



SP100/120

Max Flow: 100 gpm (380 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*  
380 *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

#### Operating Temperatures

- -22°F to 225°F / -30°C to 107°C

#### Assembly Weight

- 7.0 lbs / 3.2 kg (short)
- 8.8 lbs / 4.0 kg (long)

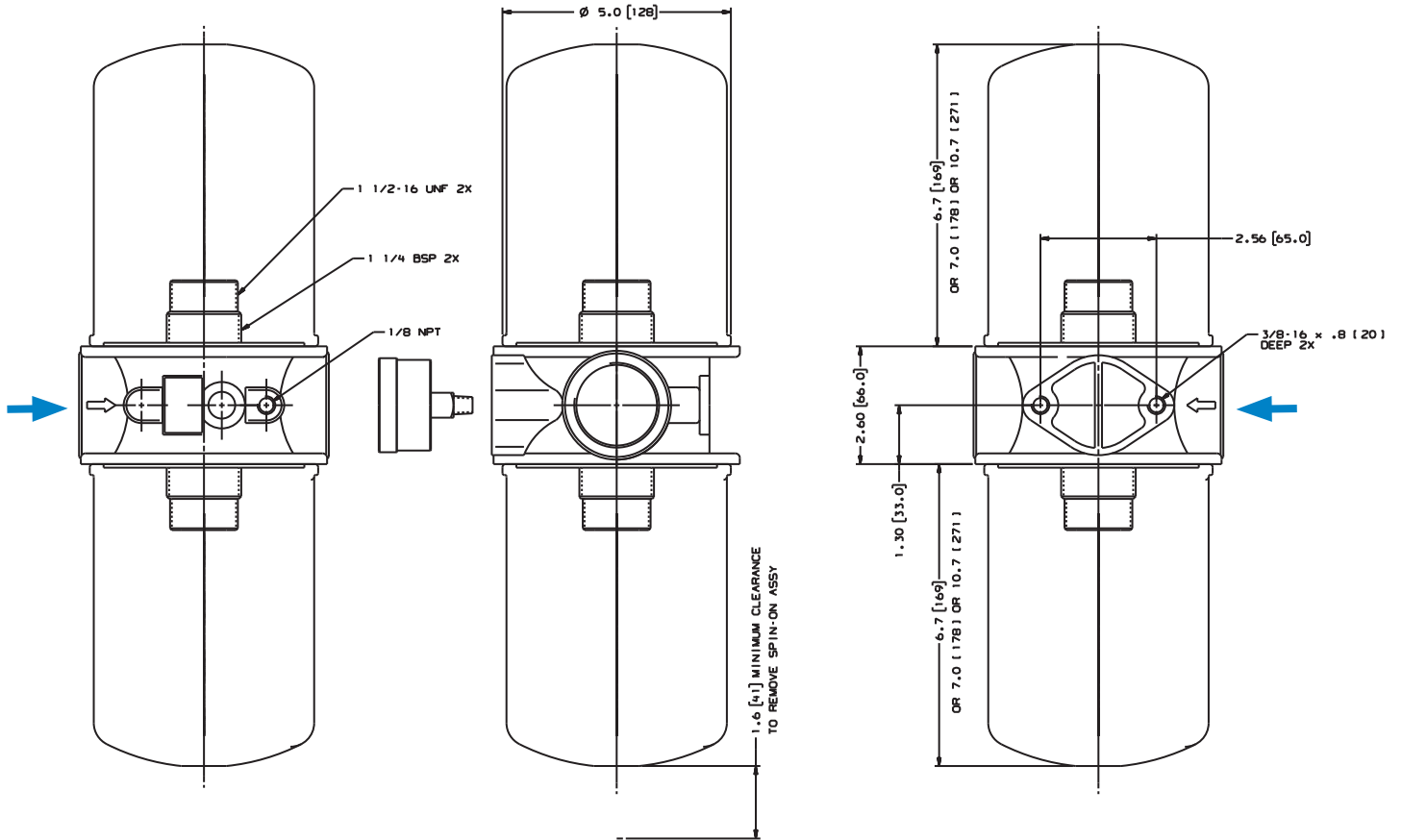
## SP100/120 Specification Illustrations

All dimensions are shown in inches [millimeters].

### Assembly - Side View

### Applications

- Fluid Conditioning Systems
- In-Plant Systems





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## SP100/120 Components

### Filter Choices

| Media Type       | $\beta_{x(c)} = 2$<br>Rating based on ISO 16889 | $\beta_{x(c)} = 1000$ | Length<br>in mm |     | Donaldson Part No. | Comments                                           |
|------------------|-------------------------------------------------|-----------------------|-----------------|-----|--------------------|----------------------------------------------------|
| Synteq Synthetic | <4 $\mu\text{m}$                                |                       | 10.7            | 271 | P167796            | Viton® O-ring & square seal kit                    |
|                  | 7 $\mu\text{m}$                                 |                       | 6.7             | 170 | P169430            | 3-seal kit                                         |
|                  | 7 $\mu\text{m}$                                 |                       | 6.7             | 170 | P167162            | 3-seal kit                                         |
|                  | 7 $\mu\text{m}$                                 |                       | 10.7            | 271 | P167832            | 3-seal kit                                         |
|                  | 7 $\mu\text{m}$                                 |                       | 10.7            | 271 | P165762            | 3-seal kit                                         |
|                  | 9 $\mu\text{m}$                                 |                       | 6.7             | 170 | P165875            | 3-seal kit                                         |
|                  | 9 $\mu\text{m}$                                 |                       | 10.7            | 271 | P165876            | 3-seal kit                                         |
|                  | 13 $\mu\text{m}$                                |                       | 6.7             | 170 | P167944            | Viton O-ring & square seal kit                     |
|                  | 13 $\mu\text{m}$                                |                       | 10.7            | 271 | P167945            | Viton O-ring & square seal kit                     |
|                  | 23 $\mu\text{m}$                                |                       | 6.7             | 170 | P165877            | 3-seal kit                                         |
|                  | 23 $\mu\text{m}$                                |                       | 10.7            | 271 | P165878            | 3-seal kit                                         |
|                  | 50 $\mu\text{m}$                                |                       | 6.7             | 170 | P165879            | 3-seal kit                                         |
|                  | 50 $\mu\text{m}$                                |                       | 10.7            | 271 | P165880            | 3-seal kit                                         |
| Cellulose        | 5 $\mu\text{m}$                                 |                       | 6.7             | 170 | P550386            | 3-seal kit                                         |
|                  | 5 $\mu\text{m}$                                 |                       | 10.7            | 271 | P550250            | 3-seal kit                                         |
|                  | 7 $\mu\text{m}$                                 |                       | 6.7             | 170 | P550388            | 3-seal kit                                         |
|                  | 7 $\mu\text{m}$                                 |                       | 10.7            | 271 | P550251            | 3-seal kit                                         |
|                  | 7 $\mu\text{m}$                                 |                       | 7.00            | 178 | P565245            | Square seal kit, 1/4" BSP thread                   |
|                  | 17 $\mu\text{m}$                                |                       | 6.7             | 170 | P550387            | 3-seal kit                                         |
|                  | 17 $\mu\text{m}$                                |                       | 10.7            | 271 | P550252            | 3-seal kit                                         |
|                  | 27 $\mu\text{m}$                                |                       | 7.00            | 178 | P171616            | Square seal kit, 1/4" BSP thread                   |
| Water Absorbing  | 10 $\mu\text{m}$                                |                       | 10.7            | 271 | P561183            | Cellulose media, 3-seal kit. Absorbs 350 ml water. |
| Wire Mesh        | 150 $\mu\text{m}$                               |                       | 6.7             | 170 | P550275            | Stainless steel wire mesh, 3-seal kit              |
|                  | 150 $\mu\text{m}$                               |                       | 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 5.0"/127 mm outer diameter. Some part numbers are offered with the same beta ratings to maintain customer ordering patterns.

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            |

### 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

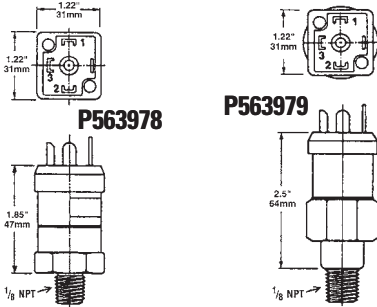
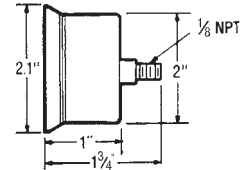
This handy pressure gauge, mounted on the side of an SP100/120 filter head, will tell you when it's time to service the filter.

| 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 -20 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

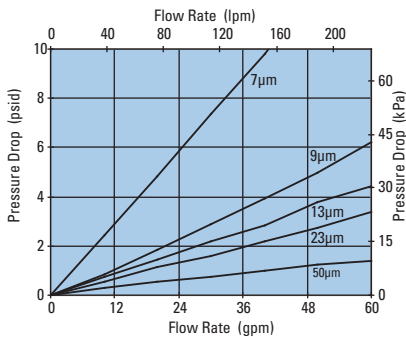
### Instructions

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

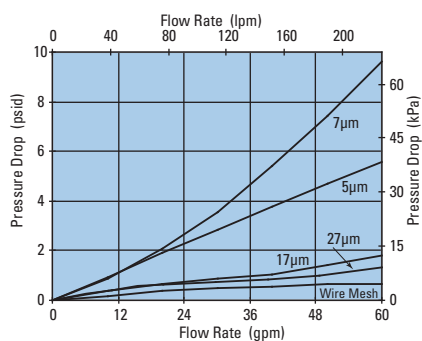
Adjustment screw located in center of elec. prongs

## Performance Data

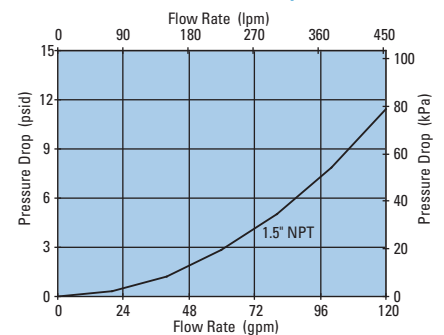
**SP100 Filter Only**  
(Synthetic, 6.7"/170mm)



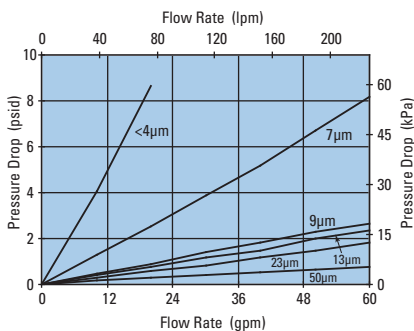
**SP100 Filter Only**  
(Cellulose, 6.7"-7"/170-178mm)



**SP100/120 Head Only**



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



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

