter Choices

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

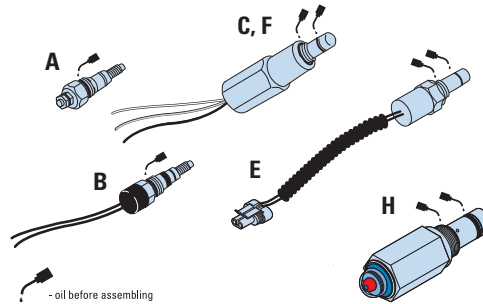
Service Indicator Choices

Use with Bypass Valve Pressure of:	Indicator Part No.	Style ²	Description
Electric 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

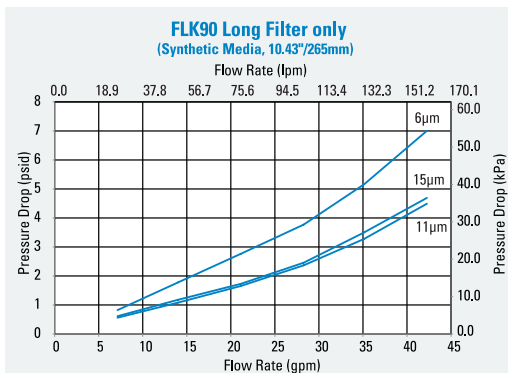
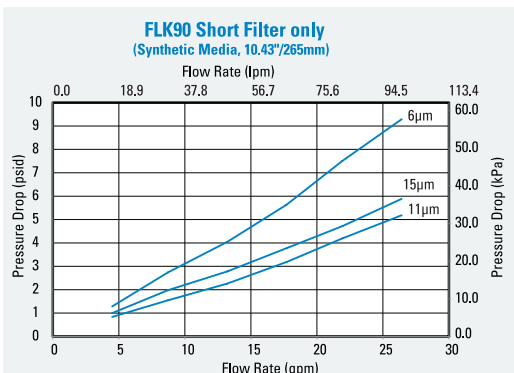
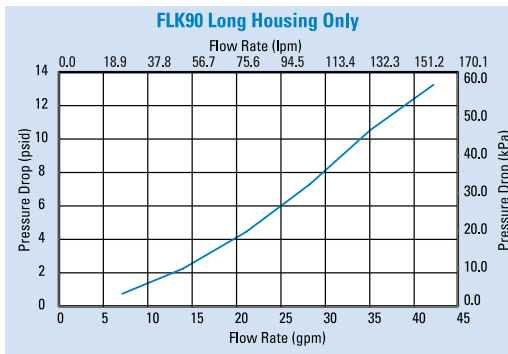
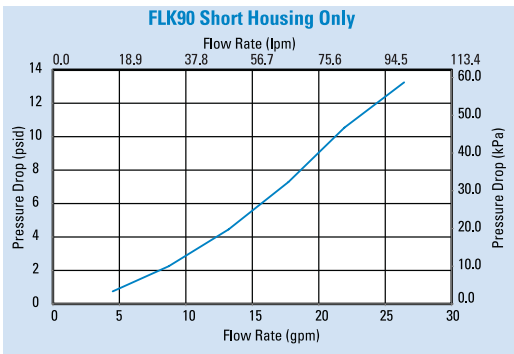
Indicator Notes

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

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

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 $\beta_{<60>}$ =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)

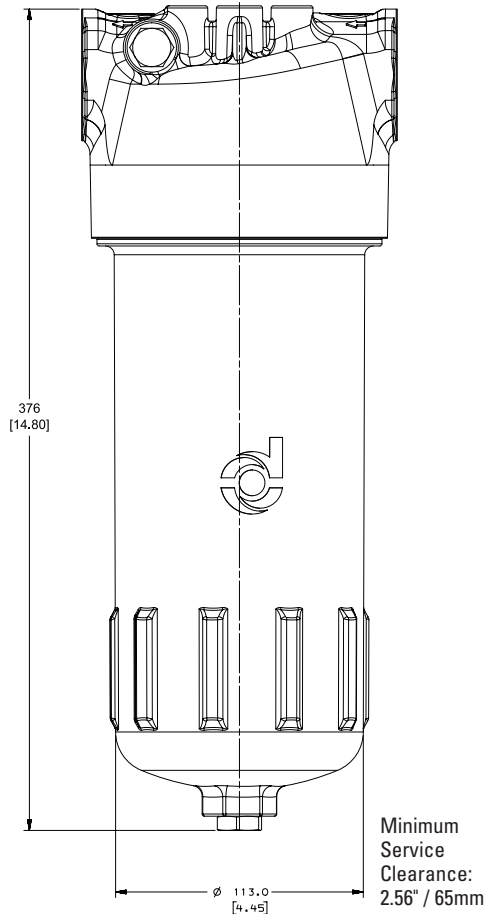
Filter Collapse Ratings

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

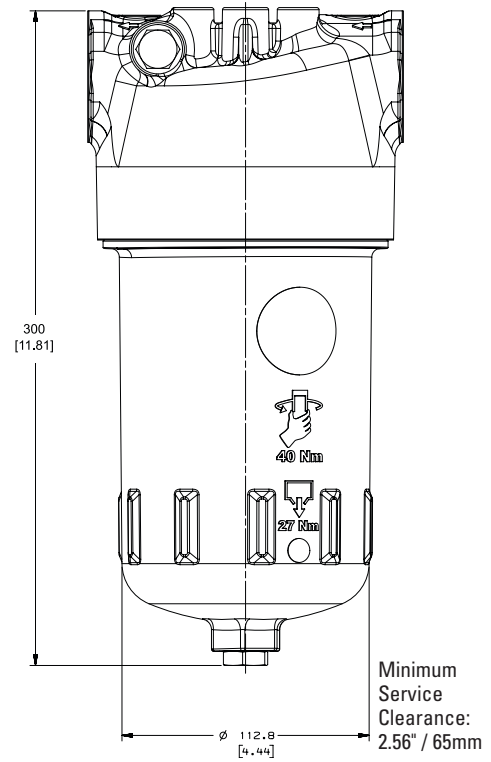
FLK Specification Illustrations

LONG ASSEMBLY - SIDE VIEW

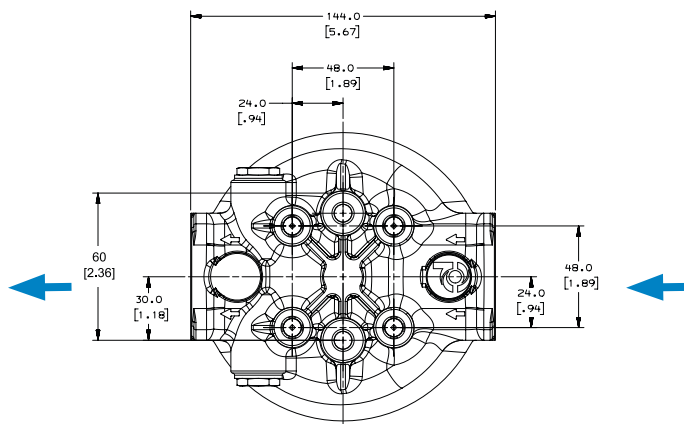
All dimensions are shown in millimeters [inches].



SHORT ASSEMBLY - SIDE VIEW



HEAD - TOP VIEW





FLK110

Max Flow: 42 gpm (159 lpm)



FLK110 Components

Filter Choices

Media Type	$\beta_{x100} = 1000$	Length		Part No.
	Rating based on ISO 16889	in	mm	
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

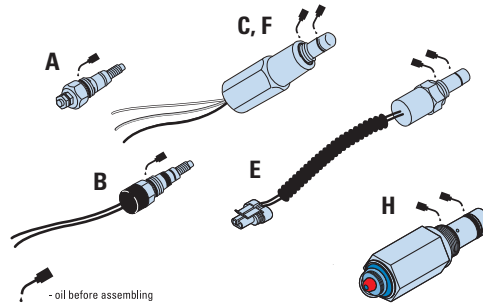
Housing Choices

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

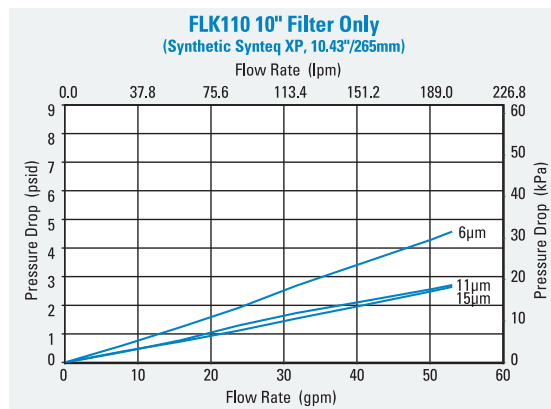
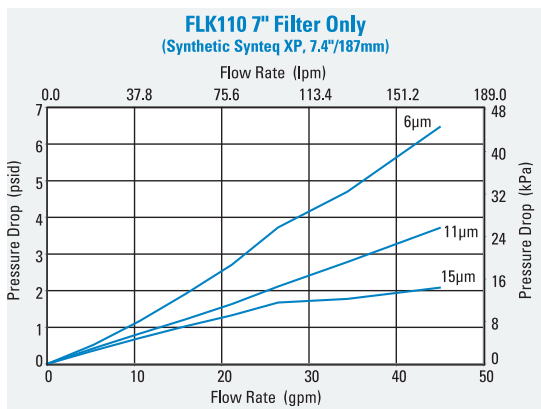
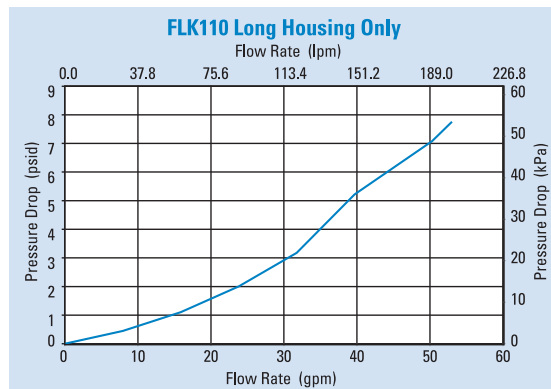
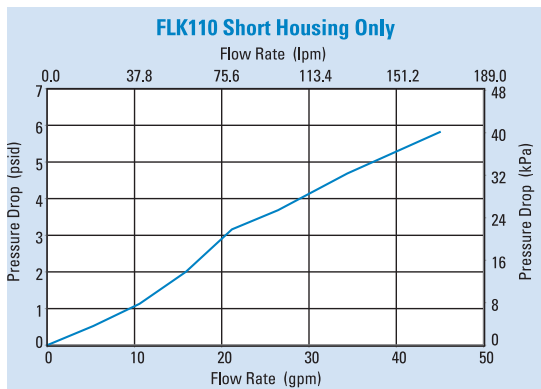
Service Indicator Choices

Use with Bypass Valve Pressure of:	Indicator Part No.	Style ²	Description
Electric 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

¹Indicator Notes
 All 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



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 $\beta_{<61\mu}^{0.5}=1000$

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

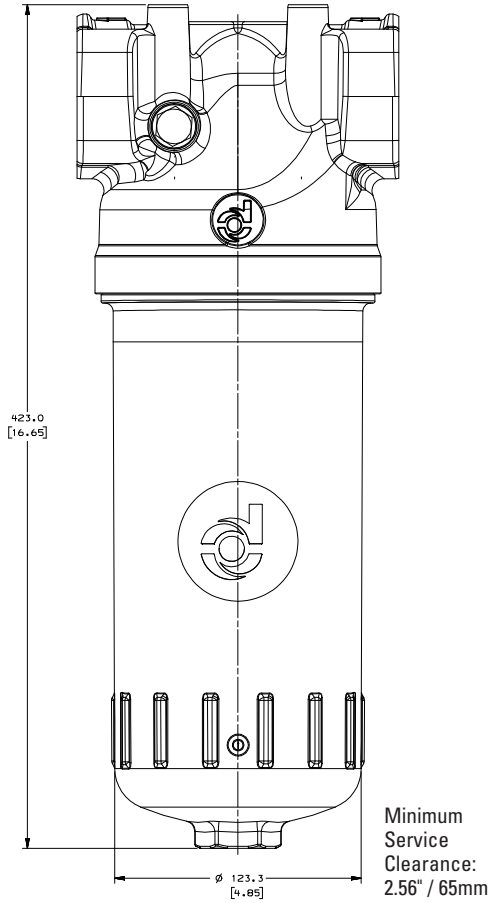
Max Flow: 85 gpm (322 lpm)



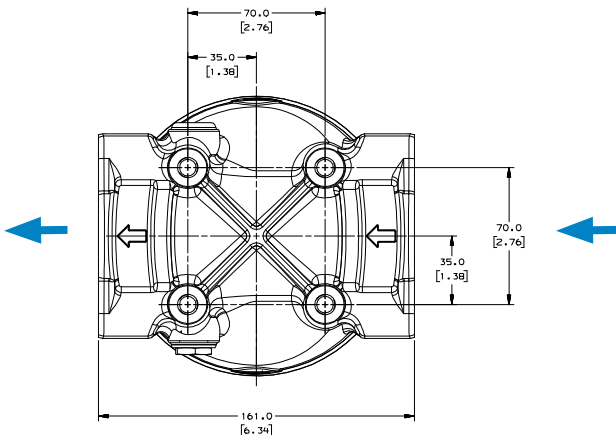
FLK Specification Illustrations

LONG ASSEMBLY - SIDE VIEW

All dimensions are shown in millimeters [inches].



HEAD - TOP VIEW



FLK125 Components

Filter Choices

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

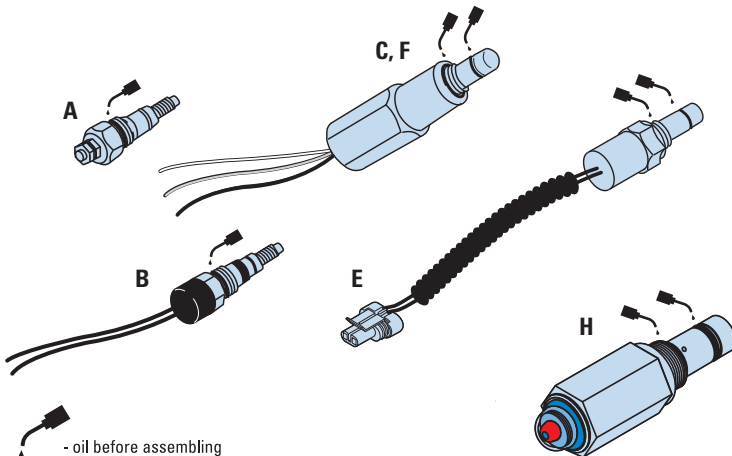
Housing Choices

Part No.	Comments
P767089	Long length assembly

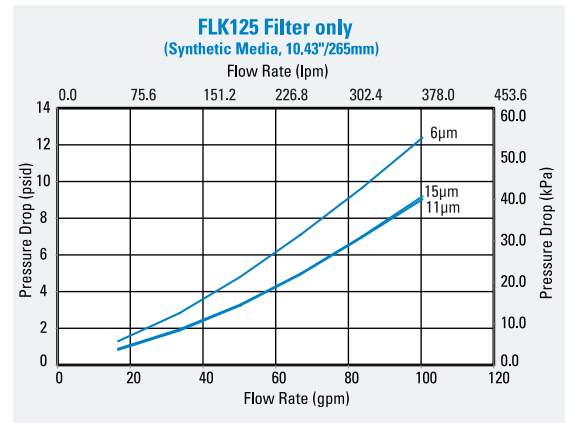
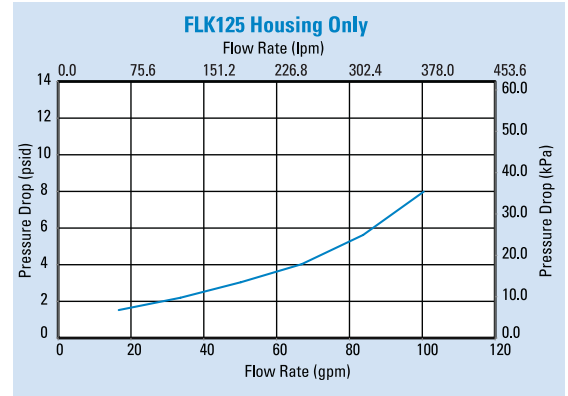
Service Indicator Choices

Use with Bypass Valve Pressure of:	Indicator Part No.	Style ²	Description
Electric 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 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 $\beta_{slc1000}$

Porting Size Options

- 1-1/2" 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)

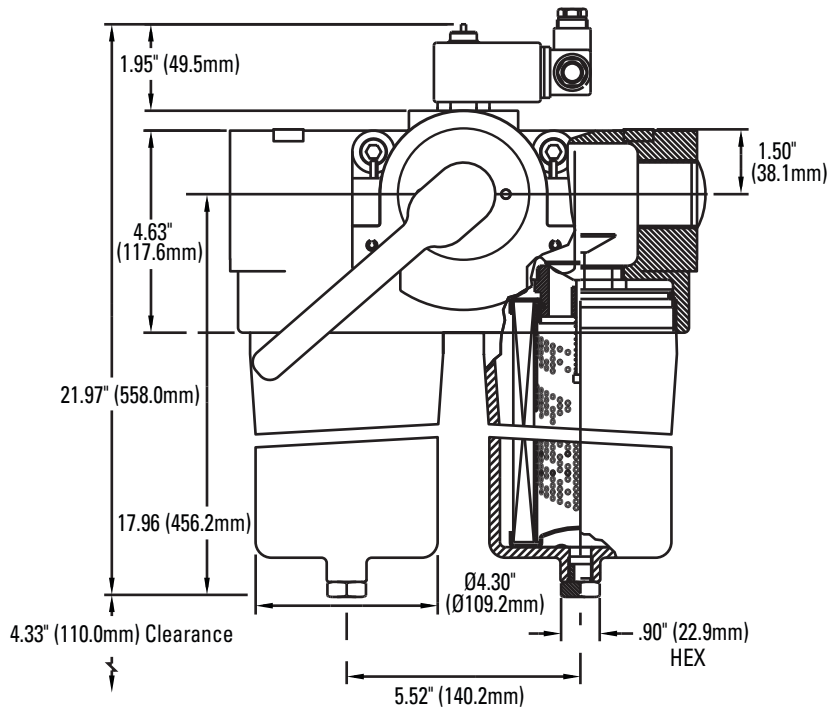
Filter Collapse Ratings

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

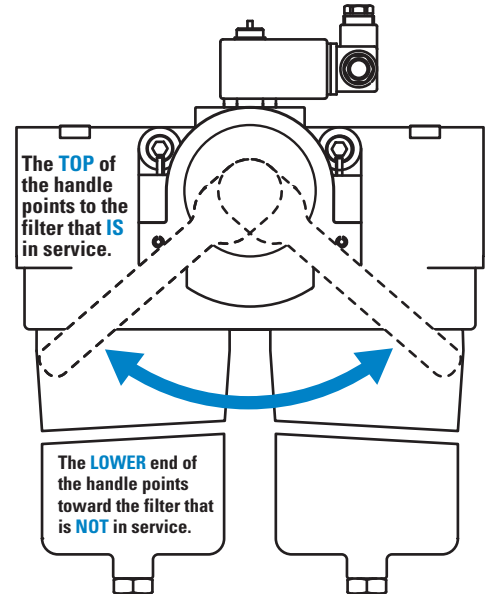
DPK350 Specification Illustrations

ASSEMBLY - SIDE VIEW

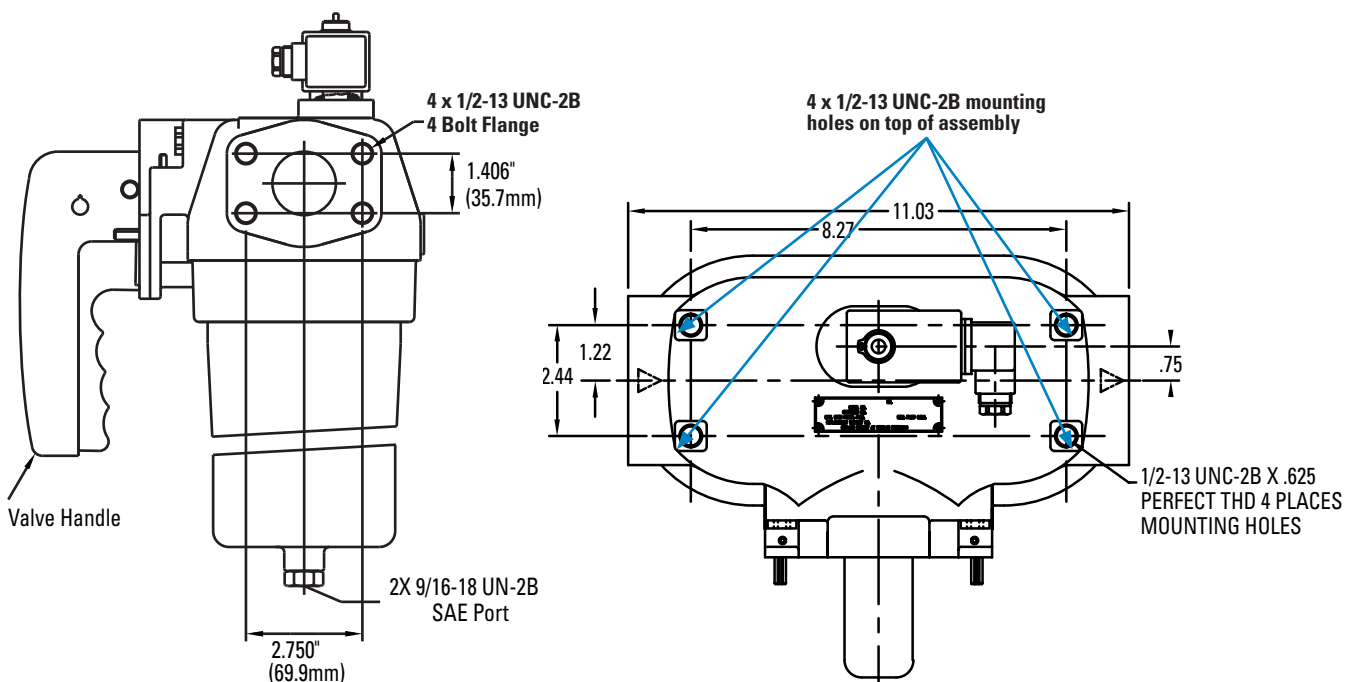
All dimensions are shown in millimeters [inches].



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



HEAD - TOP VIEW





DPK350

Max Flow: 100 gpm (379 lpm)



DPK350 Components

Filter Choices

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

Assembly Choices

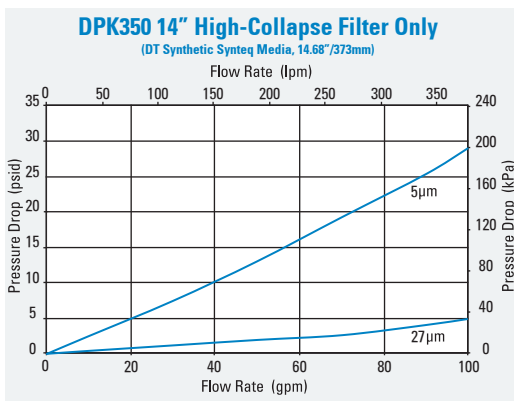
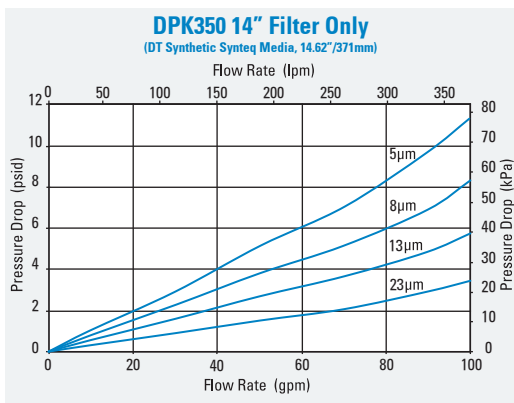
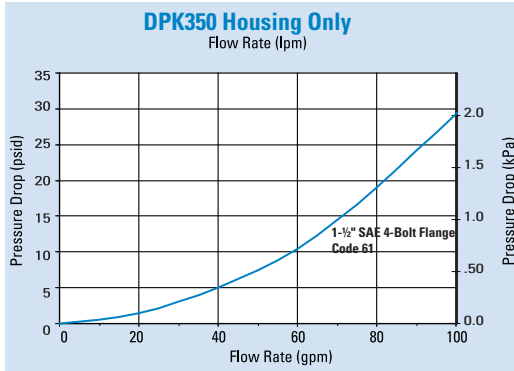
Part No.	Port Connections	Bypass Valve	Comments
P577024	1-1/2" SAE 4-bolt flange code 61	No bypass	Filter elements not included with assembly.
P577025	1-1/2" SAE 4-bolt flange code 61	50 psi (3.4 bar) bypass	Filter elements not included with assembly.

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





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. 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 $\beta_{<40} = 1000$

Porting Size Options

- SAE-12, SAE-16 O-Ring

Replacement Filter Lengths

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

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)

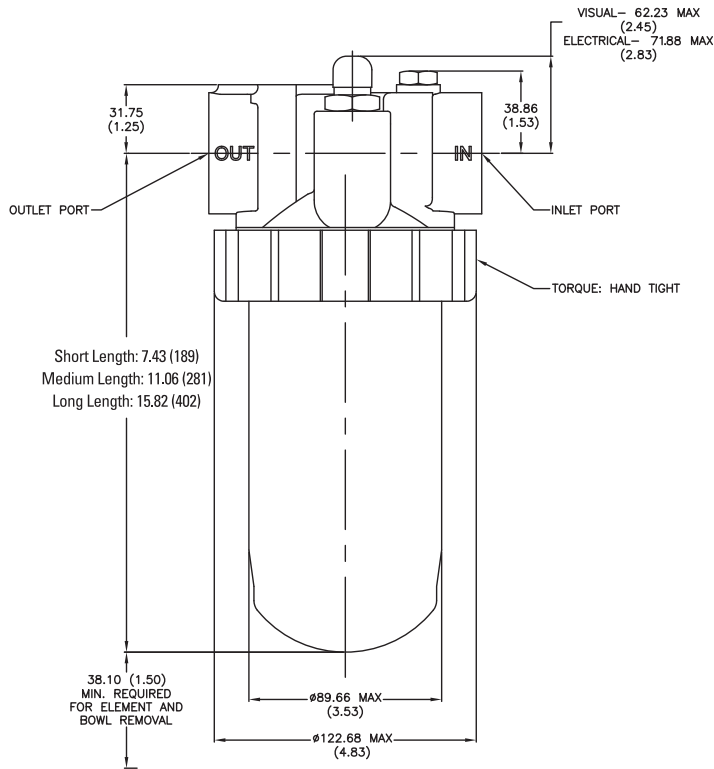
Filter Collapse Ratings

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

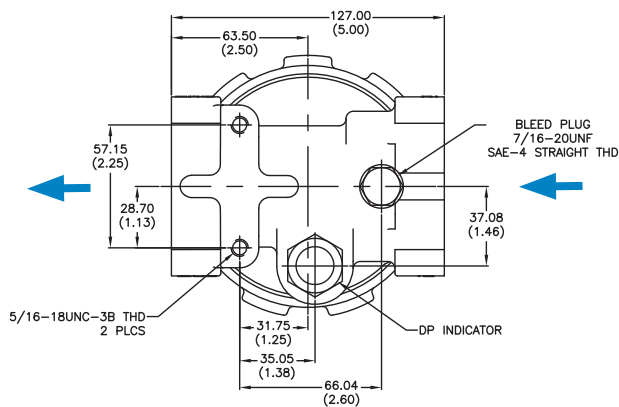
W061 Specification Illustrations

ASSEMBLY - SIDE VIEW

All dimensions are shown in millimeters [inches].



HEAD - TOP VIEW





W061

Max Flow: 100 gpm (379 lpm)



W061 Components

Filter Choices

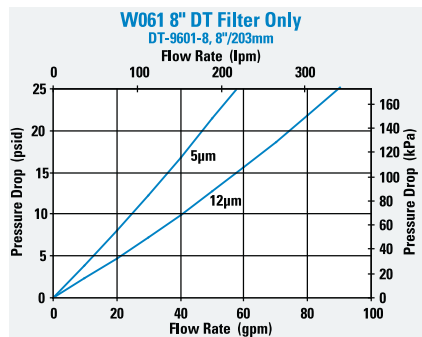
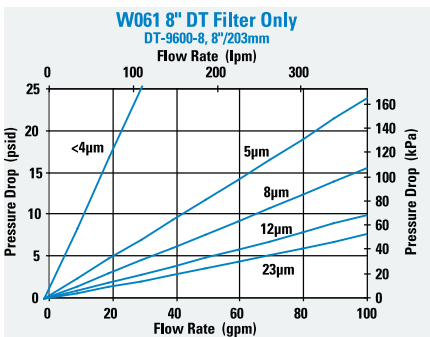
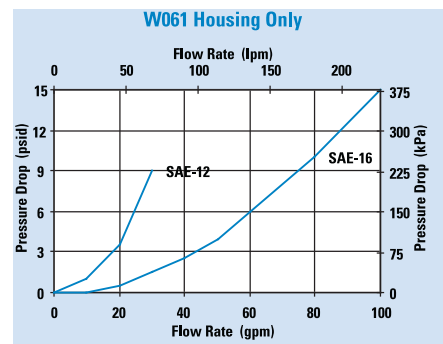
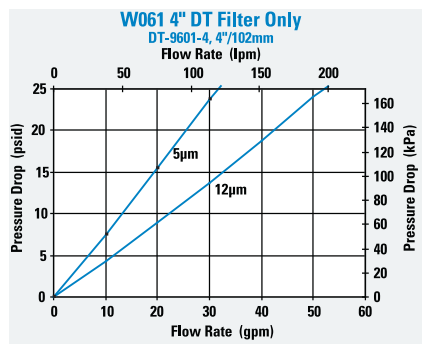
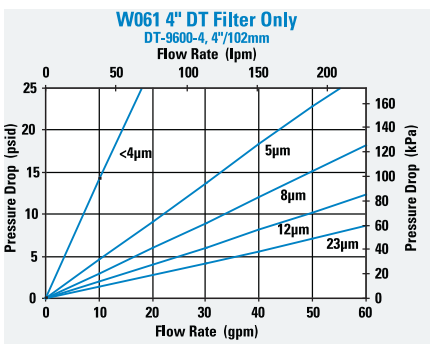
Media Type	$\beta_{x(c)} = 2$	$\beta_{x(c)} = 1000$	Length		Part No.	Comments	
	Rating based on ISO 16889		in	mm			
DT Synthetic		<4 μm	4.59	117	P566204	DT-9600-4-2UM	
		5 μm	4.59	117	P566205	DT-9600-4-5UM	
		5 μm	4.59	117	P167184	DT-9601-4-5UM, High collapse	
		8 μm	4.59	117	P566206	DT-9600-4-8UM	
		12 μm	4.59	117	P566207	DT-9600-4-14UM	
		12 μm	4.59	117	P167843	DT-9601-4-14UM, High collapse	
		23 μm	4.59	117	P566208	DT-9600-4-25UM	
		<4 μm	8.22	209	P566209	DT-9600-8-2UM	
		5 μm	8.22	209	P566210	DT-9600-8-5UM	
		5 μm	8.22	209	P167185	DT-9601-8-5UM, High collapse	
		8 μm	8.22	209	P566211	DT-9600-8-8UM	
		12 μm	8.22	209	P566212	DT-9600-8-14UM	
		12 μm	8.22	209	P167186	DT-9601-8-14UM, High collapse	
		23 μm	8.22	209	P566213	DT-9600-8-25UM	
		<4 μm	12.91	328	P566214	DT-9600-13-2UM	
		5 μm	12.91	328	P566215	DT-9600-13-5UM	
		5 μm	12.87	327	P167411	DT-9601-13-5UM, High collapse	
	Water Absorbing		8 μm	12.91	328	P566216	DT-9600-13-8UM
		12 μm	12.91	328	P566217	DT-9600-13-14UM	
		12 μm	12.87	327	P167412	DT-9601-13-14UM, High collapse	
		23 μm	12.91	328	P566218	DT-9600-13-25UM	
		10 μm		8.23	209	P569528	Absorbs 130 ml water @ 25 psid
		10 μm		12.87	327	P569529	Absorbs 220 ml water @ 25 psid



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 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.
- Fluorocarbon seals are standard on all Donaldson DT filters.

Performance Data





Head Assembly Choices

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

Housing Choices

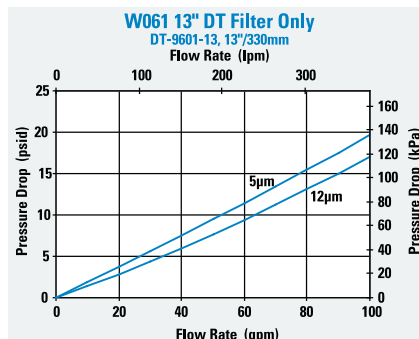
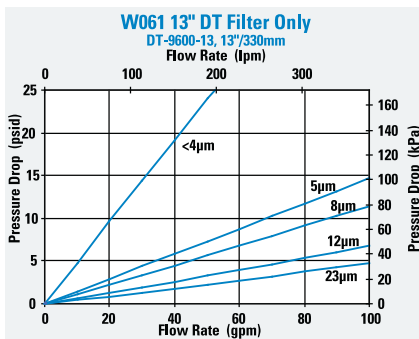
Housing Length	Seal Material	Part No.
4" (101.6mm)	Nitrile	X011115
8" (203.2mm)	Nitrile	X011111
13" (330.2mm)	Nitrile	X011117

Service Part Choices

Part No.	Description
X011160	Head/Bowl/Housing Seal Kit - nitrile
X011161	Head/Bowl/Housing Seal Kit - fluorocarbon

Indicator Choices

Indicator Pressure Setting	Connector Style	Seal Material	Part No.	Thermal Lockout	Surge Control	Reset
Visual Pop-up Models						
15 psi / 103 kPa	NA	Nitrile	P572345	No	No	Auto
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						
15 psi / 103 kPa	Hirschman	Nitrile	P572323	No	No	Auto
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
15 psi / 103 kPa	3 wire flying leads	Nitrile	P572342	No	No	Auto
35 psi / 241 kPa	3 wire flying leads	Nitrile	P572349	No	No	Auto
Electrical Models						
15 psi / 103 kPa	Hirschman	Nitrile	P572355	No	No	Auto
35 psi / 241 kPa	Hirschman	Nitrile	P572359	No	No	Auto
35 psi / 241 kPa	Brad Harrison	Nitrile	P572361	No	No	Auto





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

Applications

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

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.



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

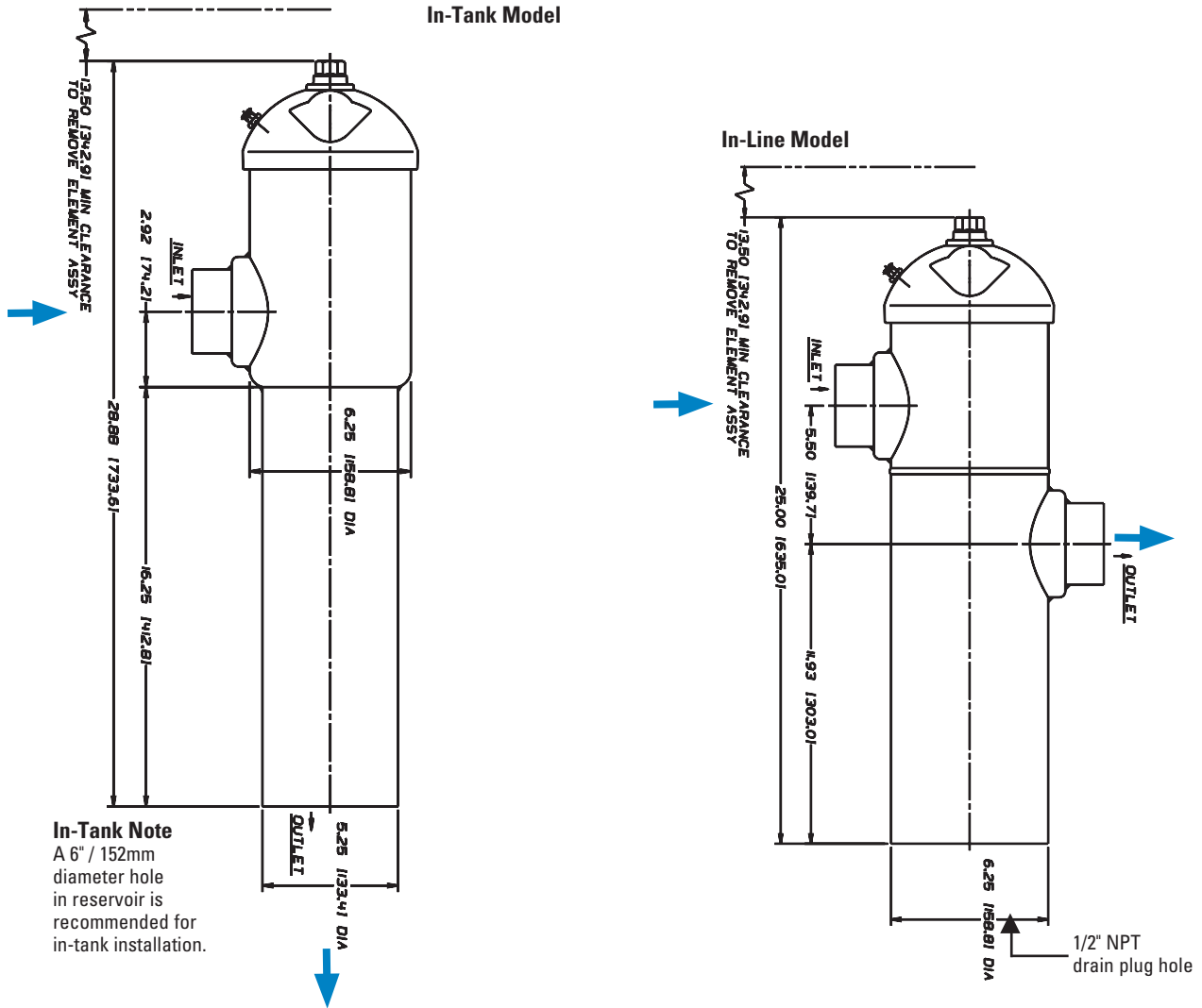
Filter Collapse Ratings

- 100 psid / 690 kPa / 6.9 bar

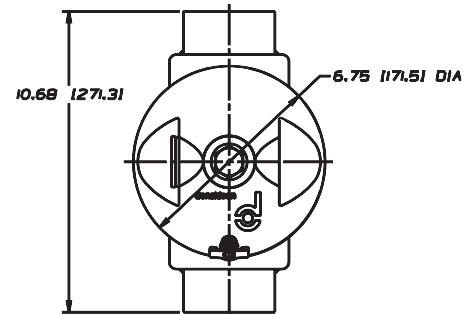
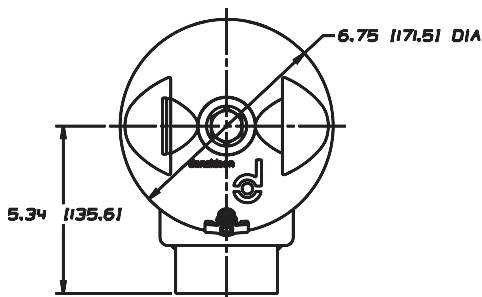
HDK06 Specification Illustrations

ASSEMBLY - SIDE VIEW

All dimensions are shown in inches [millimeters].



HEAD - TOP VIEW





HDK06

Max Flow: 150 gpm (568 lpm)



HDK06 Components

Filter Choices

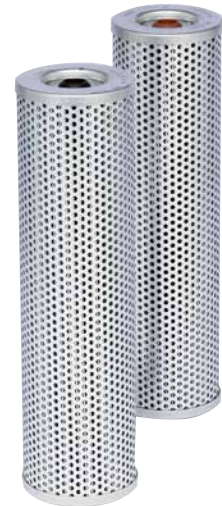
Media Type	$\beta_{x(c)} = 2$	$\beta_{x(c)} = 1000$	Length		Part No.
	Rating based on ISO 16889		in	mm	
Synteq Synthetic		<4 μm	16.00	406	P161016
		6 μm	16.00	406	P165628
		11 μm	16.00	406	P176221
		22 μm	16.00	406	P161571
		23 μm	16.00	406	P164699
		50 μm	16.00	406	P166597
Wire Mesh	150 μm		11.6	294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

Filter Notes

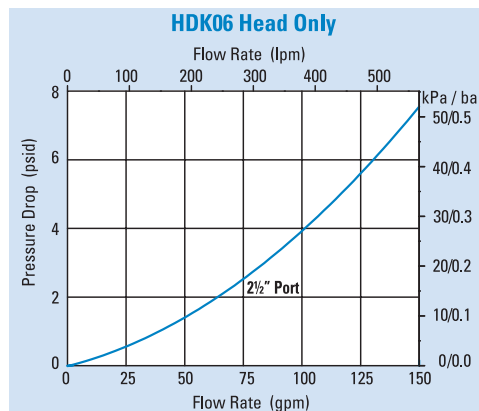
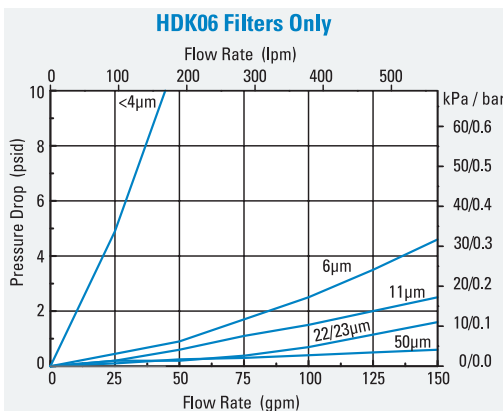
Standard HDK06 replacement filters have nitrile seals, which are appropriate for most applications involving petroleum oil. Filters with seals made of fluorocarbon are required when using diester, phosphate ester fluids, water glycol, water/oil emulsions, and HWCF (high water content fluids) over 150°F.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



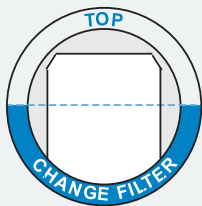
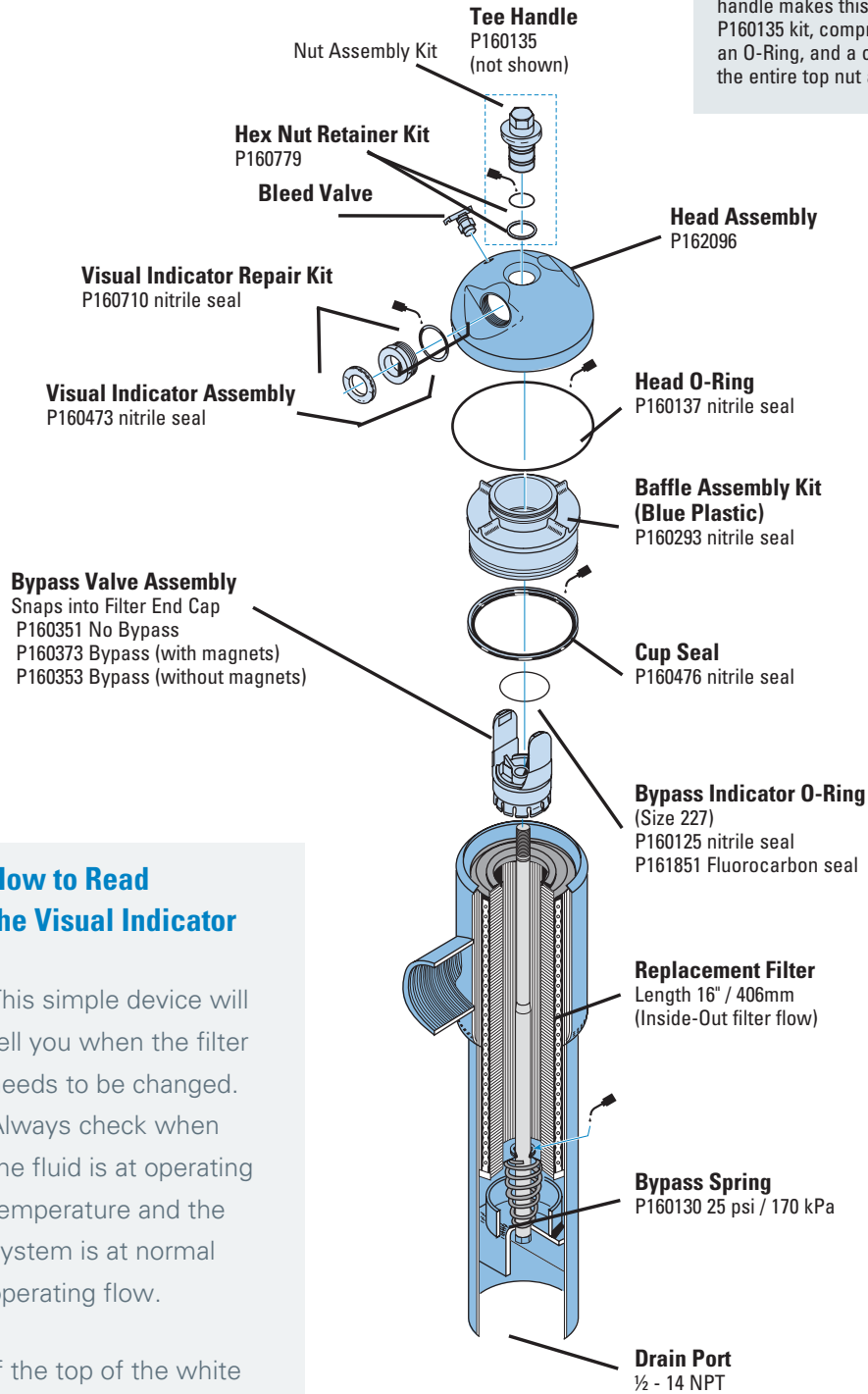
HDK06 Service Parts

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**

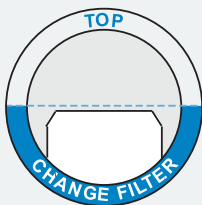
The first step in changing the HDK06 cartridge is loosening the top nut with a wrench. Our optional tee handle makes this job easier. The P160135 kit, comprised of the handle, an O-Ring, and a clip ring, replaces the entire top nut assembly.



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.



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. 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 $\beta_{<40}₍₁₎=1000$

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

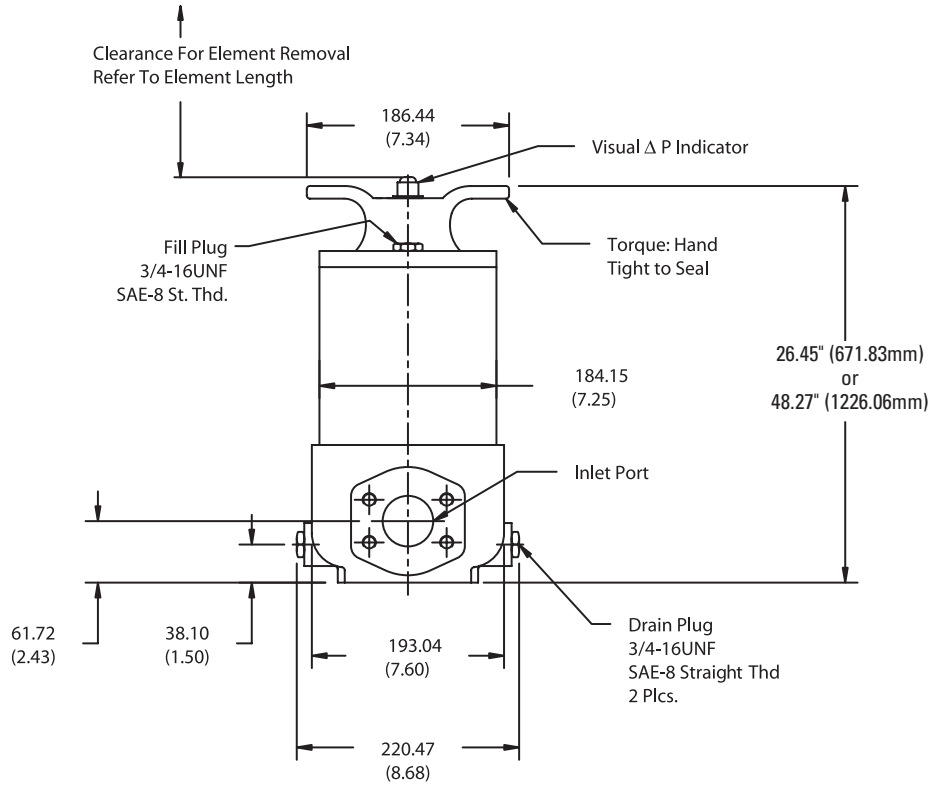
Filter Collapse Ratings

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

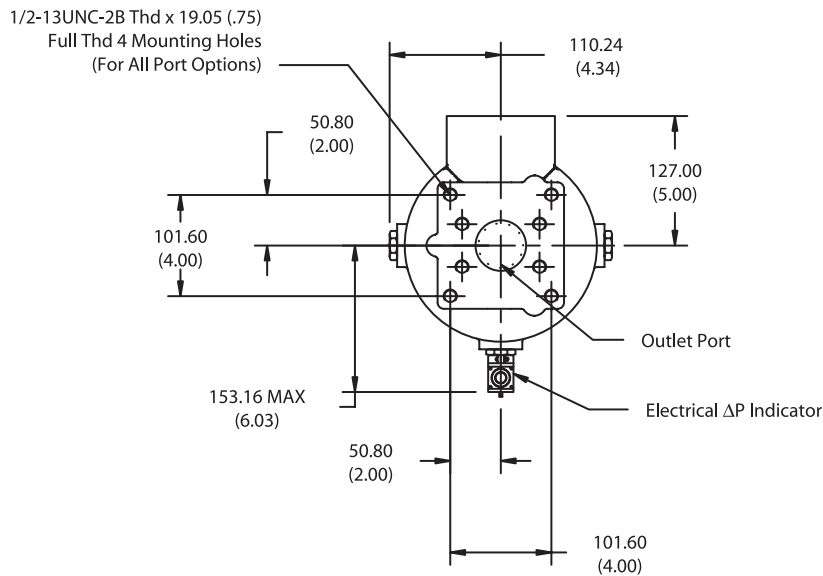
W041 Specification Illustrations

ASSEMBLY - SIDE VIEW

All dimensions are shown in millimeters [inches].



HEAD - BOTTOM VIEW





W041

Max Flow: 300 gpm (1135 lpm)



W041 Components

Filter Choices

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

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. 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

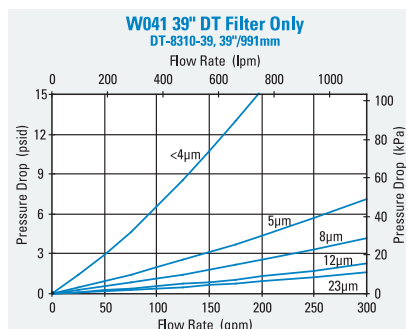
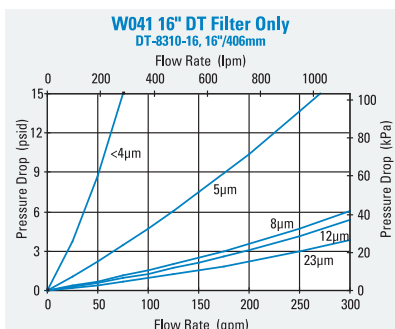
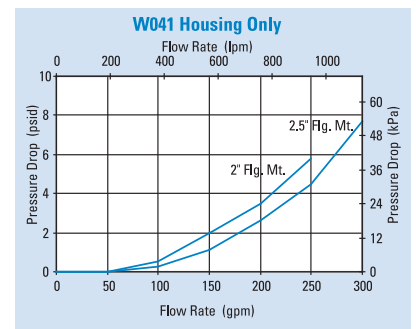
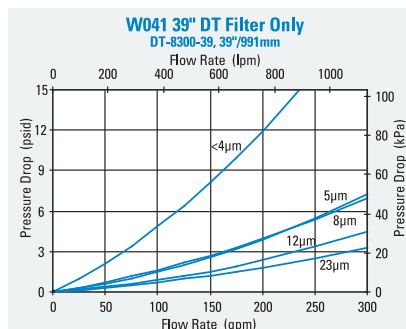
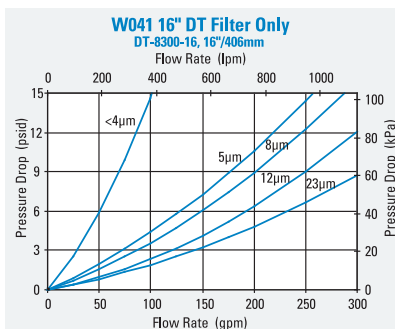
Indicator Choices

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

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 $\beta_{<40} = 1000$

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

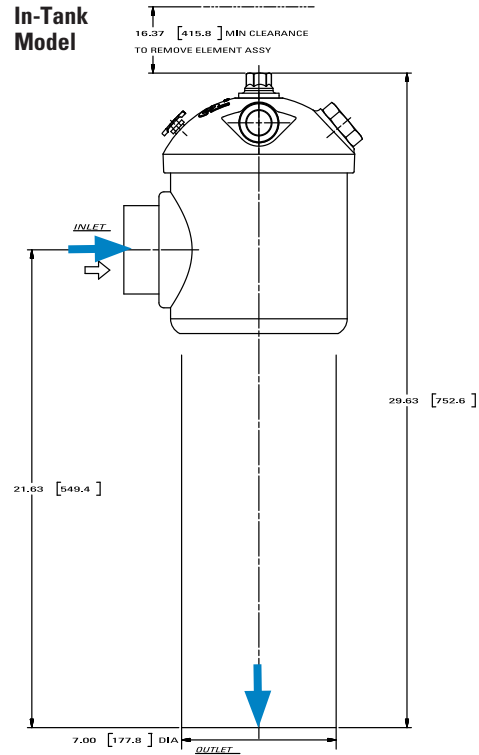
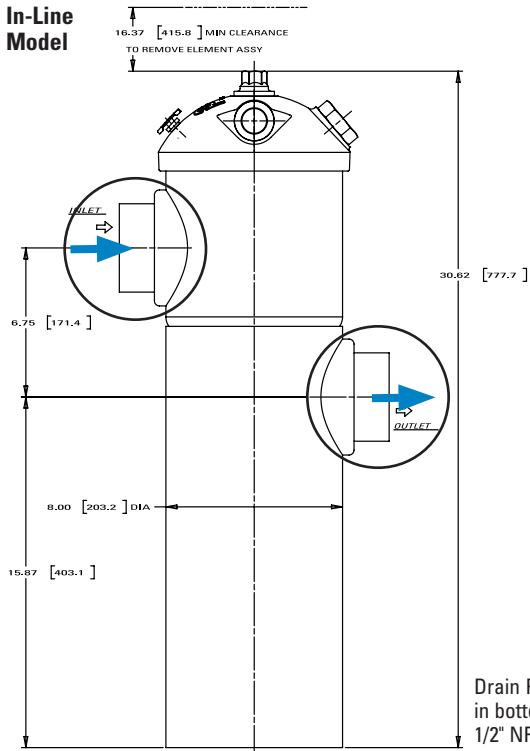
Filter Collapse Ratings

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

HFK08 Specification Illustrations

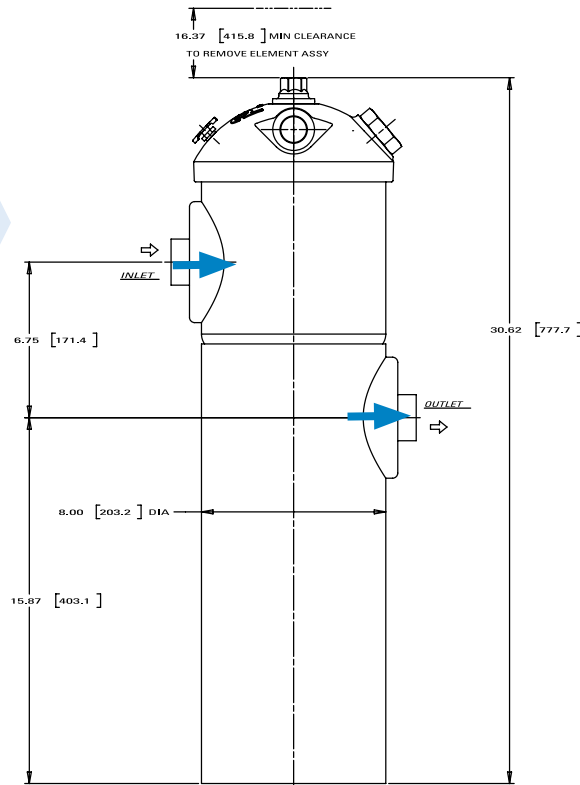
ASSEMBLY - SIDE VIEW

All dimensions are shown in inches [millimeters].

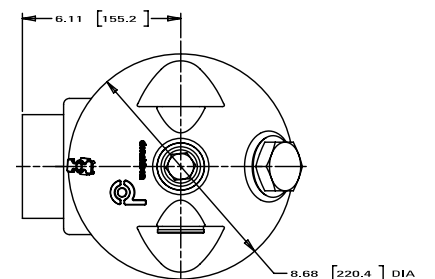
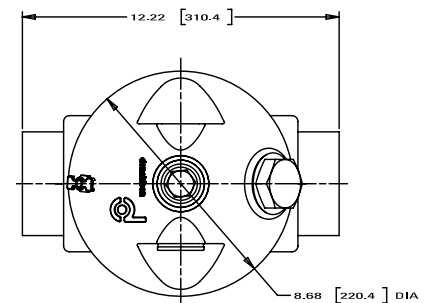


K080087 In-Line Model

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



HEAD - TOP VIEWS





HFK08

Max Flow: 300 gpm (1135 lpm)



HFK08 Components

Filter 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

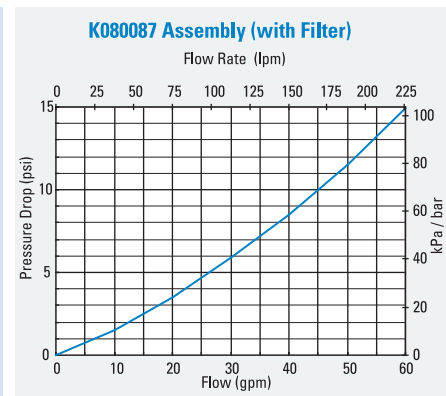
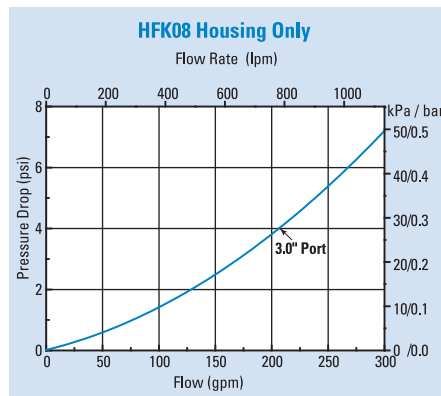
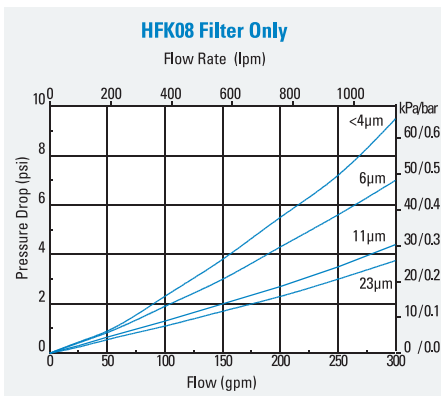
Assembly Notes

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.



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

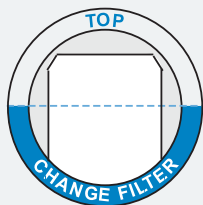
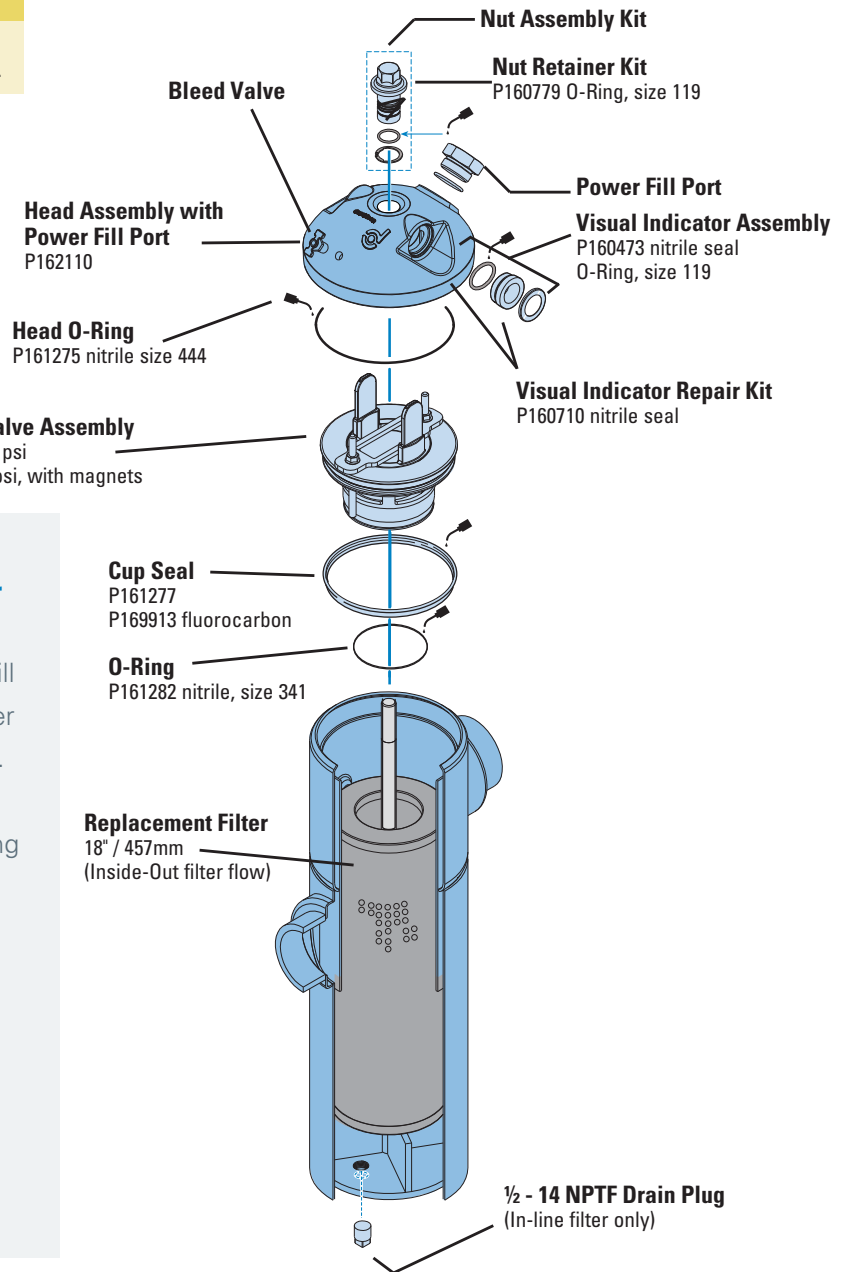
Performance Data



HFK08 Service Parts

SERVICE PARTS NOTE:

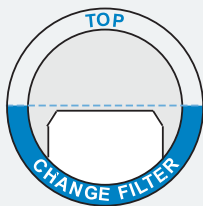
Some service parts may not be stocked. Please contact your Donaldson sales representative for lead time details.



Filter OK

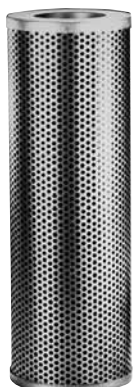
How to Read the Visual Indicator

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.

