

## SP50/60 Spin-On Filter (Replaces LPS05)

**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 l/min



## 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 'n Match system of in-stock heads and element choices—so you can get exactly what you need! Element 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, as listed on page 18. Please note gasket options on page 22.

### Beta Rating

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

### Porting Sizes

- 1¼" NPT
- SAE-20 (1¼") O-Ring

### Replacement Filter Lengths

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

### Outer Diameter

- 5" / 127mm

### Element 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

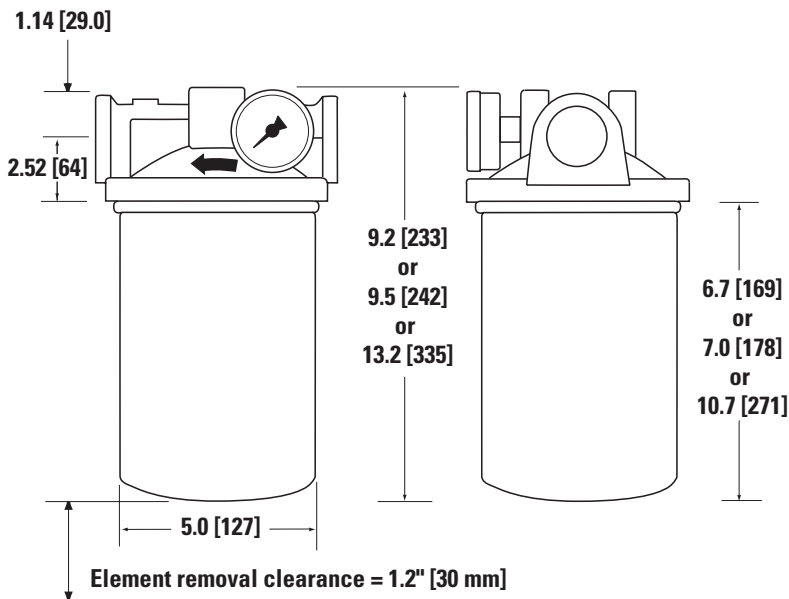
### Assembly Weight

- 4.7 lbs / 2.1 kg (short)
- 5.6 lbs / 2.5 kg (long)

### Operating Temperatures

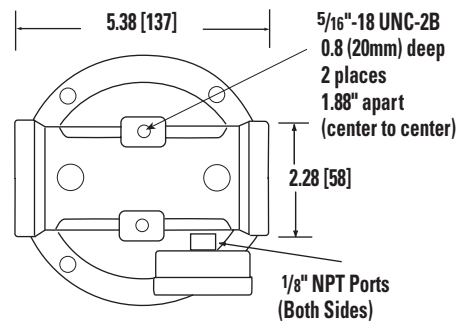
- -22°F to 250°F / -30°C to 121°C

**Assembly - Side View**



*for:* Process Systems  
Fluid Conditioning  
In-plant & Mobile Equipment  
Power Transmissions  
Filter Cart

**Head - Top View**



● All dimensions above are shown in inches [millimeters]

# SP50/60 Components

## Element Choices

Media Type	Beta <sub>x(c)</sub> =200 Rating	Beta <sub>x(c)</sub> =1000 Rating	Length (in./mm)	Donaldson Part No.	Comments
Cellulose Media #3		24µm	6.7/169	P550386	
Cellulose Media #3		24µm	10.7/271	P550250	
Cellulose Media #10		23µm	6.7/169	P550388	
Cellulose Media #10		23µm	10.7/271	P550251	
Cellulose Media #10		23µm	6.7/169	P562201	
Cellulose Media #10		23µm	7.00/178	P550148	1¼" BSP thread
Cellulose Media #10		23µm	10.7/271	P562204	
Cellulose Media # 3		24µm	6.7/169	P562200	
Beta-10 Absolute Synthetic		10µm	6.7/169	P562207	Synthetic
Beta-10 Absolute Synthetic		10µm	10.7/271	P562208	Synthetic
Beta 3 Absolute Synthetic		6µm	6.7/169	P562209	Synthetic
Beta 3 Absolute Synthetic		6µm	10.7/271	P167832	Synthetic
Cellulose Media #25	32µm		6.7/169	P550387	
Cellulose Media #25	32µm		10.7/271	P550252	
Cellulose Media #25	32µm		6.7/169	P562202	
Cellulose Media #25	32µm		7.0/178	P171616	1¼" BSP thread
Cellulose Media #25	32µm		10.7/271	P562205	
Water Absorbing	10µm water absorption		10.7/271	P561183	Absorbs 24 oz./700 ml water
Wiremesh	150µm nominal		6.7/169	P550275	Stainless Steel
Wiremesh	150µm nominal		10.7/271	P550276	Stainless Steel
Wiremesh	150µm nominal		6.7/169	P562203	Stainless Steel




All models have 1½ -16 UNF threads except for P550148 and P171616 which have 1¼" BSP threads.  
All models measure 5.0" / 127mm outer diameter.

## Head Choices for SP50/60

Port Size	Bypass Rating	Gauge Ports (drill, tap, plug)	Gauge Port Location	DCI Part No.
1¼" NPT	15 psi / 103.4 kPa / 1.34 bar	(2) 1/8" NPT	upstream side	P563267
1¼" NPT	25 psi / 172.5 kPa / 1.72 bar	(2) 1/8" NPT	upstream side	P563268
1¼" NPT	5 psi / 34.5 kPa / .34 bar	(2) 1/8" NPT	downstream side	P563269
1¼" NPT	15 psi / 103.4 kPa / 1.34 bar	none	na	P563270
1¼" NPT	Blocked	(2) 1/8" NPT	downstream side	P561952
1¼" NPT	2.5 psi / 17.3 kPa / .17 bar	none	na	P563490
1¼" NPT	2.5 psi / 17.3 kPa / .17 bar	(2) 1/8" NPT	downstream side	P563491
1¼" NPT	25 psi / 172.5 kPa / 1.72 bar	none	na	P563492
SAE - 20	15 psi / 103.4 kPa / 1.34 bar	(2) 1/8" NPT	upstream side	P563271
SAE - 20	25 psi / 172.5 kPa / 1.72 bar	(2) 1/8" NPT	upstream side	P563272
SAE - 20	Blocked	(2) 1/8" NPT	upstream side	P564147
SAE - 20	25 psi / 172.5 kPa / 1.72 bar	none	na	P563493

## Gaskets

SP50/60 spin-on filters can be used with three gasket styles. Donaldson-branded elements ship with all three types of gasket; LHA-branded elements ship with square cut gasket only. Other gaskets may be ordered separately using the part numbers below:

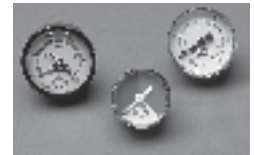
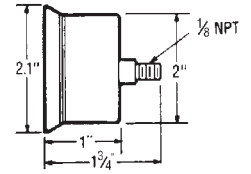
P170894	L Shaped		P165641	Square Cut		P166435	O-Ring	
Use with Donaldson LPS05 head. Shipped with each Donaldson-branded spin-on element.			Use with SP50/60 and non-Donaldson head. Shipped with each Donaldson- and LHA-branded spin-on element.			Use with Donaldson HBK05 head. Shipped with each Donaldson-branded spin-on element.		



## 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 element.

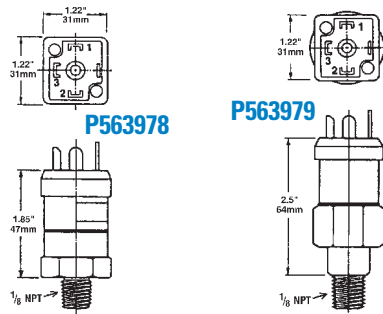
Donaldson Part No.	Pressure Range	Use With Bypass Valve Rating	Type
P563978	5 to 30 psi field adj.*	15 psi / 103.4 kPa / 1.34 bar or 25 psi / 172.5 kPa / 1.72 bar or No Bypass	Return indicator, electrical
P563979	-5 to 15 in Hg field adj.*	5 psi / 34.5 kPa / .34 bar or No Bypass	Suction indicator, electrical
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 -20 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**

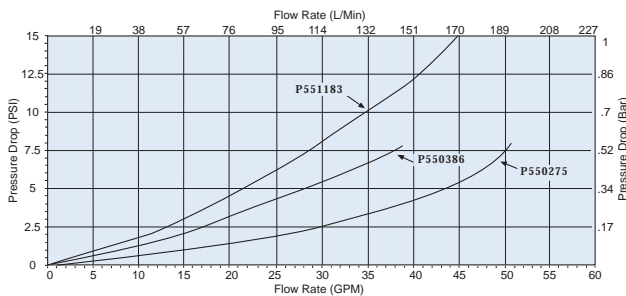
1. Remove DIN adaptor
2. Remove small brass screw
3. Using 1/8" allen wrench adjust clockwise to increase set point/counter-clockwise to decrease set point
4. NO / NC

Adjustment screw located in center of elec. prongs

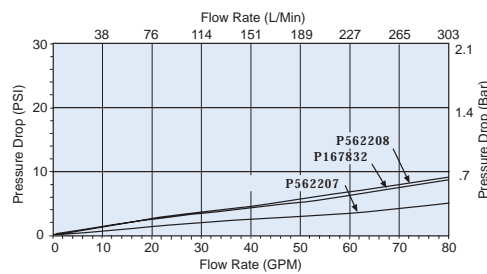
# Performance Data

For a full explanation of how our performance curves were derived, see page 150.

**SP50/60**



**SP50/60-BTA**



**SP50/52**

