

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
- 7.0" / 178mm
- 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

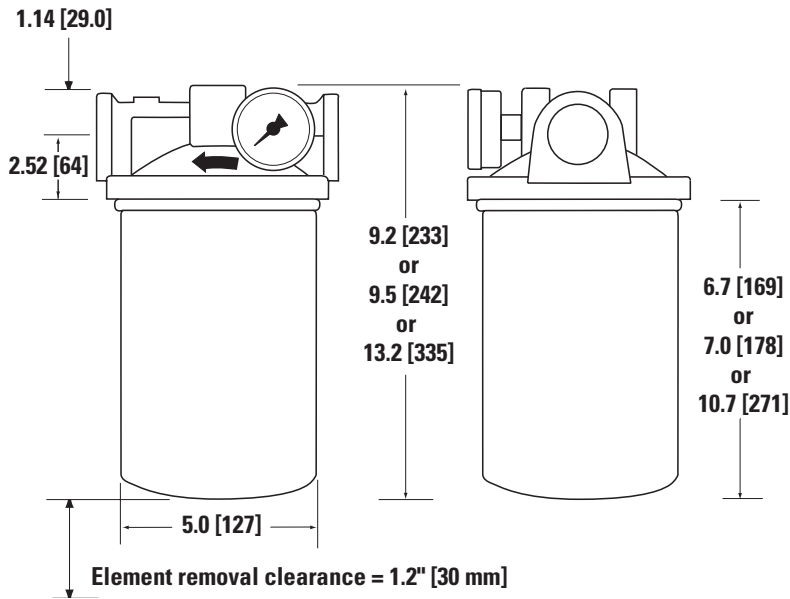
Assembly Weight

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

Operating Temperatures

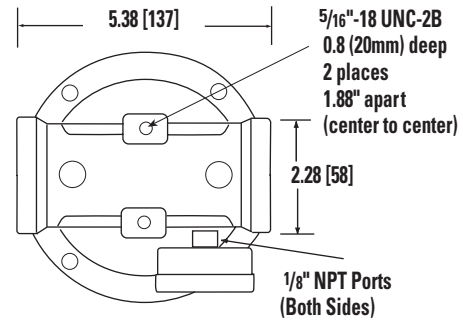
- -22°F to 250°F / -30°C to 121°C

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 _{x(c)} =200 Rating	Beta _{x(c)} =1000 Rating	Length (in./mm)	Donaldson Part No.	LHA Part No.	Comments	Brand
Cellulose Media #3		24µm	6.7/169	P550386	n/a		Donaldson
Cellulose Media #3		24µm	10.7/271	P550250	n/a		Donaldson
Cellulose Media #10		23µm	6.7/169	P550388	n/a		Donaldson
Cellulose Media #10		23µm	10.7/271	P550251	n/a		Donaldson
Cellulose Media #10		23µm	6.7/169	P562201	SPE-50-10		LHA
Cellulose Media #10		23µm	7.00/178	P564052	SPE-52-10	1¼" BSP thread	LHA
Cellulose Media #10		23µm	10.7/271	P562204	SPE-60-10		LHA
Cellulose Media # 3		24µm	6.7/169	P562200	SPE-50-3-N		LHA
Beta-10 Absolute Synthetic		10µm	6.7/169	P562207	SPE-50-BTA-10	Synthetic	LHA
Beta-10 Absolute Synthetic		10µm	10.7/271	P562208	SPE-60-BTA-10	Synthetic	LHA
Beta 3 Absolute Synthetic		6µm	6.7/169	P562209	SPE-50-BTA-3	Synthetic	LHA
Beta 3 Absolute Synthetic		6µm	10.7/271	P564055	SPE-60-BTA-3	Synthetic	LHA
Cellulose Media #25	32µm		6.7/169	P550387	n/a		Donaldson
Cellulose Media #25	32µm		10.7/271	P550252	n/a		Donaldson
Cellulose Media #25	32µm		6.7/169	P562202	SPE-50-25		LHA
Cellulose Media #25	32µm		7.0/178	P564053	SPE-52-25	1¼" BSP thread	LHA
Cellulose Media #25	32µm		10.7/271	P562205	SPE-60-25		LHA
Water Absorbing	10µm water absorption		10.7/271	P561183	n/a	Absorbs 24 oz./700 ml water	Donaldson
Water Absorbing	10µm water absorption		10.7/271	P562206	SPE-60-H-10	Absorbs 24 oz./700 ml water	LHA
Wiremesh	150µm nominal		6.7/169	P550275	n/a	Stainless Steel	Donaldson
Wiremesh	150µm nominal		10.7/271	P550276	n/a	Stainless Steel	Donaldson
Wiremesh	150µm nominal		6.7/169	P562203	SPE-50-140W	Stainless Steel	LHA


All models have 1½ -16 UNF threads except for SPE-52 models. SPE-52 models 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.	LHA Part No.
1¼" NPT	15 psi / 103.4 kPa / 1.34 bar	(2) 1/8" NPT	upstream side	P563267	SP50N*GN1
1¼" NPT	25 psi / 172.5 kPa / 1.72 bar	(2) 1/8" NPT	upstream side	P563268	SP50N*HN1
1¼" NPT	5 psi / 34.5 kPa / .34 bar	(2) 1/8" NPT	downstream side	P563269	SP50N*FN2
1¼" NPT	15 psi / 103.4 kPa / 1.34 bar	none	na	P563270	SP50N*GN0
1¼" NPT	Blocked	(2) 1/8" NPT	downstream side	P561952	SP50N*DN2
1¼" NPT	2.5 psi / 17.3 kPa / .17 bar	none	na	P563490	SP50N*EN0
1¼" NPT	2.5 psi / 17.3 kPa / .17 bar	(2) 1/8" NPT	downstream side	P563491	SP50N*EN2
1¼" NPT	25 psi / 172.5 kPa / 1.72 bar	none	na	P563492	SP50N*HN0
SAE - 20	15 psi / 103.4 kPa / 1.34 bar	(2) 1/8" NPT	upstream side	P563271	SP50S*GN1
SAE - 20	25 psi / 172.5 kPa / 1.72 bar	(2) 1/8" NPT	upstream side	P563272	SP50S*HN1
SAE - 20	Blocked	(2) 1/8" NPT	upstream side	P564147	SP50S*DN1
SAE - 20	25 psi / 172.5 kPa / 1.72 bar	none	na	P563493	SP50S*HN0

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 
Use with Donaldson LPS05 head.
Shipped with each Donaldson-branded spin-on element.

P165641 Square Cut 
Use with SP50/60 and non-Donaldson head. Shipped with each Donaldson- and LHA-branded spin-on element.

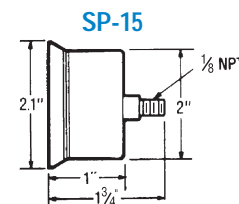
P166435 O-Ring 
Use with Donaldson HBK05 head.
Shipped with each Donaldson-branded spin-on element.



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.

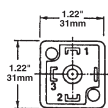
Donaldson Part No.	LHA Part No.	Pressure Range	Use With Bypass Valve Rating	Type	Brand
P563978	EL-P-1	5 to 35 psi field adj.*	15 psi / 103.4 kPa / 1.34 bar or 25 psi / 172.5 kPa / 1.72 bar or No Bypass	Return indicator, electrical	LHA
P563979	EL-V-2	-5 to -30 in Hg field adj.*	5 psi / 34.5 kPa / .34 bar or No Bypass	Suction indicator, electrical	LHA
P563296	SP-15P	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	LHA
P563297	SP-15P-1	0 to 100 psi	15 psi / 103.4 kPa / 1.34 bar Bypass	Return indicator, color coded	LHA
P563298	SP-15P-2	0 to 100 psi	25 psi / 172.5 kPa / 1.72 bar or No Bypass	Return indicator, color-coded	LHA
P563299	SP-15V	0 to -20 Hg	5 psi / 34.5 kPa / .34 bar or No Bypass	Suction indicator, numeric scale	LHA



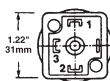
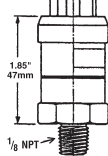
Notes

* NOT PRESET: Setting adjustable for desired application

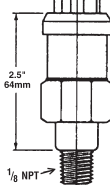
#1 Common; #2 Normally Closed; #3 Normally Open



EL-P-1



EL-V-2



EL-P and EL-V Instructions

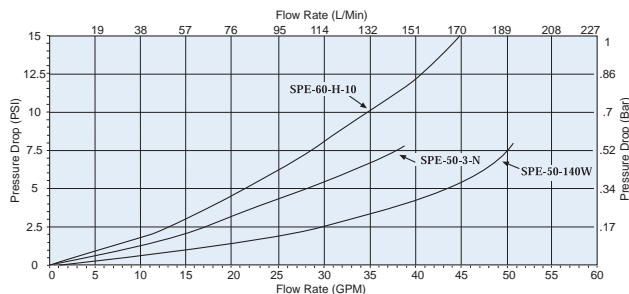
1. Remove DIN adaptor
2. Remove small brass screw
3. Using 1/8" allen wrench adjust clockwise to increase set point/counter-clockwise to decrease set point
4. NO / NC

Adjustment screw located in center of elec. prongs

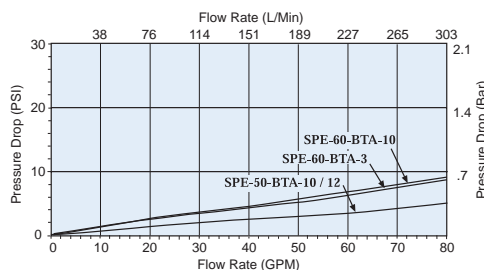
Performance Data

For a full explanation of how our performance curves were derived, see page 160.

SP50/60



SP50/60-BTA



SP50/52

