



Sintered Porous Filter

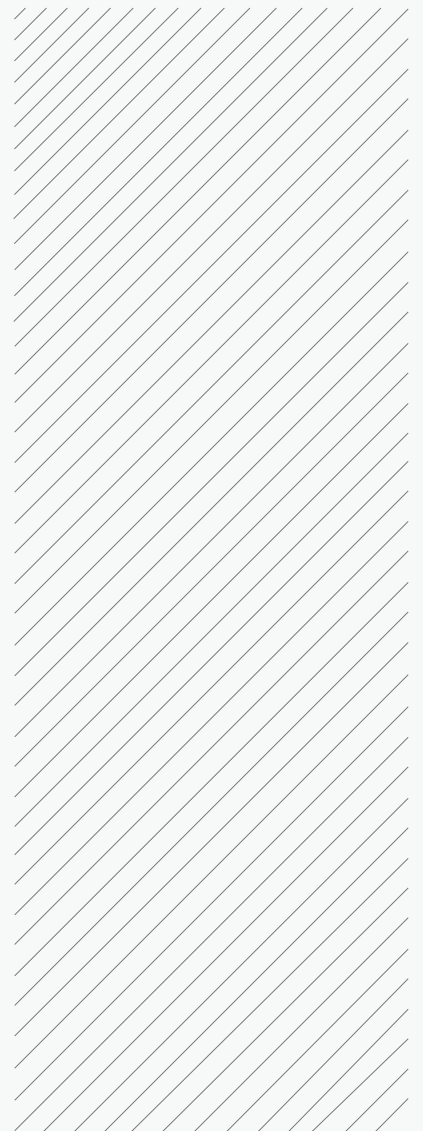
Weave Impossible to Possible



BOEDON Industech Limited

www.boedon.com | sales@boedon.com

BOEDON Brochure





We offer a variety of **sintered porous filters** to meet the **fine filtration** requirements of various industries.

Sintered porous filter uses metal powder as raw material without adding adhesive. Firstly, metal powder is compacted and formed by taking liquid as pressure medium at the room temperature, and then is high temperature vacuum sintered. When the heating temperature is lower than the melting point of the main composition, bonding and other physical and chemical action occur between particles, sintered materials with required strength and properties are obtained. Equipped with different connectors, sintered porous filter is obtained, featuring stable shape, good air permeability and great separation effect.

The pore size, distribution, strength and air permeability of the sintered porous filter depends on the powder fineness, compacting and sintering processes. Sintered porous filter achieves micro-rating fine filtration to remove solid particle impurities from liquids and gases.

The most commonly used sintered metal materials are stainless steel and brass. In addition, titanium, nickel, Monel and other materials are available upon request.

A close-up photograph of a cylindrical sintered porous filter. The filter is a light grey color with a fine, porous texture. It is shown at an angle, with a blue circular highlight framing the top and right sides. The bottom of the filter shows a metal flange with a threaded connection.

Sintered Porous Filter

SINTERED POROUS FILTER

Material



Stainless steel

Mainly made of 304 and 316L stainless steel powder, it features excellent resistant to corrosion, oxidization, wear and good mechanical strength, and has a filter rating of 0.1–65 µm.



Titanium

Constructed of 99.7% titanium powder, it features low density, high strength, good corrosion resistance and biological compatibility, and has a filter rating of 0.2–50 µm.



Nickel

Made of Inconel 600 and Monel, it features high strength, good oxidization resistance and up to 1000 °C, and has a filter rating of 0.5–50 µm.

SINTERED POROUS FILTER

Connector Type

Sintered porous filter can work with a variety of connectors and can be customized upon request.

- ▶ Standard connector (215, 222, 226)
- ▶ Thread connection (M20, M30, M32, M42, etc.)
- ▶ Flat/DOE
- ▶ Special customized connector



SINTERED POROUS FILTER

Specification

Material: stainless steel, brass, titanium, nickel alloy, etc.

Maximum operating temperature: 600 °C; nickel alloy: 1000 °C.

Filter rating: 0.2–80 μm

Porosity: 30%–45%

Max. compressive strength: 3.0 MPa

Specification of Sintered Stainless Steel Porous Filters

Filter Rating (μm)	Maximum Aperture (μm)	Coefficient of Permeability (10-12m ²)	Permeability (m ³ /h.m ² .kpa)	Thickness (mm)	Compressive Strength (MPa/cm ²)	Bubble Point Pressure (kPa)	Maximum Operating Temperature (°C)
0.2	2.5	–	1	3	3.0	-	600
0.5	4	–	3	3	3.0	-	600
1	6	–	5	3	3.0	-	600
2.5	10	0.09	10	3	3.0	9.16	600
5	15	0.23	40	3	3.0	6.1	600
8	20	0.91	80	3	3.0	4.6	600
10	30	1.81	160	3	3.0	2.6	600
28	60	3.82	350	3	3.0	1.8	600
35	80	7.29	500	3	3.0	1.4	600
40	100	9.43	700	3	3.0	1.1	600
65	160	15.1	1000	3	3.0	0.66	600

Specification of Sintered Titanium Porous Filters

Filter Rating (μm)	Maximum Aperture (μm)	Coefficient of Permeability (10-12m ²)	Permeability (m ³ /h.m ² .kpa)	Thickness (mm)	Compressive Strength (MPa/cm ²)	Maximum Operating Temperature (°C)
0.2	2.5	–	1.5	3	3.0	300
0.5	4	–	3	3	3.0	300
1	6	–	5	3	3.0	300
2	10	–	15	3	3.0	300
5	15	0.04	40	3	3.0	300
10	30	0.15	120	3	3.0	300
20	60	1.01	250	3	3.0	300
30	100	2.01	500	3	3.0	300
50	160	3.02	800	3	3.0	300

Specification of Sintered Nickel Porous Filters

Coefficient of Permeability (10-12m ²)	Permeability (m ³ /h.m ² .kpa)	Thickness (mm)	Compressive Strength (MPa/cm ²)	Maximum Operating Temperature (°C)
0.18	18	3	2.5	1000
0.4	40	3	2.5	1000
0.8	80	3	2.5	1000
1.61	160	3	2.5	1000
3.22	320	3	3	1000
6.03	600	3	3	1000
9.05	900	3	3	1000

SINTERED POROUS FILTER

Features & Application

Features

- Uniform pores, stable internal structure
- High filtering precision, good purification effect
- No particles fall off, no secondary pollution to raw liquor.
- Good air permeability, easy back flowing
- High mechanical strength, good plasticity, easy to process
- Excellent resistant to high temperature, high pressure and corrosion

Application



Chemical Filtration

- Filter layer
- Support layer
- Protection layer



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