



Low Pressure Filters

Low pressure filters are the most common type of filter found in hydraulic circuits – used most often in return line applications.

Donaldson low pressure filters are rated for working pressures up to 350 psi (2400 kPa). In-tank and in-line configurations are available to accommodate virtually any application.



Section Index

Max Operating Pressure < 350 psi (24 bar)

Models arranged from low to maximum flow rates

Spin-on Filters

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SP15/25
Max Flow: 30 gpm (114 lpm)



SP15/25 Spin-On Filters

Maximum Working Pressures to: 150 psi
1035 kPa
10.3 bar

Rated Static Burst to: 375 psi
2590 kPa
25.9 bar

Flow Range To: 30 gpm
114 lpm



Features

The SP15/25 series are economical, low pressure filters with spin-on convenience and a wide range of cleanliness ratings. Filters are available with the bypass ratings of your choice – 25 psi, 15 psi, 5 psi or no bypass. Take advantage of our mix and match system of in-stock heads and filters, so you can get exactly what you need. Choose the media type and configuration that's best for your application. Options include Donaldson's exclusive Synteq™, natural fiber cellulose, stainless steel wire-mesh or water absorbing media.

Beta Rating

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

Porting Size Options

- 1/2", 3/4" NPT
- SAE-8, SAE-12 O-ring

Replacement Filter Lengths

- Synteq™ 5.35" / 136 mm
- Synteq™ 7.87" / 200 mm
- Cellulose 5.35" / 136 mm
- Cellulose 7.87" / 200 mm
- Wire Mesh 5.35" / 136 mm
- Water Absorbing 5.35" / 136 mm

Standard Bypass Ratings

- 25 psi / 172.5 kPa / 1.7 bar
- 15 psi / 97 kPa / .97 bar
- 5 psi / 34.5 kPa / .34 bar
- No Bypass

Assembly Weight

- 5.35": 1.6 lbs / .7 kg (approximately)
- 7.87": 2.2 lbs / 1 kg (approximately)

Operating Temperatures

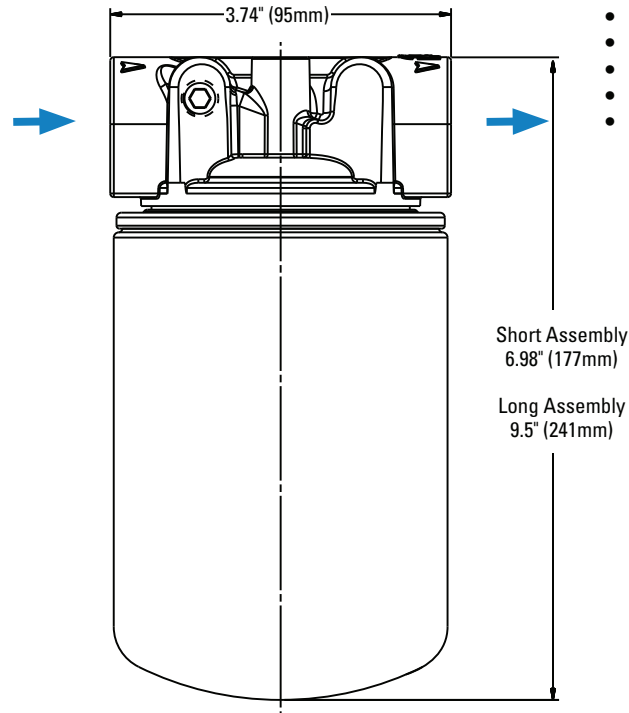
- -22°F to 225°F / -30°C to 107°C

Filter Collapse Ratings

- 100 psid / 690 kPa / 6.9 bar (standard)

SP15/25 Specification Illustrations

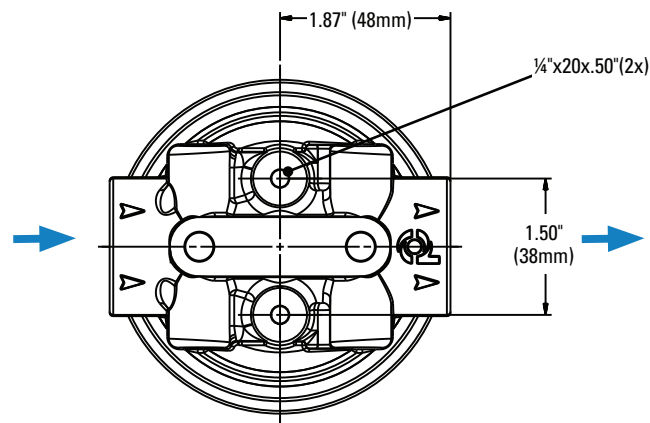
Assembly - Side View



Applications

- Fluid Conditioning Systems
- In-Plant Systems
- Mobile Equipment
- Power Transmissions
- Process Systems

Head - Top View





SP15/25

Max Flow: 30 gpm (114 lpm)



SP15/25 Components

Filter Choices

Media Type	$\beta_{x(c)} = 2$ Rating based on ISO 16889	$\beta_{x(c)} = 1000$	Length in	mm	Donaldson Part No.	Comments
Synteq Synthetic		6 μm	5.35	136	P564967	
		6 μm	7.87	200	P564357	
		11 μm	7.87	200	P179089	
		11 μm	5.35	136	P560693	
		23 μm	5.35	136	P560694	
Cellulose	5 μm		5.35	136	P565061	
	7 μm		5.35	136	P551551	
	7 μm		7.87	200	P565059	
	17 μm		5.35	136	P551553	
	17 μm		7.87	200	P565060	
Water Absorbing	10 μm		5.35	136	P565062	Absorbs approximately 6 oz/170 ml of water @ 20 psid/1.4 bar
Wire Mesh	150 μm		5.35	136	P550274	100 mesh

Filter Notes

* Thread size 1"-12 UNF

Head Choices

Port Size	Bypass Range	Gauge ports (drill, tap, plug)	Gauge Port Location	Donaldson Part No.
1/2" NPT	15 psi / 103.4 kPa / 1.34 bar	(2) 1/8" NPT	upstream side	P563288
3/4" NPT	25 psi / 172.5 kPa / 1.72 bar	(2) 1/8" NPT	upstream side	P561131
3/4" NPT	5 psi / 34.5 kPa / .34 bar	(2) 1/8" NPT	downstream side	P561132
3/4" NPT	25 psi / 172.5 kPa / 1.72 bar	none	na	P561134
3/4" NPT	5 psi / 34.5 kPa / .34 bar	none	na	P561135
3/4" NPT	none	none	na	P561136
3/4" NPT	15 psi / 103.4 kPa / 1.34 bar	none	na	P563278
SAE-12	none	none	na	P561133
SAE-12	none	(1) SAE-4	upstream side, LH	P561137
SAE-12	5 psi / 34.5 kPa / .34 bar	none	na	P561140
SAE-12	25 psi / 172.5 kPa / 1.72 bar	none	na	P561141
SAE-12	15 psi / 103.4 kPa / 1.34 bar	none	na	P563279
SAE-12	25 psi / 172.5 kPa / 1.72 bar	(2) 1/8" NPT	upstream side	P563280
SAE-8	25 psi / 172.5 kPa / 1.72 bar	none	na	P561138

Note:

On a return line system the gauge port should be on the upstream side. We suggest a 25 psi bypass. If head is used on a suction line, the gauge port should be on the downstream side very low bypass.

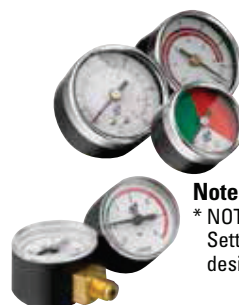


Mix and Match

Donaldson's mix and match system provides the great performance and functional advantages of custom engineered filters with the convenience and speedy delivery of in-stock parts. Choose your options and build a filter model to suit your specifications.

Filter Service Gauges - Visual Indicators

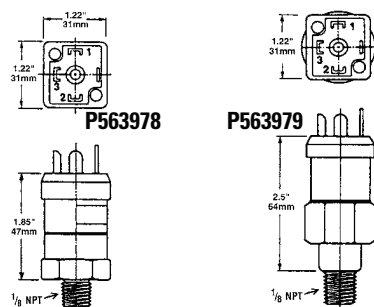
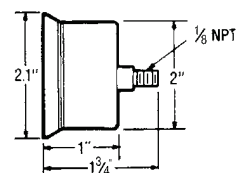
Donaldson Part No.	Pressure Range	Use With Bypass Valve Rating	Type
P563978	5 to 30 psi field adj.*	15 psi / 103.4 kPa / 1.34 bar or 25 psi / 172.5 kPa / 1.72 bar or No Bypass	Return indicator, electrical
P563979	-5 to 15 in	5 psi / 34.5 kPa / .34 bar Hg field adj.* or No Bypass	Suction indicator, electrical
P563296	0 to 100 psi	15 psi / 103.4 kPa / 1.34 bar or 25 psi / 172.5 kPa / 1.72 bar or No Bypass	Return indicator, numeric scale
P563297	0 to 100 psi	15 psi / 103.4 kPa / 1.34 bar Bypass	Return indicator, color coded
P563298	0 to 100 psi	25 psi / 172.5 kPa / 1.72 bar or No Bypass	Return indicator, color-coded
P563299	0 to -30 Hg	5 psi / 34.5 kPa / .34 bar or No Bypass	Suction indicator, numeric scale



Notes

* NOT PRESET:
 Setting adjustable for
 desired application

P563296 - P563299



#1 Common; #2 Normally Closed;
 #3 Normally Open

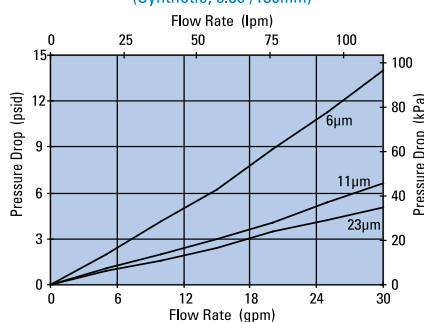
Instructions

1. Remove DIN adaptor
2. Remove small brass screw
3. Using 1/8" allen wrench adjust clockwise to increase set point/counter-clockwise to decrease set point
4. NO / NC

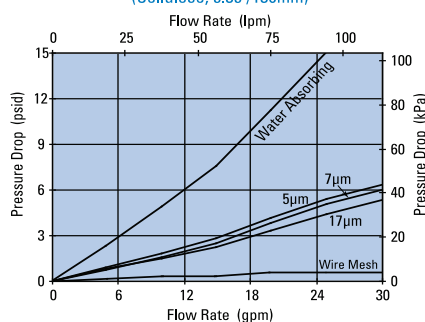
Adjustment screw located in center of electric prongs

Performance Data

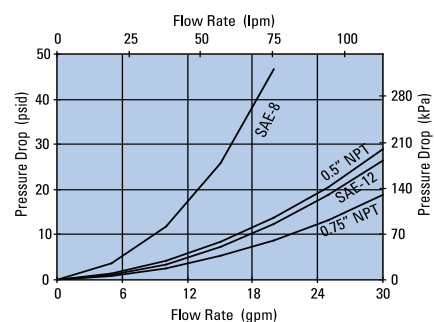
SP15 Filter Only (Synthetic, 5.35"/136mm)



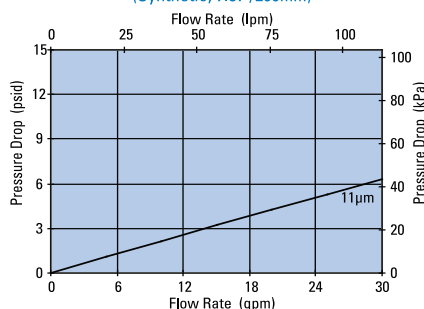
SP15 Filter Only (Cellulose, 5.35"/136mm)



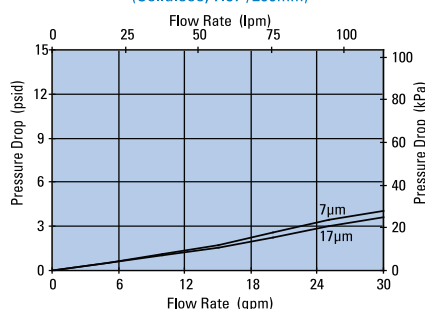
SP15/25 Head Only



SP25 Filter Only (Synthetic, 7.87"/200mm)



SP25 Filter Only (Cellulose, 7.87"/200mm)





W023

Max Flow: 60 gpm (227 lpm)



W023 Spin-On Filters

Working Pressures to: 150 psi
1035 kPa
10.3 bar

Rated Static Burst to: 250 psi
1725 kPa
17.2 bar

Flow Range to: 60 gpm
227 lpm

Features

This versatile spin-on series is an excellent choice for use in high corrosion environments. The gray iron head construction can be ordered with gauge or differential pressure indicator ports. Take advantage of our mix and match system of heads and filters, so you get exactly what you need. You can choose the media type and configurations that's best for your application.

Applications

- Fluid Conditioning Systems
- In-Plant Systems
- Mobile Equipment
- Power Transmissions
- Process Systems



Beta Rating

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

Porting Size Options

- 1 1/4" NPT
- SAE-20 O-ring

Replacement Filter Lengths

- 6.7" / 170 mm
- 10.7" / 271 mm

Standard Bypass Ratings

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

Assembly Weight

- 7.0lbs / 3.2 kg (short)
- 8.0 lbs / 3.6 kg (long)

Operating Temperatures

- -22°F to 225°F / -30°C to 107°C

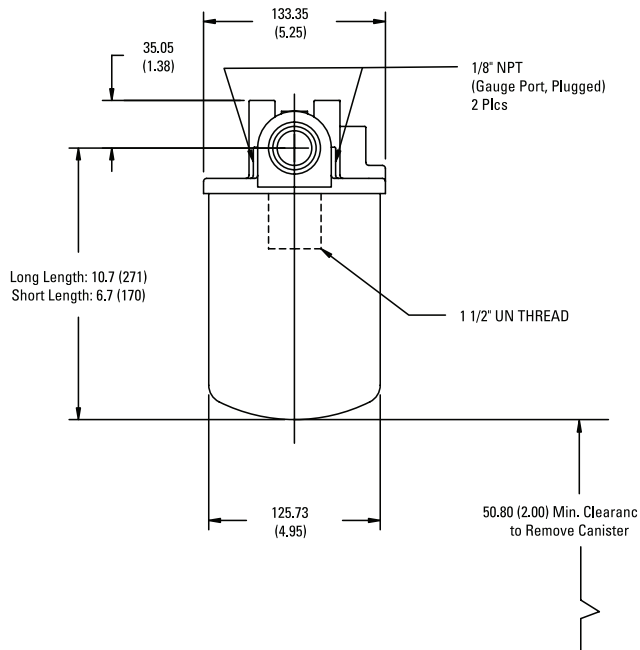
Filter Collapse Ratings

- 100 psid / 690 kPa / 6.9 bar

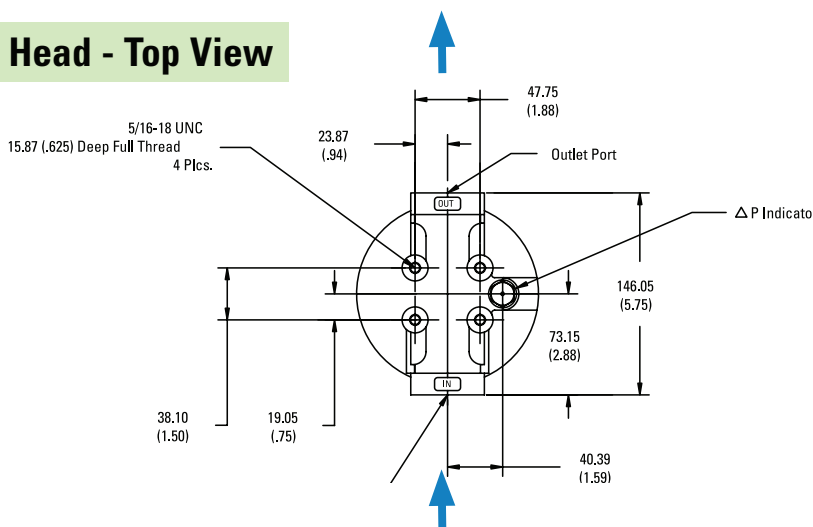
W023 Specification Illustrations

All dimensions are shown in millimeters [inches].

Assembly - Side View



Head - Top View





W023

Max Flow: 60 gpm (227 lpm)



W023 Components

Filter Choices

Media Type	$\beta_{x(c)} = 2$ Rating based on ISO 16889	$\beta_{x(c)} = 1000$	Length in	mm	Donaldson Part No.	Comments
Synteq Synthetic		<4 μm	10.7	271	P167796	Viton® O-ring & square seal kit
		6 μm	6.7	170	P167162	3-seal kit
		6 μm	10.7	271	P165762	3-seal kit
		11 μm	6.7	170	P165875	3-seal kit
		11 μm	10.7	271	P165876	3-seal kit
		13 μm	6.7	170	P167944	Viton O-ring & square seal kit
		13 μm	10.7	271	P167945	Viton O-ring & square seal kit
		23 μm	6.7	170	P165877	3-seal kit
		23 μm	10.7	271	P165878	3-seal kit
		50 μm	6.7	170	P165879	3-seal kit
		50 μm	10.7	271	P165880	3-seal kit
Cellulose	5 μm		6.7	170	P550386	3-seal kit
	5 μm		10.7	271	P550250	3-seal kit
	7 μm		6.7	170	P550388	3-seal kit
	7 μm		10.7	271	P550251	3-seal kit
	17 μm		6.7	170	P550387	3-seal kit
	17 μm		10.7	271	P550252	3-seal kit
Water Absorbing	10 μm		10.7	271	P561183	Cellulose media, 3-seal kit. Absorbs 350 ml water.
Wire Mesh	150 μm		6.7	170	P550275	Stainless steel wire mesh, 3-seal kit
	150 μm		10.7	271	P550276	Stainless steel wire mesh, 3-seal kit

Filter Notes

* All models have 1½-16 UNF threads except where otherwise noted. All models measure 5.07/127 mm outer diameter.

Head Assembly Choices

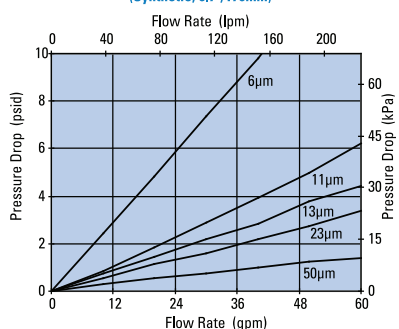
Port Size	Bypass Rating	Seal Material	Indicator Style & Location	Donaldson Part No.
SAE-20 O-Ring	50 psi / 3.45 bar	Buna-N	Port Machined & Plugged	P574241
1-1/4" NPT	None	Buna-N	Port Machined & Plugged	P575930

Indicator Choices

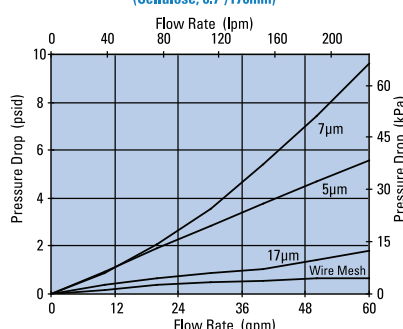
Indicator Pressure Setting	Connector Style	Seal Material	Donaldson Part No.	Thermal Lockout	Surge Control	Reset
Visual Pop-up Models						
15 psi / 103 kPa	N/A	Buna-N	P572345	No	No	Auto
35 psi / 241 kPa	N/A	Buna-N	P572347	No	No	Auto
35 psi / 241 kPa	N/A	Buna-N	P572348	Yes	Yes	Manual
35 psi / 241 kPa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

Performance Data

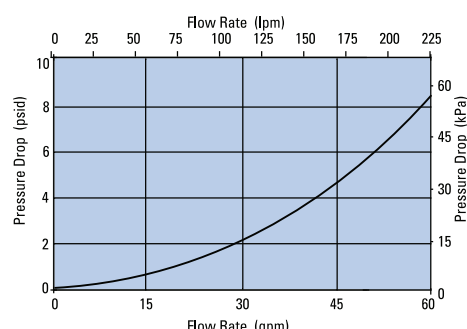
W023 Filter Only
(Synthetic, 6.7"/170mm)



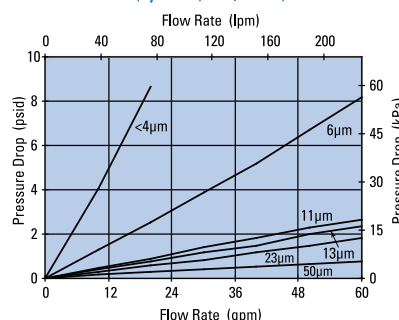
W023 Filter Only
(Cellulose, 6.7"/170mm)



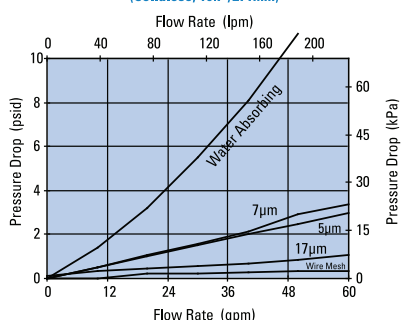
W023 Head Only



W023 Filter Only
(Synthetic, 10.7"/271mm)



W023 Filter Only
(Cellulose, 10.7"/271mm)



Brad Harrison® is a registered trademark of Woodhead Industries, Inc.
 Hirschmann® is a registered trademark of Richard Hirschmann of America Inc.
 Buna-N® and Viton® are registered trademarks of E. I. DuPont de Nemours and Co.



HBK05

Max Flow: 60 gpm (227 lpm)



HBK05 Spin-On Filters

Working Pressures to: 150 psi
1035 kPa
10.3 bar

Rated Static Burst to: 250 psi
1725 kPa
17.2 bar

Flow Range to: 60 gpm
227 lpm

Features

HBK05 is a strong and durable low pressure filter with a spin-on design that simplifies servicing and reduces maintenance costs. Its heavy-duty steel canister has a rigid steel attachment plate for added strength. The head-to-canister O-ring seal is designed to ensure seal integrity beyond 250 psi/17 bar. The head is made of die-cast aluminum.

Take advantage of our mix and match system of in-stock heads and filters—so you can get exactly what you need, HBK05 is available with your choice of visual or electrical service indicators, and bypass ratings of 50 psi, 25 psi, or 5 psi. The filter media is Synteq™, our proprietary synthetic media specifically designed for liquid filtration.

HBK05 filters ship with "L", square, and O-ring gaskets (unless noted with Viton® seals, then with square and o-ring gaskets). All HBK05 filters are interchangeable with SP50/60, SP80/90 and SP100/120 spin-ons, and have 1½" - 16 UN threads.

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



Beta Rating

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

Porting Size Options

- 1¼" NPT
- SAE-20 O-ring

Replacement Filter Lengths

- 6.7" / 170 mm (short)
- 10.7" / 271 mm (long)

Filter Collapse Ratings

- 125 psid / 863 kPa / 8.6 bar

Standard Bypass Ratings

- 50 psi / 345 kPa / 3.4 bar
- 25 psi / 172.5 kPa / 1.7 bar
- 5 psi / 34.5 kPa / .34 bar

Assembly Weight

- 6.9 lbs / 3.1 kg (long)
- 5.7 lbs / 2.6 kg (short)

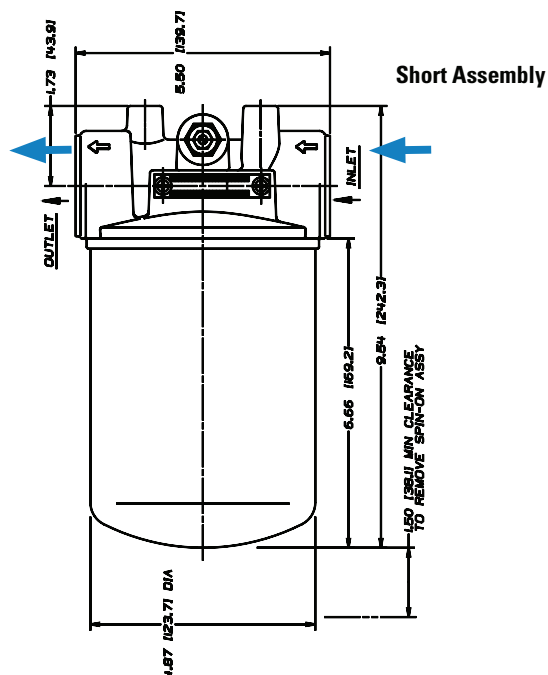
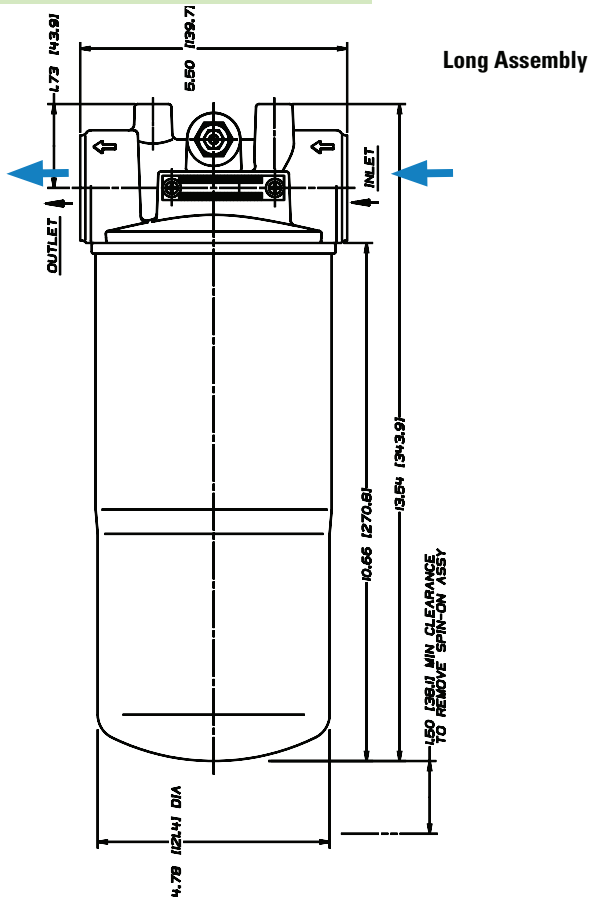
Operating Temperatures

- -22°F to 225°F / -30°C to 107°C

HBK05 Specification Illustrations

All dimensions are shown in inches [millimeters].

Assembly - Side View

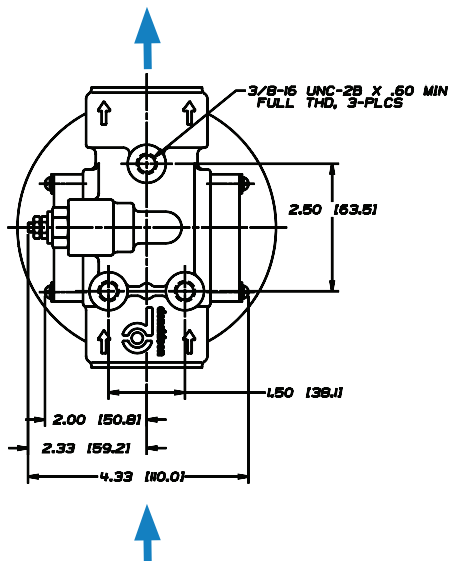


Applications

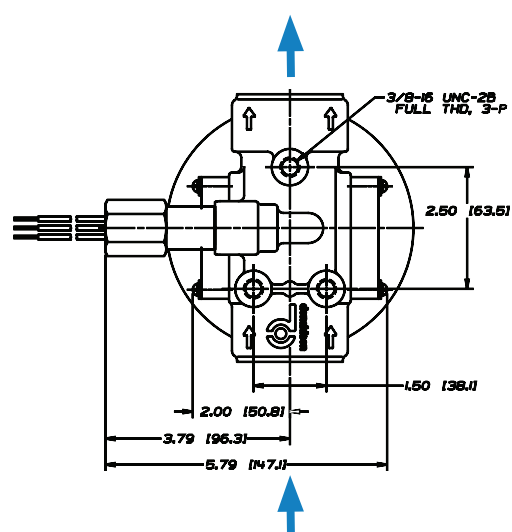
- Cooling Circuits
- Fluid Conditioning Systems
- Hydrostatic Charge Pumps
- Lube Oil Systems
- Power Transmissions
- Return Lines
- Side Loop Systems

Head - Top View

with DC Electrical Service Indicator



with AC/DC Electrical Service Indicator





HBK05

Max Flow: 60 gpm (227 lpm)



HBK05 Components

Filter Choices

Media Type	$\beta_{x(c)} = 2$ Rating based on ISO 16889	$\beta_{x(c)} = 1000$	Length in mm	Donaldson Part No.	Comments
Synteq Synthetic	<4 μm		10.7	271	P167796 Viton® Seal
	6 μm		6.7	170	P167162
	6 μm		10.7	271	P165762
	11 μm		6.7	170	P165875
	11 μm		10.7	271	P165876
	13 μm		6.7	170	P167944 Viton Seal
	13 μm		10.7	271	P167945 Viton Seal
	23 μm		6.7	170	P165877
	23 μm		10.7	271	P165878
	50 μm		6.7	170	P165879
	50 μm		10.7	271	P165880
Water Absorbing	10 μm		10.7	271	P561183 Cellulose media, 3-seal kit. Absorbs 350 ml water.

Filter Notes

* Thread size 1/2"-16 UN

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Head Choices

Port Size	Bypass Rating	Indicator Style & Location	Donaldson Part No.
1 1/4" NPT	50 psi / 345 kPa	Visual, Both Sides	P172953
1 1/4" NPT	25 psi / 172 kPa	Visual, Both Sides	P166418
1 1/4" NPT	5 psi / 34 kPa	Visual, Both Sides	P166665
SAE-20 O-Ring	25 psi / 172 kPa	Visual, Both Sides	P166439

Note

* 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.



Mix and Match

Donaldson's mix and match system provides the great performance and functional advantages of custom-engineered filters with the convenience and speedy delivery of in-stock parts. Choose your options and build an HBK05 filter to suit your specifications.

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. Normally open.
15 psi / 103 kPa	P163601	A	Single post DC. Normally open.
25 psi / 172.5 kPa	P163839	A	Single post DC. Normally closed.
25 psi / 172.5 kPa	P162400	A	Single post DC. Normally open.
25 psi / 172.5 kPa	P171143	B	2-wire with Cannon connector. Normally open.
25 psi / 172.5 kPa	P173944	C	3-wire: White = normally open. Red = normally closed. Black = common
50 psi / 276 kPa	P574967	E	DC 2-wire. Normally closed. Gold contacts. Microprocessor compatible.

Service Indicator Options

Use with Bypass Valve Pressure of:	Indicator Part No.	Style ⁽³⁾
Visual Models⁽²⁾		
5 psi / 34.5 kPa	P162694	D
15 psi / 103 kPa	P162642	D
25 psi / 172.5 kPa	P162696	D
N/A	P165984	(blank plate)
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⁾ All visual models have a maximum operating temperature of 180°F/ 82°C.⁽³⁾ See indicator illustrations on facing page.

HBK05 Service Parts

SERVICE PARTS NOTE:

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

Service Indicator Styles

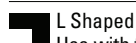
(See table on opposite page)

Filter Notes

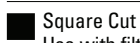
- If you're filtering petroleum-based oil, filters with seals made of Buna-N® are appropriate for most applications.
 - If you're filtering diester, phosphate ester fluids, water glycol, water/oil emulsions and HWCF over 150°F/ 83°C, use filters with seals made of fluorocarbon, such as Viton® from DuPont Dow Elastomers, or Fluorel® from 3M Company.
 - Refer to the table in the Technical Reference Guide for fluid compatibility with our filter media.
- Viton® and Buna-N® are registered trademarks of E. I. DuPont de Nemours and Company.

Gaskets

Each filter ships with a 3-seal kit, containing an "L" shaped, a square cut, and an O-ring gasket seal, unless otherwise noted. Use only one of the following seals. Installation instructions can be found in the technical reference section.



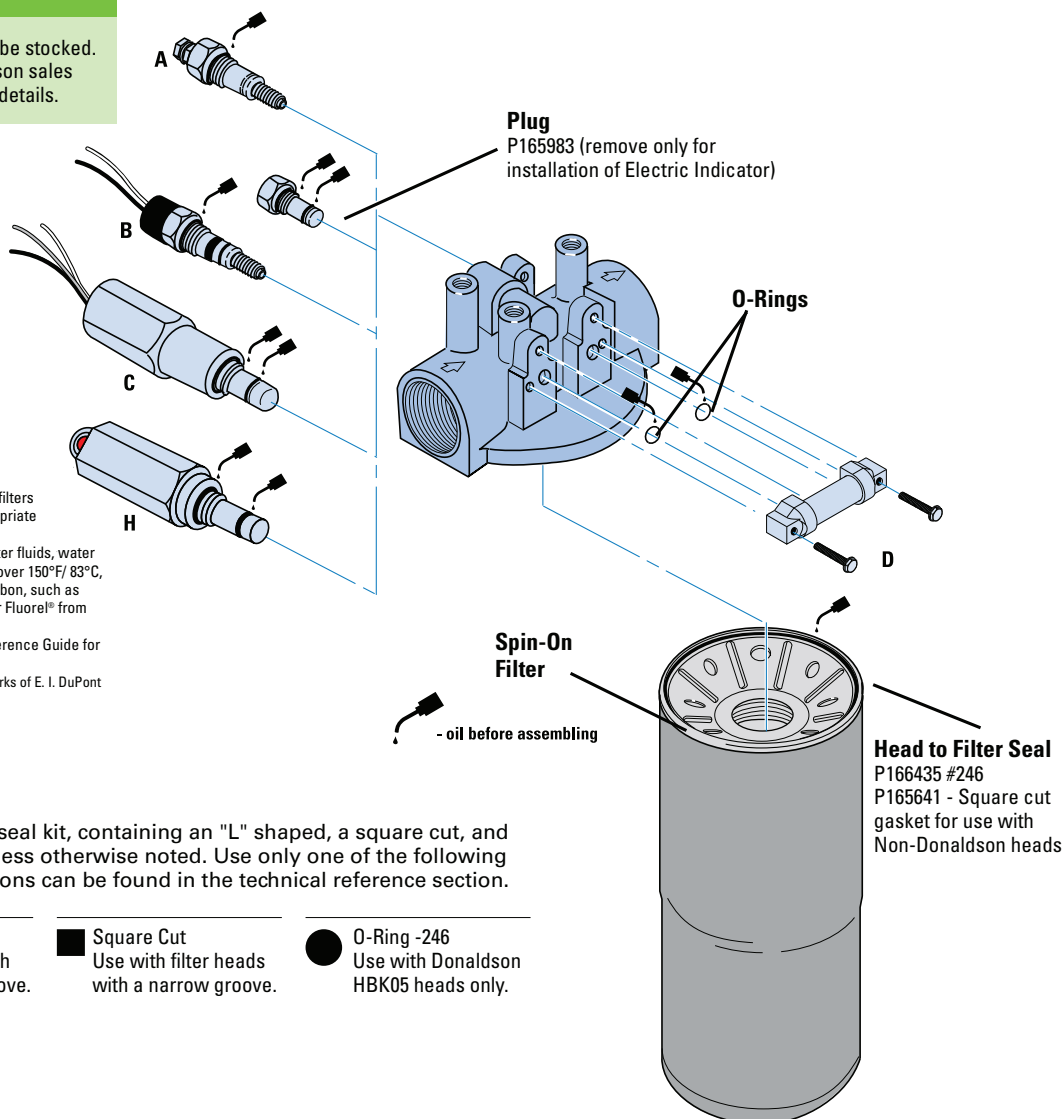
L Shaped
Use with filter heads with no groove or a wide groove.



Square Cut
Use with filter heads with a narrow groove.

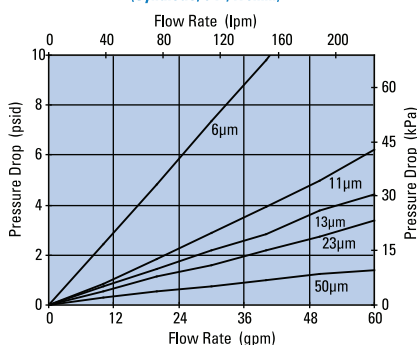


O-Ring -246
Use with Donaldson HBK05 heads only.

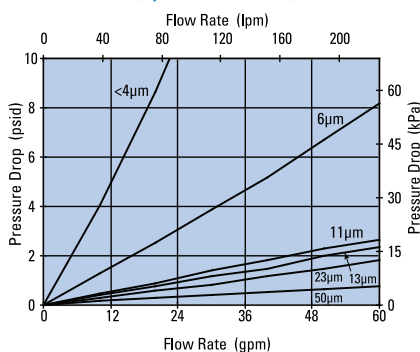


Performance Data

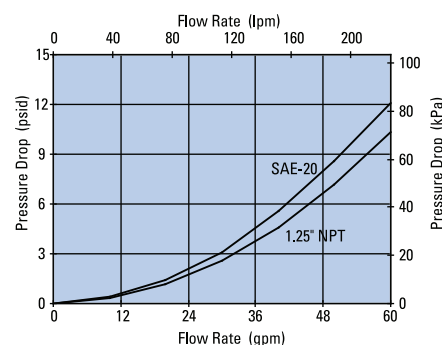
HBK05 Filter Only
(Synthetic, 6.7"/170mm)



HBK05 Filter Only
(Synthetic, 10.7"/271mm)



HBK05 Head Only





SP50/60

Max Flow: 60 gpm (227 lpm)



SP50/60 Spin-On Filters

Working Pressures to:	150 psi 1035 kPa 10.3 bar
Rated Static Burst to:	250 psi 1725 kPa 17.2 bar
Flow Range to:	60 gpm 227 lpm



Features

The SP50/60 spin-on filter is an economical, low-pressure model with a broad selection of media ratings. The die cast aluminum head and steel body ensure strength and durability—perfect for a wide variety of mobile and in-plant applications.

Take advantage of Donaldson’s mix and match system of in-stock heads and filter choices—so you can get exactly what you need. Filter options include: synthetic media, natural-fiber cellulose, water-absorbing cellulose media and wire mesh media. SP50/60 spin-on filters are interchangeable with HBK05 filters.

Beta Rating • Performance to $\beta_{<4(c)}=1000$ Porting Size Options • 1 1/4" NPT • SAE-20 O-ring Replacement Filter Lengths • 6.7" / 170 mm • 7.0" / 178 mm • 10.7" / 271 mm Filter Collapse Ratings • 100 psid / 690 kPa / 6.9 bar	Standard Bypass Ratings • 25 psi / 172.5 kPa / 1.7 bar • 15 psi / 103.4 kPa / 1.03 bar • 5 psi / 34.5 kPa / .34 bar • 2.5 psi / 17.2 kPa / .17 bar • No Bypass Assembly Weight • 4.7 lbs / 2.1 kg (short) • 5.6 lbs / 2.5 kg (long) Operating Temperatures • -22°F to 225°F / -30°C to 107°C
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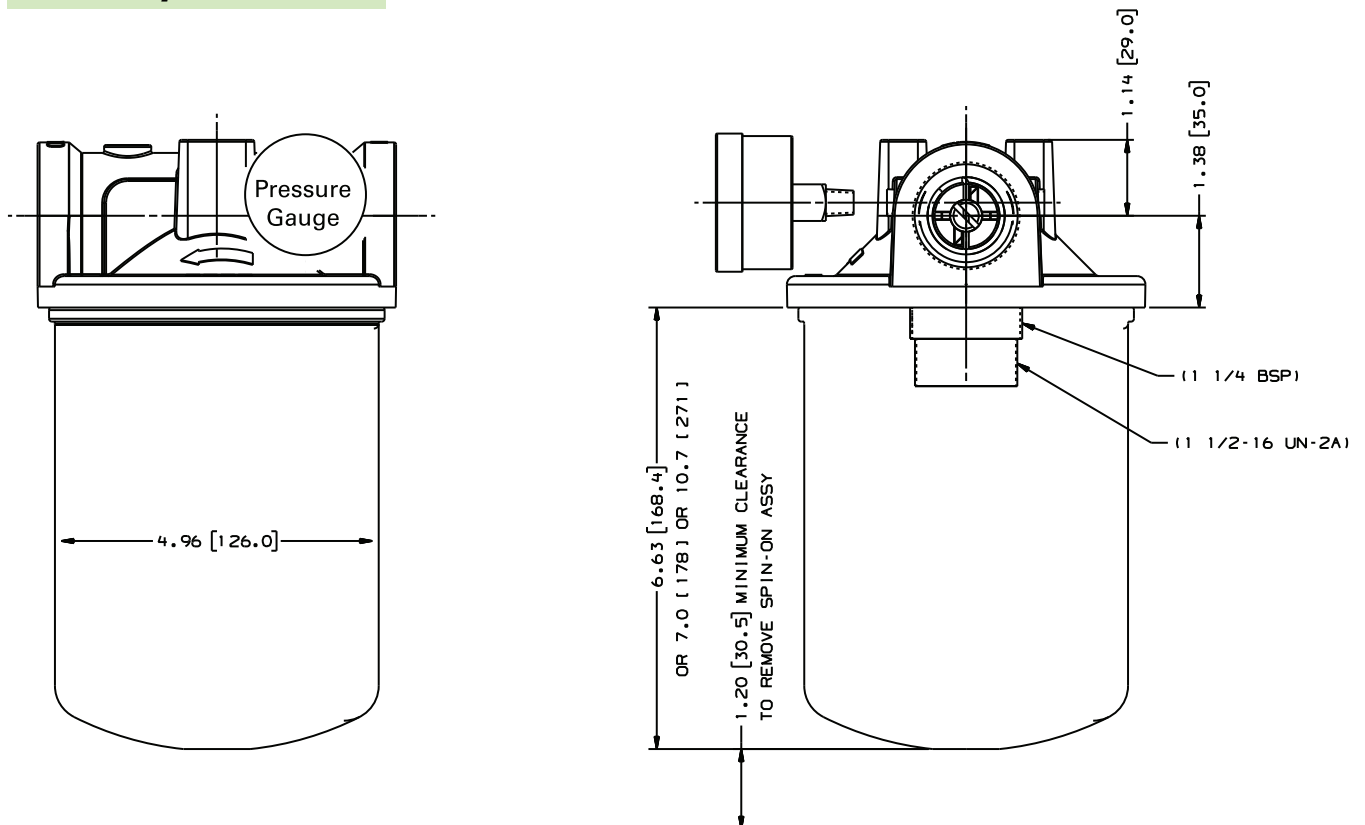
SP50/60 Specification Illustrations

All dimensions are shown in inches [millimeters].

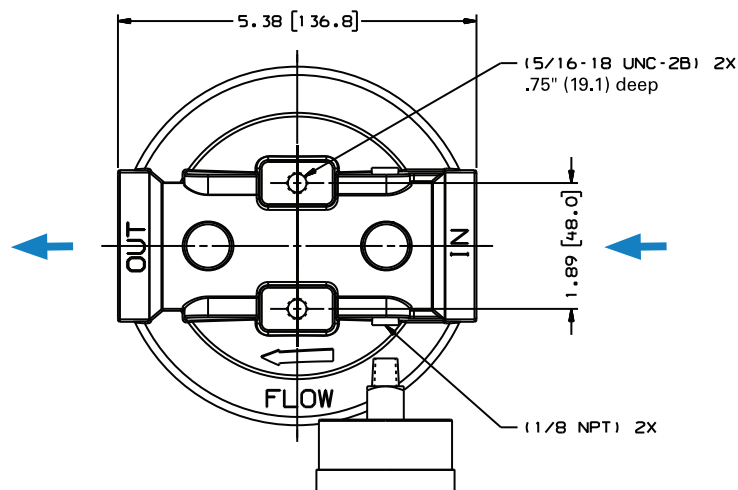
Applications

- Fluid Conditioning Systems
- In-Plant Systems
- Mobile Equipment
- Power Transmissions
- Process Systems

Assembly - Side View



Head - Top View





SP50/60

Max Flow: 60 gpm (227 lpm)



SP50/60 Components

Filter Choices

Media Type	$\beta_{x(c)} = 2$ Rating based on ISO 16889	$\beta_{x(c)} = 1000$	Length in mm	Donaldson Part No.	Comments	
Synteq Synthetic		<4 μm	10.7	271	P167796	Viton® O-ring & square seal kit
		6 μm	6.7	170	P167162	3-seal kit
		6 μm	10.7	271	P165762	3-seal kit
		11 μm	6.7	170	P165875	3-seal kit
		11 μm	10.7	271	P165876	3-seal kit
		13 μm	6.7	170	P167944	Viton O-ring & square seal kit
		13 μm	10.7	271	P167945	Viton O-ring & square seal kit
		23 μm	6.7	170	P165877	3-seal kit
		23 μm	10.7	271	P165878	3-seal kit
		50 μm	6.7	170	P165879	3-seal kit
		50 μm	10.7	271	P165880	3-seal kit
Cellulose	5 μm		6.7	170	P550386	3-seal kit
	5 μm		10.7	271	P550250	3-seal kit
	7 μm		6.7	170	P550388	3-seal kit
	7 μm		10.7	271	P550251	3-seal kit
	7 μm		7.00	178	P565245	Square seal kit, 1¼" BSP thread
	17 μm		6.7	170	P550387	3-seal kit
	17 μm		10.7	271	P550252	3-seal kit
	27 μm		7.00	178	P171616	Square seal kit, 1¼" BSP thread
Water Absorbing	10 μm		10.7	271	P561183	Cellulose media, 3-seal kit. Absorbs 350 ml water.
Wire Mesh	150 μm		6.7	170	P550275	Stainless steel wire mesh, 3-seal kit
	150 μm		10.7	271	P550276	Stainless steel wire mesh, 3-seal kit

All models have 1½-16 UNF threads except where otherwise noted. All models measure 5.07/127 mm outer diameter.
Viton® is a registered trademark of E. I. DuPont de Nemours and Company.

Head Choices

Port Size	Bypass Rating	Gauge Ports (drill, tap, plug)	Gauge Port Location	Donaldson Part No.
1¼" NPT	No Bypass	(4) 1/8" NPT	upstream and downstream side	P576558
1¼" NPT	5 psi / 34.5 kPa / .34 bar	(4) 1/8" NPT	upstream and downstream side	P576555
1¼" NPT	15 psi / 103.4 kPa / 1.34 bar	(4) 1/8" NPT	upstream and downstream side	P576556
1¼" NPT	25 psi / 172.5 kPa / 1.72 bar	(4) 1/8" NPT	upstream and downstream side	P576557
SAE-20	No Bypass	(4) 1/8" NPT	upstream and downstream side	P576565
SAE-20	5 psi / 34.5 kPa / .34bar	(4) 1/8" NPT	upstream and downstream side	P576562
SAE-20	15 psi / 103.4 kPa / 1.34 bar	(4) 1/8" NPT	upstream and downstream side	P576563
SAE-20	25 psi / 172.5 kPa / 1.72 bar	(4) 1/8" NPT	upstream and downstream side	P576564

Gaskets

Each filter ships with a 3-seal kit, containing an "L" shaped, a square cut, and an O-ring gasket seal, unless otherwise noted. Use only one of the following seals. Installation instructions can be found in the technical reference section.

- L Shaped
Use with filter heads with no groove or a wide groove.
 Square Cut
Use with filter heads with a narrow groove.
 O-Ring -246
Use with Donaldson HBK05 heads only.

Note:
On a return line system the gauge port should be on the upstream side. We suggest a 25 psi bypass. If head is used on a suction line, the gauge port should be on the downstream side very low bypass.

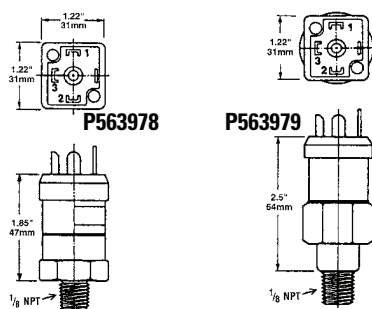
Optional Filter Service Indicators

This handy pressure gauge, mounted on the side of an SP50/60 filter head, will tell you when it's time to service the filter.

Donaldson Part No.	Pressure Range	Use With Bypass Valve Rating	Type
P563978	5 to 30 psi field adj.*	15 psi / 103.4 kPa / 1.34 bar or 25 psi / 172.5 kPa / 1.72 bar or No Bypass	Return indicator, electrical
P563979	-5 to 15 in Hg field adj.*	5 psi / 34.5 kPa / .34 bar or No Bypass	Suction indicator, electrical
P563296	0 to 100 psi	15 psi / 103.4 kPa / 1.34 bar or 25 psi / 172.5 kPa / 1.72 bar or No Bypass	Return indicator, numeric scale
P563297	0 to 100 psi	15 psi / 103.4 kPa / 1.34 bar Bypass	Return indicator, color coded
P563298	0 to 100 psi	25 psi / 172.5 kPa / 1.72 bar or No Bypass	Return indicator, color-coded
P563299	0 to -30 Hg	5 psi / 34.5 kPa / .34 bar or No Bypass	Suction indicator, numeric scale



Notes
 * NOT PRESET:
 Setting adjustable for desired application



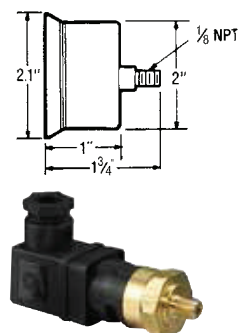
#1 Common; #2 Normally Closed;
 #3 Normally Open

Instructions

1. Remove DIN adaptor
2. Remove small brass screw
3. Using 1/8" allen wrench adjust clockwise to increase set point/counter-clockwise to decrease set point
4. NO / NC

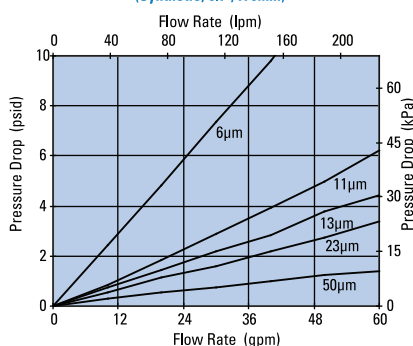
Adjustment screw located in center of electric prongs

P563296 - P563299

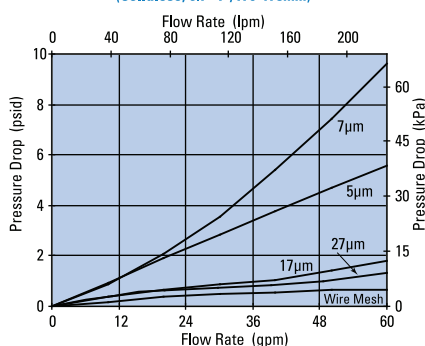


Performance Data

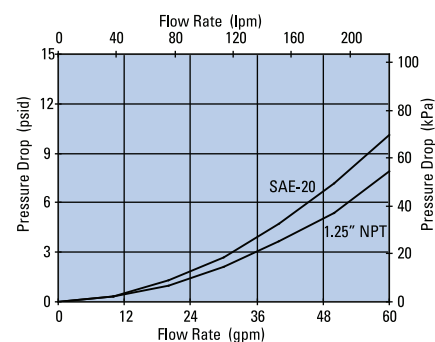
SP50 Filter Only (Synthetic, 6.7"/170mm)



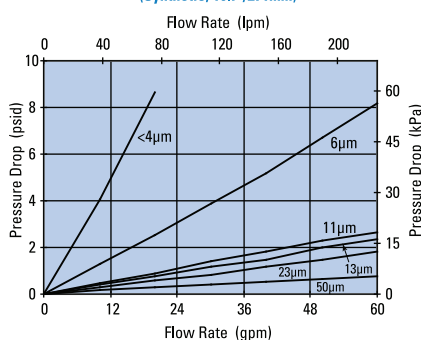
SP50 Filter Only (Cellulose, 6.7"-7"/170-178mm)



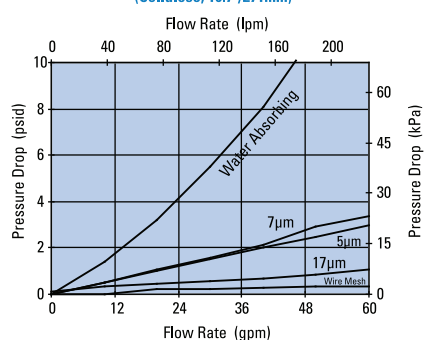
SP50/60 Head Only



SP60 Filter Only (Synthetic, 10.7"/271mm)



SP60 Filter Only (Cellulose, 10.7"/271mm)





SP80/90

Max Flow: 100 gpm (379 lpm)



SP80/90 Spin-On Filters

Working Pressures to: 150 psi
1035 kPa
10.3 bar

Rated Static Burst to: 250 psi
1725 kPa
17.2 bar

Flow Range to: 100 gpm
379 lpm



Features

SP80/90 double filter head allows for double the flow capacity, with two filters to hold more contaminant. Aluminum casting and Buna-N® seals standard. SP80/90 filters are interchangeable with SP50/60 filters.

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

Beta Rating

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

Porting Size Options

- 1½" NPT
- SAE-24 O-ring
- 2" SAE 4-Bolt Flange Code 61

Replacement Filter Lengths

- 6.7" / 170 mm
- 7.0" / 178 mm
- 10.7" / 271 mm

Filter Collapse Ratings

- 100 psid / 690 kPa / 6.9 bar

Standard Bypass Ratings

- 25 psi / 172.5 kPa / 1.72 bar
- 15 psi / 103.4 kPa / 1.34 bar
- 5 psi / 34.5 kPa / .34 bar
- no bypass

Assembly Weight

- 10.0 lbs / 4.5 kg (short) - approximate
- 11.8 lbs / 5.4 kg (long)

Operating Temperatures

- -22°F to 225°F / -30°C to 107°C

SP80/90 Specification Illustrations

All dimensions are shown in inches [millimeters].

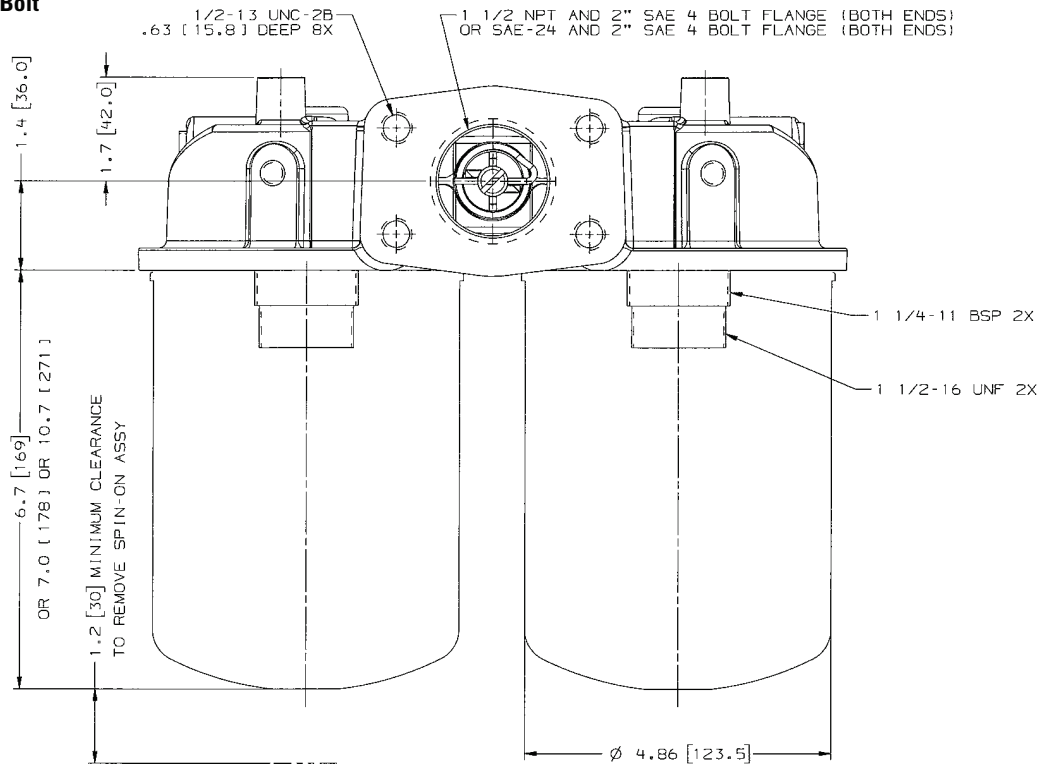
Assembly - Side View

Combination

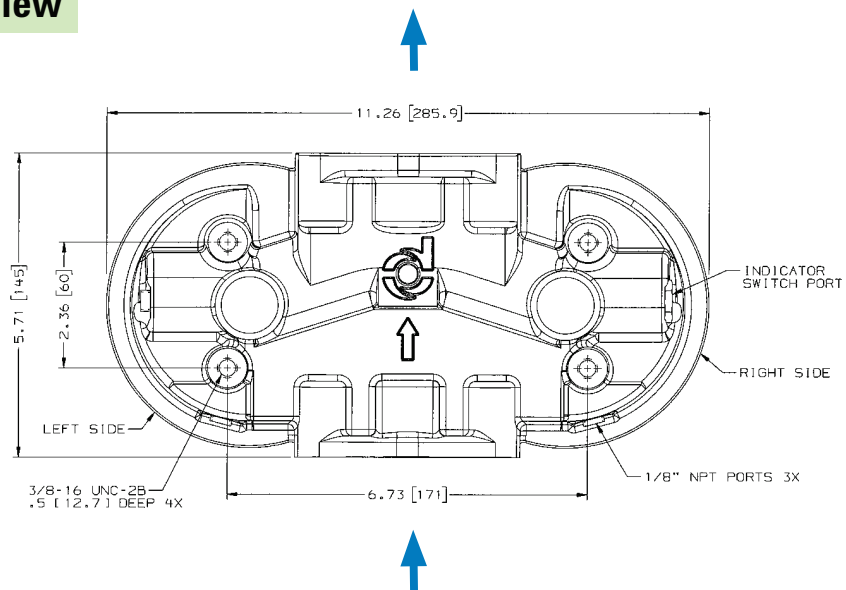
1 1/2" NPT and 2" SAE

4-Bolt Flange (Both Ends) or

SAE-24 & 2" SAE-4 Bolt



Head - Top View





SP80/90

Max Flow: 100 gpm (379 lpm)



SP80/90 Components

Filter Choices

Media Type	$\beta_{x(c)} = 2$ Rating based on ISO 16889	$\beta_{x(c)} = 1000$	Length in	mm	Donaldson Part No.	Comments
Synteq Synthetic	<4 μm		10.7	271	P167796	Viton® O-ring & square seal kit
	6 μm		6.7	170	P167162	3-seal kit
	6 μm		10.7	271	P165762	3-seal kit
	11 μm		6.7	170	P165875	3-seal kit
	11 μm		10.7	271	P165876	3-seal kit
	13 μm		6.7	170	P167944	Viton O-ring & square seal kit
	13 μm		10.7	271	P167945	Viton O-ring & square seal kit
	23 μm		6.7	170	P165877	3-seal kit
	23 μm		10.7	271	P165878	3-seal kit
	50 μm		6.7	170	P165879	3-seal kit
	50 μm		10.7	271	P165880	3-seal kit
Cellulose	5 μm		6.7	170	P550386	3-seal kit
	5 μm		10.7	271	P550250	3-seal kit
	7 μm		6.7	170	P550388	3-seal kit
	7 μm		10.7	271	P550251	3-seal kit
	7 μm		7.00	178	P565245	Square seal kit, 1/4" BSP thread
	17 μm		6.7	170	P550387	3-seal kit
	17 μm		10.7	271	P550252	3-seal kit
	27 μm		7.00	178	P171616	Square seal kit, 1/4" BSP thread
Water Absorbing	10 μm		10.7	271	P561183	Cellulose media, 3-seal kit. Absorbs 350 ml water.
Wire Mesh	150 μm		6.7	170	P550275	Stainless steel wire mesh, 3-seal kit
	150 μm		10.7	271	P550276	Stainless steel wire mesh, 3-seal kit

All models have 1½-16 UNF threads except where otherwise noted. All models measure 5.07/127mm outer diameter. Viton® is a registered trademark of E. I. DuPont de Nemours and Company.

Head Choices

Port Size	Bypass Rating	Gauge Ports (drill, tap, plug)	Gauge Port Location	Donaldson Part No.
1½" NPT & 2" SAE 4 Bolt	15 psi / 103.4 kPa / 1.34 bar	(4) 1/8" NPT	upstream & downstream sides	P563273
1½" NPT & 2" SAE 4 Bolt	25 psi / 172.5 kPa / 1.72 bar	(4) 1/8" NPT	upstream & downstream sides	P563274
1½" NPT & 2" SAE 4 Bolt	No Bypass	(4) 1/8" NPT	upstream & downstream sides	P563275
1½" NPT & 2" SAE 4 Bolt	5 psi / 34.5 kPa / .34 bar	(4) 1/8" NPT	upstream & downstream sides	P563276
SAE-24 O-Ring	25 psi / 172.5 kPa / 1.72 bar	(4) 1/8" NPT	upstream & downstream sides	P564892
SAE-24	No Bypass	(4) 1/8" NPT	upstream & downstream sides	P573217

Note:

On a return line system the gauge port should be on the upstream side. We suggest a 25 psi bypass. If head is used on a suction line, the gauge port should be on the downstream side very low bypass.

Gaskets

Each filter ships with a 3-seal kit, containing an "L" shaped, a square cut, and an O-ring gasket seal, unless otherwise noted. Use only one of the following seals. Installation instructions can be found in the technical reference section.

- L Shaped
Use with filter heads with no groove or a wide groove.
- Square Cut
Use with filter heads with a narrow groove.
- O-Ring -246
Use with Donaldson HBK05 heads only.

Optional Filter Service Indicators for Left Side

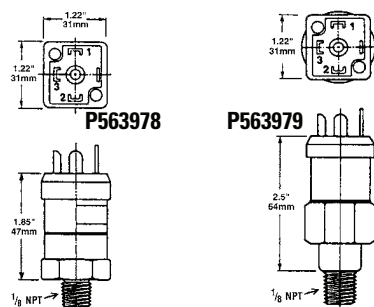
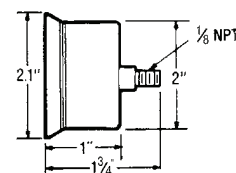
Donaldson Part No.	Pressure Range	Use With Bypass Valve Rating	Type
P563978	5 to 30 psi field adj.*	15 psi / 103.4 kPa / 1.34 bar or 25 psi / 172.5 kPa / 1.72 bar or No Bypass	Return indicator, electrical
P563979	-5 to 15 in Hg field adj.*	5 psi / 34.5 kPa / .34 bar or No Bypass	Suction indicator, electrical
P563296	0 to 100 psi	15 psi / 103.4 kPa / 1.34 bar or 25 psi / 172.5 kPa / 1.72 bar or No Bypass	Return indicator, numeric scale
P563297	0 to 100 psi	15 psi / 103.4 kPa / 1.34 bar Bypass	Return indicator, color coded
P563298	0 to 100 psi	25 psi / 172.5 kPa / 1.72 bar or No Bypass	Return indicator, color-coded
P563299	0 to -30 Hg	5 psi / 34.5 kPa / .34 bar or No Bypass	Suction indicator, numeric scale



Notes

* NOT PRESET:
Setting adjustable for
desired application

P563296 - P563299



#1 Common; #2 Normally Closed;
#3 Normally Open

Instructions

1. Remove DIN adaptor
2. Remove small brass screw
3. Using 1/8" allen wrench adjust clockwise to increase set point/counter-clockwise to decrease set point
4. NO / NC

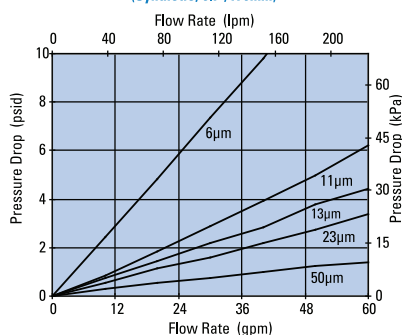
Adjustment screw located in center of electric prongs

Optional Filter Service Indicators for Right Side

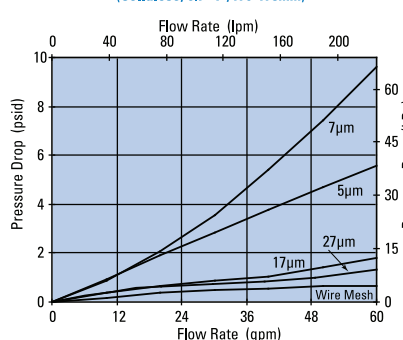
Refer to page 189 in the accessories section for right side electrical filter service indicator options.

Performance Data

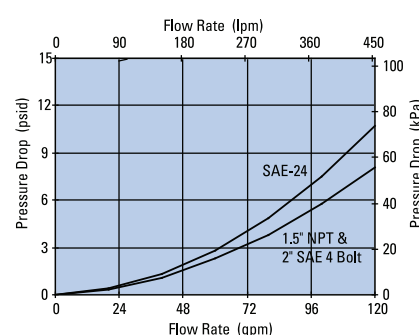
SP80 Filter Only (Synthetic, 6.7"/170mm)



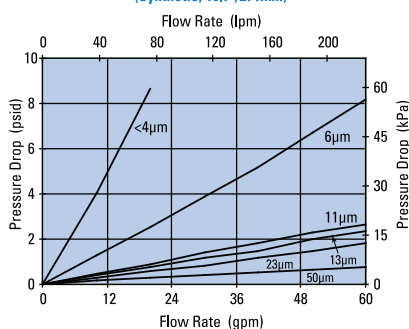
SP80 Filter Only (Cellulose, 6.7"/170-178mm)



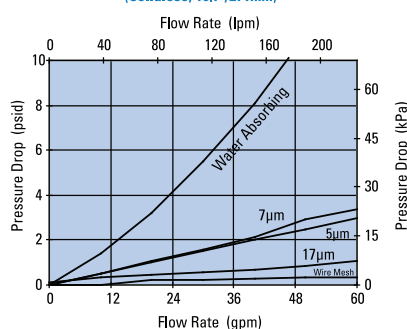
SP80/90 Head Only



SP90 Filter Only (Synthetic, 10.7"/271mm)



SP90 Filter Only (Cellulose, 10.7"/271mm)





SP100/120
 Max Flow: 100 gpm (379 lpm)



SP100/120 Spin-On Filters

Working Pressures to:	150 psi 1035 kPa 10.3 bar
Rated Static Burst to:	250 psi 1725 kPa 17.2 bar
Flow Range to:	100 gpm 379 lpm

Features

SP100/120 double filter head allows for double the flow capacity and a unique, space-saving configuration. Aluminum casting and Buna-N® seals standard. SP100/120 filters are interchangeable with SP50/60 filters.

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



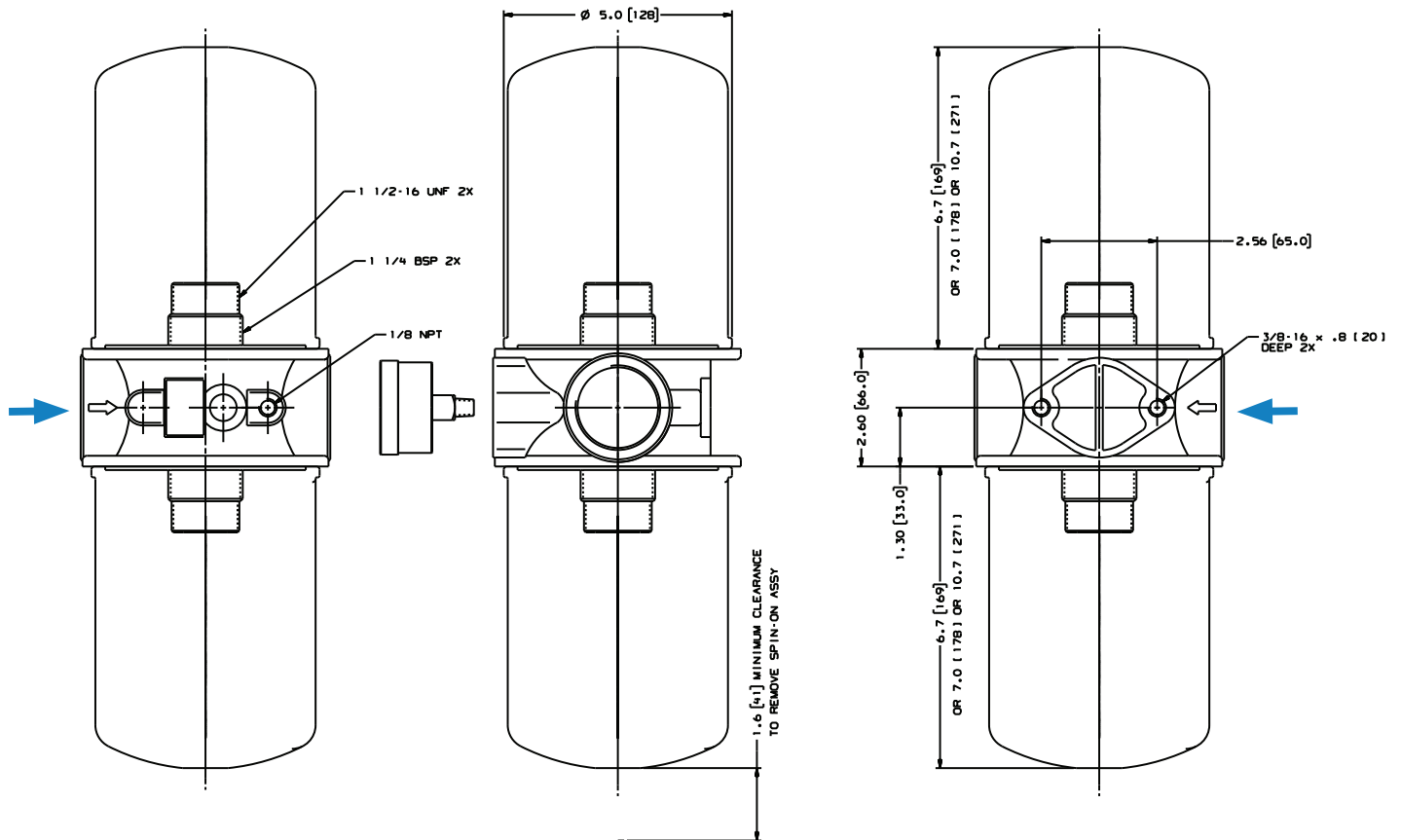
Beta Rating • Performance to $\beta_{<4(c)} = 1000$ Porting Size Options • 1½" NPT Replacement Filter Lengths • 6.7" / 170 mm • 7.0" / 178 mm • 10.7" / 271 mm	Standard Bypass Ratings • 25 psi / 172.5 kPa / 1.72 bar Assembly Weight • 7.0 lbs / 3.2 kg (short) • 8.8 lbs / 4.0 kg (long) Operating Temperatures • -22°F to 225°F / -30°C to 107°C Filter Collapse Ratings • 100 psid / 690 kPa / 6.9 bar
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SP100/120 Specification Illustrations

All dimensions are shown in inches [millimeters].

Assembly - Side View



Applications

- Fluid Conditioning Systems
- In-Plant Systems



SP100/120

Max Flow: 100 gpm (379 lpm)



SP100/120 Components

Filter Choices

Media Type	$\beta_{x(c)} = 2$ Rating based on ISO 16889	$\beta_{x(c)} = 1000$	Length in	mm	Donaldson Part No.	Comments
Synteq Synthetic	<4 μm		10.7	271	P167796	Viton® O-ring & square seal kit
	6 μm		6.7	170	P167162	3-seal kit
	6 μm		10.7	271	P165762	3-seal kit
	11 μm		6.7	170	P165875	3-seal kit
	11 μm		10.7	271	P165876	3-seal kit
	13 μm		6.7	170	P167944	Viton O-ring & square seal kit
	13 μm		10.7	271	P167945	Viton O-ring & square seal kit
	23 μm		6.7	170	P165877	3-seal kit
	23 μm		10.7	271	P165878	3-seal kit
	50 μm		6.7	170	P165879	3-seal kit
	50 μm		10.7	271	P165880	3-seal kit
Cellulose	5 μm		6.7	170	P550386	3-seal kit
	5 μm		10.7	271	P550250	3-seal kit
	7 μm		6.7	170	P550388	3-seal kit
	7 μm		10.7	271	P550251	3-seal kit
	7 μm		7.00	178	P565245	Square seal kit, 1¼" BSP thread
	17 μm		6.7	170	P550387	3-seal kit
	17 μm		10.7	271	P550252	3-seal kit
	27 μm		7.00	178	P171616	Square seal kit, 1¼" BSP thread
Water Absorbing	10 μm		10.7	271	P561183	Cellulose media, 3-seal kit. Absorbs 350 ml water.
Wire Mesh	150 μm		6.7	170	P550275	Stainless steel wire mesh, 3-seal kit
	150 μm		10.7	271	P550276	Stainless steel wire mesh, 3-seal kit

All models have 1½-16 UNF threads except where otherwise noted. All models measure 5.07/127 mm outer diameter.
Viton® is a registered trademark of E. I. DuPont de Nemours and Company.

Head Choice

Port Size	Bypass Rating	Gauge Ports (drill, tap, plug)	Gauge Port Location	Donaldson Part No.
1½" NPT	25 psi / 172.5 kPa / 1.72 bar	(2) 1/8" NPT	upstream & downstream sides	P563277

Note:

On a return line system the gauge port should be on the upstream side. We suggest a 25 psi bypass. If head is used on a suction line, the gauge port should be on the downstream side very low bypass.

Gaskets

Each filter ships with a 3-seal kit, containing an "L" shaped, a square cut, and an O-ring gasket seal, unless otherwise noted. Use only one of the following seals. Installation instructions can be found in the technical reference section.

 L Shaped Use with filter heads with no groove or a wide groove.	 Square Cut Use with filter heads with a narrow groove.	 O-Ring -246 Use with Donaldson HBK05 heads only.
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Optional Filter Service Indicators

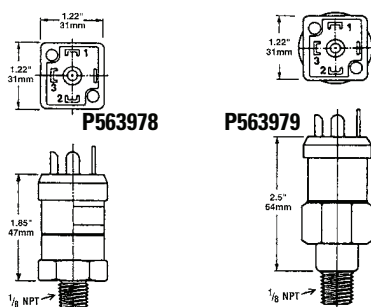
This handy pressure gauge, mounted on the side of an SP100/120 filter head, will tell you when it's time to service the filter.

Donaldson Part No.	Pressure Range	Use With Bypass Valve Rating	Type
P563978	5 to 30 psi field adj.*	15 psi / 103.4 kPa / 1.34 bar or 25 psi / 172.5 kPa / 1.72 bar or No Bypass	Return indicator, electrical
P563979	-5 to 15 in Hg field adj.*	5 psi / 34.5 kPa / .34 bar or No Bypass	Suction indicator, electrical
P563296	0 to 100 psi	15 psi / 103.4 kPa / 1.34 bar or 25 psi / 172.5 kPa / 1.72 bar or No Bypass	Return indicator, numeric scale
P563297	0 to 100 psi	15 psi / 103.4 kPa / 1.34 bar Bypass	Return indicator, color coded
P563298	0 to 100 psi	25 psi / 172.5 kPa / 1.72 bar or No Bypass	Return indicator, color-coded
P563299	0 to -30 Hg	5 psi / 34.5 kPa / .34 bar or No Bypass	Suction indicator, numeric scale



Notes

* NOT PRESET:
Setting adjustable for
desired application



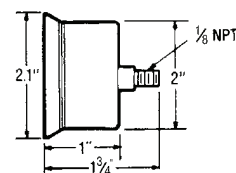
#1 Common; #2 Normally Closed;
#3 Normally Open

Instructions

1. Remove DIN adaptor
2. Remove small brass screw
3. Using 1/8" allen wrench adjust clockwise to increase set point/counter-clockwise to decrease set point
4. NO / NC

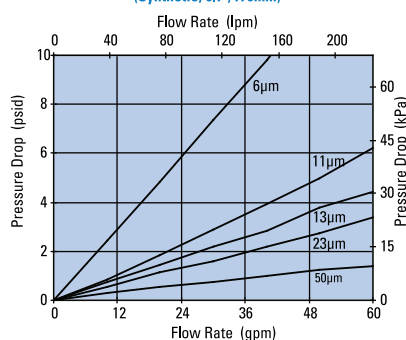
Adjustment screw located in center of electric prongs

P563296 - P563299

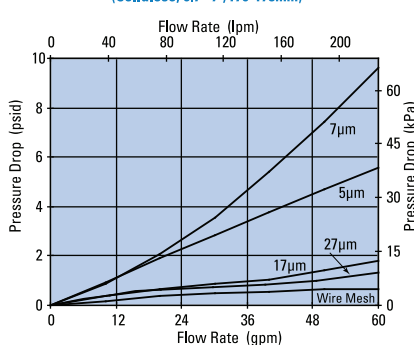


Performance Data

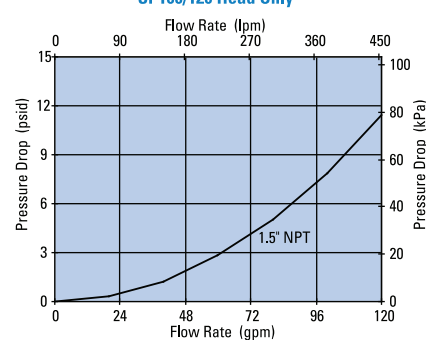
SP100 Filter Only (Synthetic, 6.7"/170mm)



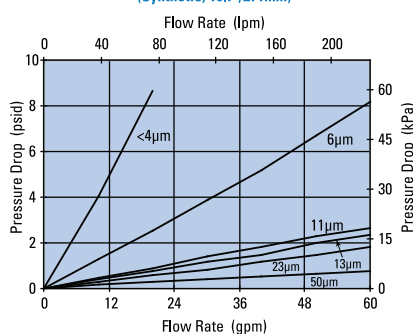
SP100 Filter Only (Cellulose, 6.7"-7"/170-178mm)



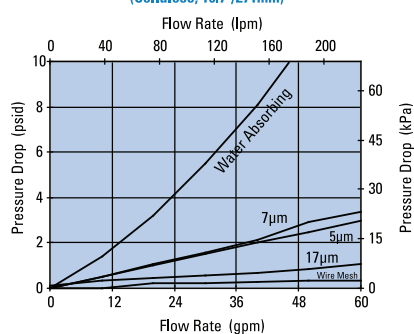
SP100/120 Head Only



SP120 Filter Only (Synthetic, 10.7"/271mm)



SP120 Filter Only (Cellulose, 10.7"/271mm)





TT15/30/60

Max Flow: 50 gpm (189 lpm)



TT15/30/60 Tank Top Return Spin-On Filters

Working Pressures to: 100 psi
690 kPa
6.9 bar

Rated Static Burst to: 250 psi
1725 kPa
17.2 bar

Flow Range to: 50 gpm
189 lpm

Applications

- In-Plant Systems
- Mobile Equipment
- Return Lines



Features

TT15/30/60 Tank Top filters are designed for industrial service. Aluminum casting and Buna-N® seals standard. Used with mineral and synthetic based fluids, these return filters conveniently mount to tank tops with four screws. Common holes are used to mount the filter head to the reservoir without welding. A down pipe is attached to a threaded port and the gasket surface provides a watertight seal. Each filter provides a new bypass valve and anti-drainback valve for easy filter change. Buna-N® is a registered trademark of E. I. DuPont de Nemours and Company.

Beta Rating

- Performance to $\beta_{7(c)}=2$

Porting Size Options

- 3/4", 1 1/2" NPT

Replacement Filter Lengths

- 5.83" / 148mm TT15
- 7.05" / 179mm TT30
- 9.29" / 236mm TT60

Filter Collapse Ratings

- 250 psid / 1725 kPa / 17.2 bar

Standard Bypass Ratings

- 22 psi / 150 kPa / 1.5 bar

Assembly Weight

- 2.0 lbs / 0.9 kg TT15
- 4.3 lbs / 2.0 kg TT30
- 5.2 lbs / 2.4 kg TT60

Operating Temperatures

- -22°F to 225°F / -30°C to 107°C

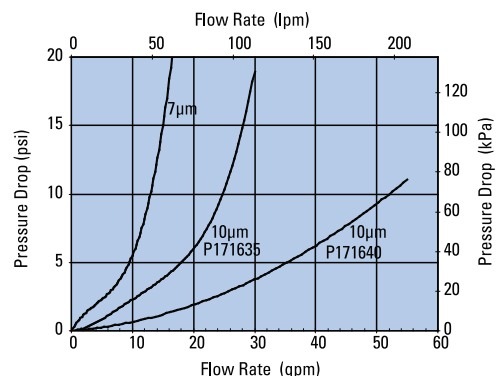
TT15/30/60 Components

Filter Choices

Media Type	$\beta_{x(c)} = 2$ Rating based on ISO 16889	Length in mm	Donaldson Part No.	Comments
Cellulose	7µm	5.36 136	P565242	TT15 Series
	10µm	7.05 179	P171635	TT30 Series
	10µm	9.29 236	P171640	TT60 Series

Performance Data

TT Filters Only



Head Choices

Port Size	Bypass Rating*	Gauge Ports (drill, tap, plug)	Gauge Port Location	Donaldson Part No.	Description	Head to Tank** Seal Part No.
3/4" NPT	22 psi / 150 kPa / 1.5 bar	(2) 1/8" NPT	upstream side	P564038	TT15 Series	P563975
1 1/2" NPT	22 psi / 150 kPa / 1.5 bar	(2) 1/8" NPT	upstream side	P563973	TT30/60 Series	P563976

Note

* Bypass valve is integral part of replacement filter. ** Included with head.

On a return line system the gauge port should be on the upstream side. We suggest a 25 psi bypass. If head is used on a suction line, the gauge port should be on the downstream side very low bypass.

Optional Filter Service Indicators

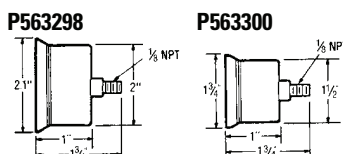
Donaldson Part No.	Pressure Range	Use With Series	Type
P563300	0 to 30 psi	TT15/30/60	Return indicator, color-coded
P563978	5 to 30 psi field adj.*	TT15/30/60	Return indicator, electrical
P563298	0 to 100 psi	TT15/30/60	Return indicator, color-coded

Notes

* NOT PRESET: Setting adjustable for desired application

1/8"-27 NPTF threads

- Built in snubber to minimize damage caused by pressure surges
- Compatible with petroleum and mineral-based fluids
- Anti-splash

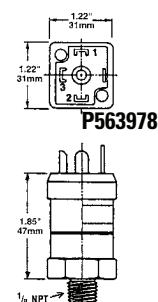


Instructions

1. Remove DIN adaptor
2. Remove small brass screw
3. Using 1/8" allen wrench adjust clockwise to increase set point/counter-clockwise to decrease set point
4. NO / NC



- #1 Common;
- #2 Normally Closed;
- #3 Normally Open

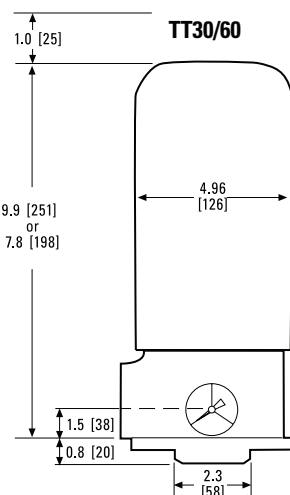
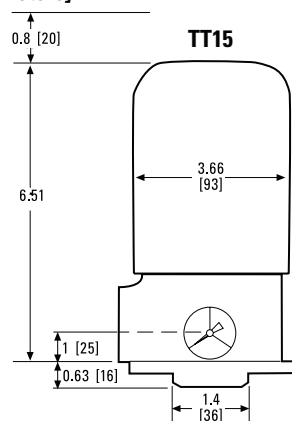


Adjustment screw located in center of electric prongs

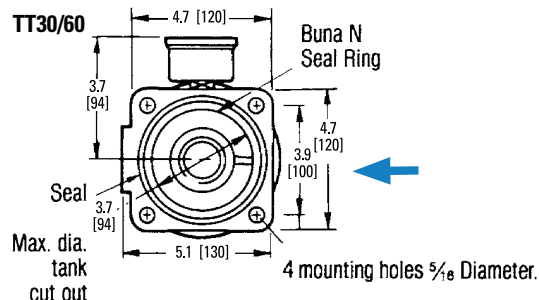
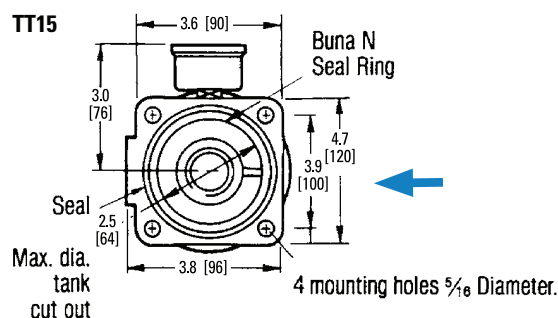
TT 15 & 30/60 Specification Illustrations

All dimensions are shown in inches [millimeters].

Assembly - Side View



Head - Top View





WL16
 Max Flow: 150 gpm (568 lpm)



WL16 In-Tank Filters

Working Pressures to:	200 psi 1380 kPa 13.8 bar
Rated Static Burst to:	300 psi 2070 kPa 20.7 bar
Flow Range to:	150 gpm 568 lpm

Features

WL16 in-tank filters meet the HF4 automotive standard. The quick disconnect cover allows for easy and efficient filter change-outs. An optional secondary inlet port offers the use of a second return line. These units can be top or side reservoir mounted. Use the optional anti-backflow valve (X011053) when installing this filter assembly to the side of a reservoir. DT high-performance replacement filters are available in five different media grades to fit any application.

- Head Material: aluminum
- Housing Material: Steel

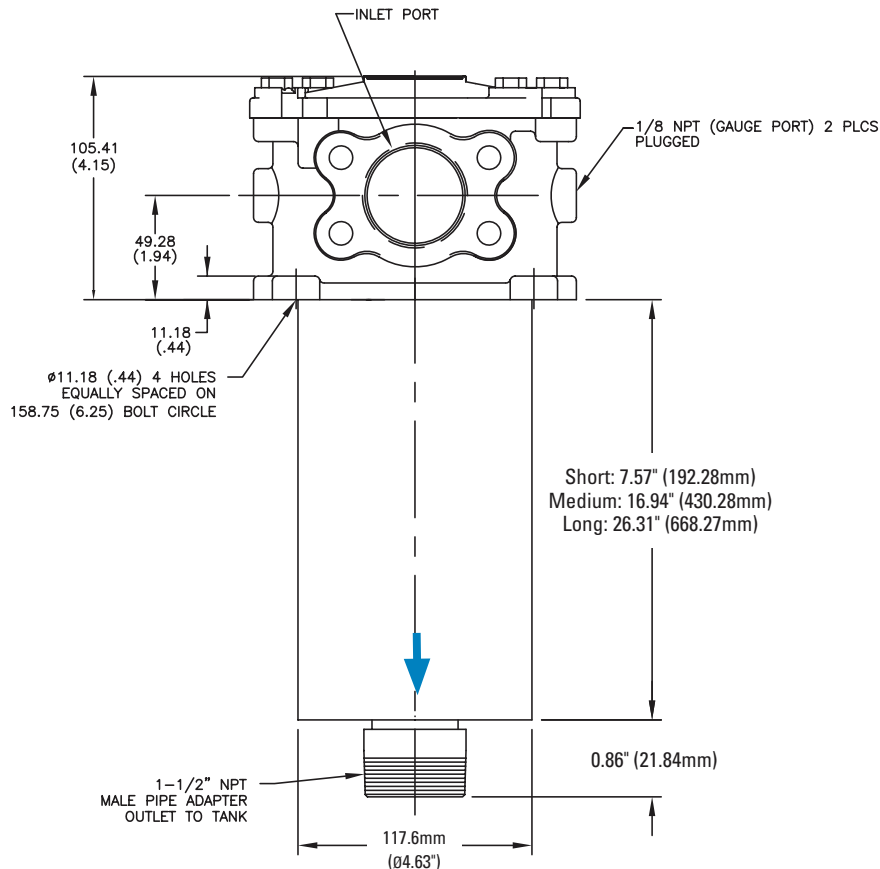


Beta Rating • Performance to $\beta_{5(c)}=1000$ Porting Size Options • SAE-24 O-ring • 1½" SAE 4-Bolt Flange Code 61 Replacement Filter Lengths • 9.04" / 230 mm • 18.08" / 459 mm • 27.51" / 699 mm	Standard Bypass Ratings • 50 psi / 345 kPa / 3.5 bar • 25 psi / 172.5 kPa / 1.72 bar Assembly Weight • Single Length, 5.25 lbs / 2.3 kg • Double Length, 16 lbs / 7.3 kg • Triple Length, 23 lbs / 10 kg Operating Temperatures • -45° to 250°F (-43° to 121°C) Filter Collapse Ratings • 150 psid / 1035 kPa / 10.3 bar
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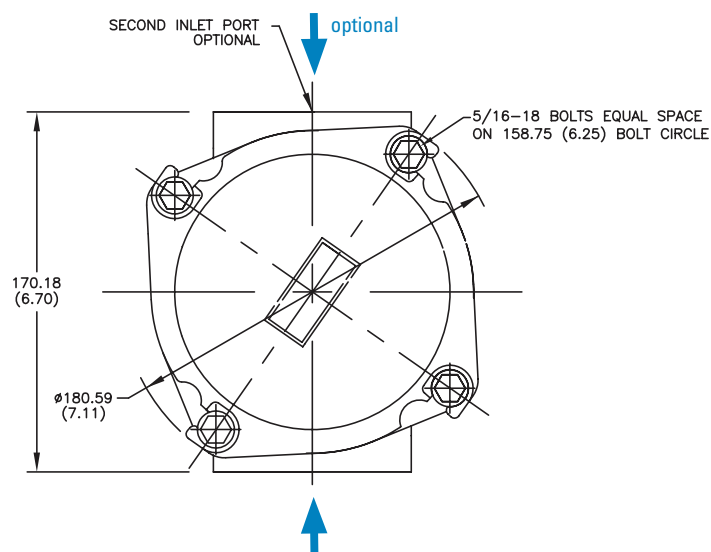
WL16 Specification Illustrations

All dimensions are shown in millimeters [inches].

Assembly - Side View



Head - Top View



Applications

- Cooling Circuits
- Fluid Conditioning Systems
- Lube Oil Systems
- Meets HF4 Specification
- Process Systems
- Return Lines
- Side Loop Systems



WL16
Max Flow: 150 gpm (568 lpm)



WL16 Components

High-Performance DT Filter Choices

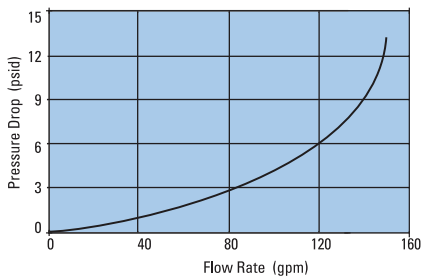
Media	$\beta_{x(c)} = 1000$	Length		Donaldson	Comments
Type	Rating based on ISO 16889	in	mm	Part No.	
DT Synteq Synthetic	2 μ m	9.04	230	P568816	DT-HF4-9-2UM
	5 μ m	9.04	230	P566270	DT-HF4-9-5UM
	8 μ m	9.04	230	P566271	DT-HF4-9-8UM
	12 μ m	9.04	230	P566272	DT-HF4-9-14UM
	23 μ m	9.04	230	P566273	DT-HF4-9-25UM
	2 μ m	18.44	468	P568817	DT-HF4-18-2UM
	5 μ m	18.32	465	P566274	DT-HF4-18-5UM
	8 μ m	18.32	465	P566275	DT-HF4-18-8UM
	12 μ m	18.32	465	P566276	DT-HF4-18-14UM
	23 μ m	18.32	465	P566277	DT-HF4-18-25UM
	2 μ m	27.90	709	P568818	DT-HF4-27-2UM
	5 μ m	27.75	705	P566278	DT-HF4-27-5UM
	8 μ m	27.75	705	P566279	DT-HF4-27-8UM
	14 μ m	27.75	705	P566280	DT-HF4-27-14UM
	25 μ m	27.75	705	P566281	DT-HF4-27-25UM

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 designs are double wire-backed using epoxy-coated steel mesh for maximum pleat support and dirt capacity. Viton® seals are standard on all Donaldson DT filters. Viton® is a registered trademark of E. I. DuPont de Nemours and Company.

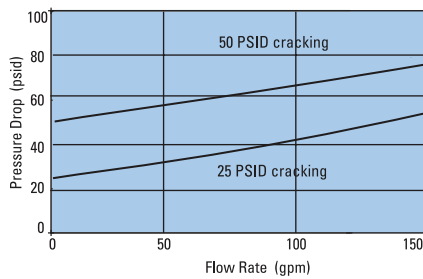


Performance Data

WL16 Housing Only

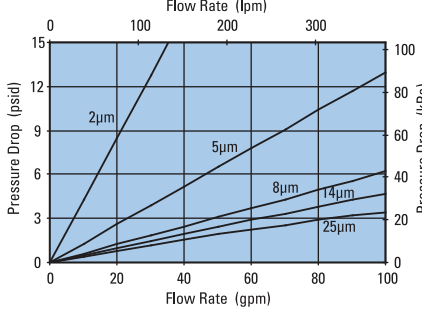


WL16 Bypass Valve



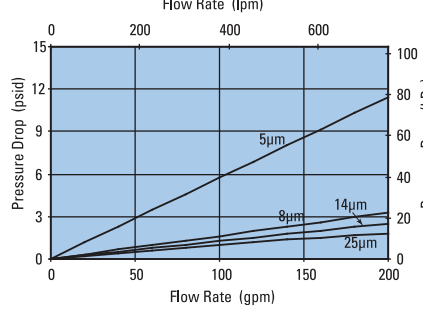
WL16 9" DT Filter Only

DT-HF4-9, 9"/229mm



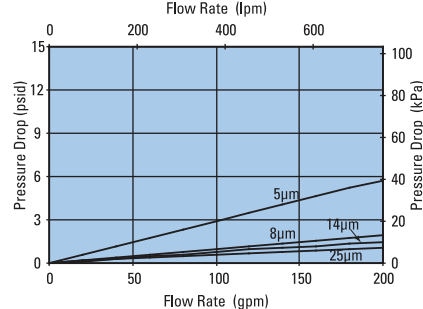
WL16 18" DT Filter Only

DT-HF4-18, 18"/457mm



WL16 27" DT Filter Only

DT-HF4-27, 27"/686mm



Filter Assembly Choices

Port Size	Bypass Rating	Seal Material	Indicator Style & Location	Housing Length	Assembly Length	Donaldson Part No.
(2) SAE-24 O-ring	25 psi / 1.72 bar	Buna-N	Port Machined & Plugged	9" (228.6mm)	12.76" (324.1mm)	P574232
(2) SAE-24 O-ring	25 psi / 1.72 bar	Buna-N	Port Machined & Plugged	18" (457.2mm)	21.09" (535.6mm)	P574233
(2) SAE-24 O-ring	25 psi / 1.72 bar	Buna-N	Port Machined & Plugged	27" (685.8mm)	30.46" (773.6mm)	P574234
(2) 1-1/2" SAE 4 Bolt Flange Code 61	25 psi / 1.72 bar	Buna-N	Port Machined & Plugged	18" (457.2mm)	21.09" (535.6mm)	P574235
(1) 1-1/2" SAE 4 Bolt Flange Code 61	50 psi / 3.45 bar	Buna-N	Port Machined & Plugged	18" (457.2mm)	21.09" (535.6mm)	P574236
(1) 1-1/2" SAE 4 Bolt Flange Code 61	50 psi / 3.45 bar	Buna-N	Port Machined & Plugged	27" (685.8mm)	30.46" (773.6mm)	P574237
(2) SAE-24 O-ring	50 psi / 3.45 bar	Buna-N	Port Machined & Plugged	18" (457.2mm)	21.09" (535.6mm)	P575922

Indicator Choices

Indicator Pressure Setting	Connector Style	Donaldson Part No.
Visual Pressure Gauges, 0-60 psi		
25 psi / 172 kPa	NA	X011059
50 psi / 345 kPa	NA	X011075
Visual Pressure Gauges, 0-200 psi		
50 psi / 345 kPa	NA	X011060
Electrical Service Indicator		
18 psi / 124 kPa	Hirschman	X011061
35 psi / 241 kPa	Hirschman	X011064
18 psi / 124 kPa	Brad Harrison	X011065
35 psi / 241 kPa	Brad Harrison	X011066

Head/Bowl/Housing Seal Kits

Donaldson Part No.	Material
X011140	Buna
X011141	Viton

Outlet Check Valve

Donaldson Part No.
X011053

Diffuser

Donaldson Part No.
X011919

Reservoir Weld Ring/Flange

Donaldson Part No.
X011058



WL16

Max Flow: 200 gpm (757 lpm)



WL16 In-Tank Filters

Working Pressures to:	200 psi 1380 kPa 13.8 bar
Rated Static Burst to:	300 psi 2070 kPa 20.7 bar
Flow Range to:	200 gpm 757 lpm

Features

WL16 in-tank filters meet the HF4 automotive standard. The quick disconnect cover allows for easy and efficient filter change-outs. An optional secondary inlet port offers the use of a second return line. These units can be top or side reservoir mounted. Use the optional anti-backflow valve (X011053) when installing this filter assembly to the side of a reservoir. DT high-performance replacement filters are available in five different media grades to fit any application.

- Head Material: aluminum
- Housing Material: Steel

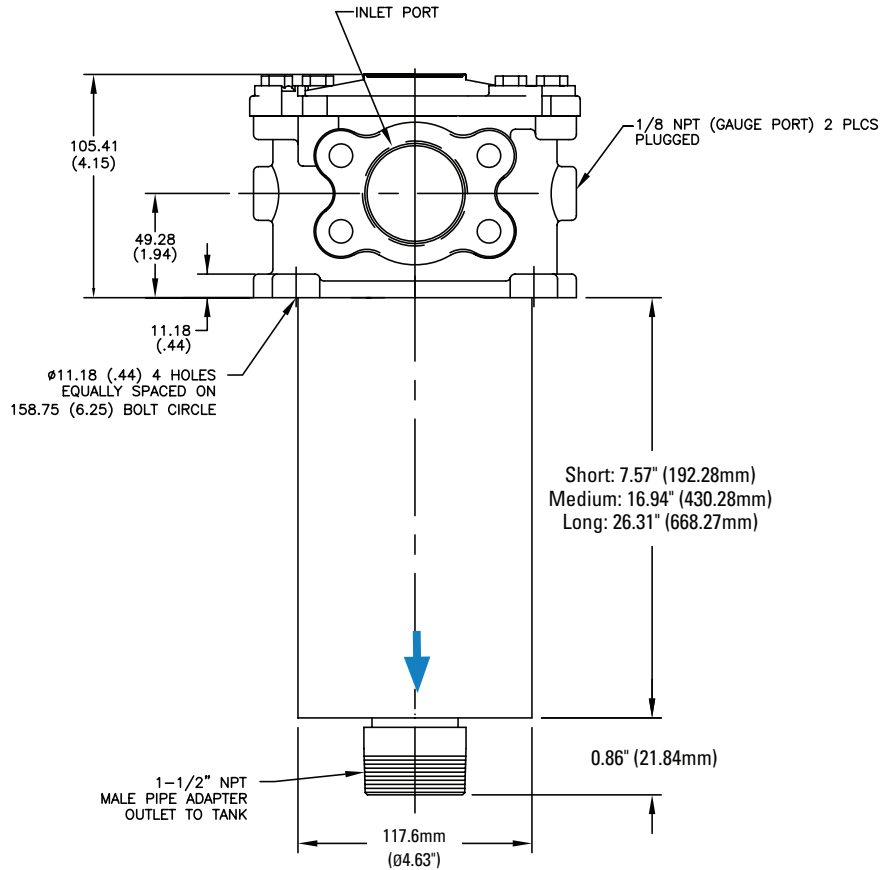


Beta Rating • Performance to $\beta_{5(c)}=1000$ Porting Size Options • SAE-24 O-ring • 1½" SAE 4-Bolt Flange Code 61 Replacement Filter Lengths • 9.04" / 230 mm • 18.08" / 459 mm • 27.51" / 699 mm	Standard Bypass Ratings • 50 psi / 345 kPa / 3.5 bar • 25 psi / 172.5 kPa / 1.72 bar Assembly Weight • Single Length, 5.25 lbs / 2.3 kg • Double Length, 16 lbs / 7.3 kg • Triple Length, 23 lbs / 10 kg Operating Temperatures • -45° to 250°F (-43° to 121°C) Filter Collapse Ratings • 150 psid / 1035 kPa / 10.3 bar
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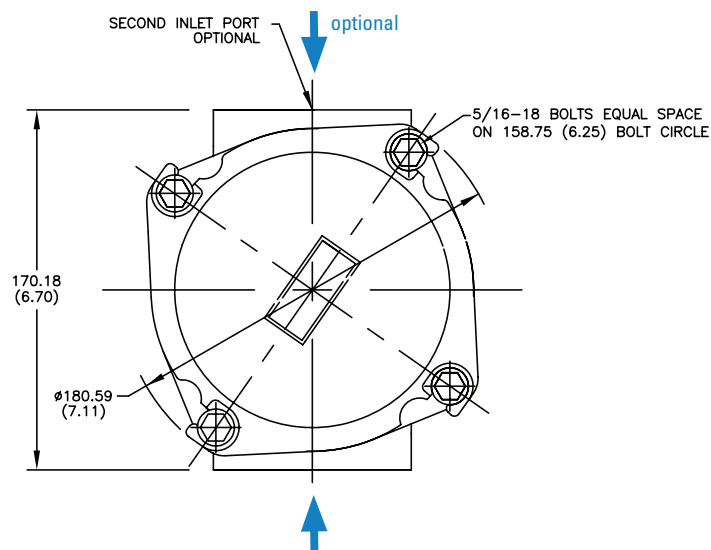
WL16 Specification Illustrations

All dimensions are shown in millimeters [inches].

Assembly - Side View



Head - Top View



Applications

- Cooling Circuits
- Fluid Conditioning Systems
- Lube Oil Systems
- Meets HF4 Specification
- Process Systems
- Return Lines
- Side Loop Systems



WL16
Max Flow: 200 gpm (757 lpm)



WL16 Components

High-Performance DT Filter Choices

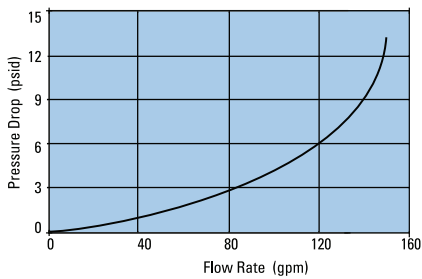
Media	$\beta_{x(c)} = 1000$	Length		Donaldson	Comments
Type	Rating based on ISO 16889	in	mm	Part No.	
DT Synteq Synthetic	2 μ m	9.04	230	P568816	DT-HF4-9-2UM
	5 μ m	9.04	230	P566270	DT-HF4-9-5UM
	8 μ m	9.04	230	P566271	DT-HF4-9-8UM
	12 μ m	9.04	230	P566272	DT-HF4-9-14UM
	23 μ m	9.04	230	P566273	DT-HF4-9-25UM
	2 μ m	18.19	232	P568817	DT-HF4-18-2UM
	5 μ m	18.08	459	P566274	DT-HF4-18-5UM
	8 μ m	18.08	459	P566275	DT-HF4-18-8UM
	12 μ m	18.08	459	P566276	DT-HF4-18-14UM
	23 μ m	18.08	459	P566277	DT-HF4-18-25UM
	2 μ m	27.47	698	P568818	DT-HF4-27-2UM
	5 μ m	27.51	699	P566278	DT-HF4-27-5UM
	8 μ m	27.51	699	P566279	DT-HF4-27-8UM
	14 μ m	27.51	699	P566280	DT-HF4-27-14UM
	25 μ m	27.51	699	P566281	DT-HF4-27-25UM

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 designs are double wire-backed using epoxy-coated steel mesh for maximum pleat support and dirt capacity. Viton® seals are standard on all Donaldson DT filters. Viton® is a registered trademark of E. I. DuPont de Nemours and Company.

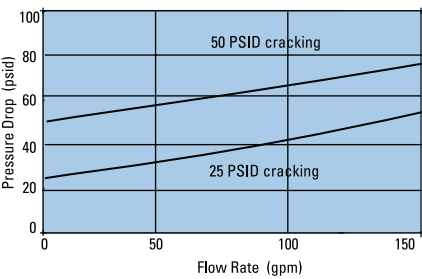


Performance Data

WL16 Housing Only

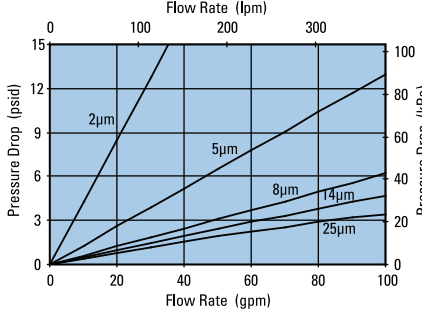


WL16 Bypass Valve



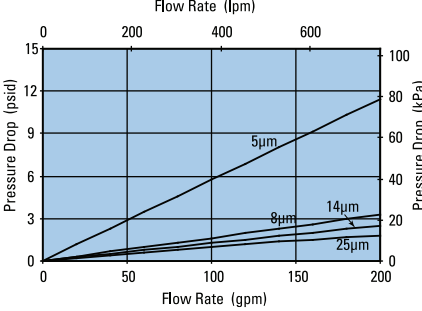
WL16 9" DT Filter Only

DT-HF4-9, 9"/229mm



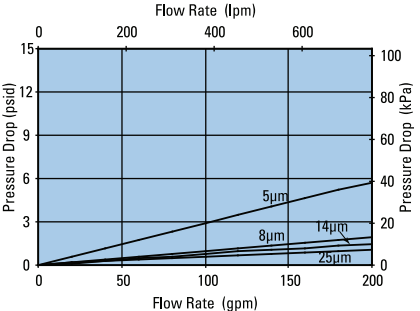
WL16 18" DT Filter Only

DT-HF4-18, 18"/457mm



WL16 27" DT Filter Only

DT-HF4-27, 27"/686mm



Filter Assembly Choices

Port Size	Bypass Rating	Seal Material	Indicator Style & Location	Housing Length	Assembly Length	Donaldson Part No.
(2) SAE-24 O-ring	25 psi / 1.72 bar	Buna-N	Port Machined & Plugged	9" (228.6mm)	12.76" (324.1mm)	P574232
(2) SAE-24 O-ring	25 psi / 1.72 bar	Buna-N	Port Machined & Plugged	18" (457.2mm)	21.09" (535.6mm)	P574233
(2) SAE-24 O-ring	25 psi / 1.72 bar	Buna-N	Port Machined & Plugged	27" (685.8mm)	30.46" (773.6mm)	P574234
(2) 1-1/2" SAE 4 Bolt Flange Code 61	25 psi / 1.72 bar	Buna-N	Port Machined & Plugged	18" (457.2mm)	21.09" (535.6mm)	P574235
(1) 1-1/2" SAE 4 Bolt Flange Code 61	50 psi / 3.45 bar	Buna-N	Port Machined & Plugged	18" (457.2mm)	21.09" (535.6mm)	P574236
(1) 1-1/2" SAE 4 Bolt Flange Code 61	50 psi / 3.45 bar	Buna-N	Port Machined & Plugged	27" (685.8mm)	30.46" (773.6mm)	P574237
(2) SAE-24 O-ring	50 psi / 3.45 bar	Buna-N	Port Machined & Plugged	18" (457.2mm)	21.09" (535.6mm)	P575922

Indicator Choices

Indicator Pressure Setting	Connector Style	Donaldson Part No.
Visual Pressure Gauges, 0-60 psi		
25 psi / 172 kPa	NA	X011059
50 psi / 345 kPa	NA	X011075
Visual Pressure Gauges, 0-200 psi		
50 psi / 345 kPa	NA	X011060
Electrical Service Indicator		
18 psi / 124 kPa	Hirschman	X011061
35 psi / 241 kPa	Hirschman	X011064
18 psi / 124 kPa	Brad Harrison	X011065
35 psi / 241 kPa	Brad Harrison	X011066

Head/Bowl/Housing Seal Kits

Donaldson Part No.	Material
X011140	Buna
X011141	Viton

Outlet Check Valve

Donaldson Part No.
X011053

Diffuser

Donaldson Part No.
X011919


FIK

Max Flow: 170 gpm (644 lpm)



FIK In-Tank Filters

Working Pressures to: 145 psi
1000 kPa
10 bar

Rated Static Burst to: 217 psi
1500 kPa
15 bar

Flow Range to: 170 gpm
644 lpm



Features

FIK in-tank filters are economical, space-saving units offering a variety of options including aluminum or plastic access covers, mounting options, and breathers. FIK filters, featuring a die-cast aluminum head and a steel or plastic canister are designed to handle heavy-duty applications. The head (and the inlet) sit above the tank, while the housing remains inside the tank, offering design-in flexibility. Optional air breather featuring T.R.A.P.™ technology are available with style A and B, designed to allow the breather to be mounted directly in the FIK filter head, thus eliminating the cost associated with an additional penetration to the hydraulic tank for breather installation. FIK filters offer three service indicators to choose from: pressure gauge, visual indicator and electrical indicator. FIK filter assemblies are shipped from the factory with cellulose or Synteq™ synthetic filter media, and replacement cartridges are offered in a range of media types and performance ratings.

Beta Rating

- Performance to $\beta_{8(c)}=1000$

Porting Size Options

- 1/2", 3/4", 1" NPT
- SAE-8, SAE-12, SAE-16, SAE-20, SAE-24 O-ring
- 2" SAE 4-Bolt Flange Code 61

Standard Bypass Ratings

- 22 psi / 150 kPa / 1.5 bar

Operating Temperatures

- -4°F to 194°F / -20°C to 90°C

Collapse Ratings

- 145 psid / 1000 kPa / 10 bar

Redesigned with Features for Application Flexibility, Improved Servicing and Enhanced Filtration Performance

STYLE B Shown Below

Applications

- Cooling Circuits
- Fluid Conditioning Systems
- Lube Oil Systems
- Process Systems
- Return Lines
- Side Loop Systems

Multifunctional Ports (custom)

Contact your Donaldson sales representative for details

- Can be converted into auxiliary inlet ports
- The two secondary inlet ports can be used in conjunction with the main inlet port for higher flow rates

Flat Gasket Design

- For leak-tight operation

Service Indicator Ports

- Electrical, visual or pressure gauge options

T.R.A.P.™ Breather Technology

Breather ordered separately
Plug ships standard. Pressurized & atmospheric breathers available.

- Quick fit connection
- Anti-splash design allows smooth operation under tilt conditions
- Keeps reservoir free from condensation

Flexible Mounting Configurations

2 or 4 hole mounting option

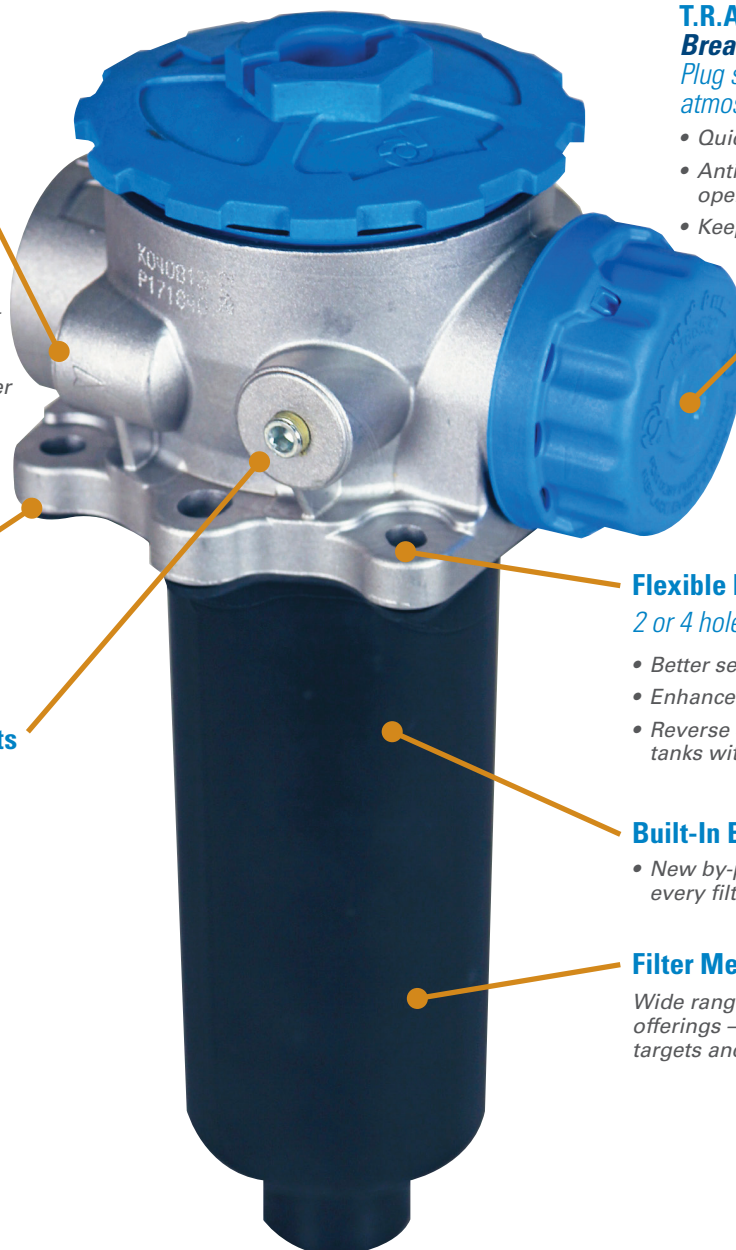
- Better sealing and stability
- Enhanced stability on plastic tanks
- Reverse compatible – retrofit existing tanks with the new hole configuration

Built-In By-Pass Valve

- New by-pass valve installed with every filter replacement

Filter Media Technology

Wide range of Donaldson media offerings – to meet various performance targets and cleanliness standards





FIK

Max Flow: 170 gpm (644 lpm)



FIK Specification Illustrations

Low Flow Assemblies

< 32 gpm (120 lpm)

STYLE A
K030319



STYLE B
K040811
K040812
K040813
K041782



Improved Design Feature

- 2 or 4 hole mounting options
- Built-in by-pass valve in the cartridge
- Improved seal design
- Anti-splash air flow path
- Optional mini T.R.A.P. breather

Improved Design Feature

- 2 or 4 hole mounting options
- Built-in by-pass valve in the cartridge
- Improved seal design
- Anti-splash air flow path
- Optional mini T.R.A.P. breather
- Multifunctional ports for accessories

High Flow Assemblies

5 - 170 gpm (18 - 643 lpm)

STYLE C, D, E

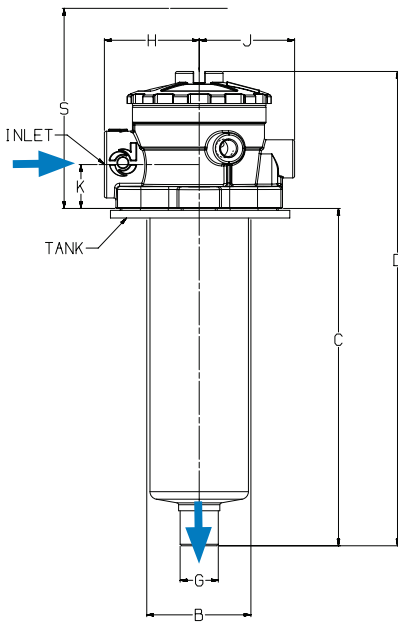
Assembly part numbers on following page

Improved Design Feature

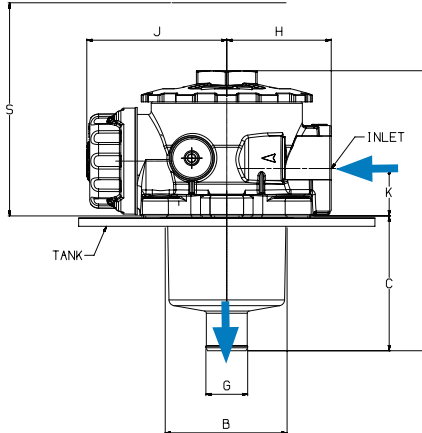
- Improved seal design
- Built-in by-pass valve in the cartridge

Assembly - Side Views

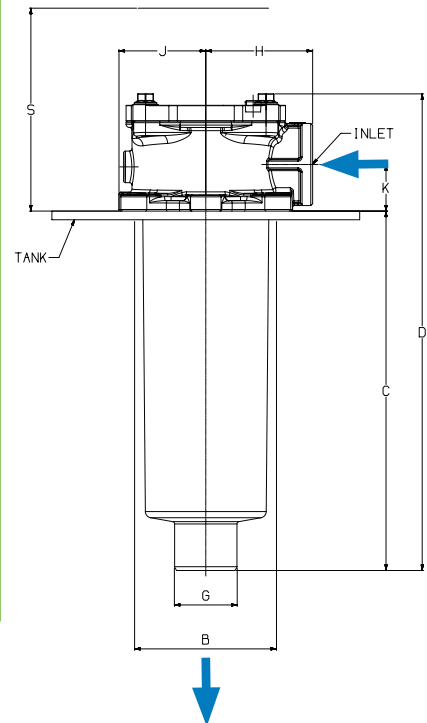
STYLE A



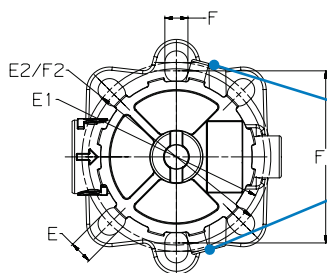
STYLE B



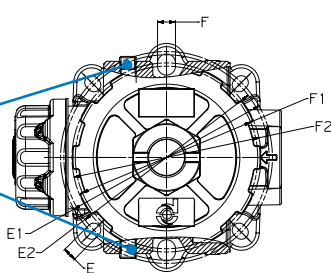
STYLE C, D, E



Head - Top Views



Ports for
service
indicator



High Flow Assemblies

5 - 170 gpm (18 - 643 lpm)

STYLE C

K041770 K041774
K041771 K040799
K041772 K040798
K041773
K031027 (2 point mount only)



Improved Design Feature

- 2 or 4 hole mounting options

STYLE D

K070248 K070250
K071001 K071003
K070249
K071002



Design Feature

- 4 hole mounting

STYLE E

K051204
K052053

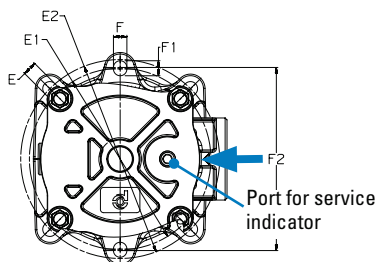


Design Feature

- 3 hole mounting

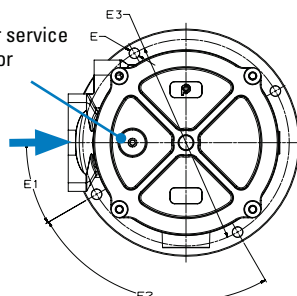
Head - Top Views

STYLE C



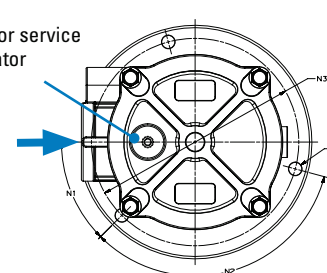
STYLE D

Port for service indicator



STYLE E

Port for service indicator



Dimensions

ASSEMBLY DIMENSIONS	ASSEMBLY PART NUMBER																					
	STYLE A		STYLE B				STYLE C								STYLE D				STYLE E			
	K030319	K040811	K040812		K040813 K041782		K031027 2 pt mount only		K041770		K041771 K041772 K041773 K041774 K040799		K040798		K070248 K071001		K070249 K071002		K070250 K071003		K051204 K052053	
	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in
C	176.8	6.96	91.0	3.58	141.0	5.55	218.0	8.58	78.0	3.07	99.0	3.90	149.0	5.87	227.7	8.96	242.0	9.53	290.0	11.42	434.0	17.09
D	248.6	9.79	189.0	7.44	239.0	9.41	316.0	12.44	132.0	5.20	173.3	6.82	223.2	8.79	301.9	11.89	348.0	13.70	395.5	15.57	539.5	21.24
S SERVICE CLEARANCE	220.0	8.66	180.0	7.09	220.0	8.66	305.0	12.01	149.0	5.87	170.0	6.69	220.0	8.66	299.0	11.77	320.0	12.60	365.0	14.37	515.0	20.28
G	20.0	0.79	27.6	1.09	27.6	1.09	39.6	1.56	25.2	0.99	27.6	1.09	27.6	1.09	39.5	1.56	50.0	1.97	63.5	2.50	63.5	2.50
B TANK OPENING	57.0	2.24	90.0	3.54	90.0	3.54	90.0	3.54	68.6	2.70	90.0	3.54	90.0	3.54	90.0	3.54	175.0	6.89	175.0	6.89	175.0	6.89
H	49.7	1.96	70.5	2.78	70.5	2.78	70.5	2.78	49.0	1.93	68.0	2.68	68.0	2.68	68.0	2.68	120.0	4.72	126.0	4.96	126.0	4.96
J	54.2	2.13	94.5	3.72	94.5	3.72	94.5	3.72	44.0	1.73	55.0	2.17	55.0	2.17	55.0	2.17	100.0	3.94	100.0	3.94	100.0	3.94
K	23.0	0.91	32.0	1.26	32.0	1.26	32.0	1.26	22.0	0.87	29.5	1.16	29.5	1.16	29.5	1.16	41.0	1.61	48.5	1.91	48.5	1.91
F 2 POINT MOUNT	11.0	0.43	11.0	0.43	11.0	0.43	11.0	0.43	Ø6.4	Ø0.25	8.5	0.33	8.5	0.33	8.5	0.33	N/A	N/A	N/A	N/A	N/A	N/A
F1	Ø82	Ø3.23	Ø112	Ø4.41	Ø112	Ø4.41	Ø112	Ø4.41	90.0	3.54	9.5	0.37	9.5	0.37	9.5	0.37	N/A	N/A	N/A	N/A	N/A	N/A
F2	Ø90	Ø3.54	Ø116	Ø4.57	Ø116	Ø4.57	Ø116	Ø4.57	N/A	N/A	115.0	4.53	115.0	4.53	115.0	4.53	N/A	N/A	N/A	N/A	N/A	N/A
N 3 POINT MOUNT	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Ø11
N1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	45°
N2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	120°
N3	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Ø175
E 4 POINT MOUNT	11.0	0.43	8.5	0.33	8.5	0.33	8.5	0.33	N/A	N/A	9.0	0.35	9.0	0.35	9.0	0.35	Ø10.5	Ø0.41	Ø11	Ø0.43	Ø11	Ø0.43
E1	Ø84	Ø3.31	Ø126	Ø4.96	Ø126	Ø4.96	Ø126	Ø4.96	N/A	N/A	Ø115	Ø4.53	Ø115	Ø4.53	Ø115	Ø4.53	30°	30°	30°	30°	30°	30°
E2	Ø90	Ø3.54	Ø130	Ø5.12	Ø130	Ø5.12	Ø130	Ø5.12	N/A	N/A	Ø126	Ø4.96	Ø126	Ø4.96	Ø126	Ø4.96	90°	90°	90°	90°	90°	90°
E3	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Ø220	Ø8.66	Ø220	Ø8.66	Ø220	Ø8.66
WEIGHT	lbs	kg	lbs	kg	lbs	kg	lbs	kg	lbs	kg	lbs	kg	lbs	kg	lbs	kg	lbs	kg	lbs	kg	lbs	kg
K	1.8	0.8	2.1	0.95	3.2	1.45	4.1	1.86	1.1	0.5	1.8	0.8	2.1	0.95	2.43	1.1	10.0	4.5	13.1	5.9	18.6	8.4



FIK

Max Flow: 170 gpm (644 lpm)



FIK Components

Assembly Choices

Port Size	Bypass Rating*	Assembly Part No.	$\beta_{x(c)} = 1000$	Filter Media†	Provided with Filter	Filter Diameter (in./mm)	Filter Length (in./mm)	Flow Range (@~5 psid / 34.5 kPa)
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additional filter choices on following pages to meet various performance requirements

Low Flow Assemblies

STYLE A

SAE-8 O-Ring	22 psi/1.5 bar	K030319	36 µm	Cellulose	P171839	1.69 / 43	6.38 / 162	10 gpm / 38 lpm
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STYLE B

SAE-12 O-Ring	22 psi/1.5 bar	K040811	36 µm	Cellulose	P171527	2.76 / 70	3.23 / 82	14 gpm / 53 lpm
SAE-16 O-Ring	22 psi/1.5 bar	K040812	36 µm	Cellulose	P171533	2.76 / 70	5.04 / 128	23 gpm / 86 lpm
SAE-20 O-Ring	22 psi/1.5 bar	K040813	36 µm	Cellulose	P171840	2.76 / 70	8.27 / 210	32 gpm / 120 lpm
SAE-20 O-Ring	22 psi/1.5 bar	K041782	11 µm	Synthetic	P171846	2.76 / 70	8.27 / 210	28 gpm / 106 lpm

High Flow Assemblies

STYLE C

1/2" NPT	22 psi/1.5 bar	K031027	36 µm	Cellulose	P171503	2.05 / 52	2.64 / 67	5 gpm / 18 lpm
1" NPT	22 psi/1.5 bar	K041770	36 µm	Cellulose	P171527	2.76 / 70	3.23 / 82	15 gpm / 56 lpm
3/4" NPT	22 psi/1.5 bar	K041771	36 µm	Cellulose	P171533	2.76 / 70	5.04 / 128	18 gpm / 68 lpm
1" NPT	22 psi/1.5 bar	K041772	36 µm	Cellulose	P171533	2.76 / 70	5.04 / 128	21 gpm / 79 lpm
SAE-12 O-Ring	22 psi/1.5 bar	K041773	36 µm	Cellulose	P171533	2.76 / 70	5.04 / 128	18 gpm / 68 lpm
SAE-12 O-Ring	22 psi/1.5 bar	K041774	11 µm	Synteq	P171531	2.76 / 70	5.04 / 128	13 gpm / 49 lpm
SAE-16 O-Ring	22 psi/1.5 bar	K040799	36 µm	Cellulose	P171533	2.76 / 70	5.04 / 128	21 gpm / 79 lpm
SAE-16 O-Ring	22 psi/1.5 bar	K040798	36 µm	Cellulose	P171840	2.76 / 70	8.22 / 209	32 gpm / 120 lpm

STYLE D

SAE-24 O-Ring	22 psi/1.5 bar	K070248	36 µm	Cellulose	P171557	5.51 / 140	7.49 / 203	66 gpm / 248 lpm
SAE-24 O-Ring	22 psi/1.5 bar	K071001	11 µm	Synteq	P171555	5.51 / 140	7.49 / 203	44 gpm / 165 lpm
2" SAE 4-Bolt	22 psi/1.5 bar	K070249	36 µm	Cellulose	P171575	5.51 / 140	9.84 / 250	106 gpm / 399 lpm
2" SAE 4-Bolt	22 psi/1.5 bar	K071002	11 µm	Synteq	P171573	5.51 / 140	9.84 / 250	74 gpm / 278 lpm
2" SAE 4-Bolt	22 psi/1.5 bar	K070250	36 µm	Cellulose	P171581	5.51 / 140	15.75 / 400	170 gpm / 643 lpm
2" SAE 4-Bolt	22 psi/1.5 bar	K071003	11 µm	Synteq	P171579	5.51 / 140	15.75 / 400	120 gpm / 451 lpm

STYLE E

SAE-20 O-Ring	22 psi/1.5 bar	K051204	36 µm	Cellulose	P171539	3.74 / 95	7.49 / 203	47 gpm / 177 lpm
SAE-20 O-Ring	22 psi/1.5 bar	K052053	11 µm	Synteq	P171537	3.74 / 95	7.49 / 203	32 gpm / 120 lpm

Note

*Bypass valve is an integral part of the replacement filter.
Service indicator port available for all assemblies.

Filter Notes

FIK filters utilize either glass fiber, cellulose, or wire mesh media.
All FIK filters are potted with polyurethane adhesives.

Synteq media designs are double wire-backed using epoxy-coated steel mesh for maximum pleat support and dirt capacity.
Buna-N® seals are standard on all FIK filters. Buna-N® is a registered trademark of E. I. DuPont de Nemours and Company.

T.R.A.P.™ Breather Choices



For Redesigned Style A and B Assemblies with 4 Hole Mounting Configurations Only

Note: T.R.A.P. breathers are not compatible on older style assemblies with 2 hole mounting configuration

Part No.	Description	Efficiency	Fits Assembly Models:
STYLE A			
 P567392	Mini T.R.A.P.	3 µm @ 97%	K030319
STYLE B			
 P766528	Black Standard plug (no air exchange)	N/A	K040811, K040812, K040813, K041782
 P766530	Blue Atmospheric pressure	10 µm @ 98%	K040811, K040812, K040813, K041782
 P766538	Red 7.3 psi (½ bar) pressurized	10 µm @ 98%	K040811, K040812, K040813, K041782



STYLE A



STYLE B

Standard Breather Choices

Replacement Breathers for Older Style A and B Assemblies with 2 Hole Mounting Configuration Only

Part No.	Efficiency	Fits Assembly Models:
STYLE A		
P173330	10 µm	K030319
STYLE B		
P172434	10 µm	K040811, K040812, K040813



Service Indicators

Pressure Gauges

P171956

G 1/8"

(center back)



P171953

G 1/8"

(bottom mount)

-14.5 to 72 psi
-1 to +5 bar

DC Electrical Indicator

P171966

17 psi / 1.2 bar
(48V AC/DC)



G 1/8" →

Visual Indicator

P171958

17 psi / 1.2 bar



G 1/8" →



FIK

Max Flow: 170 gpm (644 lpm)



FIK Components

Filter Choices - Low Flow Assemblies

Media Type	$\beta_{x(c)} = 2$ Rating based on ISO 16889	$\beta_{x(c)} = 1000$	Length		Donaldson Part No.
			in	mm	
STYLE A					
K030319					
Synteq Synthetic	6 μ m	6.38	162		P569273
	11 μ m	6.38	162		P171845
	23 μ m	6.38	162		P171842
Cellulose	7 μ m	6.38	162		P171839
	27 μ m	6.38	162		P171836
Wire Mesh	60 μ m	6.38	162		P171833
	90 μ m	6.38	162		P171830

Filter Choices - Low Flow Assemblies

Media Type	$\beta_{x(c)} = 2$ Rating based on ISO 16889	$\beta_{x(c)} = 1000$	Length		Donaldson Part No.
			in	mm	
STYLE B					
K040811					
Synteq Synthetic	11 μ m	3.23	82		P171525
	23 μ m	3.23	82		P171526
Cellulose	7 μ m	3.23	82		P171527
	27 μ m	3.23	82		P171528
Wire Mesh	60 μ m	3.23	82		P171529
	90 μ m	3.23	82		P171524
K040812					
Synteq Synthetic	6 μ m	5.04	128		P569275
	11 μ m	5.04	128		P171531
	23 μ m	5.04	128		P171532
Cellulose	7 μ m	5.04	128		P171533
	27 μ m	5.04	128		P171534
Wire Mesh	60 μ m	5.04	128		P171535
	90 μ m	5.04	128		P171530
K040813					
Synteq Synthetic	6 μ m	8.27	210		P569276
	11 μ m	8.27	210		P171846
	23 μ m	8.27	210		P171843
Cellulose	7 μ m	8.27	210		P171840
	27 μ m	8.27	210		P171837
Wire Mesh	60 μ m	8.27	210		P171834
K041782					
Synteq Synthetic	6 μ m	8.27	210		P569276
	11 μ m	8.27	210		P171846
	23 μ m	8.27	210		P171843
Cellulose	7 μ m	8.27	210		P171840
	27 μ m	8.27	210		P171837
Wire Mesh	60 μ m	8.27	210		P171834

High Flow Assemblies

Media	$\beta_{x(c)} = 2$	$\beta_{x(c)} = 1000$	Length		Donaldson
Type	Rating based on ISO 16889		in	mm	Part No.
STYLE C					
K031027					
Synteq Synthetic		6 μm	2.64	67	P569277
		11 μm	2.64	67	P171501
		23 μm	2.64	67	P171502
Cellulose		7 μm	2.64	67	P171503
		27 μm	2.64	67	P171504
Wire Mesh		60 μm	2.64	67	P171505
		90 μm	2.64	67	P171500
K041770					
Synteq Synthetic		11 μm	3.23	82	P171525
		23 μm	3.23	82	P171526
Cellulose		7 μm	3.23	82	P171527
		27 μm	3.23	82	P171528
Wire Mesh		60 μm	3.23	82	P171529
		90 μm	3.23	82	P171524
K041771, K041772, K041773, K041774, K040799					
Synteq Synthetic		6 μm	5.04	128	P569275
		11 μm	5.04	128	P171531
		23 μm	5.04	128	P171532
Cellulose		7 μm	5.04	128	P171533
		27 μm	5.04	128	P171534
Wire Mesh		60 μm	5.04	128	P171535
		90 μm	5.04	128	P171530
K040798					
Synteq Synthetic		6 μm	8.22	209	P569276
		11 μm	8.22	209	P171846
		23 μm	8.22	209	P171843
Cellulose		7 μm	8.22	209	P171840
		27 μm	8.22	209	P171837
Wire Mesh		60 μm	8.22	209	P171834

High Flow Assemblies

Media	$\beta_{x(c)} = 2$	$\beta_{x(c)} = 1000$	Length		Donaldson
Type	Rating based on ISO 16889		in	mm	Part No.
STYLE D					
K070248, K071001					
Synteq Synthetic		6 μm	7.49	203	P569279
		11 μm	7.49	203	P171555
		23 μm	7.49	203	P171556
Cellulose		7 μm	7.49	203	P171557
		27 μm	7.49	203	P171558
Wire Mesh		60 μm	7.49	203	P171559
K070249, K071002					
Synteq Synthetic		6 μm	9.84	250	P569280
		11 μm	9.84	250	P171573
		23 μm	9.84	250	P171574
Cellulose		7 μm	9.84	250	P171575
		27 μm	9.84	250	P171576
Wire Mesh		90 μm	9.84	250	P171572
K070250, K071003					
Synteq Synthetic		6 μm	15.75	400	P176749
		11 μm	15.75	400	P171579
		23 μm	15.75	400	P171580
Cellulose		7 μm	15.75	400	P171581
		27 μm	15.75	400	P171582
Wire Mesh		60 μm	15.75	400	P171583
		90 μm	15.75	400	P171578
STYLE E					
K051204, K052053					
Synteq Synthetic		6 μm	7.49	203	P569278
		11 μm	7.49	203	P171537
		23 μm	7.49	203	P171538
Cellulose		7 μm	7.49	203	P171539
		27 μm	7.49	203	P171540
Wire Mesh		60 μm	7.49	203	P171541
		90 μm	7.49	203	P171536



FIK

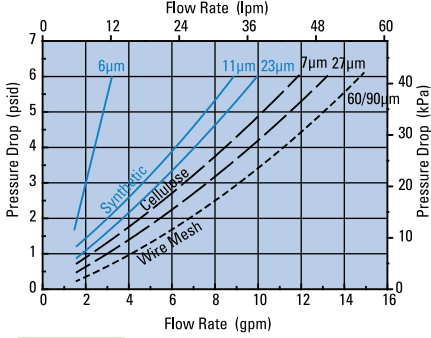
Max Flow: 170 gpm (644 lpm)



Performance Data

STYLE A

K030319 Assembly (6.38"/162mm)



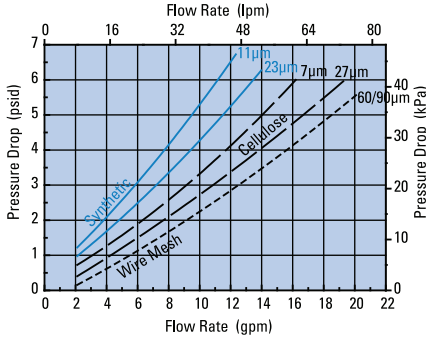
NOTE:

Please note that the line styles used represent different media types

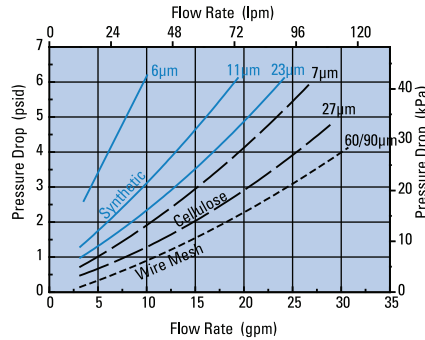
- Synteq Synthetic
- - - Cellulose
- ... Wire Mesh

STYLE B

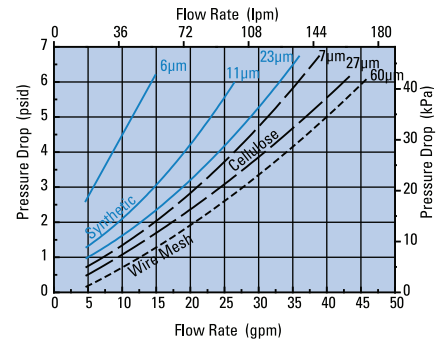
K040811 Assembly (3.23"/82mm)



K040812 Assembly (5.04"/128mm)

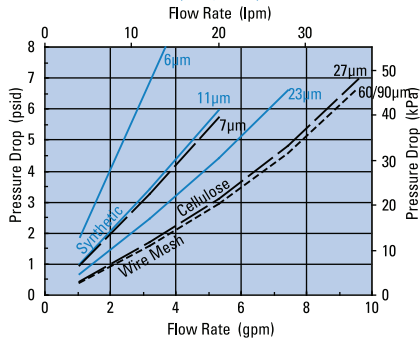


K040813 & K041782 Assemblies (8.27"/210mm)

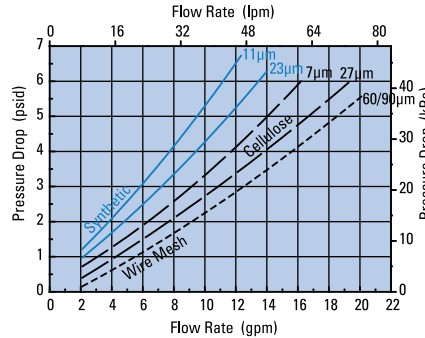


STYLE C

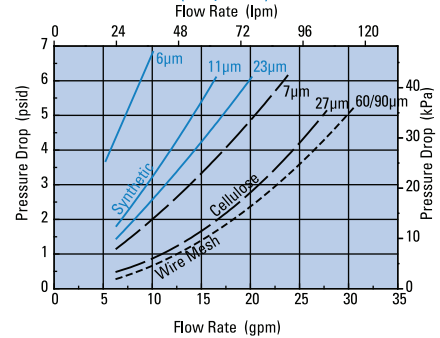
K031027 Assembly (2.64"/67mm)



K0041770* Assembly (3.23"/82mm)



K0041771**, K041772, K041773**, K041774** & K040799 Assemblies (5.04"/128mm)



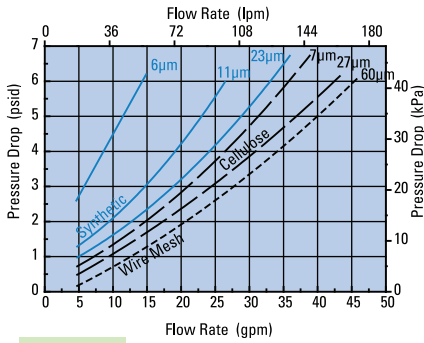
*Subtract ½ psi

**Add ½ psi

Performance Data

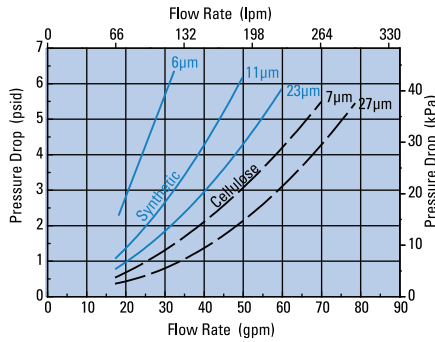
STYLE C, continued

K040798 Assembly (8.22"/209mm)

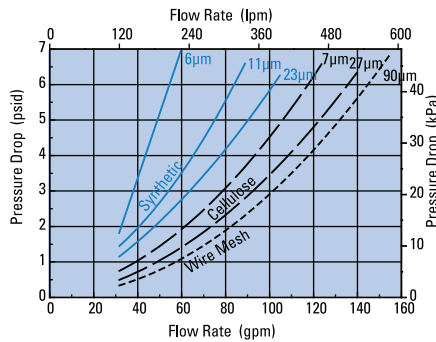


STYLE D

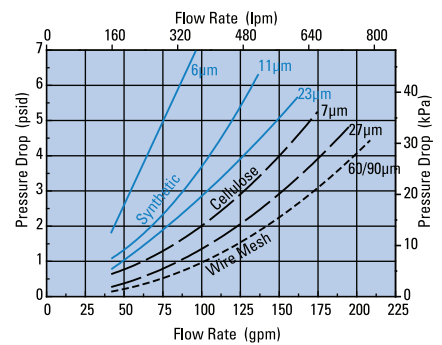
K070248 & K071001 Assemblies (7.49"/203mm)



K070249 & K071002 Assemblies (9.84"/250mm)

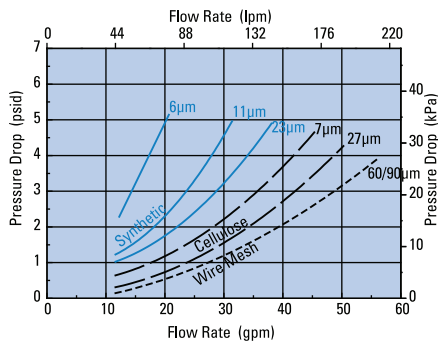


K070250 & K071003 Assemblies (15.75"/400mm)



STYLE E

K051204 & K052053 Assemblies (7.49"/203mm)





SRK Combo

Max Flow: 79 gpm (300 lpm)



SRK Suction/Return Combination In-Tank Filters

Working Pressures to: 145 psi
1000 kPa
10.0 bar

Rated Static Burst to: 217 psi
1497 kPa
15.0 bar

Flow Range to: 79 gpm
300 lpm

Applications

- Hydrostatic Transmissions
- Mobile Equipment



Features

The SRK tank-mounted suction and return filter is a popular choice for hydrostatic transmissions. The filtered flow is maintained at a slight backpressure to provide clean, pressurized oil, mainly for charge pumps in hydrostatic transmission systems. The pressurized flow is designed to reduce cavitation risks. This patented design uses an integrated main flow and bypass flow filter, which is capable of delivering filtered and pressurized oil, even in bypass situations. Emergency suction flow is also filtered. The SRK operates in a standard flow (outside to inside) configuration. SAE O-Ring ports are standard to meet popular application requirements.

- 4-point mounting
- Housing material: steel
- Buna-N® seals standard
- Head material: aluminum
- Cover material: glass-filled nylon
- Main filters include integrated bypass filters

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

Beta Rating (per ISO 16889)

- Performance to $\beta_{13(c)}=1000$

Porting Size Options

- Inlet: SAE-16, SAE-20 O-ring
- Outlet: SAE-16 O-Ring

Replacement Filter Lengths

- 18.6" / 472 mm

Standard Bypass Ratings

- 36 psi / 250 kPa / 2.5 bar

Standard Backpressure Ratings

- 7.3 psi / 50 kPa / 0.5 bar

Assembly Weight

- 10.8 lbs / 4.9 kg

Operating Temperatures

- -22°F to 212°F / -30°C to 100°C

Filter Collapse Ratings

- 145 psid / 1000 kPa / 10 bar

Return Flow Rate

- 79 gpm (300 lpm)

Emergency Suction Flow Rate

- 27 gpm (100 lpm)

SRK Filter Assemblies

Donaldson Part No.	Inlet Port Connections	Outlet Port Connections	Bypass Valve	Emergency Suction	Comments
K041634	SAE-20 & SAE-16	(2) - SAE-16	36 psi (2.5 bar)	125 µm Wire Mesh	Indicator not included

Filter Choices

Media	$\beta_{x(c)} = 1000$	Length		Donaldson	Bypass	Comments
Type	Rating based on ISO 16889	in	mm	Part No.		
Synteq Synthetic	13 μ m	18.6	472	P765457	125 μ m Wire	For Combo 300 Assemblies

- Standard collapse designs are double wire-backed using epoxy-coated steel mesh for maximum pleat support and dirt capacity.
- All SRK filters are standard flow (outside to inside).
- Buna-N seals are standard on all SRK filters.

Suction Filter Choices

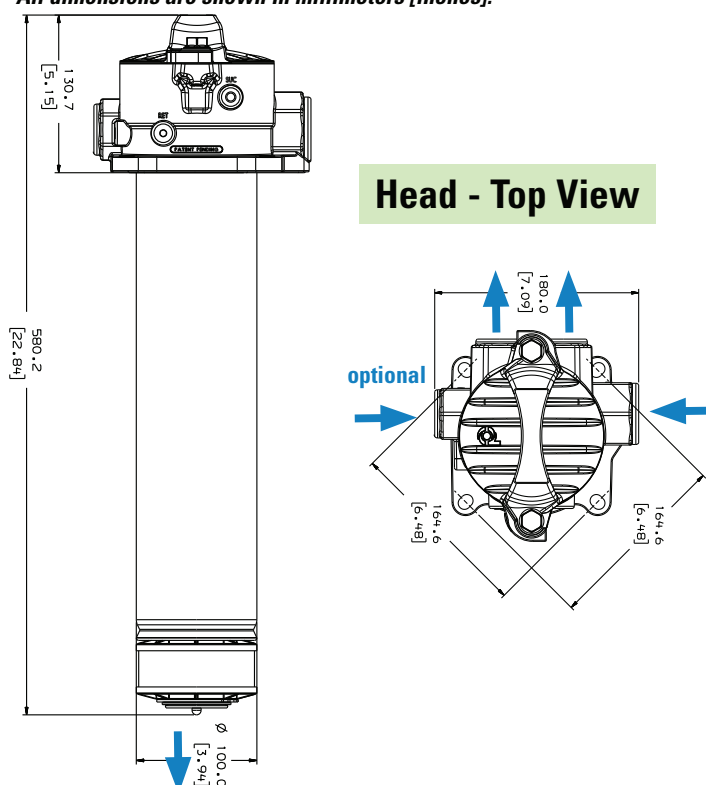
Media	$\beta_{x(c)} = 2$	Length		Donaldson
Type	Rating based on ISO 16889	in	mm	Part No.
Wire Mesh	125 μ m	1.98	50.2	P764183

Indicator Options

Donaldson Part No.	Set Point	Style	Connection
P764467	36 psi (2.5 bar)	30 VDC, N.O.	G1/8"
P764613	36 psi (2.5 bar)	30 VDC, N.C.	G1/8"
P764612	36 psi (2.5 bar)	Visual	G1/8"

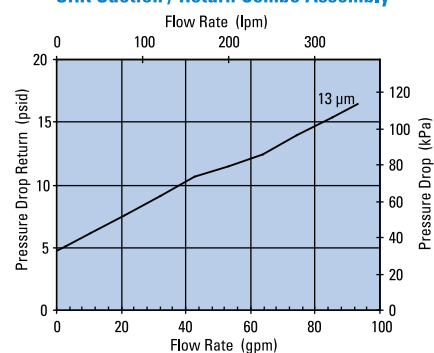
Assembly - Side View

All dimensions are shown in millimeters [inches].

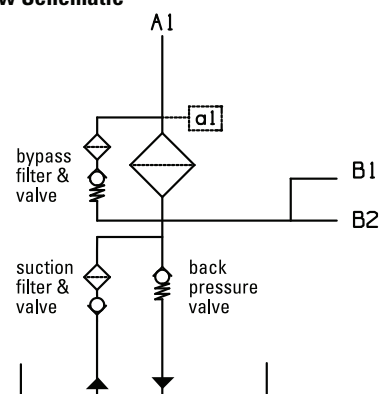


Performance Data

SRK Suction / Return Combo Assembly



Flow Schematic





HRK10
 Max Flow: 300 gpm (1135 lpm)



HRK10 In-Line Cartridge Filters

Working Pressures to:	150 psi 1035 kPa 10.3 bar
Rated Static Burst to:	500 psi 3450 kPa 34.5 bar
Flow Range to:	300 gpm 1135 lpm

Features

The HRK10 high flow filter combines the best features of its predecessor, the HEK11: ANSI inlet port options, top cover filter servicing for ease of maintenance, and a selection of service indicators. The HRK10 all-steel housing design provides a strong, durable, and dependable unit. It offers standard features like deep pleat filters for higher dirt holding capacity and standard Donaldson DT 4-layer media filter construction. This technology, combined with many other standard features, is ideal for today's applications in pulp and paper, power generation and steel mill applications. Five standard grades of media are offered. A port for an electrical indicator is incorporated into the differential indicator block.

- Robust "Twist & Lift" cover for simplified servicing
- Multiple bypass valve design assures proper operation
- Wide variety of bypass valve ratings
- Reverse flow (inside to outside) filters for positive contamination containment
- Fluorocarbon seals standard
- Housing & cover material: steel
- Drain plug in bottom
- Bleed valve in cover
- Fill plug in cover

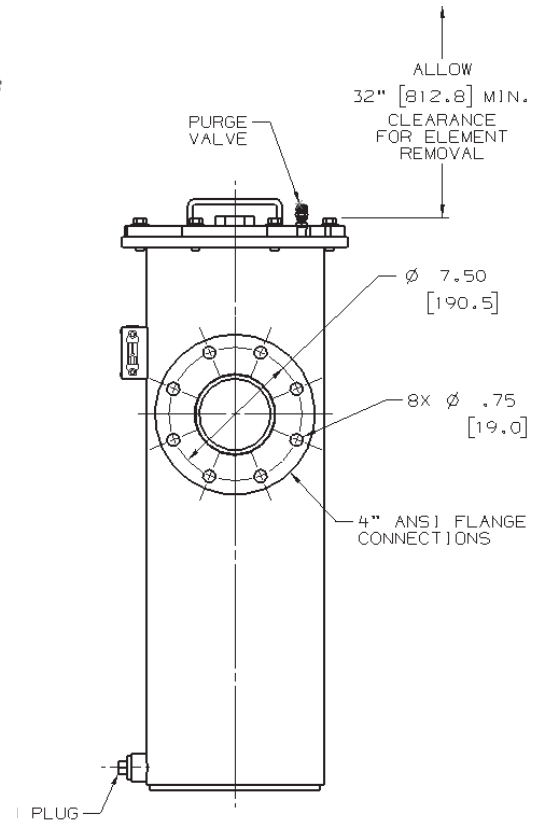
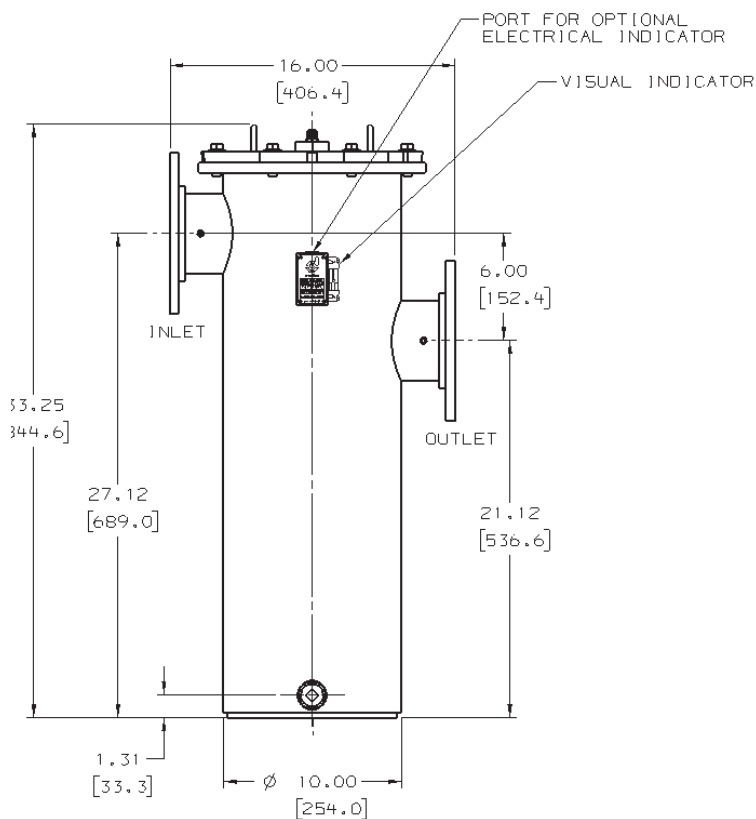


Beta Rating (per ISO 16889) • Performance to $\beta_{<4(c)} = 1000$ Porting Size Options • 4" ANSI Flange, 8-bolt 150# Replacement Filter Lengths • 21.99" / 559 mm Filter Collapse Ratings • 100 psid / 689 kPa / 6.9 bar	Standard Bypass Ratings • 5 psi / 34.5 kPa / 0.34 bar • 25 psi / 172 kPa / 1.7 bar • 50 psi / 345 kPa / 3.4 bar • No Bypass Assembly Weight • 140 lbs / 64 kg Operating Temperatures • -20°F to 250°F (-29° to 121°C)
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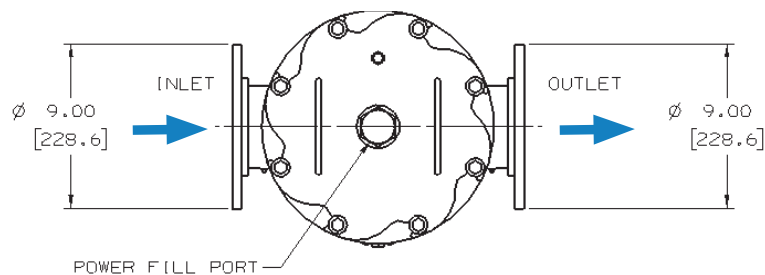
HRK10 Specification Illustrations

All dimensions are shown in inches [millimeters].

Assembly - Side View



Head - Top View





HRK10
Max Flow: 300 gpm (1135 lpm)



HRK10 Components

Housing Choices

NOTE: FILTERS ORDERED SEPARATELY. See below for filter options.

Part No.	Port Connections	Bypass Valve	Indicator Options
K100001	4" ANSI Flange	No bypass	Visual standard, electrical optional
K100002	4" ANSI Flange	5 psi (0.34 bar) bypass	Visual standard, electrical optional
K100003	4" ANSI Flange	25 psi (1.7 bar) bypass	Visual standard, electrical optional
K100004	4" ANSI Flange	50 psi (3.4 bar) bypass	Visual standard, electrical optional

Electrical Indicator Options

Part No.	Set Point	Bypass Valve
P173944	20 psi (1.4 bar)	AC/DC, 3-wire
P174396	40 psi (2.8 bar)	AC/DC, 3-wire

Filter Choices

Media Type	$\beta_{x(c)} = 2$ Rating based on ISO 16889	$\beta_{x(c)} = 1000$	Length in mm	Donaldson Part No.	Comments
Synteq Synthetic		<4 μ m	21.99	559	P566187 Replaces old HEK11 filter P163472
		5 μ m	21.99	559	P566188*
		8 μ m	21.99	559	P566189 Replaces old HEK11 filter P176417** or P176223***
		12 μ m	21.99	559	P566190 Replaces old HEK11 filter P165449
		23 μ m	21.99	559	P566191 Replaces old HEK11 filter P164707
Water Absorbing	10 μ m		21.99	559	P569531 Absorbs approximately 60 oz/1800 ml water @ 25 psid/1.72 bar
Wire Mesh	150 μ m		21.99	559	P566192 Replaces old HEK11 filter P160078

Use HRK10 in place of previous HEK11 housings.
For better performance use HRK10 filters in existing HEK11 housings.

* Utilizes DT Synteq synthetic media

** 9 μ m rating

*** 10 μ m rating

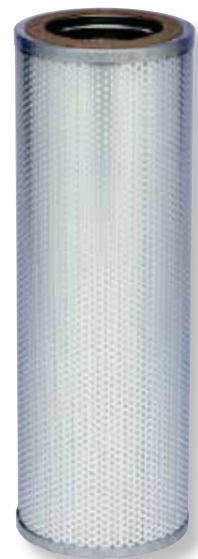
Filter Notes:

All $\beta=1000$ filters utilize glass fiber media with an epoxy-based resin system for the ultimate in chemical compatibility.

All Donaldson HRK10 filters are potted with epoxy-based adhesives.

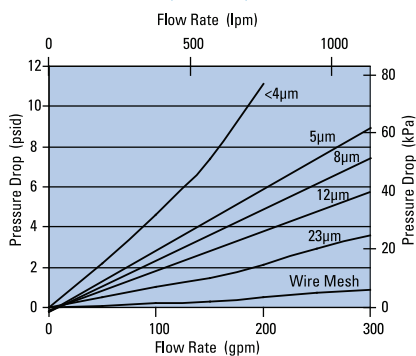
All HRK10 filters are reserve flow (inside to outside), keeping contaminants contained during servicing.

Viton® seals are standard on all HRK10 filters. Viton® is a registered trademark of E. I. DuPont de Nemours and Company.

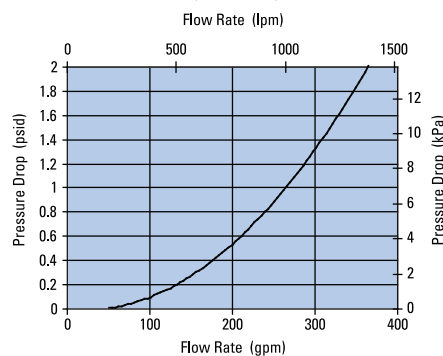


Performance Data

HRK10 Filter Only
(22"/559mm)



HRK10 Housing Only
(with 4" Port)



HRK10 Service Parts

SERVICE PARTS NOTE:

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

