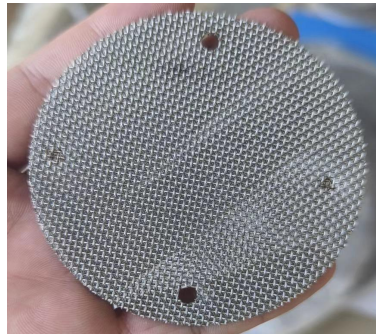


# Extruder Screens & Polymer Melt Filters



Single circle screen discs/filters



Spot-weld screen packs



Rim bound screen packs



Multi-layer cylinder filters



Continuous screen belts



Framed screens



Special shaped welded screens



Sintered disc filters



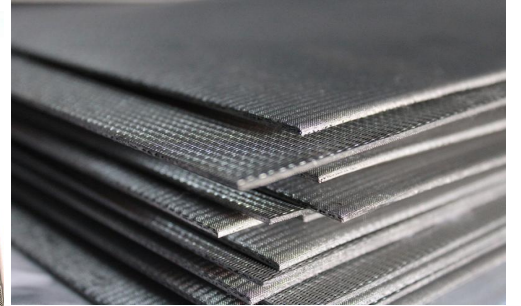
Sintered metal fibre with protective l



Filter disc



Sintered metal fibre



Pleated filter elements





Dashang Wire Mesh can provide different types of filtration material or filtration elements for extruder equipment and polymer process. We can customize the filter according to your specifications and requirements. Food grade elements can also be cleaned with ultrasonic waves.

Metal filter media commonly used for polymers productions:

1. **Stainless steel wire mesh** can trap deformable particles, such as colloids, under high pressure differences;

Available discs screen models such as: 38.3mm, 60mm, 64mm, 65mm, 66mm, 68mm, 75mm, 77mm, 83mm, 90mm, 92mm, 96.3mm, 100mm, 102mm, 104mm, 114.3mm, 120mm, 122mm, 125mm, 130mm, 133.5mm, 134mm, 139mm, 140mm, 142mm, 144mm, 150mm, 152mm, 155mm, 170mm, 175mm, 200mm, 206mm,

### Woven wire mesh and raw material standards

Stainless steel raw materials comply with the international standard ASTM A580 The chemical composition is shown in the table.

#### Stainless steel 304S30400

Carbon (C)	Manganese (Mn)	Phosphorus (P)	Sulfur (S)	Silicon (Si)	Chromium (Cr)	Nickel (Ni)
≤ 0.08	≤ 2.00	≤ 0.045	≤ 0.03	≤ 1.00	18.0-20.0	8.0-10.5

#### Stainless steel 304LS30403

Carbon (C)	Manganese (Mn)	Phosphorus (P)	Sulfur (S)	Silicon (Si)	Chromium (Cr)	Nickel (Ni)
≤ 0.03	≤ 2.00	≤ 0.045	≤ 0.03	≤ 1.00	18.0-20.0	8.0-12.0

#### Stainless steel 316S31600

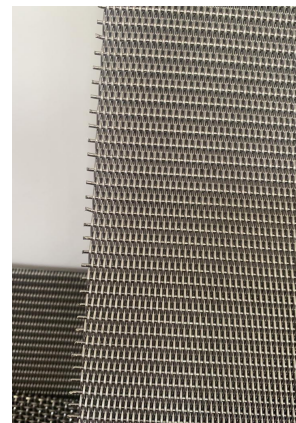
Carbon (C)	Manganese (Mn)	Phosphorus (P)	Sulfur (S)	Silicon (Si)	Chromium (Cr)	Nickel (Ni)
≤ 0.08	≤ 2.00	≤ 0.045	≤ 0.03	≤ 1.00	16.0-18.0	10.0-14.0
						Molybdenum (Mo)
						2.0-3.0

#### Stainless steel 316LS31603

Carbon (C)	Manganese (Mn)	Phosphorus (P)	Sulfur (S)	Silicon (Si)	Chromium (Cr)	Nickel (Ni)
≤ 0.03	≤ 2.00	≤ 0.045	≤ 0.03	≤ 1.00	16.0-18.0	10.0-14.0
						Molybdenum (Mo)
						2.0-3.0

### Woven wire mesh standard

Good product quality display



The mesh surface is flat, clean, and the weft wires are tightly arranged without gaps, any mechanical damage, creases, or rust spots. [www.dashangmesh.com](http://www.dashangmesh.com)

**Unqualified Quality Situation**



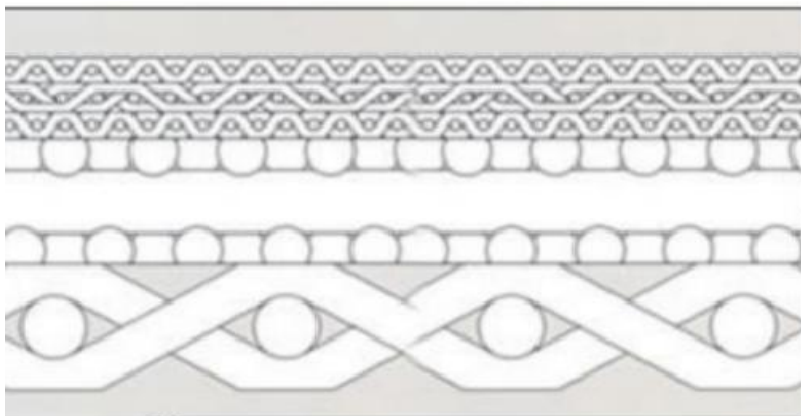
Gaps/ Wave edge/Not flat / Edged raised or edges curled after stamping / Defects or mechanical dama

2. **Sintered metal mesh** is made of several layers of 304 and 316 stainless steel wire mesh. The inner layer is extremely fine to determine the filtration accuracy. There are coarse mesh above and below the inner layer as a support and protective layer. It is a surface filter medium and is convenient for backwashing. It is suitable for high-heat, highly corrosive and high-pressure operating conditions, does not bend, does not delaminate, is durable and has a long service life. This plate can be used to make filter tubes, disks and other components.

**Standard five layer sintered mesh**

The standard five layer sintered mesh structure consists of four parts: protective layer, particle size control layer, distribution layer, and supporting layer. This filter material has both uniform and stable filtration accuracy as well as high strength and rigidity. It is an ideal filter material for situations where high compressive strength and uniform filtration accuracy are required. Due to its surface filtration mechanism and smooth mesh pores, it has good backwashing and regeneration performance, which can be repeatedly used for a long time. It is particularly suitable for continuous and automated operation processes, and is incomparable to any filtering material. This material is easy to shape, process, and weld, and can be easily processed into various forms of filter elements such as circular, cylindrical, conical, and corrugated.

Cross-section of a five-layer struction:



- Protective layer 保护层
- Particle size control layer 控制层
- Distribution layer 分流层
- Coarse mesh supporting layer 加强支撑层
- Coarse mesh supporting layer 加强支撑层

Product features:

- 1). Good strength and rigidity (high strength): It has good mechanical strength and compressive strength, good processing, welding and assembly performance, and is easy to use;
- 2). Uniform and stable precision (high precision): achieving uniform and consistent filtering performance for all filtering accuracies, with no change in mesh size during use;
- 3). Widely used in various environments (heat resistance): can be used for filtration in temperature environments between -200 °C and 600C, as well as in acidic and alkaline environments;
- 4). Excellent cleaning performance: The countercurrent cleaning effect is excellent, can be reused, and has a long service life (can be cleaned using methods such as countercurrent water, filtrate, ultrasound, melting, baking, etc.).

Product specifications and dimensions:

- 1). Standard materials: SUS304, SUS316L;
- 2). Specification and size: 1000mm \* 500mm  
1000mm \* 600mm  
1000mm \* 1000mm  
1200mm \* 1000mm  
1200mm \* 1200mm;
- 3). Filtering accuracy: 1-300um;
- 4). Special materials (such as Monel alloy, 904L, etc.) and sizes can be supplied according to the requirements of the purchaser.



Filter sintered mesh discs

3. **Sintered metal fiber** (non-woven medium) is made of fine metal fibers that are non-woven, laminated and sintered at high temperature. Stainless steel sintered felt has a pore gradient formed by layers of different pore sizes, which can be controlled to achieve relatively high filtration accuracy and a large amount of dirt holding capacity. It has the characteristics of three-dimensional network, porous structure, high porosity, large surface area, uniform pore size distribution, etc., and can continuously maintain the filtration effect of the filter mesh.

Generally, 10-20 micron metal fiber media is used to filter textile resin; 20-40 micron metal fiber media is used to filter resin for packaging materials or bottled resin.

Currently, the filter elements used for polymer filtration mainly include cylindrical candle type and blisk type, both of which are sandwich type, that is, the upper layer (or outer layer) is a relatively thick braided mesh to protect the filter media layer, and the lower layer (or The inner layer) is a relatively fine woven mesh as a supporting layer to prevent the fiber filter media from being damaged under high pressure. In both designs, Product specifications and dimensions:

- Standard size: 1000mmx500mm  
1000mmx600mm  
1000mmx1000mm  
1200mmx1000mm;  
Maximum size: 1480mm x 1000mm; Standard material: SUS316L;



The dimensions within the above range can be customized according to user requirements.

Main uses of the product:

- 1). Large pollution capacity, high filtration accuracy, slow pressure rise, and long replacement cycle;
- 2). High porosity and excellent permeability, low pressure loss, and high flow rate
- 3). It is resistant to corrosion, high temperature, acid, alkali, organic solvents, drugs, etc., and can be used for a long time in an environment of 480 °C;
- 4). Easy to process, shape, and weld;
- 5). We can produce reinforced, thickened, reinforced mesh, and various other specifications according to user requirements.



sintered felt

### **Sintered mesh filter element**

The sintered filter element is made of five or multiple layers of metal wire mesh vacuum sintered. It has the characteristics of strong corrosion resistance, good permeability, high strength, easy cleaning and backwashing, precise filtration accuracy, clean and hygienic filter material, and non-shedding of the screen.

Product features:

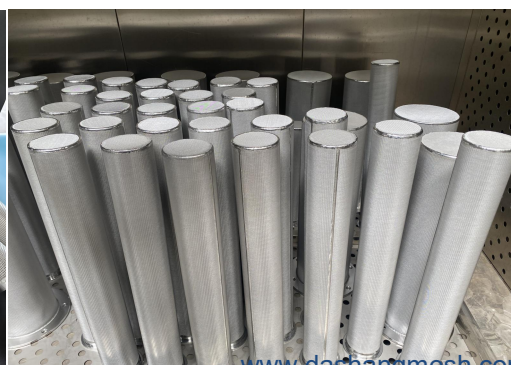
1. High strength: It has extremely high mechanical strength and compressive strength;
2. High precision: for 1 to 200  $\mu$  The filtration particle size of m can achieve uniform surface filtration performance;
3. Heat resistance: Can withstand continuous filtration from -200 °C to up to 600 °C;
4. Cleanability: Due to the surface filtration structure with excellent countercurrent cleaning effect, the cleaning is simple;
5. It has good permeability, high strength, no need to add supporting structures, absolutely no material detachment phenomenon, strong corrosion resistance, easy cleaning, and not easy to damage.

Connection method:

The main connection methods include: standard interfaces (such as 222, 220, 226), quick interface connections, threaded connections, flange connections, pull rod connections, special customized interfaces, etc.

Application scope:

Used for filtration of polyester, water treatment, oil products, pharmaceuticals, food and beverage, chemical fiber products, as well as high-temperature air and other media.



### **Sintered felt filter element**

The sintered felt filter element is made of stainless steel fiber sintered felt, and the standard material is 316L. The finished felt is formed by layers with different pore sizes to form a gradient, which can control high filtration accuracy and pollutant absorption. It has a three-dimensional network, porous structure, high porosity, large surface area, and uniform pore size distribution, which can continuously maintain the filtration effect of the filter surface. Stainless steel sintered felt can effectively compensate for the weaknesses of metal mesh blockage and wear, as well as the shortcomings of powder filtration products such as fragility and low flow rate. It has the characteristics of temperature resistance and pressure resistance. Therefore, stainless steel sintered felt is a good filtering material with high temperature resistance, corrosion resistance, and high precision.

Features:

1. Large pollution control capacity, high filtration accuracy, slow pressure rise, and long replacement cycle;
2. High porosity and good permeability, low pressure loss, and high flow rate;
3. Easy to process, shape, and weld;
4. We can produce additional production, thickened, reinforced mesh, and various other specifications according to customer requirements.

Connection method:

Standard interfaces (such as 222, 220, 226), quick interface connections, threaded connections, flange connections, pull rod connections, and special customized interfaces.



### **Pleat filter element**

The filter material for pleat filter cartridges mainly uses two types: stainless steel woven mesh and stainless steel fiber felt. Stainless steel woven mesh is made of stainless steel wire, and its corrugated mesh filter element has characteristics such as smooth pore channels, easy cleaning, high temperature resistance, corrosion resistance, non shedding of the wire mesh, and long filtration cycle.

Stainless steel fiber sintered felt is a porous deep filtration material made of stainless steel fibers sintered at high temperature. Its folded wave filter element has high porosity, good breathability, strong pollution absorption ability, and strong regeneration ability

Features:

Large filtration area (5-10 times that of a regular cylindrical filter) and wide filtration precision range (1-300)  $\mu$  n

Connection method:

Standard interfaces (such as 222, 220, 226), quick interface connections, threaded connections, flange connections, pull rod connections, and special customized interfaces.

Main uses of the product:

- 1). Filtration of polymer melt in the production of polyester, long filament, short filament, and thin film;
- 2). High temperature gas and steam filtration;
- 3). Filtration of high-temperature liquids and viscous liquids

