

# Stainless Steel Folding Filter

NO.8829



## Description

Stainless steel folding filter is widely used in environmental protection, petroleum, chemical, medical, high temperature gas filtration, scientific research, metallurgy, food, machinery and other industries. Its main filter material is 304, 304L, 316, 316L [1] stainless steel fiber sintered felt and stainless steel braided mesh as the main filter media. Each sealing surface of the filter element is joined by argon arc welding process. The filter layer adopts multiple folding and folding process to form a Complete filter, no leakage, no media shedding phenomenon, stainless steel fiber sintered felt is a kind of porous depth filter material made of stainless steel fiber sintered at high temperature; stainless steel woven mesh is made of stainless steel wire.

## Features

- Stainless steel precision filter core with high porosity, good air permeability, low resistance and low pressure difference;
- After the stainless steel precision filter element is folded, the filter area is large and the amount of dirt contained is large.
- Stainless steel precision filter element is high temperature resistant, corrosion resistant, suitable for high viscous liquid filtration;
- Recycling performance is good, can be used repeatedly by chemical cleaning, high temperature and ultrasonic cleaning;
- All stainless steel structure, wide chemical compatibility;

## Application Examples

- Catalyst filtration and recovery;
- Filtration of petrochemical high-temperature gases;
- Purification of high temperature smoke in the metallurgical industry;
- Recovery of dust in the tail of solid boiling bed;
- Thermal power, dust and exhaust gas purification in the nuclear power generation industry.

## Technical Parameters

- Stainless steel precision filter core maximum working temperature:  $\leq 500^{\circ}\text{C}$
- Filtration accuracy: 1-200um
- Working pressure: 0.1-30MPa
- Filter specifications: complete (can be made separately according to user requirements)

# Stainless Steel Sintered Filter

NO.8830



## Description

The stainless steel powder sintered filter is made of stainless steel powder sintered at a high temperature after being pressed by the die. It adopts its unique technology and each step of the production process (including powder particle distribution, forming and sintering) strictly controlled, with high mechanical strength, high temperature resistance, Good corrosion resistance, uniform pore size distribution, good air permeability, cleanable regeneration, weldability, and machining. By adjusting the powder particle size and process conditions, it is possible to produce a porous metal sintered filter element with a wide range of filtration accuracy. Due to the many advantages of porous metal powder sintering materials, these products are widely used in the recovery of catalysts, chemical, pharmaceuticals, beverages, gas and liquid filtration and separation in food, metallurgy, petroleum, and environmental protection fermentation, such as: liquid medicines, oil, beverages, mineral water and other liquid coarse filtration and fine filtration; all kinds of gas, steam, dust removal, sterilization, removal of oil mist; noise, flame, gas buffer and so on.

## Features

- Stable shape, better resistance to impact and alternating load than other metal filter materials;
- Breathable, stable separation;
- Excellent mechanical strength, suitable for use in high temperature, high pressure and strong corrosive environments;
- Especially suitable for high temperature gas filtration;
- Various shapes and precision products can be customized according to user requirements, and can also be equipped with various interfaces through welding.

## Application Examples

- Catalyst filtration and recovery;
- Filtration of petrochemical high-temperature gases;
- Purification of high temperature smoke in the metallurgical industry;
- Recovery of dust in the tail of solid boiling bed;
- Thermal power, dust and exhaust gas purification in the nuclear power generation industry.

## Technical Parameters

- Stainless steel precision filter core maximum working temperature:  $\leq 500^{\circ}\text{C}$
- Filtration accuracy: 1-200um
- Working pressure: 0.1-30MPa
- Filter specifications: complete (can be made separately according to user requirements)

# Titanium Rod Filter Core

NO.8831

Specifications: 5 inch, 10 inch, 20 inch, 30 inch, 40 inch

Material: titanium, 304, 316L.

According to the flow can be made into single or multi-core.

Interface type: thread, 226, 222 and non-standard custom



## Application Of Titanium Rods In Related Fields

### 1. Corrosion resistance

Titanium metal is an inert metal with excellent corrosion resistance. Titanium rod filter element made of titanium metal can be filtered in strong alkali and strong acid media. Can be widely used in the chemical industry, in the pharmaceutical industry organic lyase production process filtration, due to the application of organic solvents such as: acetone, ethanol, butanone, if the use of polymer filters such as: PE, PP filter, etc. to filter, it is easily dissolved by these organic solvents, and titanium rods are quite stable in organic solvent media and are widely used.

2. High temperature resistant titanium filter element can withstand high temperature up to  $300^{\circ}\text{C}$ , which is unmatched by other filter elements. This feature is widely used in high-temperature operating environment, and the polymer material filter, the temperature difference is poor, generally does not exceed  $50^{\circ}\text{C}$ , more than  $50^{\circ}\text{C}$  its support and the filter will change, the filter accuracy there is a big deviation. Even if the PTFE filter element is used at a working pressure of  $120^{\circ}\text{C}$  or more and an external pressure of 0.2MPa, deformation and aging may occur during long-term operation. The titanium rod filter can be used in this environment for a long period of time without any change in its pores and appearance.

Widely used for: filtration of high temperature liquids, steam filtration (steam filtration in fermentation process), air filtration at room temperature, etc.

3 super mechanical properties (high strength)

The titanium rod filter has superior mechanical properties, external pressure 20Kg, internal pressure destructive force 10Kg (no joint experiment), so the titanium rod can be used in large pressure, rapid filtration process. When the external pressure of other polymer filters exceeds 0.5 MPa, their micro-apertures will change, and they will even break down.

Applications: chemical fiber manufacturing, pharmaceutical chemicals, compressed air filtration, deep-water underwater gas, and bubbling of coagulants.

### 4. Good regeneration effect

The titanium rod filter has a good regeneration effect, depending on its excellent corrosion resistance, high temperature resistance and high strength properties, and its regeneration methods include physical regeneration methods and chemical regeneration methods:

Physical regeneration method: (1) pure water recoil (2) steam backflush (3) ultrasonic cleaning

Chemical treatment methods: (1) alkaline wash (2) pickling

Among the above treatment methods, the ultrasonic treatment method of chemical treatment method has the best effect, and the attenuation degree of its filtration efficiency is low. If it is used or cleaned by normal operation, its service life can be up to 2 years. Since the titanium rod is well regenerated, it has Viscosity of the liquid has been widely used.

### 5. Wide application of titanium rod filter

#### (1) Pharmaceutical Industry

With the implementation of pharmaceutical GMP, titanium rods have been widely used in the filtration of medical infusions, small injections, and pharmaceutical intermediates. At present, 80% of the country's injection and transfusion manufacturers have been applied.

#### (2) Water treatment industry

The superior performance of titanium filter rod makes it widely used in the field of water treatment. Ozone disinfection has been successfully applied in the water treatment industry. At the same time, it has promoted the application of titanium rods. The oxidation resistance of titanium rods has caused them to be used in ozone gas and ozone disinfection. Afterwards, the filtration of the water is good.

The high strength of the titanium rod does not fall off, making it a good choice for security filtration of Ro reverse osmosis in the water treatment industry, security filtration for electroosmosis, and security filtration for ultrafiltration systems.

The titanium rod filter replaces the traditional mechanical filtration, achieving small size, low cost, high efficiency, and easy installation and regeneration.