SSPS Powder Sintered Filter Cartridge

Cobetter **SSPS**® Powder Sintered Filter Cartridges are constructed with stainless steel powder. First shaped with pressure and then sintered under high temperature by applying unique technology and strict production process. Features include high mechanical strength, high temperature resistance, even pore distribution, and cleanable.

Features and Benefits

- ALL-Stainless Steel Construction
- Free Particle Release
- High Temperature and Oxidative and Corrosive Resistant
- High Voids, Lower Filtration Resistance, and Excellent
- Permeability
- Even Construction, Narrow Pore Distribution, and High
- Separation Efficiency
- Fixed and Controlled Shape to Withstand High
- Reverse-Flow

Materials of Construction

Filtration Medium	304/316 stainless steel
End Cap	304/316 stainless steel

Nominal Dimensions ❶

Diameters	60mm

❶ Additional Diameter Specifications Available Upon Request

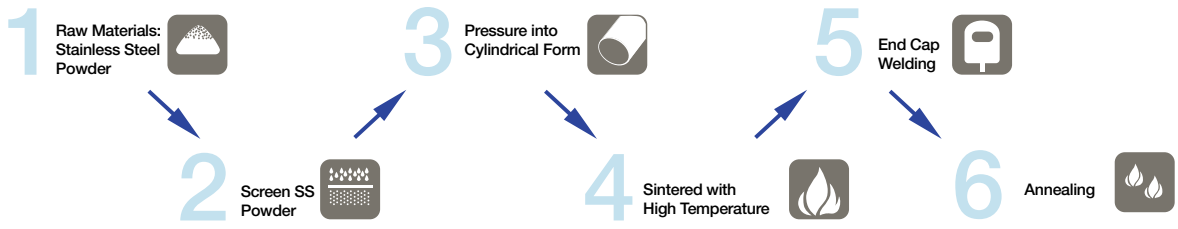
Configurations

Double Open-End (DOE)
Single Open-End (SOE)

Operating Conditions

Max. Differential Pressure	4.0 bar / 21°C (forward flow)
Recommended Continuous Operating Temperature Range	-75°C to +200°C Note: Temperature dependant on o-ring compound

Production Process of SSPS Series Powder Sintered Filter Cartridges



Parameters

Code	Removal Ratings(μm)	Pore Efficiency%	Initial Differential Pressure (KPa)	Absolute Removal Rating (μm) ❷	Average Air Permeability (L/dm²min)❸	Flow Rate (m³/h) ❹
1	0.45	30-50	28	5	0.12	0.16
2	1.0		21	10	0.97	0.23
3	3.0		5.8	17	1.6	0.31
4	5.0		3.0	30	2.27	1.28
5	10		2.6	50	5.50	3.8
6	20		2.1	70	10.87	5.1
7	30		2.0	90	15.10	5.8
8	50		1.9	120	14.50	6.2
9	80	-	-	-	-	-
10	100	-	-	-	-	-
11	120	-	-	-	-	-

❷ Testing Method: Bubble Point Method ❸ Testing Performed According to GB/T5453; Testing DP is 200Pa; Testing Medium is Air
❹ Testing Liquid Viscosity is 1CP.S; Filter Tested with 60mm diameter and 300mm length; Testing Pressure is 1.5 bar

Length and Area❺

Length	Filtration Area❻
5 in. (125 mm)	0.024 m²
10 in. (300 mm)	0.047m²
20 in. (500 mm)	0.094 m²
30 in. (750 mm)	0.141 m²
40 in. (1000 mm)	0.188m²

❺ Length and Other Sizes Are Customizable
❻ Tested Filter Diameter is 65mm

Ordering information

SSPS | Removal Ratings | End Cap | Nominal Length | Diameter | Seal Material | **-F**

Removal Ratings

0045=0.45μm **3000**=30μm
0100=1.0μm **5000**=50μm
0300=3.0μm **8000**=80μm
0500=5.0μm **100H**=100μm
1000=10μm **120H**=120μm
2000=20μm

End Cap

DOE =Double open end
TC =222/Flat
SC =226/Flat
L =Threaded Coupling

Nominal Length

05= 5"
10=10"
20=20"
30=30"
40=40"

Diameter

D50 =50mm
D60 =60mm
D70 =70mm
D75 =75mm
D80 =80mm
D120 =120mm

Seal Material

S =Silicon
E =EPDM
V =Viton
P =PFA/Viton
F =PTFE

Cleaning Methods

Physical Cleaning Methods: Reverse-Flow by Clean Water; Reverse-Blow by Clear Air and Ultrasonic Wave
Chemical Cleaning Methods: Use Cleaning Agent Such As Diluted Acid, Diluted Alkalis, Oxidizer, and Surfactant

Contamination Materials	General Cleaning Method Procedures
Decarburization in Pharmaceutical and Chemical Industries	Reverse-blow and reverse-flow used more frequently; ultrasonic wave cleaning used when necessary
Non -Water Soluble Salts and Oxides in the Pharmaceutical Industry	Soak in 5% Concentration of Nitric Acid Solution
Original Liquid Filtration	Choose the correct cleaning methods as per the chemical properties of the contamination material; The Ultrasonic Wave Cleaning can be combined to use when necessary
Chemical Cleaning Methods	**Detailed Procedures**
Alkaline Cleaning	Alkaline Cleaning Soak filter in 3-5% Concentration of AR grade NaOH Solution for 30-60 minutes; solution temperature is 40°C. Flush the soaked filter inside, out with DI water or WFI water until the flushed solution turns neutral , and then test its conductivity. Dry with Pure Air ≥0.4Mpa
Acid Cleaning	Soak it in the 5% Concentration of Nitric Acid Solution for at least 8 hours; solution temperature is 40°C. Flush the soaked filter inside, out with DI water or WFI water until the flushed solution turns neutral, and then test its conductivity. Dry with Pure Air ≥0.4Mpa
Original Liquid Filtration	Clean filter with surfactant caused by contamination with Organic Pollution (high concentration of Citric Acid recommended for Food and Beverage Applications)

Notes

a. Avoid artificial damages such as scratches, bumps, and smashes during the cleaning, disassembling, and assembling processes. Please **DO NOT** exert force on the filter cartridge surface.
b. In general, filtration direction is from outside, in. Reverse filtration **IS NOT** recommended.
c. Increase pressure to the required operating pressure slowly while filtering. Please **DO NOT** increase pressure instantly.
d. Operating pressure **SHOULD NOT** exceed 0.6Mpa. Flush in place reversely with clean liquid or blow in place reversely with clean air in time. Pressure of reverse blow **SHOULD NOT** exceed 0.75Mpa.
e. Reverse-flush and Reverse-blow Procedures: First reverse-blow with clean air under pressure that is 1.2-1.5 times greater than operating pressure. Reverse-blow lasts for 3-5 seconds and repeat 4-6 times. Finally reverse-flush with clean liquid for 3-5 minutes and repeat 2-3 times.
f. If the pressure damage is still serious after **NOTE E**, please **DISSAMBLE** the filter cartridge to clean.