



Industrial Filtration

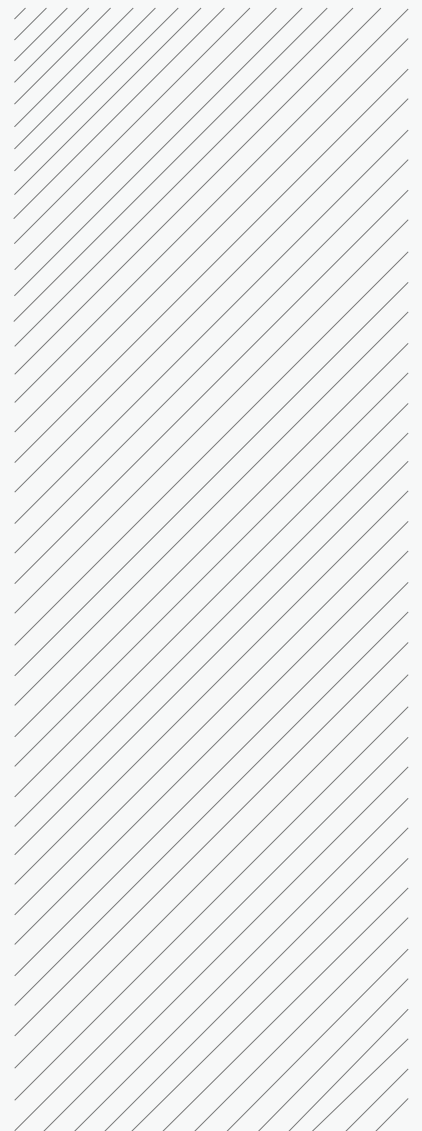
Weave Impossible to Possible



BOEDON Industech Limited

www.boedon.com | sales@boedon.com

BOEDON Brochure



INDUSTRIAL FILTRATION

03.



Industrial filtration is an essential part of the industrial production process, ranging from raw material processing to finished product manufacturing. Incomplete filtration in any link will affect the production of the next procedure and the smooth operation of key equipment, and finally damage the quality of the finished products.

Choosing the right filter elements are of great importance. It not only perfectly meets all filtration requirements and working environments, but also effectively filters out impurities that will affect the product quality and prevents impurities from entering the production system. As a result, it ensures the smooth operation of the entire production system and get qualified products.

How Boedon Solve?

Boedon offer a broad range of filter elements for various industrial filtration applications, including polymer filtration, fluid filtration, chemical filtration, edible oil filtration and other filtration applications to meet various filtration requirements and suit to different filtration environments. We can also customize filter elements according to customers' samples.

What Boedon Supply?



Polymer Filtration



Fluid Filtration



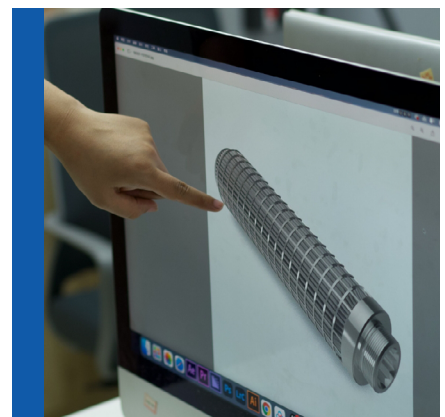
Chemical Filtration



Edible Oil Filtration



Other Filter Elements

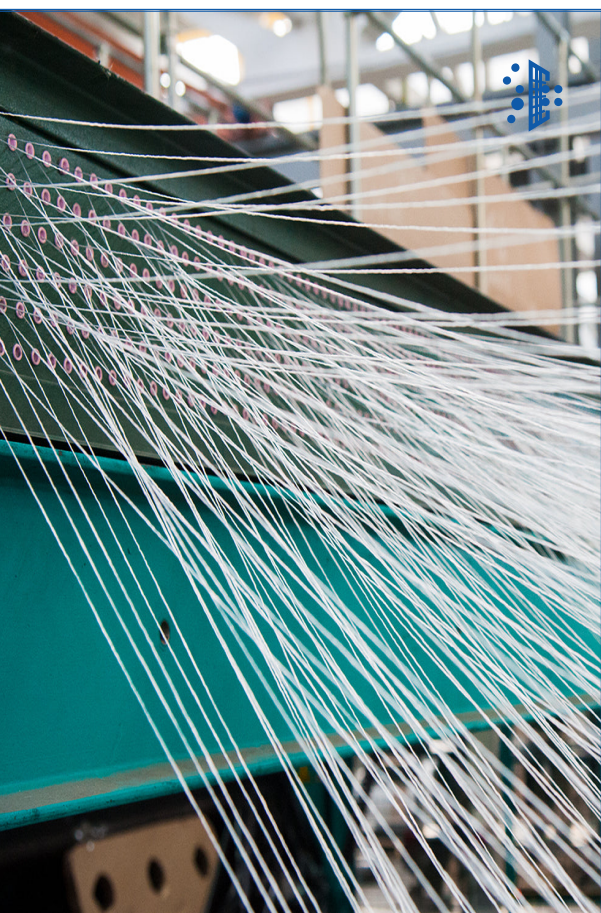


Custom Filters

INDUSTRIAL FILTRATION

03.1

POLYMER FILTRATION



Plastic products, plastic recycling, rubber products and even our cloths we see everywhere in our daily life, can never be separated from polymer filtration during the production.

This is essential in all polymer processing processes. That's because polymer melt contains a large number of impurities that can affect the quality of polymer products and even damage extrusion, plastic molding or fiber/filament spinning processes, etc.

During the polymer melt filtration, filter elements work under high temperature and high pressure environments, therefore, metal filters can meet various requirements of polymer filtration applications.

How Boedon Solve?

Boedon supplies a variety of polymer pleated filters, polymer sintered filters, polymer leaf disc filters, polymer extruder screens and polymer continuous filter belts. These products can withstand high temperature and high pressure conditions and have their own features. You may choose the right filter elements based on your application.

What Boedon Supply?



Polymer Pleated Filter

- Suitable for candle filter housing, with a maximum operating temperature of 480 °C
- Stable filter rating
- Pleating offers increased filter area.
- Precise opening size and shape
- For fiber production, plastic recycling, pharmaceuticals, etc.



Polymer Sintered Filter

- Suitable for candle filter housing, with a maximum operating temperature of 1000 °C
- High porosity, low pressure drop
- Great dirt holding capacity
- Good regeneration property and can be washed repeatedly
- For rubber, plastic, chemical processing industries, etc.



Polymer Leaf Disc Filter

- Suitable for leaf disc filter housing
- Good cleaning performance
- Good mechanical strength
- Good dirt holding capacity
- For resin production, plastic products, fiber production, etc.



Polymer Continuous Filter Belt

- Suitable for continuous belt screen changer
- Realizing belt screen change without interrupting the production
- Precise opening sizes ensure good filtration effect
- Durable, made of high strength stainless steel wires
- For plastic products, resin production, chemical fiber industries, etc.



Polymer Extruder Screen

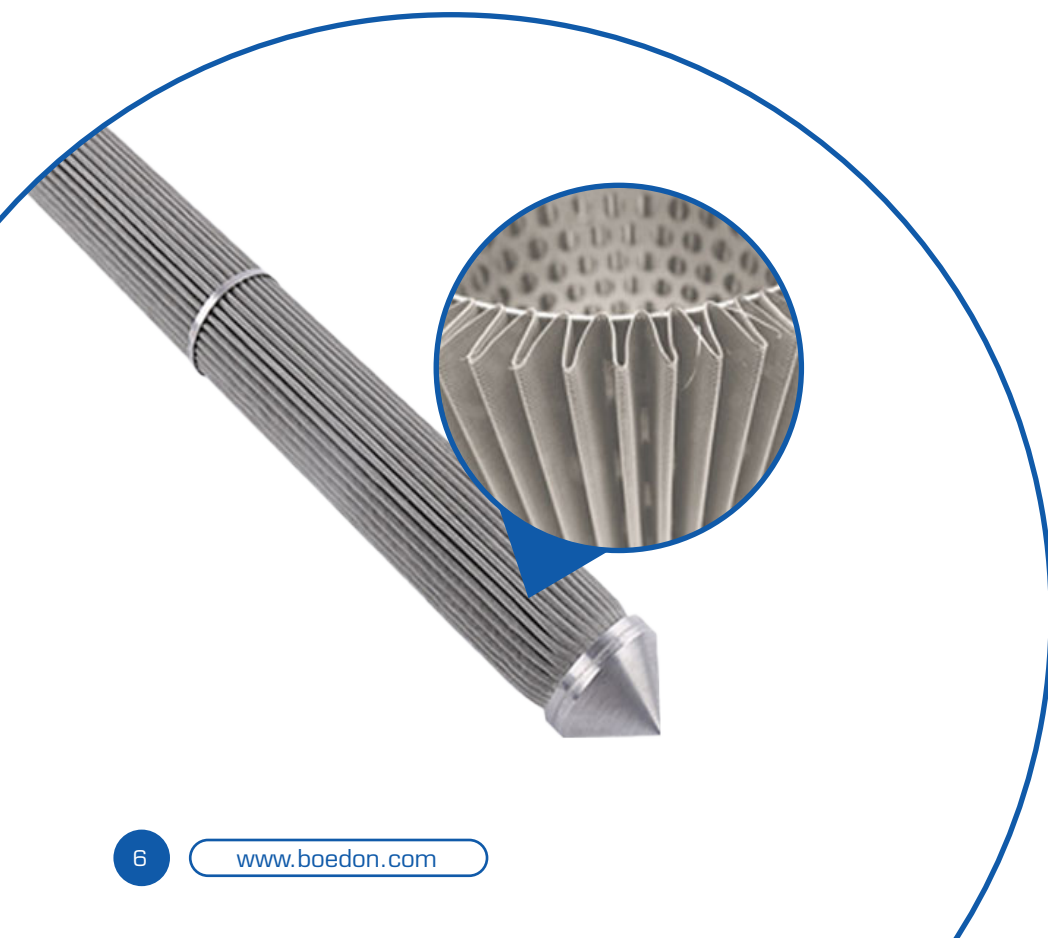
- Suitable for continuous screen exchanger before the plastic extrusion process
- A broad range of materials are available for your option
- Stable performance and high strength
- Uniform opening size and stable filtration process
- For plastic, chemical fiber, rubber industries, etc.

Polymer Pleated Filter

We offer high quality polymer pleated filters to meet your specific requirements of polymer melt filtration applications.

Polymer pleated filter is a kind of pleated wire mesh candle filter made of stainless steel (304, 316L) or other metal woven cloth after spot welding, pleating and pressing. Two ends of the pleats are welded to form a cylinder. The filter media consists of a protection layer, a filtration layer and a support layer. The protection layer protects the filtration layer from direct contact with melt polymer and the support layer provides strong support for the filtration layer.

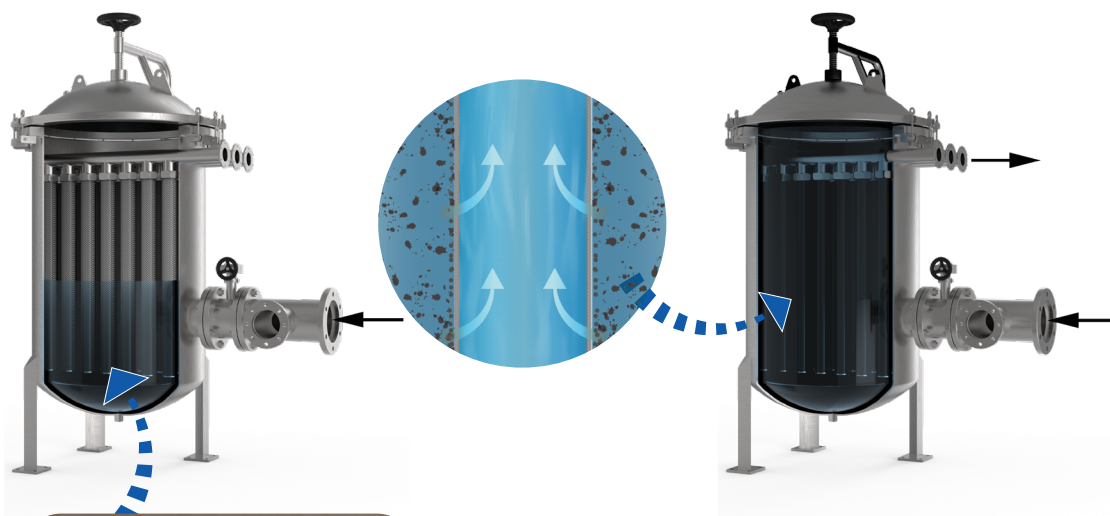
Polymer pleated filter can effectively remove impurities such as gels and other solid permeates from polymer melts in chemical fibers, textile and plastic industries. In addition, we can also offer polymer pleated filter made of other alloy materials such as Hastelloy, Monel for you to choose from and meet different needs.



POLYMER PLEATED FILTER

Working Principle

The filtration system adopts one filter for filtering and one stand-by filter operation mode to achieve continuous, uninterrupted filtration process. First, the polymer melt enters into the filter from the bottom and flows from outside to inside. Impurities are trapped on the filter surface and clean melt flows from the filter inside to the clean melt pipeline at the top of the filter, and then flows out of the filter. When the differential pressure reaches the preset value, the filter filtration efficiency slows down, and the control system will convey the melt to another filter. At the same time, the filter for filtering is replaced and washed.

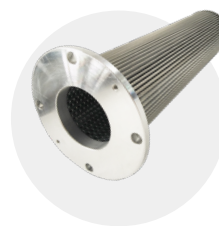


- Welding Seam**
Weld both ends of the pleats to form a cylinder.
- Protection Layer**
Protect the filtration layer from damage.
- Filter Layer**
Play a main role in filtration.
- Support Layer**
Support the filtration layer.
- Inner Support**
Support the whole filter structure.

Polymer pleated filter needs to work under high temperature conditions and is commonly connected by thread (M20, M30, BSPP, NPT, etc.), flange, snap coupling, rod connection, special customization, etc.



BSPP thread



Flange connection



BSPP thread

POLYMER PLEATED FILTER

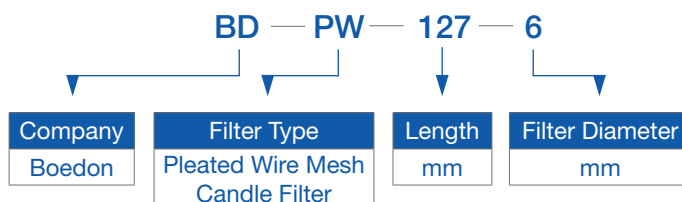
Specification

Material: Stainless steel (304, 316L, etc.),
Hastelloy, Monel, etc.

Working temperature: Max. 480 °C

Filter rating: 1–200 µm

Maximum differential pressure: 25 bar



Popular Specification of Polymer Pleated Filters

Model	Size				Filter Area	
	Length L		Diameter D		-	-
	inch	mm	inch	mm	ft ²	m ²
BD-PW-127-6	5	127	2.36	60	0.75	0.07
BD-PW-254-6	10	254	2.36	60	1.82	0.07
BP-PW-508-6	20	508	2.36	60	2.04	0.07
BD-PW-762-6	30	762	2.36	60	5.15	0.07
BD-PW-1016-6	40	1016	2.36	60	6.97	0.65

Notes

- Diameter in other sizes such as 65 mm, 70 mm and 110 mm is also available;
- Length in other sizes is also available upon request.

Polymer Pleated Filter Filtration Performance

Nominal Filter Rating (µm)	Support Layer	Filtration Layer	Protection Layer	Air Permeability (L/min/cm ²)	Bubble Point Pressure (Pa)	Porosity %
1	64 × 12	400 × 3000	200	1.81	360–600	About 40%
2	64 × 12	325 × 2300	100	2.35	300–590	
5	64 × 12	200 × 1400	100	2.42	260–550	
10	64 × 12	165 × 1400	100	3	220–500	
15	64 × 12	165 × 1200	100	3.41	200–480	
20	64 × 12	165 × 800	100	4.5	170–450	
25	64 × 12	165 × 600	100	6.12	150–410	
30	64 × 12	400	100	6.86	120–390	
40	64 × 12	325	100	7.1	100–350	
50	64 × 12	250	100	8.41	90–300	
75	64 × 12	200	100	8.7	80–250	
100	64 × 12	150	100	9.1	70–190	

Notes: The number of filter media layers can be customized upon request.

POLYMER PLEATED FILTER

Features & Application

Features

- Precise pore size and shape
- Smooth surface, good backwash effect
- Stable filter rating
- Better mechanical properties
- Pleating offers increased filter area
- Good resistant to acids, alkali and high temperatures

Application



Chemical Fiber

- Polyester
- Spandex
- Nylon and other high-performance polymer fiber production



Plastic & Plastic Recycling

- Plastic bottle recycling
- Plastic bag recycling



Pharmaceutical

- Catalyst recovery
- Powder recovery, etc.

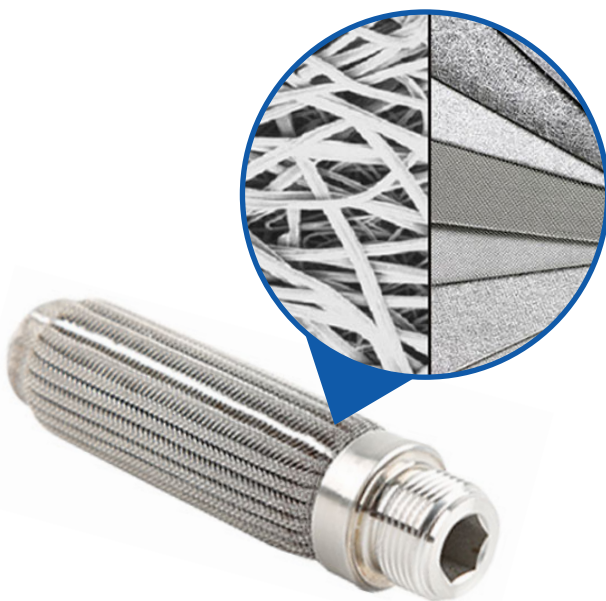
Polymer Sintered Filter

We supply high quality polymer sintered filters to meet your requirements of polymer melt filtration applications.

Polymer sintered filter is made of 316L stainless steel, iron, chromium, aluminum and other metal fibers with a diameter of micro rating by sintering in high temperature and welding after special non-woven laying and stacking. So, it can withstand the high temperature conditions required in polymer melt filtration process. The sintered filter media has high porosity and delivers low pressure drop, high permeability and great dirt holding capacity.

Polymer sintered filter consists of a protection layer, a filtration layer and a support layer. The protection layer and the support layer are made of stainless steel wire mesh to protect and support the filtration layer. The filtration layer is made of sintered felt and plays a major role in filtering. Sintered felt can be pleated to increase its filter area and enhance its dirt holding capacity, thus improving its filtration efficiency.

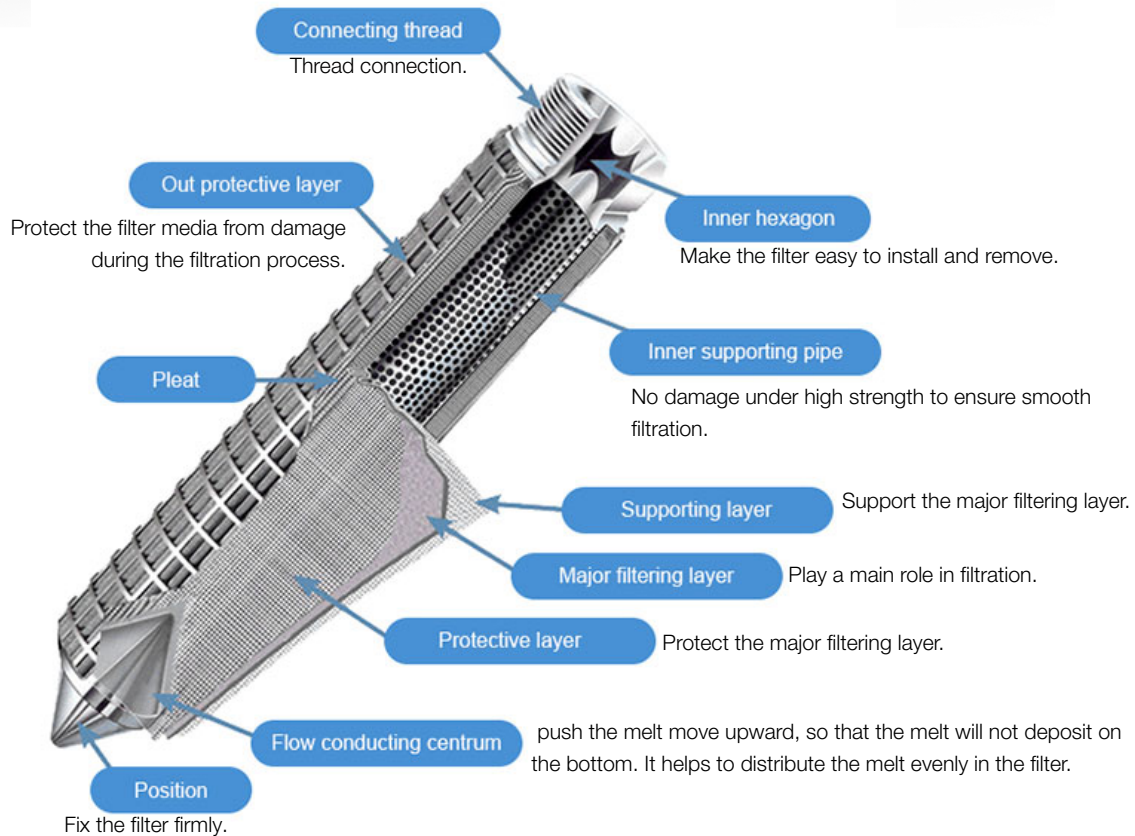
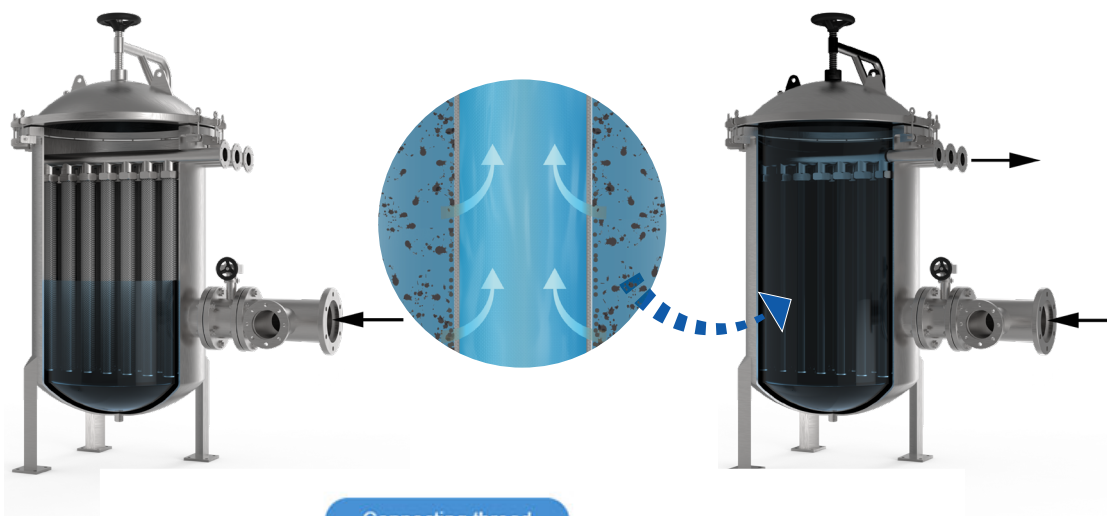
We can also offer polymer sintered filters made of Hastelloy, Monel and other alloys for you to choose from.



POLYMER SINTERED FILTER

Working Principle

The filtration system adopts one filter for filtering and one stand-by filter operation mode to achieve continuous, uninterrupted filtration process. First, the polymer melt enters into the filter from the bottom and flows from outside to inside. Impurities are trapped on the filter surface and clean melt flows from the filter inside to the clean melt pipeline at the top of the filter, and then flows out of the filter. When the differential pressure reaches the preset value, the filter filtration efficiency slows down, and the control system will convey the melt to another filter. At the same time, the filter for filtering is replaced and washed.



POLYMER SINTERED FILTER

Category



○ Polymer Candle Filter Cylinder Type (PCC series)

- Easy to clean
- Simple processing and cost saving when compared with pleated filter element
- Broad availability



⊗ Polymer Candle Filter Pleated Type (PCP series)

- It offers 3–5 times filter area than the cylinder type for longer runtime.
- Enhanced dirt holding capacity
- Increased surface area helps to reduce the pressure drop.
- Can be cleaned and reused up to 20 times.

POLYMER SINTERED FILTER

Connection Type

Polymer melt filter elements work under high temperature and high pressure conditions, therefore, they are mostly connected by thread (M20, M30, BSPP, NPT, etc.), flange, snap coupling, rod connection, etc.

POLYMER SINTERED FILTER

Specification

Material: Stainless steel (304, 316L, etc.), Hastelloy, Monel, etc.

Max. working temperature: 600 °C; FeCrAl: 1000 °C

Porosity: about 85%

Filter rating: 1– 60 µm

Maximum differential pressure: 25 bar

	BD	PC	C	127	6
	Company	Filter Type	Type	Length	Filter Diameter
	Boedon	Polymer Sintered Felt Candle Filter	Cylindrical/ Pleated	mm	mm

Popular Specification of Polymer Sintered Filters

Model	Size				Filter Area	
	Length L		Diameter D		-	-
	inch	mm	inch	mm	ft ²	m ²
BD-PC-C-127-6	5	127	2.36	60	0.21	0.02
BD-PC-P-127-6	5	127	2.36	60	0.75	0.07
BD-PC-C-254-6	10	254	2.36	60	0.53	0.05
BD-PC-P-254-6	10	254	2.36	60	1.82	0.17
BD-PC-C-508-6	20	508	2.36	60	0.64	0.06
BD-PC-P-508-6	20	508	2.36	60	2.04	0.19
BD-PC-C-762-6	30	762	2.36	60	1.5	0.14
BD-PC-P-762-6	30	762	2.36	60	5.15	0.48
BD-PC-C-1016-6	40	1016	2.36	60	2.03	0.19
BD-PC-P-1016-6	40	1016	2.36	60	6.97	0.65

Notes

- Diameter in other sizes such as 65 mm, 70 mm and 110 mm is also available;
- Length in other sizes is also available upon request.

Filtration Performance of Polymer Sintered Filter

Filter Rating	Air Permeability (2L/dm ² *min)	Bubble Pressure Point (Pa)	Porosity (%)	Dirt Holding Capacity (mg/cm ²)	Thickness (mm)
5	47	6600	75	5	0.54
7	63	5000	76	6	0.54
10	105	3700	77	6	0.54
15	140	2450	79	7	0.54
20	280	2000	80	13	0.54
25	360	1500	78	19	0.54
30	520	1230	79	34	0.54
40	670	960	79	34	0.54
60	1300	650	85	36	0.54
50	64 × 12	250	100	8.41	90–300
75	64 × 12	200	100	8.7	80–250
100	64 × 12	150	100	9.1	70–190

POLYMER SINTERED FILTER

Features & Application

Features

- Excellent dirt holding capacity
- High porosity, low pressure drop and high air permeability
- Pleating increases the filter area
- Operate under 600 °C conditions for a long time
- Good regeneration capacity and can be washed repeatedly
- High temperature resistance and corrosion resistance



Application



Rubber

- Tire production
- Rubber product production



Plastic & Plastic Recycling

- BOPP
- BOPA and other biaxially oriented plastics film production



Chemical

- Feed solution impurities removal and filtration
- Catalyst recovery, etc.

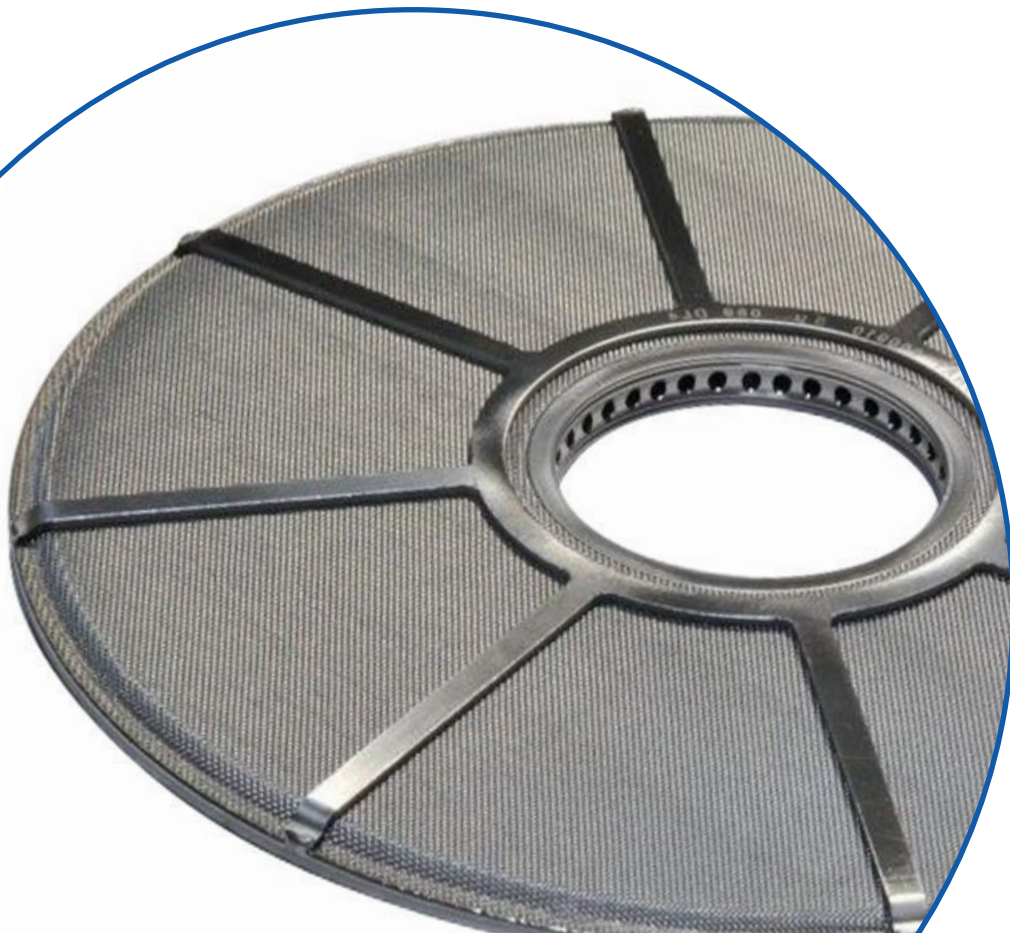


Polymer Leaf Disc Filter

We can offer a full range of polymer leaf disc filters to meet your various requirements of polymer melt filtration applications.

Polymer leaf disc filter is made of sintered stainless steel (316L) wire mesh laminates or sintered metal non-woven felt medium. It is an ideal choice for polymer film production. The unique disc design and configuration help to maximize the increased effective filter area and shortened the residence time of the polymer, thereby lowering the risk of polymer degradation and offering fast, efficient filtration of polymer melt filtration applications.

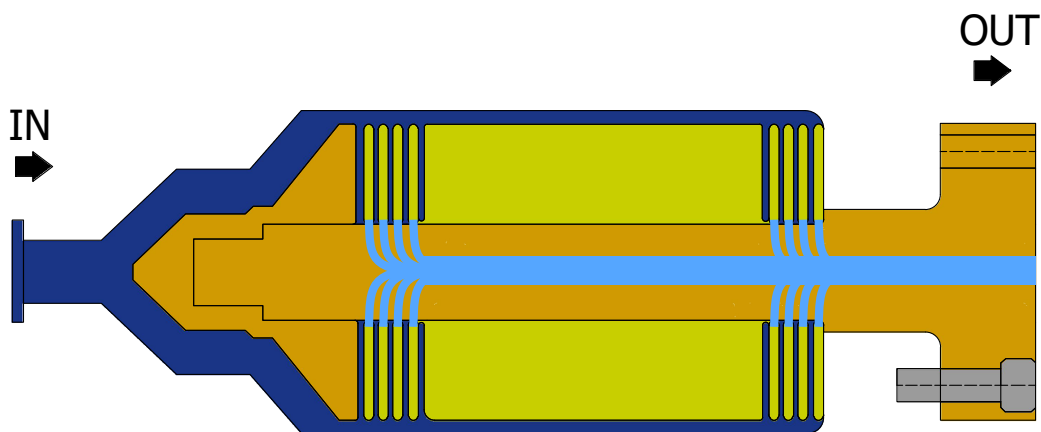
In addition, we can also offer stainless steel (304, 316, etc.), Monel or other alloy as the filter media.



POLYMER LEAF DISC FILTER

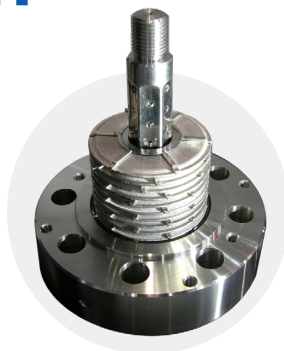
Working Principle

Place the multiple installed leaf disc filters into the horizontal filter housing. Melt with impurities enters from the inlet and flows towards the filter elements from the top and the bottom. Gel impurities are trapped on the filter surface and clean melt flows into the center tube from the hub holes and then flows out of the vessel.

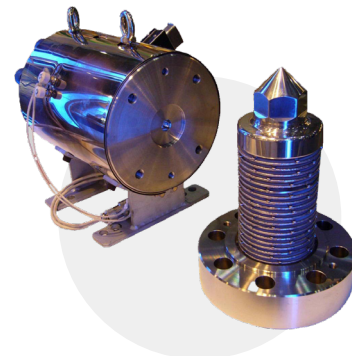


POLYMER LEAF DISC FILTER

Installation



During Installation

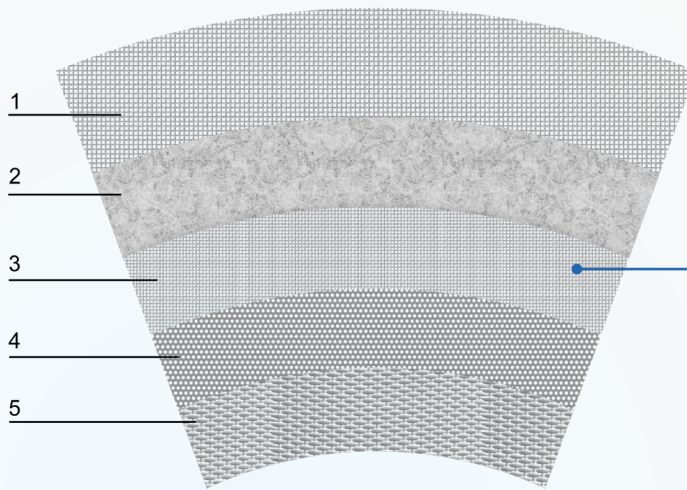


After Installation

Structure

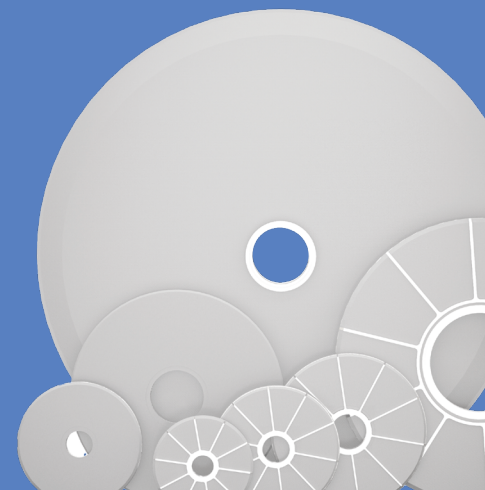
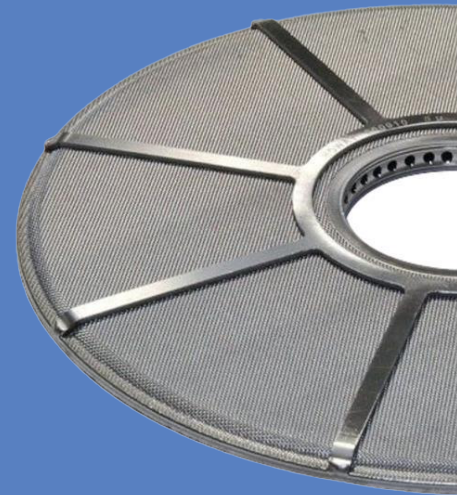
Polymer leaf disc filter consists of the main body, hub and star support frame.

Main Body

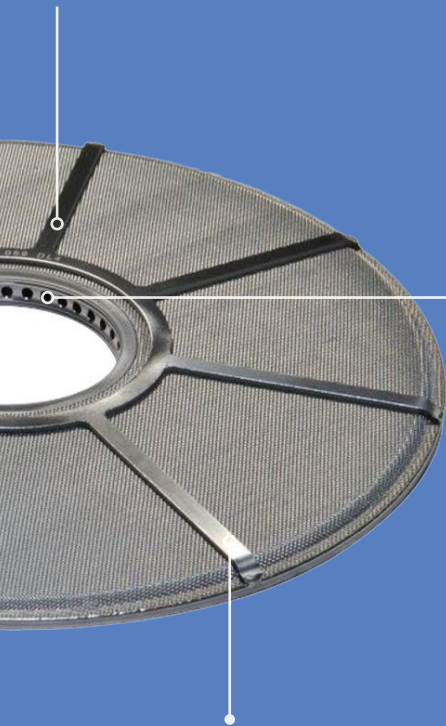


- 1**
Protective layer
Typically, it is made of stainless steel to protect the filter media.
- 2**
Filtration layer
Play the main role in filtration.
- 3**
Support layer
Support the filtration layer.
- 4**
Drainage layer
Guide the clean melt to flow towards the center tube.
- 5**
Mesh support layer
Support the whole mesh structure.

Support

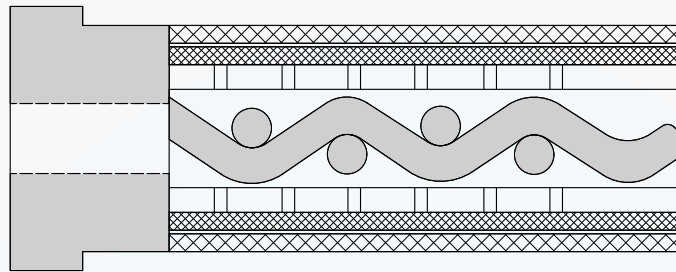


Support Frame

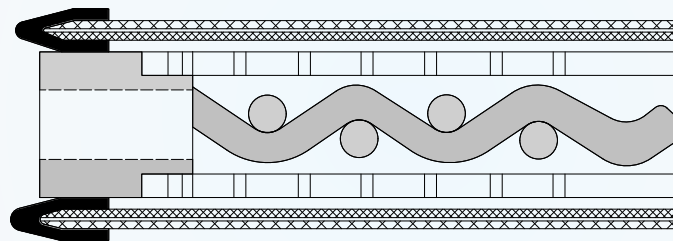


Keep the space between adjacent disc filters being maintained and guide the fluid to flow towards the center tube evenly.

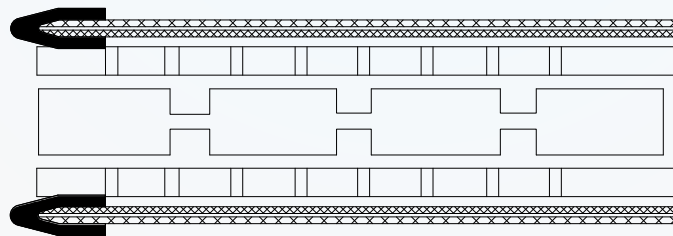
Hub



Hard hub



Semi-hard hub



Soft hub

(It is not recommended for micron rating at 10 µm and below)

POLYMER LEAF DISC FILTER

Specification

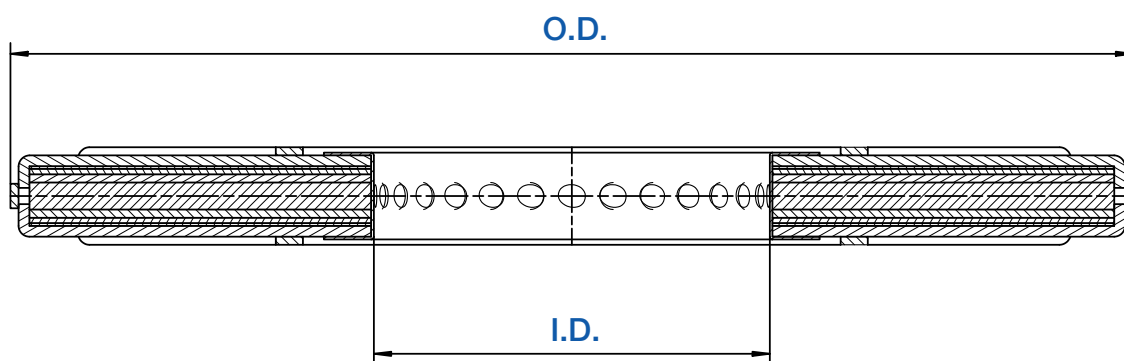
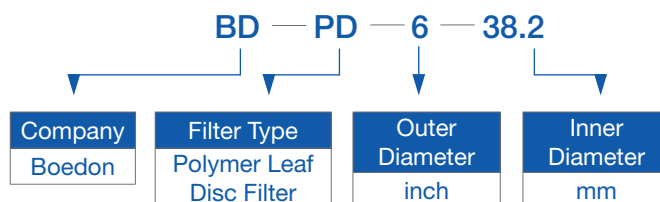
Material: sintered wire mesh, sintered metal fiber felt.

Maximum continuous: up to 400 °C

Filter rating: 0.5–200 μm

Minimum differential pressure: 300 bar at 350 °C

Porosity: 70%–85%



Popular Specification of Polymer Leaf Disc Filters

Model	O.D. (inch)	O.D. (mm)	I.D. (mm)	Thickness (mm)	Filter Area (m2)
BD-PD-6-38.2	6	152.4	38.2	6.5	0.032
BD-PD-7-38.2	7	177.8	38.2	6.5	0.048
BD-PD-7-47.6	7	177.8	47.6	6.5	0.046
BD-PD-7-63.5	7	177.8	63.5	6.5	0.044
BD-PD-7-85	7	177.8	85	6.5	0.038
BD-PD-10-47.6	10	254	47.6	7.2	0.082
BD-PD-10-85	10	254	85	6.5	0.08
BD-PD-12-63.5	12	304.8	63.5	6.5	0.13
BD-PD-12-85	12	304.8	85	6.5	0.12
BD-PD-12-85	12	304.8	85	7	0.12
BD-PD-12-85	12	304.8	85	7.5	0.12

Notes: Other specifications are available upon request.

POLYMER LEAF DISC FILTER

Features & Application

Features

- High viscosity, high flow
- Good cleaning performance
- Long service life
- Good mechanical strength
- High filtration accuracy
- High dirt holding capacity

Application



Rubber

- Thermosetting resin
- Thermoplastic resin



Plastic & Plastic Recycling

- Plastic bottle and box recovery
- Plastic bag and paper recovery
- BOPA
- BOPI and other biaxially oriented plastics film production



Chemical Fiber

- Polyester
- Spandex
- Polypropylene
- Nylon and other high-performance polymer fiber production

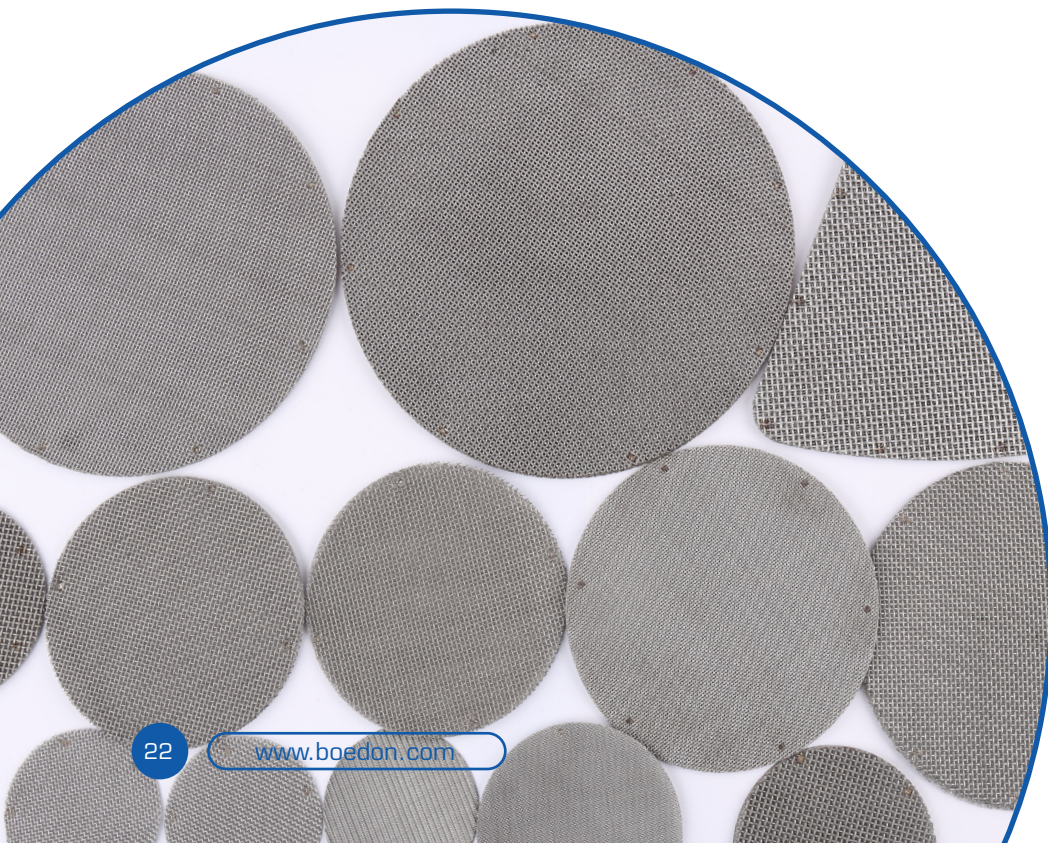
Polymer Extruder Screen

We can offer a variety of polymer extruder screens to meet your specific requirements of extruding process and polymer melt filtration applications.

Polymer extruder screen is made of high quality corrosion resistance materials (galvanized copper, stainless steel and nickel alloy). A wide range of micron ratings are available to meet different filtration demands.

Polymer extruder screens are widely used for filtration and co-mingling processes in the production of various viscous flow materials and products such as plastics, chemical fibers, rubber, hot melt adhesives, adhesives, finishing materials, blends, etc. It can effectively block foreign matter from being mixed in the final plastic and rubber extrusion process and provide a clean, viable extrusion.

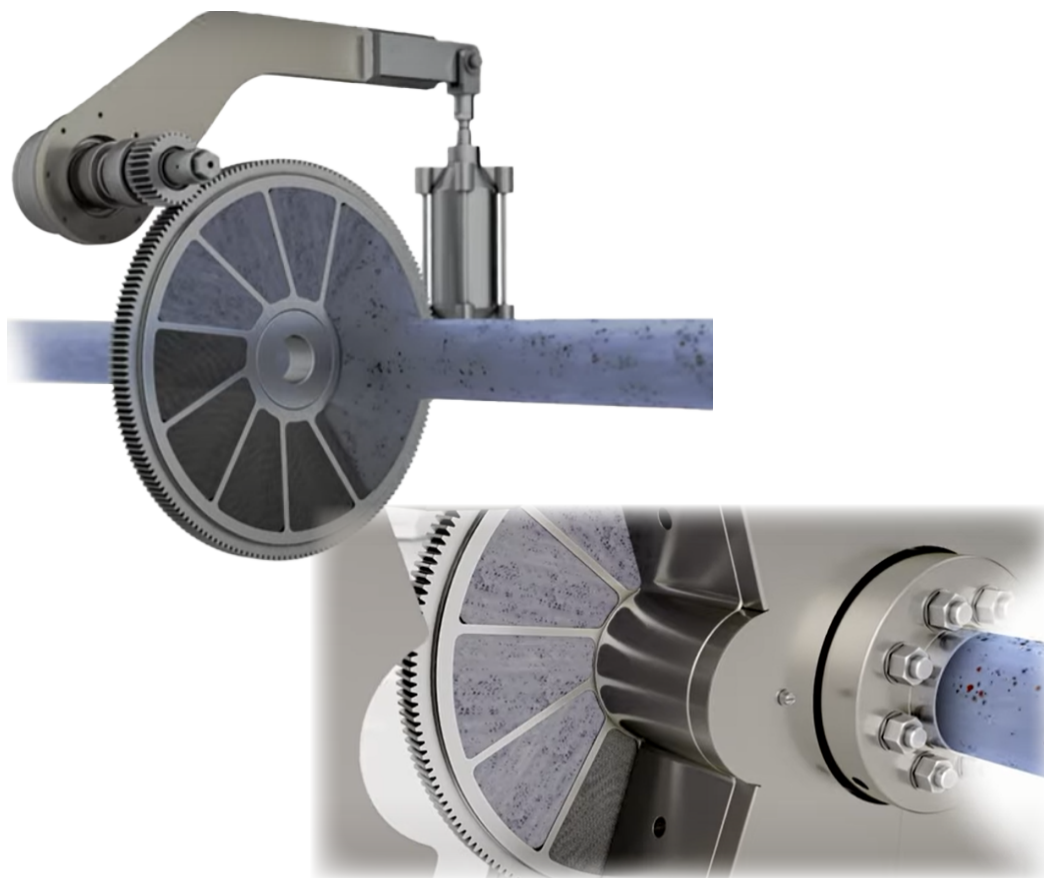
As we use high quality non-toxic raw materials, our polymer extruder screens can also be used in the food and beverage industry.



POLYMER EXTRUDER SCREEN

Working Principle

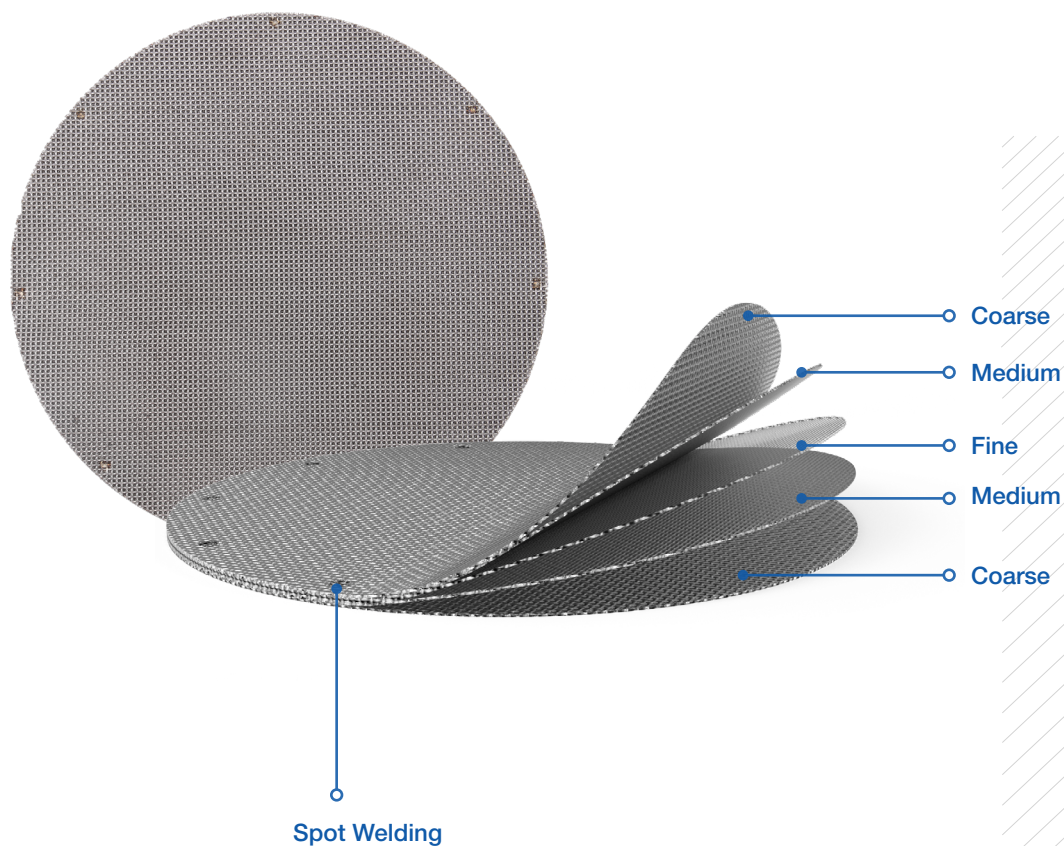
The filter disk is equipped with a large under of polymer extruder screens. The filtration time or pressure value is preset. The melt enters from the inlet, the screen at the inlet starts to filter impurities and gel impurities are trapped on the screen surface. When the filtration time or pressure reaches the preset value, the filter disk begins to rotate. The clean part of the screen rotates to the inlet and starts to filter impurities, meanwhile the screen saturated with impurities moves to the screen change port. The turntable stops rotating, the screen change port opens, the screen with impurities is removed and replaced with a clean screen. In this process, the resting part of the screen keeps operating smoothly, thus realizing continuous operation.



POLYMER EXTRUDER SCREEN

Structure

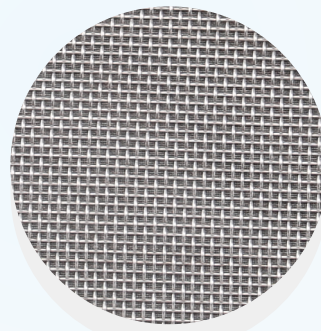
Polymer extruder screen is generally made of plain weave and Dutch weave wire mesh. The plain weave wire mesh features simple structure, economic to process and high cost-effectiveness and can meet the most filtration requirements of plastic products and rubber industries. In a filter, the Dutch weave wire mesh plays the role of fine filtration without requiring a backup filter screen, featuring high strength, high load capacity, simple structure and long service life.



POLYMER EXTRUDER SCREEN

Manufacturing Process

Polymer extruder screen is generally made of plain weave and Dutch weave wire mesh. The plain weave wire mesh features simple structure, economic to process and high cost-effectiveness and can meet the most filtration requirements of plastic products and rubber industries. In a filter, the Dutch weave wire mesh plays the role of fine filtration without requiring a backup filter screen, featuring high strength, high load capacity, simple structure and long service life.



Plain Weave

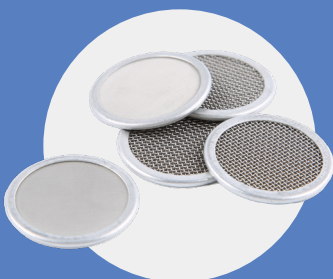


Dutch Weave

POLYMER EXTRUDER SCREEN

Material

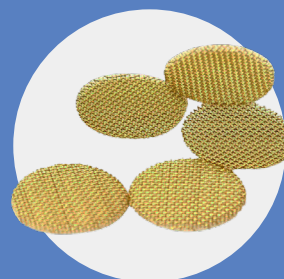
In terms of the filter media selection, the working conditions of the polymer extruder screen shall be taken into fully consideration. For example, we will choose stainless steel wire mesh in some PVC production lines or other applications need to avoid rust, and nickel alloy wire mesh is used to avoid corrosion caused by fluoropolymers or PVDC.

**Stainless steel.**

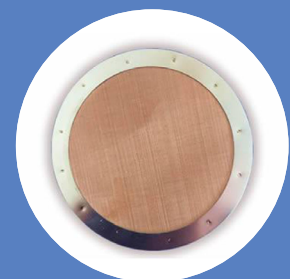
Good corrosion resistance and rust resistance.

**Black wire.**

Exceptional durability.

**Brass.**

Good ductility and machinability.

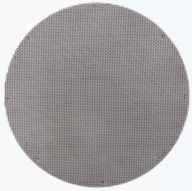
**Copper.**

Great conductivity and soft texture.

POLYMER EXTRUDER SCREEN

Shape

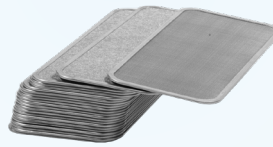
Our polymer extruder screen can be designed into different shapes to meet the need of different extruders.



Round



Ring



Rectangular



Oval

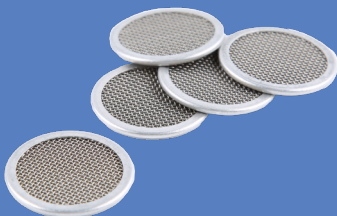


Kidney

POLYMER EXTRUDER SCREEN

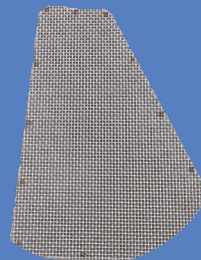
Edge Processing

We offer metal (stainless steel or aluminum alloy) edges, spot welded or rubber edges to reduce the wear and tear of the polymer extruder screen, improve the durability and strength of the screen, ensure the stability of the overall structure and extend the life of the screen. Other edges are available upon request.



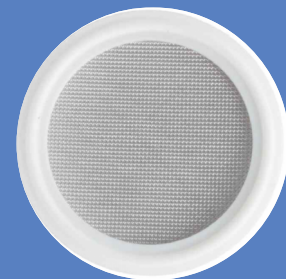
Aluminum alloy edge

Solid structure and improved abrasion resistance.



Spot welded edge

Not easy to be damaged and deform, and offers an extended service life.



Rubber edge

Elastic edges to offer good ductility and great stress resistance.

POLYMER EXTRUDER SCREEN

Specification

To ensure the polymer extruder screen offers the most effective filtration and extrusion, when you choosing the product, the following aspects shall be taken into consideration: weave type (plain weave or Dutch weave), mesh count (the number of mesh per square inch), wire diameter and open area.

Popular Specifications of Plain Weave Polymer Extruder Screen

Mesh	Wire Diameter (mm)	Opening Size (mm)	Open Area (%)
10 × 10	0.711	1.829	51.8
14 × 14	0.457	1.357	55.9
16 × 16	0.457	1.131	50.7
20 × 20	0.559	0.711	31.4
20 × 20	0.457	0.813	41.0
24 × 24	0.376	0.682	41.4
30 × 30	0.376	0.531	34.2
30 × 30	0.310	0.536	40.0
40 × 40	0.274	0.361	32.3
50 × 50	0.193	0.335	43.6
60 × 60	0.193	0.230	29.8
80 × 80	0.122	0.196	37.9
100 × 100	0.102	0.152	36.0
120 × 120	0.091	0.120	31.8
150 × 150	0.071	0.088	29.6
200 × 200	0.050	0.077	36.76
250 × 250	0.040	0.062	36.76
300 × 300	0.040	0.045	27.83
325 × 325	0.035	0.043	30.49
400 × 400	0.028	0.036	31.25
500 × 500	0.025	0.026	25.79

Notes: Other specifications are available upon request.

Popular Specifications of Dutch Weave Polymer Extruder Screen

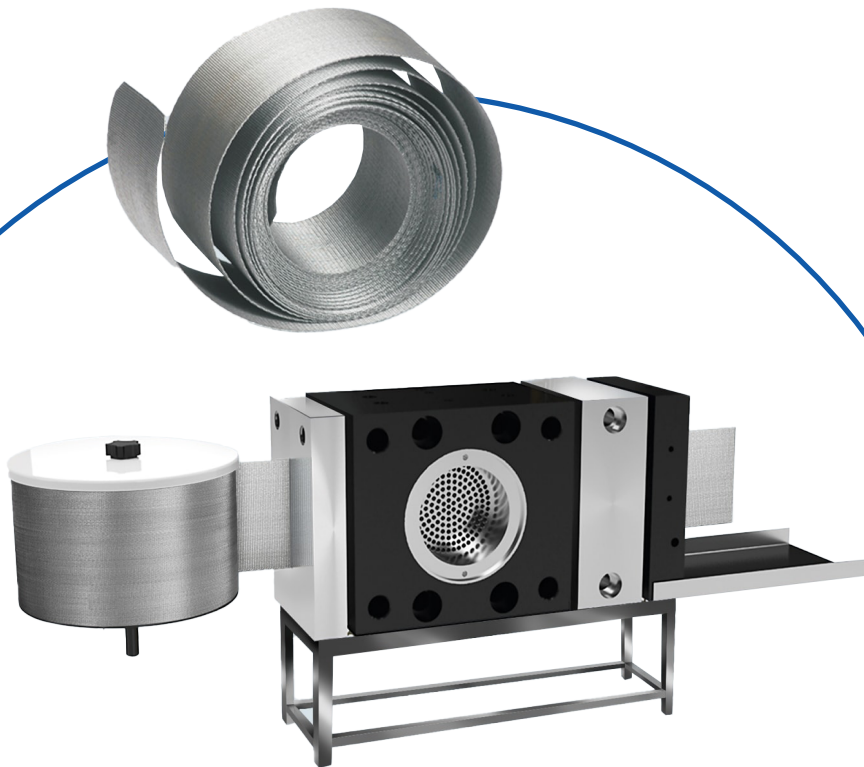
Mesh	Wire Diameter (mm)	Opening Size (mm)	Open Area (%)
12/64	26 × 26	0.457 × 0.457	180
24/110	28 × 32	0.376 × 0.274	115
30/250	38 × 42	0.132 × 0.102	70
50/250	38.5 × 41	0.140 × 0.112	60
50/600	40 × 44	0.122 × 0.081	30
80/400	40 × 45.5	0.102 × 0.063	40
80/700	42 × 44	0.102 × 0.063	35
100/600	42 × 45.5	0.102 × 0.081	25
120/600	42 × 45.5	0.102 × 0.063	28
170/1400	43.5 × 48	0.063 × 0.040	10
200/600	47 × 48	0.50 × 0.040	20
325/2300	48 × 40	0.40 × 0.122	5

Notes: Other specifications are available upon request.

Polymer Continuous Filter Belt

We can offer polymer continuous filter belts for continuous screen changers to meet your specific requirements of polymer melt filtration applications

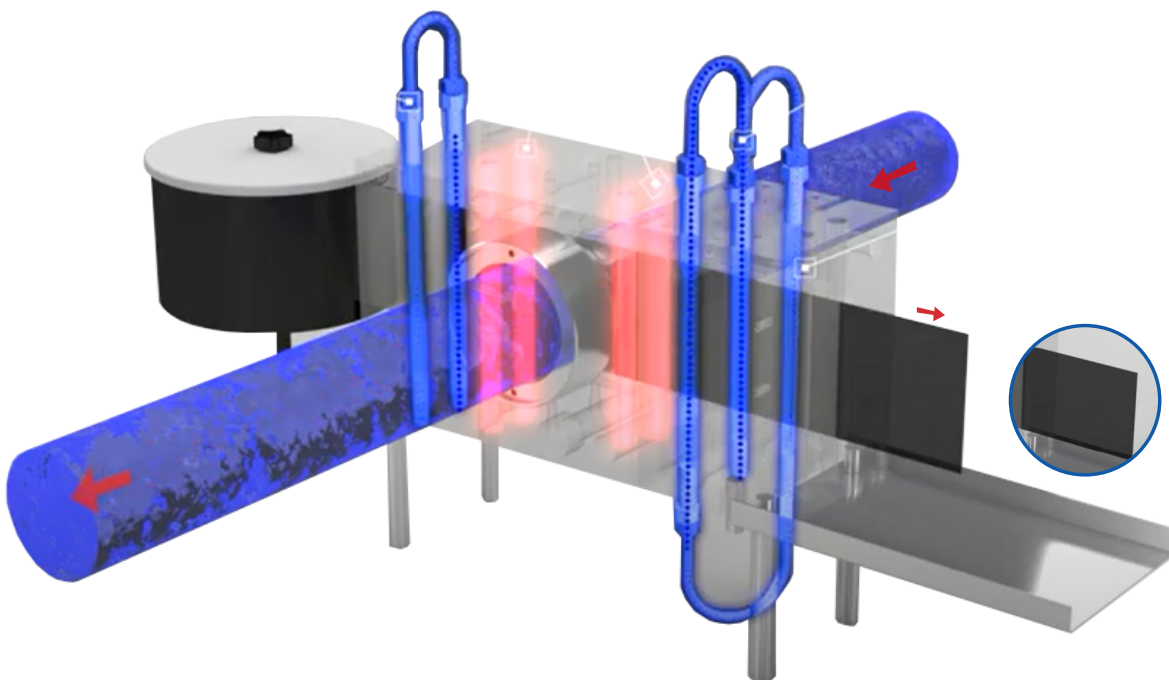
Polymer continuous filter belts are reverse Dutch woven filter belts made of stainless steel wire. They are primarily used to filter impurities from molten plastics and often work with continuous screen changers to achieve uninterrupted production and high filtration performance in the process of blow molding and casting film production and other polymer melt filtration.



POLYMER CONTINUOUS FILTER BELT

Working Principle

Polymer continuous filter belt is installed on the continuous screen changer. The melt enters from the inlet and impurities are trapped on the belt surface. The reverse Dutch woven filter can trap fine particles. Clean melt flows out of the outlet. When the preset value or time is reached, the control system will automatically trigger the heating rods at the outlet of the belt for belting. When the outlet reaches the preset temperature, the filter belt moves automatically and impurities in the melt are taken out from the continuous screen exchanger. Consequently, the clean filter belt also moves to the inlet, and the heating rods at the outlet stop heating, the clean filter belt starts to filter impurities, thus achieving continuous operation.

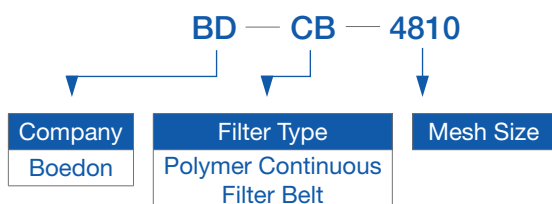
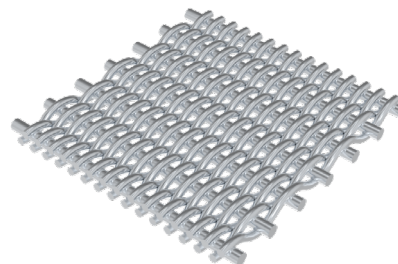


POLYMER CONTINUOUS FILTER BELT

Specification

Reverse Dutch weave

This weave type is in a reverse of the plain Dutch weave wire arrangement using larger warp wires and smaller weft wires. Polymer continuous filter belt adopts smaller warp wires to offer a tighter mesh structure for filtration and ensure the filtration efficiency. The larger weft wires deliver higher strength for the filter belt to extend its service life. This weave method makes the polymer continuous filter belt an ideal choice for plastic extrusion.



Material: Sstainless steel 302, 304, 316, 316L, etc.

Weave type: reverse Dutch weave

Length: 10–30 m

Width: 10 cm, 12 cm, 15 cm, 19 cm, 21 cm, or customized.

Popular Specification of Polymer Continuous Filter Belts

Model	Mesh Size (Warp/Inch × Weft/Inch)	Wire Diameter (mm) (Warp × Weft)	Filter Rating (µm)	Weight (kg/m ²)	Width (mm)	Length (mm)
BD-CB-4810	48 × 10	0.50 × 0.50	400	3.63	40–210	10000
BD-CB-6318	63 × 18	0.40 × 0.60	220	4.14	40–210	10000
BD-CB-7215	72 × 15	0.45 × 0.55	250	4.78	40–210	10000
BD-CB-10016	100 × 16	0.35 × 0.45	190	3.87	40–210	10000
BD-CB-10720	107 × 20	0.24 × 0.60	210	3.34	40–210	10000
BD-CB-12016	120 × 16	0.35 × 0.45	180	4.49	40–210	10000
BD-CB-13217	132 × 17	0.32 × 0.45	170	4.24	40–210	10000
BD-CB-15224	152 × 24	0.27 × 0.40	160	3.73	40–210	10000
BD-CB-16017	160 × 17	0.27 × 0.45	160	2.02	40–210	10000
BD-CB-17018	170 × 18	0.27 × 0.45	160	4.01	40–210	10000
BD-CB-17146	171 × 46	0.15 × 0.30	130	2.00	40–210	10000
BD-CB-18020	180 × 20	0.27 × 0.45	170	4.29	40–210	10000
BD-CB-20040	200 × 40	0.17 × 0.27	120	2.17	40–210	10000
BD-CB-24040	240 × 40	0.15 × 0.25	70	1.98	40–210	10000
BD-CB-26040	260 × 40	0.15 × 0.27	55	2.19	40–210	10000
BD-CB-29076	290 × 76	0.09 × 0.19	40	1.27	40–210	10000
BD-CB-30040	300 × 40	0.15 × 0.25	50	2.31	40–210	10000
BD-CB-30080	300 × 80	0.15 × 0.20	35	2.49	40–210	10000

Notes: Other specifications are available upon request.

POLYMER CONTINUOUS FILTER BELT

Features & Application

Features

- Durable, woven from high strength stainless steel wire
- Excellent resistant to acids, alkalis, corrosion and high temperatures
- Precise filter mesh size ensures good filtration effect during extrusion
- Belt change is possible without interruptions in production, resulting in efficient production

Application



Plastic & Plastic Recycling

- Cast film, blown film
- BOPP, etc.
- PP, PVC and other plastic extrusion



Resin

- Thermosetting resins
- Thermoplastic resins



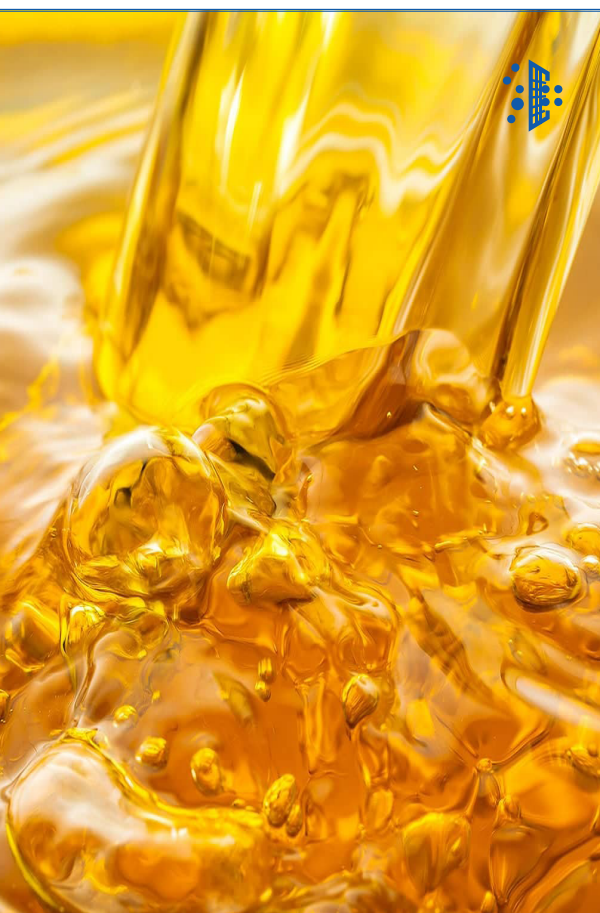
Chemical Fiber

- Nonwoven production
- Special material filtration

INDUSTRIAL FILTRATION

03.2

FLUID FILTRATION



In the industrial production process, fluids at high flow rate may contain solid particles, suspended solids and other impurities. These impurities not only damages downstream key equipment and shortens the lifespan of key components, but also affects the quality of final products. So, fluid filtration is an essential link in industrial production.

We have a full range of filter elements for fluid filtration applications in chemical, petroleum, water treatment, food industries, etc. Our technicians are ready to help you choose the right filter element to adapt to your operating conditions.

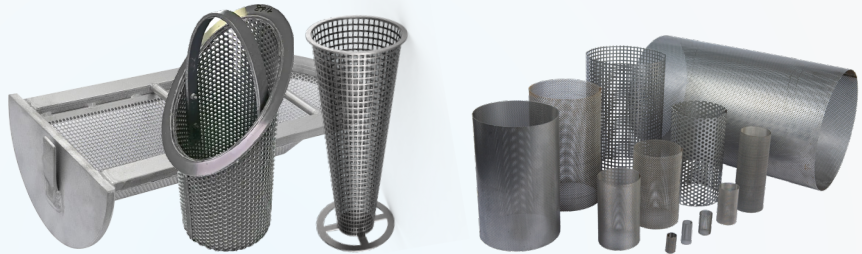
How Boedon Solve?

Boedon offers a variety of pipeline filters, automatic self cleaning filters and backwash filters to suit to different filter housings. These filters can effectively remove solid particles in fluids, protect downstream key equipment and components and ensure the quality of industrial products. We can select the right filter element for you according to your fluid filter type and filtration requirements.

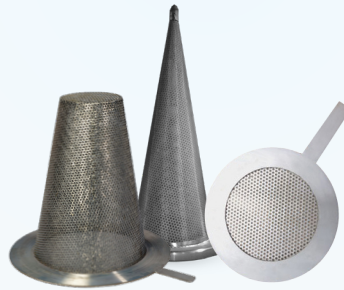
What Boedon Supply?



Pipeline Filter



T Strainer Basket Filter



Y Strainer Filter



Temporary Strainer

Basket Filter



Automatic Self Cleaning Filter



Wedge Wire Self Cleaning Filter

Sintered Mesh Self Cleaning Filter

Backwash Filter



Wedge Wire Backwash Filter



Tubular Backwash Filter

03.2

FLUID FILTRATION

Pipeline Filter



In chemical, petroleum, food and other industrial production, pipeline filters are an indispensable filtration device in pipeline systems for conveying media. If pipeline filters are not installed, solid particles in the upstream pipeline will flow into the downstream with the liquid and cause damage to downstream pumps, compressors and other key equipment, thus affecting the production. When the pipeline filters are installed, they can remove solid particles in fluids and ensure the smooth operation of pipeline systems, making the fluid cleaner and getting ideal industrial products.

How Boedon Solve?

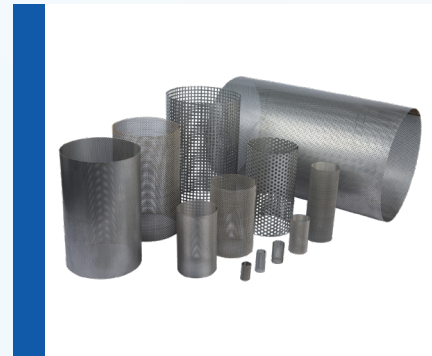
Boedon supplies 4 types of pipeline filters, they are T strainer basket filters, Y strainer filters, temporary strainers and basket filters. We can choose the right pipeline filters for your pipeline systems according to your liquid flow rate and filter media to remove impurities in liquids and protect the downstream key components.

What Boedon Supply?



T Strainer Basket Filter

- For T type strainers
- Filtering liquid, gas and viscous media
- For chemical, oil & gas, food industries, etc.



Y Strainer Filter

- For Y strainers
- For water treatment, chemical, pharmaceutical, food industries, etc.



Temporary Strainer

- For temporary filters
- Designed for pipeline start-up applications
- For chemical, pharmaceutical, food industries, etc.



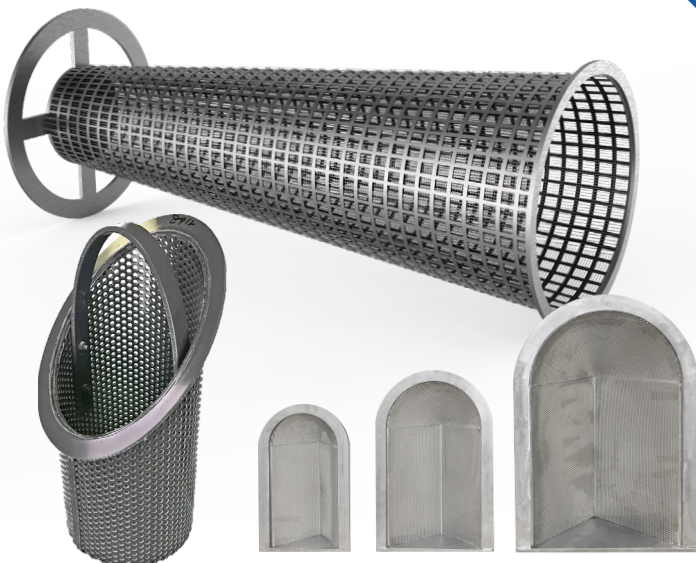
Basket Filter

- For basket strainers
- For petroleum, chemical, food industries, etc

T Strainer Basket Filter

T strainer basket filter is used to filter out liquid, gaseous and viscous particles.

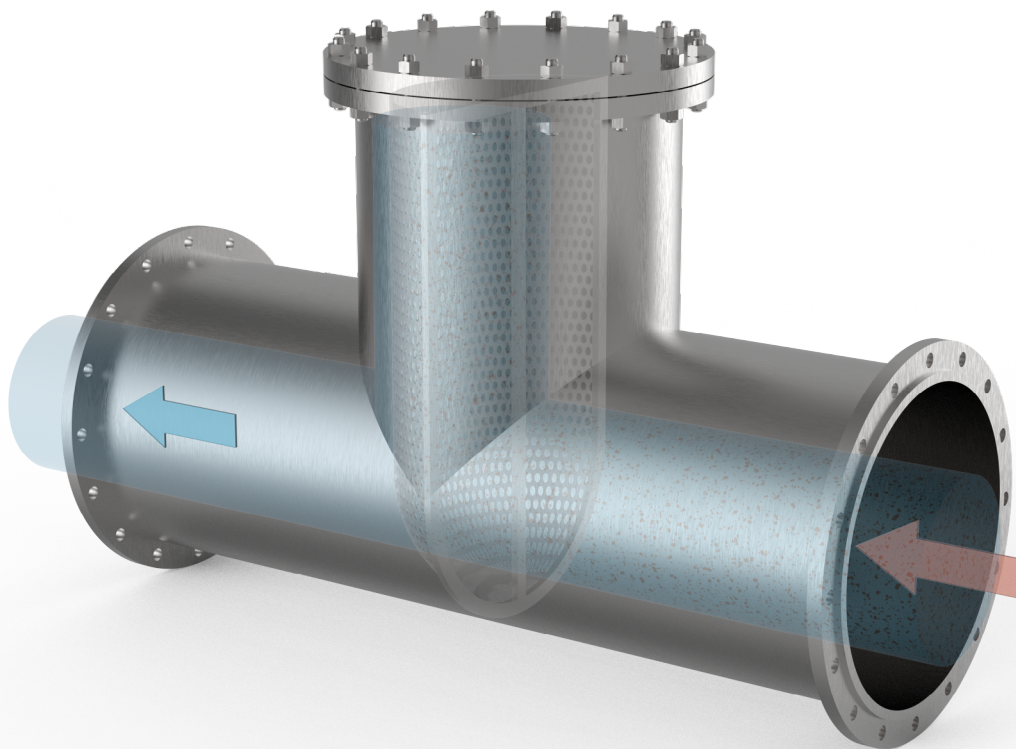
T strainer basket filter is manufactured by welding stainless steel perforated metal or woven mesh onto the stainless steel frame. It is generally used in T type strainers to remove impurities from liquids, gases and low viscous fluids. It features great filtration performance, low pressure loss, good corrosion resistance, simple structure and long lifespan. T strainer basket filters are widely used in chemical, petroleum, food, pharmaceuticals, etc.



T STRAINER BASKET FILTER

Working Principle

When the fluid enters the basket strainer through the main pipe, the particle impurities will be trapped in the T strainer basket filter. The clean filtrate will be discharged from the outlet. The basket filter ensures the normal operation of equipment (including compressors, pumps, etc.) and instruments to realize stable filtration and ensure the safety production. When the basket filter needs cleaning, just take out the detachable basket filter, clean and reload it, and then put it into the main pipe for reuse.

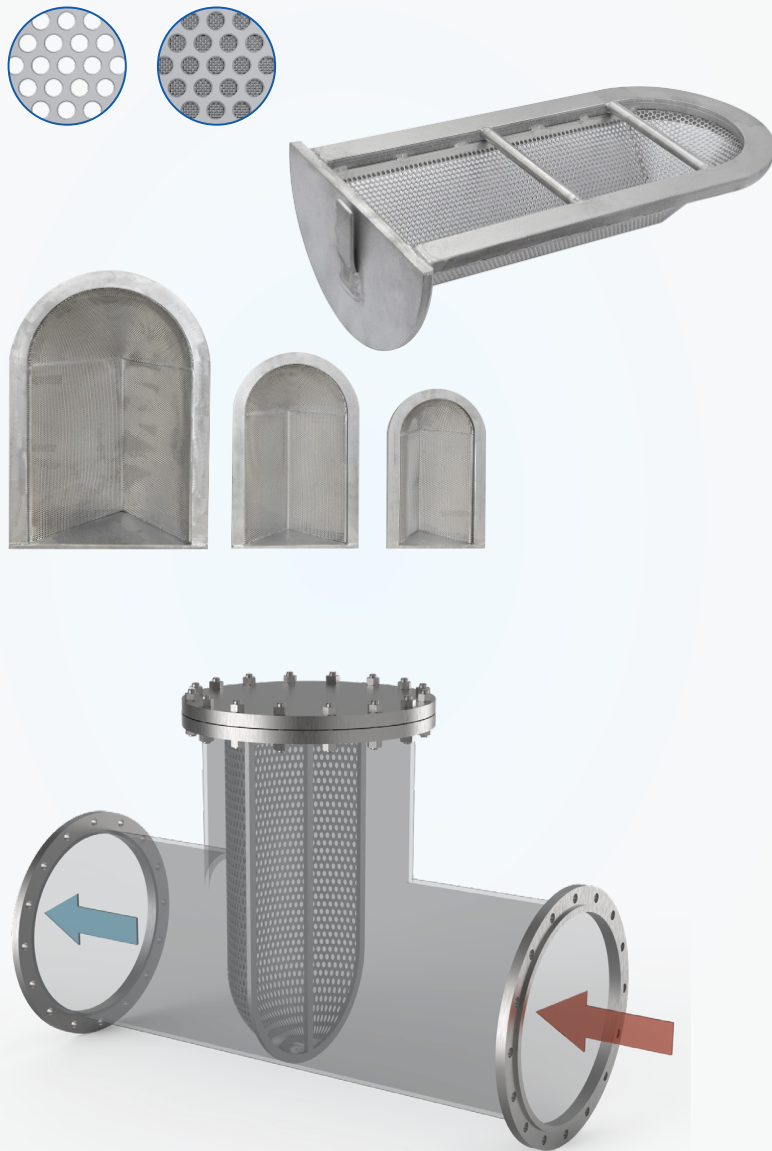


T STRAINER BASKET FILTER

Category

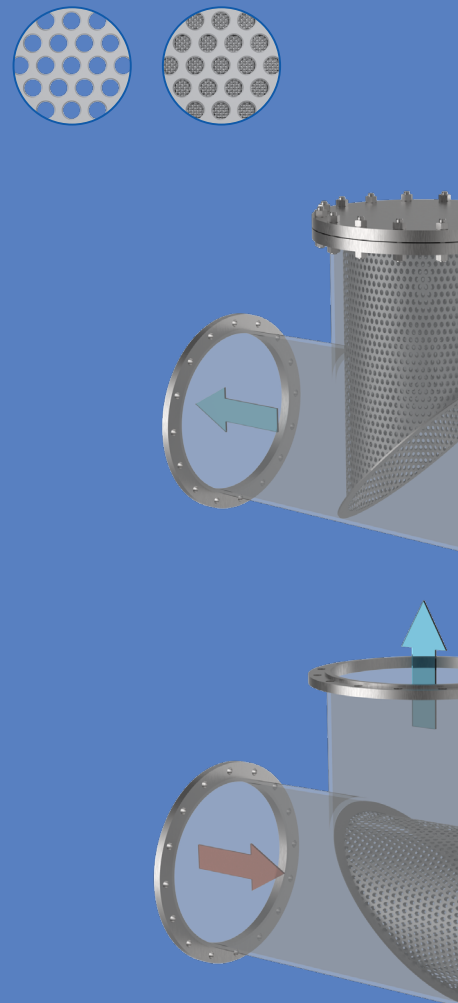
T Type Basket filter

T type basket filter is installed inside straight flow T type strainer to filter out large particulate impurities.



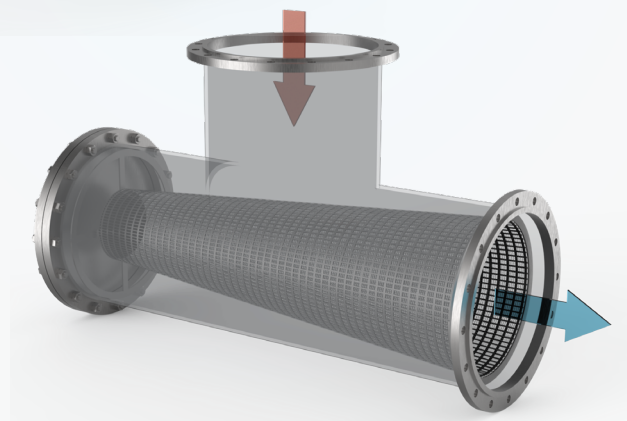
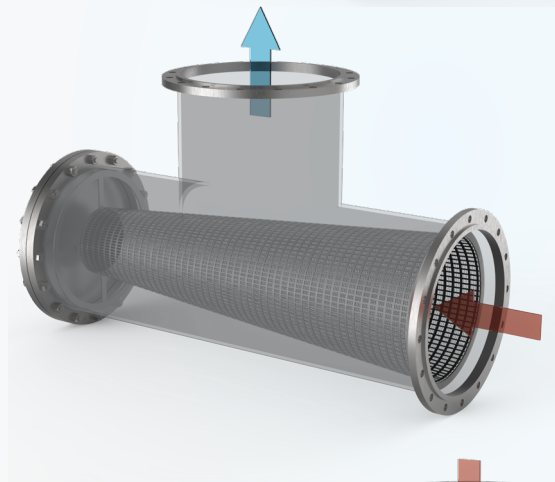
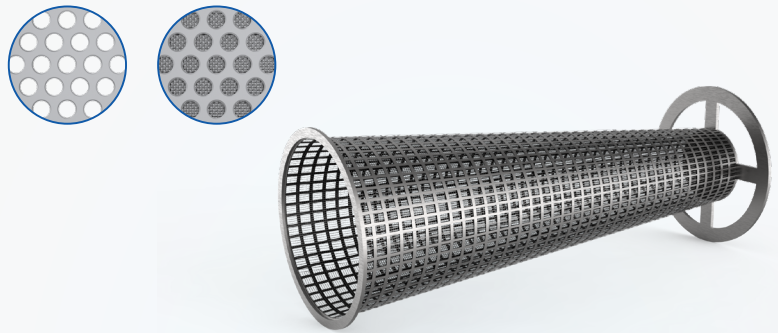
Slanted Basket Filter

Slanted basket filter can be installed inside both straight flow and right angled flow T type strainers to remove large particulate impurities from the medium.



Cartridge Filter

Cartridge filter is installed in right angled flow T type strainers to filter out large particulate impurities.



T STRAINER BASKET FILTER

Specification

Material: ss304, ss316, ss304L, ss316L

Operating temperature: -10 °C to +400 °C

Filter rating: 50 µm – 8000 µm

Filtration efficiency: 95%

Pressure: 1.0 MPa, 1.6 MPa

Applicable viscosity: 1–30000 cp

Filtration layer: perforated metal or woven mesh/perforated mesh

Popular Specifications of Perforated Metal

Model	Hole Size	Length (mm)
BD-TS-P-027	0.027"	10000
BD-TS-P-033	0.033"	10000
BD-TS-P-047	0.047"	10000
BD-TS-P-062	0.062"	10000
BD-TS-P-093	0.093"	10000
BD-TS-P-125	0.125"	10000
BD-TS-P-156	0.156"	10000
BD-TS-P-250	0.250"	10000

Notes:

- Other sizes are available upon request.
- Suitable for T type basket strainers, slanted basket strainers and cartridge filters.
- BD stands for Boedon; T represents T strainer basket filter; P stands for perforated metal, and 027 represents perforated metal hole diameter.

Popular Specifications of Woven Mesh

Model	Mesh Count	Mesh Opening	Open Area
BD-TS-W-20	20 × 20	0.030"	49%
BD-TS-W-30	30 × 30	0.022"	45%
BD-TS-W-40	40 × 40	0.016"	41%
BD-TS-W-60	60 × 60	0.010"	38%
BD-TS-W-80	80 × 80	0.008"	36%
BD-TS-W-100	100 × 100	0.006"	30%

Notes:

- Other sizes are available upon request.
- Suitable for T type basket strainers, slanted basket strainers and cartridge filters.
- BD stands for Boedon; T represents T strainer basket filter; W stands for woven mesh, and 20 represents woven mesh count.

T STRAINER BASKET FILTER

Features & Application

Features

- Filter liquid, viscous and gaseous media, great filtration effect
- Simple structure, easy to install, remove and maintain
- Reusable after cleaning, reducing the investment costs
- Long service life
- High temperature and high pressure resistance
- Great corrosion resistance, acid and alkali resistance

Application



Chemical

- Filtering corrosive materials such as concentrated sulfuric acid, carbonic acid, acetic acid and fatty acid in various chemicals
- Cooling water and wastewater filtration



Oil & Gas

- Injection water filtration
- Filtering weak corrosive substances in oil products
- Filtering impurities from natural gas



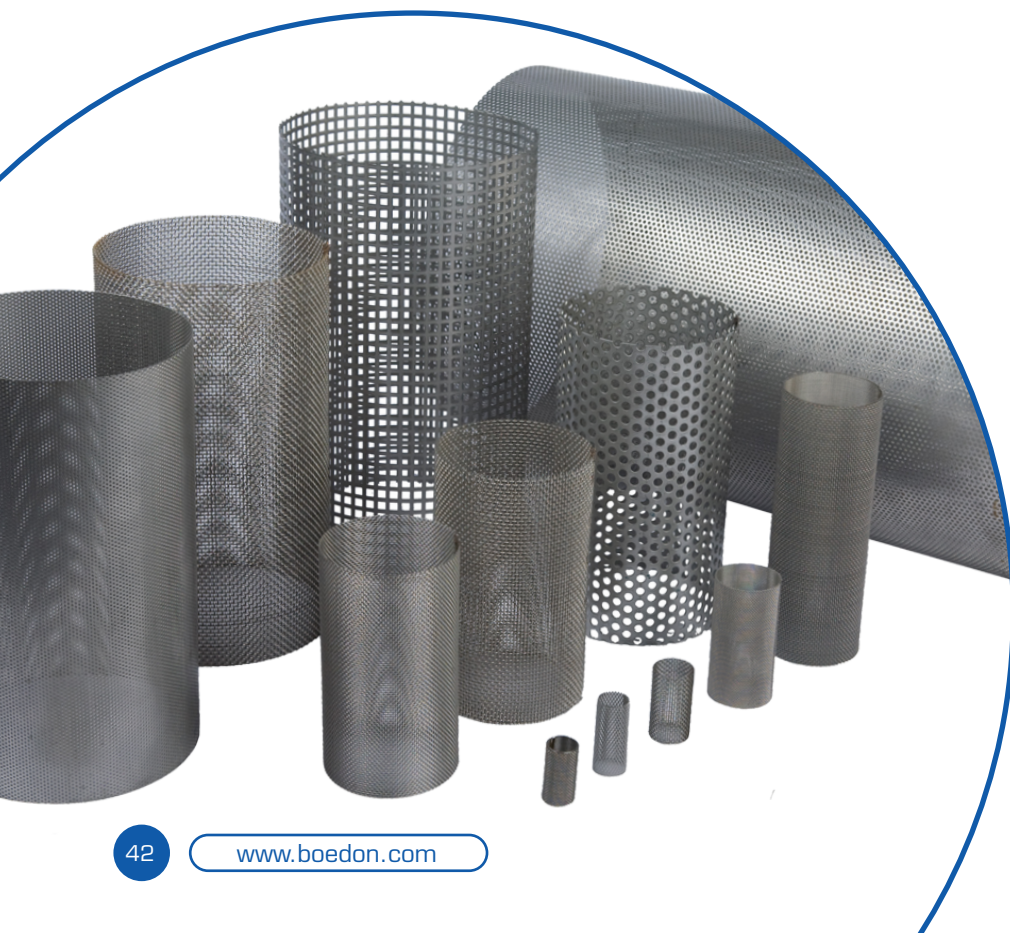
Food

Filtering impurities from juice, beer and dairy products during production

Y Strainer Basket Filter

Y strainer filter is used to remove micro particles in steam, gas and liquid applications.

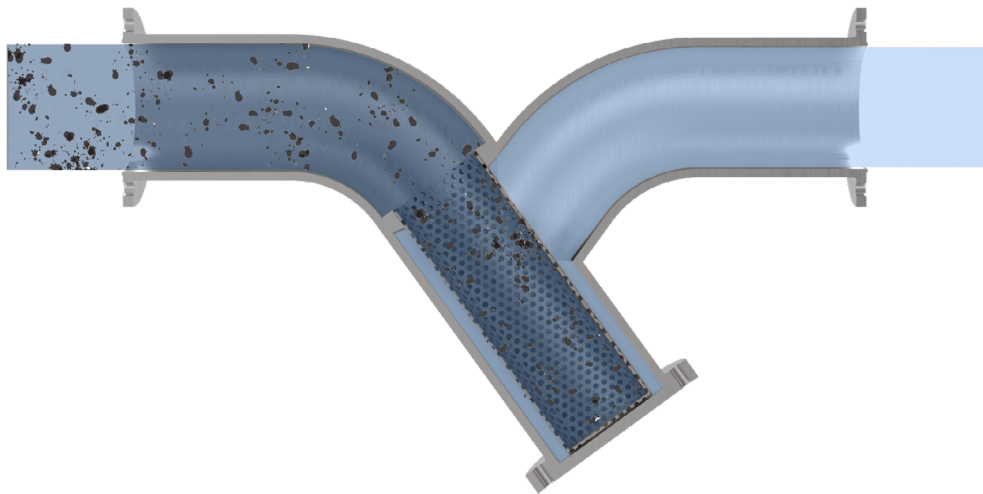
Y strainer filter is mainly constructed of stainless steel, carbon steel, titanium and other metal alloy perforated metal or woven mesh by welding process. It is an important filter unit for Y type strainers and helps to remove impurities in the medium (gas, steam or liquid) and ensure the normal operation of valves and equipment. It features large filter area, high filter rating, simple structure and long service life, and is widely used in petrochemical, petroleum, natural gas, food & beverage, sewage treatment, etc. Y strainer filters are generally designed to be cylinder shape, or customized upon request.



Y STRAINER FILTER

Working Principle

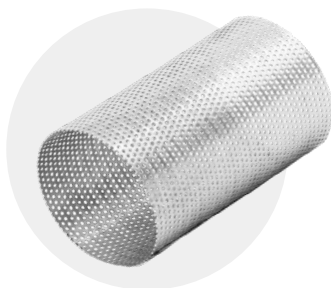
Y strainer filter is a small device installed in Y strainers that is used to remove solid particles in the liquid and get clean liquid. Meanwhile, it protects the normal operation of the equipment. When the Y strainer filter needs cleaning, just take out the detachable strainer filter, clean and reload it. So, it is easy to use and maintain.



Y STRAINER FILTER

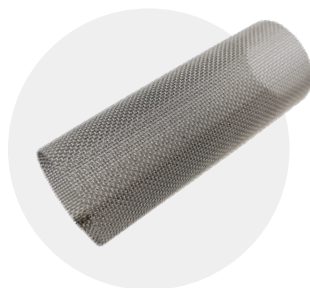
Category

Y strainer filter is mainly constructed of stainless steel, carbon steel, titanium and other metal alloy perforated metal or woven mesh. It can be designed with or without edges or customized upon request.



Single layer perforated metal

Suitable for pipeline system with certain pressure to remove large particulate impurities.



Single layer woven mesh

Suitable for pipeline systems with low pressure yet high filter rating requirements.



Woven mesh + perforated metal double layer

Suitable for pipeline systems with high pressure and fine filtration demands.

Y STRAINER FILTER

Specification

Material: stainless steel, carbon steel, titanium and other metal alloy

Filtration layer: perforated metal/woven mesh/perforated metal + woven mesh

Operating temperature: -10 °C to 400 °C

Operating pressure: 1.6–10 MPa

Filtration efficiency: 99.99%

Mesh count for different media: 18–30 mesh for water supply network; 10–100 mesh for ventilation network and 100–480 mesh for oil supply network.

Filtration layer structure: single-layer perforated metal or woven mesh; double layer perforated metal + woven mesh

Popular Specifications of Perforated Metal

Hole Size	Open Area
0.027"	23%
0.033"	28%
0.047"	36%
0.062"	37%
0.093"	39%
0.125"	40%
0.156"	58%
0.250"	40%

Notes:

- Other specifications are available upon request.
- Suitable for Y strainer filters.

Popular Specifications of Woven Mesh

Mesh Count	Mesh Opening	Open Area
20 × 20	0.030"	49%
30 × 30	0.022"	45%
40 × 40	0.016"	41%
60 × 60	0.010"	38%
80 × 80	0.008"	36%
100 × 100	0.006"	30%
200 × 200	0.003"	33%
300 × 300	0.002"	29%
400 × 400	0.001"	36%
500 × 500	0.001"	25%

Notes:

- Other specifications are available upon request.
- Suitable for Y strainer filters.

Y STRAINER FILTER

Features & Application

Features

- Large filter area, high filtration efficiency
- Corrosion resistance, acid and alkali resistance
- High pressure and high temperature resistance
- Simple operation, easy cleaning and maintenance
- Reusable, lower investment cost
- Made of a variety of metal materials, long service life

Application



Water Treatment

Production wastewater purification and filtration



Chemical

Filtering particle impurities from corrosive liquids



Pharmaceutical

Filtration and separation of all catalysts



Food

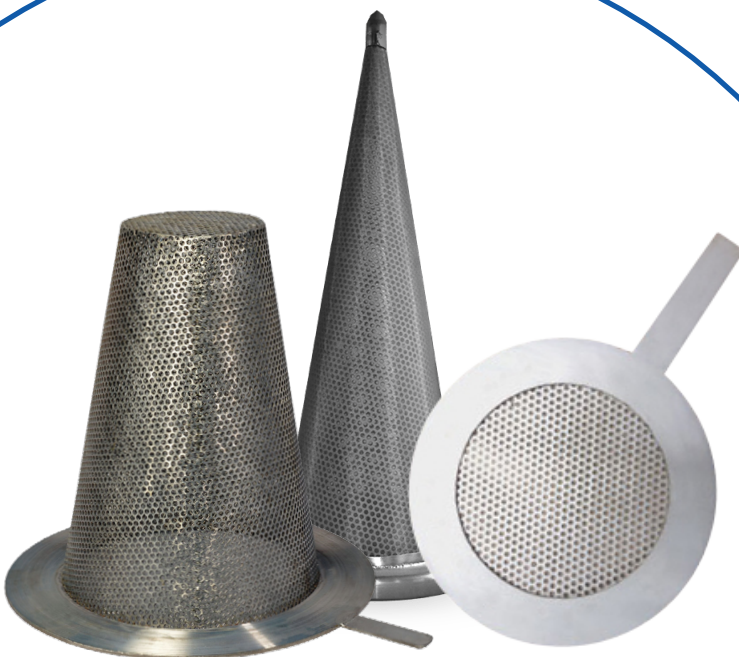
- Filtering unnecessary impurities during the edible oil extraction.
- Filtering all impurities in food slurry

Temporary Strainer

We offer temporary strainers to effectively trap solid particles and protect the key components of your equipment.

Temporary strainer is a filter element constructed of perforated metal or woven mesh and installed in pipes or pipeline systems. It is specially designed for initial start-up applications, aiming to catch debris in pipelines during start-up and protect pumps, instruments, control valves and other downstream equipment. As a result, it plays an role of stabilizing the filtration process and safeguarding the safe production. It is widely used in petroleum, chemical, pharmaceuticals, water treatment, etc.

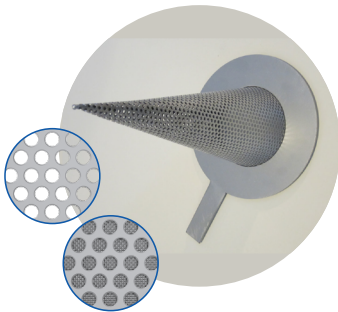
Temporary strainers are divided into temporary cone strainers, temporary basket strainers and temporary plate strainers. We can the right temporary strainer for you according to your pipeline system and filtration requirements.



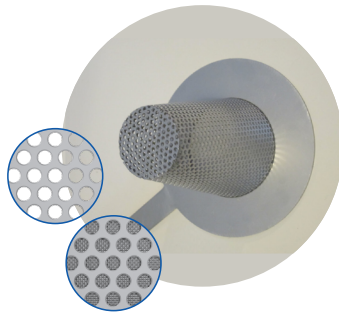
TEMPORARY STRAINER

Category

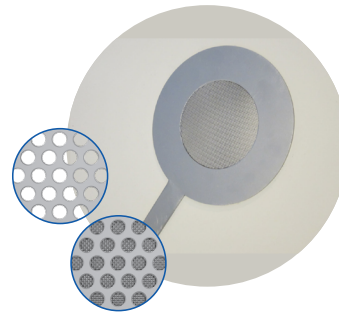
Temporary strainers are divided into temporary cone strainers, temporary basket strainers and temporary plate strainers by shape.



Temporary cone strainer



Temporary basket strainer



Temporary plate strainer

TEMPORARY STRAINER

Specification

Material: SS304, SS316, carbon steel and other alloys

Standard perforation: using 1/8" perforations on 3/16" center

Standard wire mesh liner: 10 mesh, 20 mesh, 30 mesh, 40 mesh, 60 mesh, 80 mesh, 100 mesh

Handle size: 4" length × 1" width

Flange thickness: 11 gauge

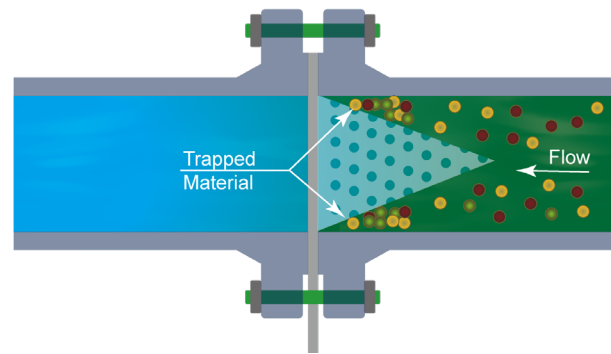
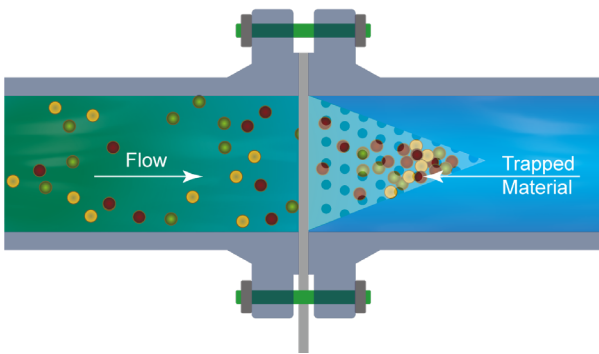
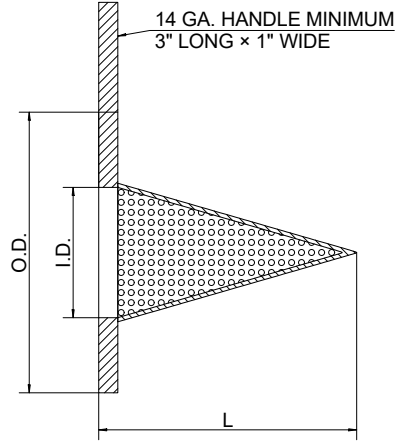
End connection: water flat faced, raised face, ring joint flanges

Open area: the available range in open area of strainer to cross section of pipe is 100% to 300%

TEMPORARY STRAINER

Temporary Cone Strainer

It is the most common type temporary strainer. It is typically installed with the cone pointing upstream, and debris will tend to be collected at the strainer's paddle ring. This flow direction is more suitable for higher flow rates. If the cone points downstream, the debris will start to be collected in the center. Temporary cone strainer with a wire mesh liner can catch fine particles and the wire mesh is always placed towards the upstream, therefore, when ordering cone strainers, the expected flow direction must be told.



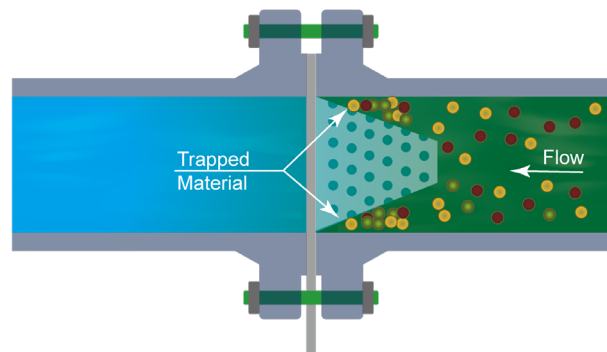
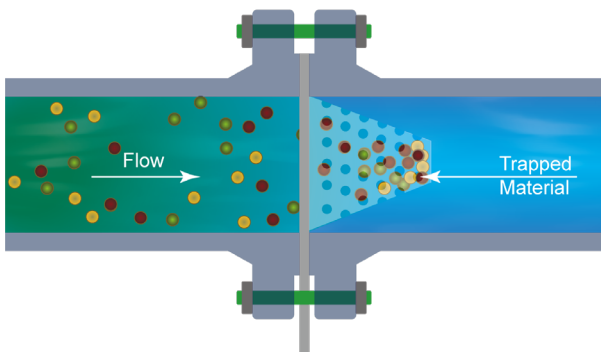
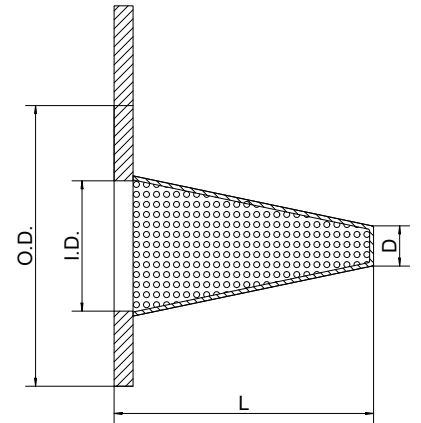
Model	Nominal Pipe Size	I.D. (inch)	150/300# ANSI (O.D.)	600# ANSI (O.D.)	900# ANSI (O.D.)	1500# ANSI (O.D.)	Standard Length (L)	L-150%	L-200%
BD-TCS-01	0.75	0.625	2.125	2.5	2.625	2.625	2.25	2.25	3
BD-TCS-02	1	0.75	2.5	2.75	3	3	2.625	2.75	3
BD-TCS-03	1.5	1.25	3.25	3.625	3.75	3.75	3.1875	4	5
BD-TCS-04	2	1.75	4	4.25	5.5	5.5	3.5	6	8
BD-TCS-05	2.5	2.25	4.75	5	6.375	6.375	4.0625	6.25	8
BD-TCS-06	3	2.75	5.25	5.75	6.5	6.75	4.25	6.75	9
BD-TCS-07	4	3.75	6.75	7.5	8	8.125	5	10	12
BD-TCS-08	5	4.625	7.625	9.375	9.625	9.875	6	12	14
BD-TCS-09	6	5.375	8.625	10.375	11.25	11	7	13	18
BD-TCS-10	8	7.375	10.875	12.5	14	13.75	8.1875	17	23
BD-TCS-11	10	9.375	13.25	15.625	17	17	12	22	28
BD-TCS-12	12	11	16	17.875	19.5	20.375	13	26	34
BD-TCS-13	14	12.25	17.625	19	20.375	22.625	15	27	36
BD-TCS-14	16	14	20.125	21.875	22.5	-	17	30	40
BD-TCS-15	18	15.75	21.25	23.75	25	-	19	35	46
BD-TCS-16	20	17.5	23.5	26.625	-	-	21	39	51
BD-TCS-17	24	21.25	27.875	30.875	-	-	25	45	61

Notes: the above dimensions are based on using 1/8" perforations on 3/16" center.

TEMPORARY STRAINER

Temporary Basket Strainer

It is generally installed towards the down stream and debris will be collected at the flat part. Temporary basket strainer has a large volume and a large surface area than temporary cone strainer, so it has a slight higher pressure drop. If the wire mesh liner is placed outside the strainer, the strainer shall be installed towards the upstream.



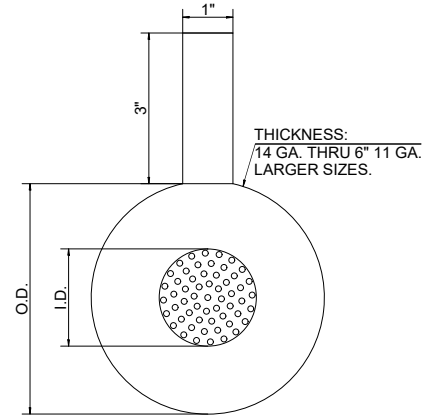
Model	Nominal Pipe Size	I.D. (inch)	150/300# ANSI (O.D.)	600# ANSI (O.D.)	900# ANSI (O.D.)	1500# ANSI (O.D.)	D	Standard Length (L)	L-150%	L-200%
BD-TBS-01	0.75	0.625	2.125	2.5	2.625	2.625	0.375	2	-	-
BD-TBS-02	1	0.75	2.5	2.75	3	3	0.5	2	-	-
BD-TBS-03	1.5	1.25	3.25	3.625	3.75	3.75	0.75	2.75	-	3
BD-TBS-04	2	1.75	4	4.25	5.5	5.5	1	3	-	4
BD-TBS-05	2.5	2.25	4.75	5	6.375	6.375	1.25	3.1875	-	4.5
BD-TBS-06	3	2.75	5.25	5.75	6.5	6.75	1.5	3.5	3.875	5.5
BD-TBS-07	4	3.75	6.75	7.5	8	8.125	2	4	5	7
BD-TBS-08	5	4.625	7.625	9.375	9.625	9.875	2.5	5	6.375	9
BD-TBS-09	6	5.375	8.625	10.375	11.25	11	3	6	7.75	11
BD-TBS-10	8	7.375	10.875	12.5	14	13.75	4	6.125	9.75	14
BD-TBS-11	10	9.375	13.25	15.625	17	17	5	7.5	12.375	18
BD-TBS-12	12	11	16	17.875	19.5	20.375	6	9	14.75	20
BD-TBS-13	14	12.25	17.375	19	20.375	22.625	7	10	15.875	21
BD-TBS-14	16	14	20.125	21.875	22.5	-	8	10	18.375	23
BD-TBS-15	18	15.75	21.25	23.75	25	-	9	12	20.875	27
BD-TBS-16	20	17.5	23.5	26.625	-	-	10	14	23.5	31
BD-TBS-17	24	21.25	27.875	30.875	-	-	12	16	28.375	37

Notes: the above dimensions are based on using 1/8" perforations on 3/16" center.

TEMPORARY STRAINER

Temporary Plate Strainer

Compared with temporary cone & basket strainers, temporary plate strainer has a small surface area and produces a higher pressure drop. The temporary plate strainer installation shall follow the principle of placing the wire mesh liner towards the upstream to facilitate catching finer particles.



Model	Nominal Pipe Size	I.D. (inch)	150/300# ANSI (O.D.)	600# ANSI (O.D.)	900# ANSI (O.D.)	1500# ANSI (O.D.)
BD-TPS-01	0.75	0.75	2.125	2.5	2.625	2.625
BD-TPS-02	1	1	2.5	2.75	3	3
BD-TPS-03	1.5	1.5	3.25	3.625	3.75	3.75
BD-TPS-04	2	2	4	4.25	5.5	5.5
BD-TPS-05	2.5	2.5	4.75	5	6.375	6.375
BD-TPS-06	3	3	5.25	5.75	6.5	6.75
BD-TPS-07	4	4	6.75	7.5	8	8.125
BD-TPS-08	5	5	7.625	9.375	9.625	9.875
BD-TPS-09	6	6	8.625	10.375	11.25	11
BD-TPS-10	8	8	10.875	12.5	14	13.75
BD-TPS-11	10	10	13.25	15.625	17	17
BD-TPS-12	12	12	16	17.875	19.5	20.375
BD-TPS-13	14	13.25	17.375	19	20.375	22.625
BD-TPS-14	16	15.25	20.125	21.875	22.5	-
BD-TPS-15	18	17.25	21.25	23.75	25	-
BD-TPS-16	20	19.25	23.5	26.625	-	-
BD-TPS-17	24	23.25	27.875	30.875	-	-

Notes: the above dimensions are based on using 1/8" perforations on 3/16" center.

TEMPORARY STRAINER

Benefits & Application

Features

- Ensure high flow rate filtration
- Corrosion & rust resistance
- High temperature resistance
- Suitable for pipeline start-up applications
- Simple structure, easy to install and remove
- Reusable, low costs

Application



Chemical

- Corrosive substances
- Caustic soda, concentrated sulfuric acid, etc.



Pharmaceutical

Medical supplies, etc.



Food

- Beer, beverage
- Dairy products, grain pulp, etc.

Basket Filter

We offer both standard **basket filter and slanted **basket filter** to adapt to **pipeline systems** and achieve **effectively solid impurities removal**.**

Basket filter is a filter element made of perforated metal and woven mesh to filter out foreign particles in a horizontal pipeline. It is generally installed the upstream of key equipment such as pumps, control valves, and traps, keeping potential corrosive or damaging debris from making its way down the line. It is widely used in food, beverage, pharmaceuticals and other high quality processing applications.

Basket filters can be made of stainless steel, carbon steel or other alloys. Stainless steel basket filter has excellent corrosion resistance while the rigidity and strength of carbon steel basket filter depend on its carbon content. We can offer customized solutions according to your applications and filtration requirements.

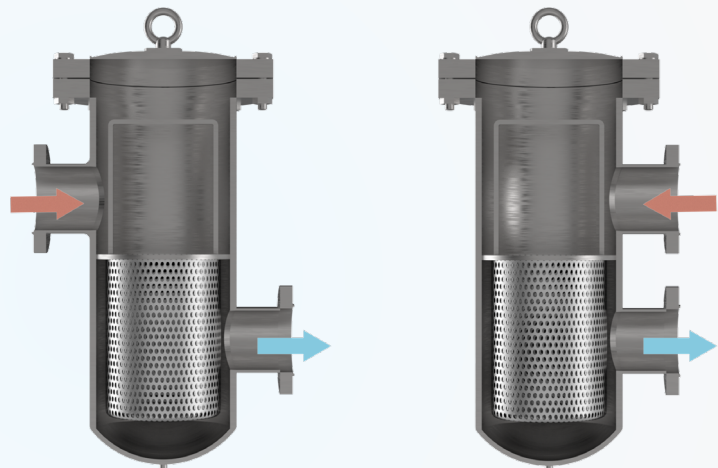


BASKET FILTER

Category

Basket filters are divided into standard basket filters and slanted basket filters. All basket filters are available in various mesh openings and micron ratings. In addition, the holes are perforated in a staggered pattern to maximize the usable surface area of the basket filter. All kinds of basket filter are equipped with a lift-out handle and a solid, flat bottom, featuring high liquid capacity and high flow rate.

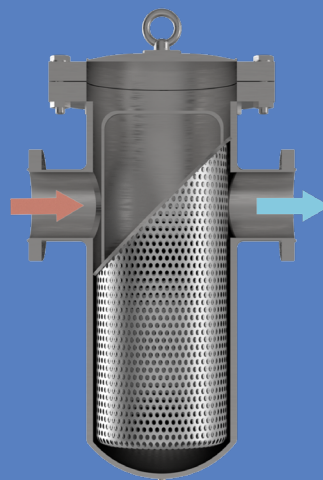
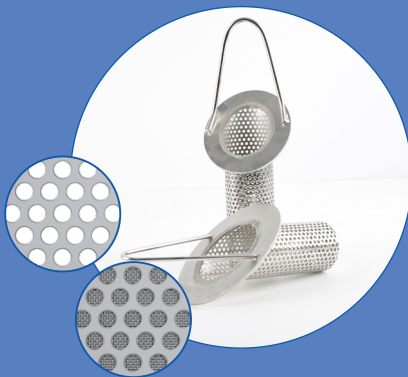
Standard Basket Filter



The working principle of left-in, right-out basket filter

The working principle of right-in, right-out basket filter

Slanted Basket Filter



The working principle of slanted basket filter

BASKET FILTER

Specification

Material: stainless steel (304, 304L, 316, 316L, etc.), carbon steel, other alloy, etc.

Type: standard basket filter, slanted basket filter

Filter media: perforated metal or woven mesh

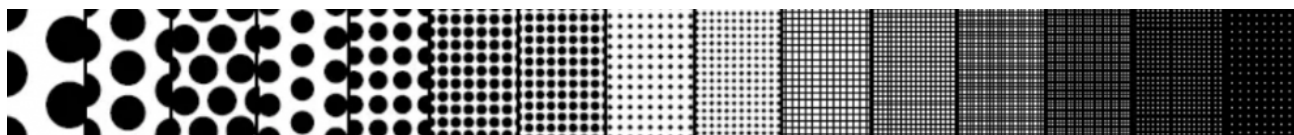
Mesh: 20, 30, 40, 50, 60, 70, 80, 100, 150, 200

Micron line mesh: 40, 90, 160, 250 industry uses; 5, 10, 15, 25 light-duty for special uses.

Perforation hole size: 1/2", 3/8", 1/4", 3/16", 9/64", 3/32", 1/16", 3/64"

Diameter and length: customized upon request.

Perforated metal and woven mesh types:



Popular Specification of Perforated Metal

Model	Diameter		Open Area
	inch	mm	
-			%
BD-PBF-01	1/4"	6.35	40
BD-PBF-02	3/16"	4.76	50
BD-PBF-03	5/32"	3.97	58
BD-PBF-04	1/8"	3.18	40
BD-PBF-05	3/32"	2.38	39
BD-PBF-06	1/16"	1.59	37
BD-PBF-07	3/64"	1.19	36
BD-PBF-08	1/32"	0.79	40
BD-PBF-09	0.027"	0.69	23

Popular Specification of Woven Mesh

Model	Mesh	Mesh Opening (inch)	Open Area (%)
BD-WBF-01	20 × 20	0.035"	49
BD-WBF-02	30 × 30	0.022"	45
BD-WBF-03	40 × 40	0.016"	41
BD-WBF-04	60 × 60	0.010"	38
BD-WBF-05	80 × 80	0.008"	36
BD-WBF-06	100 × 100	0.006"	30

BASKET FILTER

Features & Application

Features

- Low costs, high working efficiency
- Protect pumps, instruments, etc.
- Good filtration effect
- Good corrosion resistance and thermal resistance
- Reusable
- Easy to clean

Application



Chemical

- The filtration of cooling water and wastewater
- The filtration of concentrated dilute sulfuric acid, carbonic acid and other corrosive materials impurities



Oil & Gas

The filtration of weak corrosive impurities in oil products



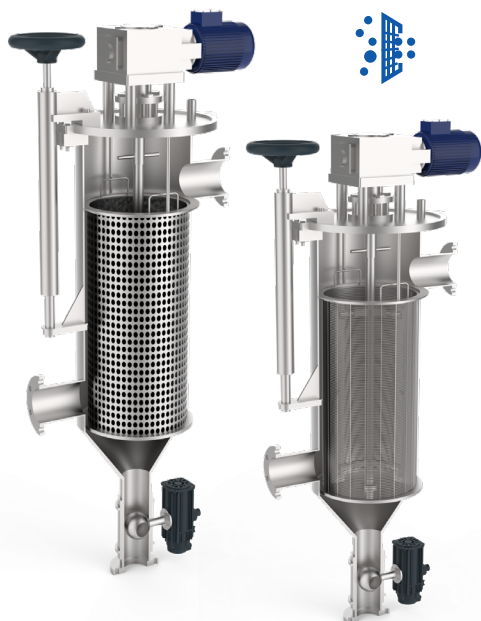
Food

- Beer, beverage
- The filtration of dairy products

03.2

FLUID FILTRATION

Automatic Self Cleaning Filter



In petroleum, chemical and water treatment industries, impurities, suspended solids and particles in fluids will lower the fluid quality, affect the normal production and damage the downstream equipment. Automatic self cleaning filters are specially designed for continuous operating fluid filtration. It allows to effectively remove impurities and particles while ensuring the lifespan of precise equipment and achieving automatic filtration and self cleaning.

How Boedon Solve?

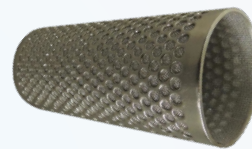
Boedon offers wedge wire self cleaning filters with V-shaped slots and sintered mesh self cleaning filters with high mechanical strength. These two filters can effectively remove impurities and particles from fluids, deliver excellent self cleaning performance and achieve continuous production. We can select the right filter according to your filtration requirements and operating conditions to satisfy your fluid filtration demands.

What Boedon Supply?



Wedge Wire Self Cleaning Filter

- V-shape opening makes it easy cleaning and not easy to clog
- Continuous slot structure, large filter area
- For petroleum, food and water treatment industries



Sintered Mesh Self Cleaning Filter

- With perforated metal as support, high mechanical strength
- Stable pore size
- For chemical, food and water treatment industries



Wedge Wire Self Cleaning Filter

Our wedge wire self cleaning filter can meet the impurities removal requirements of automatic self cleaning filters.

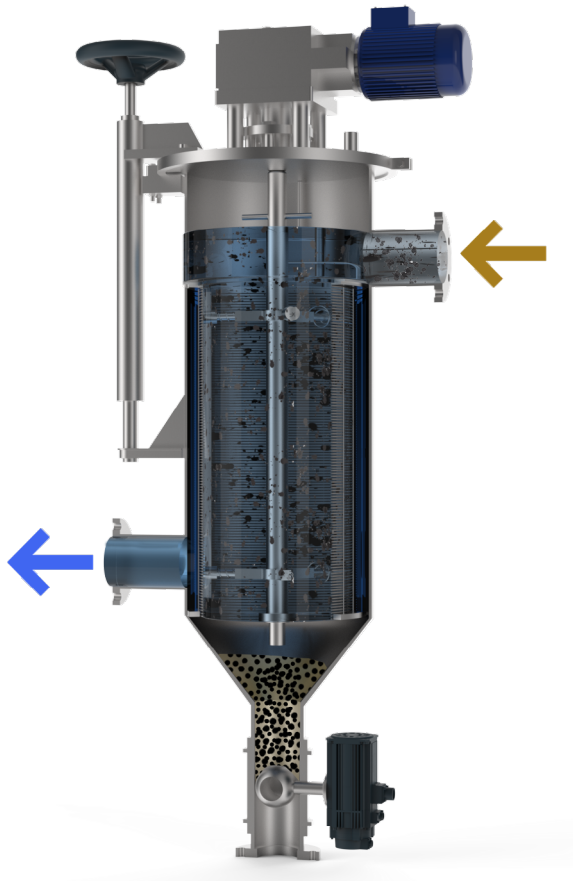
Wedge wire self cleaning filter is a filter element constructed of high quality V-shaped wedge wires and support wires. It is installed in automatic self cleaning filter housings to intercept suspended solids and particles in the fluid, reduce turbidity and remove system impurities, thus purifying water quality and achieving self cleaning. It features high pressure resistance, corrosion resistance, uniform slot size, large filter area and not easy to clog, and is widely used in the automatic self cleaning filters in petroleum, paper & pulp, chemical, natural gas, food, and water treatment industries.

Wedge wire self cleaning filters are made of stainless steel, Hastelloy or other alloys. We can choose the right filter material to perfectly match up with your filtration environments.

WEDGE WIRE SELF CLEANING FILTER

Working Principle

The liquid enters the self cleaning filter and passes through the wedge wire screen inside to start the filtration process. Various dirt, particles in the liquid will build up gradually on the inner screen surface, and differential pressure gradually increases as well. When the differential pressure reaches the preset value, the control system will receive the signal, the self cleaning process begins. A part of filtered liquid (less than 1%) reenters the filter body, the motor drives the brush (scraper) to rotate to clean the screen and effectively remove the contaminants deposited on the screen surface. Meanwhile, the drain valve opens for discharging, the self cleaning process lasts about 12–18 seconds. During the entire self cleaning period, normal filtration part will be continuous with very low flow rate fluctuation.



WEDGE WIRE SELF CLEANING FILTER

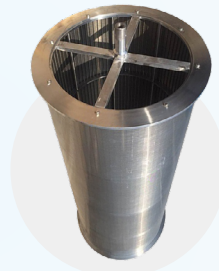
Top Type



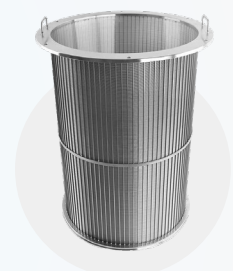
Flange top



Metal ring top



Cross bar top



Handle top

WEDGE WIRE SELF CLEANING FILTER

With or Without Reinforcing Rings



Without reinforcing ring



With one reinforcing ring



With double reinforcing rings



With multiple reinforcing rings

WEDGE WIRE SELF CLEANING FILTER

Specification

Material: stainless steel (304, 316L, etc.), Hastelloy, etc.

Filter rating: 50–3000 µm

Filter construction: V-shaped wedge wire screen

Connection: flange, metal ring

Wedge wire (mm): 0.5 × 1.5, 0.75 × 1.5, 1 × 2, 1.5 × 2, 2 × 3, 2 × 4, 3 × 5

Support rod (mm): 1.5 × 2.5, 1.8 × 2.5, 2 × 3, 2 × 4, 3 × 5, 3 × 6, 3 × 10, 4 × 7

Working pressure: 0.25–2.5 MPa

Operating temperature: 0–65 °C

Self cleaning period: 12–18 seconds



Wedge Wire Self Cleaning Filter

Model	Diameter (mm)	Length (mm)	Filter Area (m ²)
BD-WSC-20-40	200	400	0.50
BD-WSC-30-60	300	600	1.13
BD-WSC-40-80	400	800	2.01
BD-WSC-50-100	500	1000	3.14
BD-WSC-60-120	600	1200	4.52
BD-WSC-70-140	700	1400	6.15
BD-WSC-80-160	800	1600	8.04
BD-WSC-90-180	900	1800	10.17
BD-WSC-100-200	1000	2000	12.56

Notes: Other specifications are available upon request.

WEDGE WIRE SELF CLEANING FILTER

Features & Application

Features

- High mechanical strength, can withstand large differential pressure
- Continuous slot structure, large filter area
- V-shape opening makes it easy cleaning and not easy to clog
- Simple structure, easy removal
- Continuous filtration without interrupting the production
- Little water consumption during the cleaning period

Application



Water Treatment

- Surface sewage filtration
- Cooling water filtration, etc.



Oil & Gas

- Completion fluid filtration, etc.



Food

- Fermentation broth filtration
- Chocolate liquor filtration, honey filtration, etc.

Sintered Mesh Self Cleaning Filter

Our sintered mesh self cleaning filter is provided with a perforated metal layer to meet the impurities removal requirements of automatic self cleaning filters.

Sintered mesh self cleaning filter is a filter element constructed of multiple layers of woven mesh and an outer perforated metal sheet by sintering. It is installed in automatic self cleaning filters to intercept suspended solids and particles in the fluid, reduce turbidity and remove system impurities, thus purifying the water quality. It features good air permeability, high mechanical strength, and great self cleaning effect, and is widely used in the automatic self cleaning filters in petroleum, paper & pulp, chemical, natural gas, food, and water treatment industries.

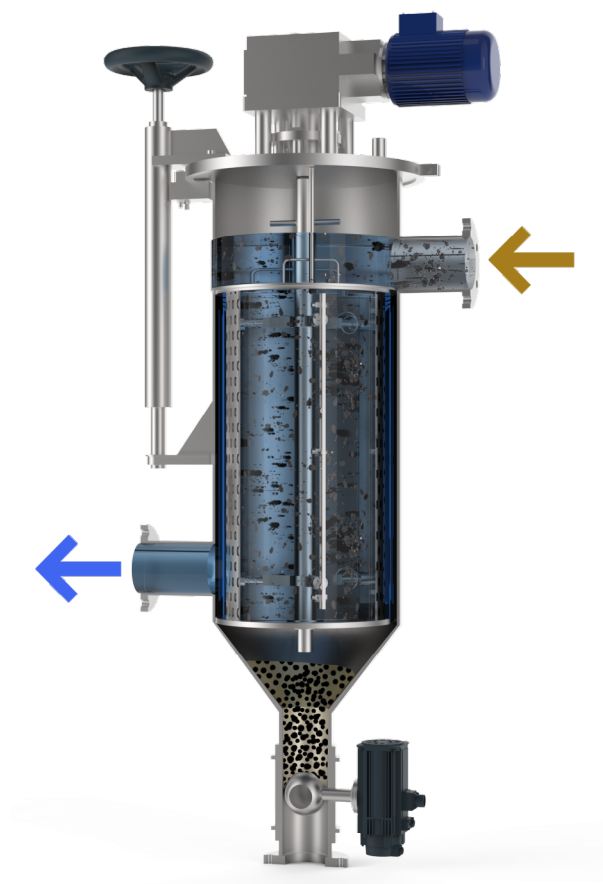
Sintered mesh self cleaning filters are made of stainless steel, Hastelloy or other alloys. We can choose the right material to perfectly match up with your filtration environments.



SINTERED MESH SELF CLEANING FILTER

Working Principle

The liquid enters the self cleaning filter and passes through the wedge wire screen inside to start the filtration process. Various dirt, particles in the liquid will build on gradually on the inner screen surface, and differential pressure gradually increases as well. When the differential pressure reaches the preset value, the control system will receive the signal, the self cleaning process begins. A part of filtered liquid (less than 1%) reenters the filter body, the motor drives the brush (scraper) to rotate to clean the screen and effectively remove the contaminants deposited on the screen surface. Meanwhile, the drain valve opens for discharging, the self cleaning process lasts about 12–18 seconds. During the entire self cleaning period, normal filtration part will be continuous with very low flow rate fluctuation.



SINTERED MESH SELF CLEANING FILTER

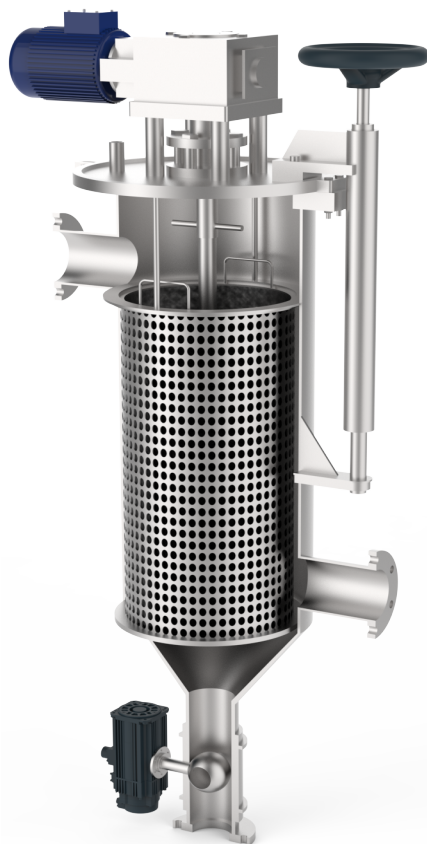
Specification

Material: stainless steel (304, 316L, etc.), Monel, Hastelloy, etc.

Connection: perforated metal sintered mesh

Max. operating temperature: 480 °C

Filter rating: 2–500 µm



Sintered Mesh Self Cleaning Filter

Model	Diameter (mm)	Length (mm)	Filter Area (m ²)
BD-SSC-8-20	80	200	0.10
BD-SSC-16-40	160	400	0.40
BD-SSC-24-60	240	600	0.90
BD-SSC-32-80	320	800	1.61
BD-SSC-40-100	400	1000	2.51

Notes: Other specifications are available upon request.

SINTERED MESH SELF CLEANING FILTER

Features & Application

Features

- High mechanical strength, durable
- Stable pore size
- Stable filter rating
- Simple structure, easy removal
- Corrosion resistance, acid and alkali resistance
- Good cleaning effect

Application



Water Treatment

- Surface sewage filtration
- Cooling water filtration, etc.



Chemical

- Soften glycol wastewater filtration
- Adhesive filtration, etc.



Food

- Fermentation broth filtration
- Chocolate liquor filtration, honey filtration, etc.

03.2

FLUID FILTRATION

Backwash Filter



During industrial production, suspended solids, particles and other contaminants in the fluid will accelerate the wear and tear of system components, pipelines and valves, resulting in premature failure of these facilities. Besides, the contaminants in the fluid will inevitably impair the quality of final products, so fluid filtration is a necessary. Backwash filter can effectively remove solid particles and protect downstream key equipment. In addition, wedge wire backwash filter achieves automatic backwashing through filtrate inside the filter housing, while tubular backwash filter achieves automatic backwashing through filtrate inside the filter or by introducing clean water or gas. Its multi-core or multiple connected structure ensures uninterrupted filtration during backwashing, reduces downtime and improves filtration efficiency.

How Boedon Solve?

Boedon offers both wedge wire backwash filters and tubular backwash filters. These filters are made of high quality wedge wires and support wires to effectively remove solid particles in the fluid and protect the downstream key equipment to ensure the efficient operation of the equipment. In addition, we can recommend the right filter size and materials to perfectly match up with your application according to your backwash filter model and working environments.

What Boedon Supply?



Wedge Wire Backwash Filter

- Uninterrupted filtration during backwashing
- High filter rating, stable water quality
- High strength and good corrosion resistant filter material
- For oil & gas, metallurgy, water treatment industries, etc.



Tubular Backwash Filter

- High strength wedge wire screen
- Highly precise V-shaped slot size, low pressure drop
- Multiple connected for continuous filtration during backwashing
- 2 backwashing mode options
- For water treatment, petroleum, metallurgy industries, etc.

Wedge Wire Backwash Filter

Wedge wire backwash filter can effectively filter out solid particles and suspended solids from water or low viscous liquids.

Wedge wire backwash filter is a filter element constructed of high quality V-shaped wedge wires and support wires. It is generally installed in backwash filter housings in a way of multi-core forms, aiming to remove solid particle contaminants from various kinds of water and low viscous liquids and making sure the cleanliness of liquids meets the requirements of system operation and downstream process. In this way, it also protects the downstream key equipment, ensures the efficient operation of key equipment and extends its service life. Therefore, it is widely used in the backwash filters in oil & gas, water treatment industries, etc.

Wedge wire backwash filters are made of stainless steel, duplex stainless steel, Monel, etc. We can choose the right filter material to perfectly suit to your application according to your filter media.

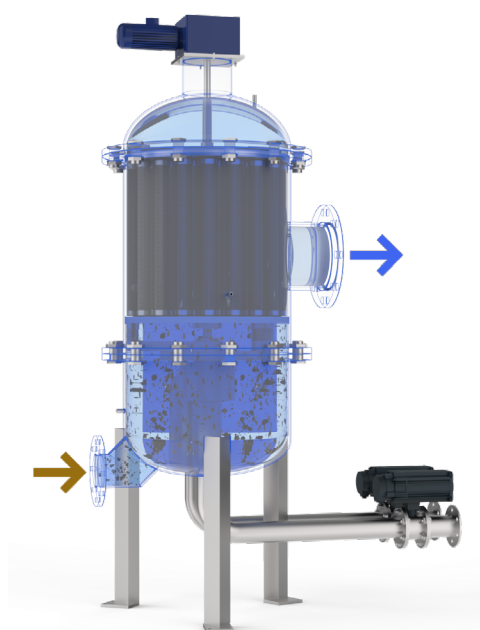


WEDGE WIRE BACKWASH FILTER

Working Principle

Filtering Status.

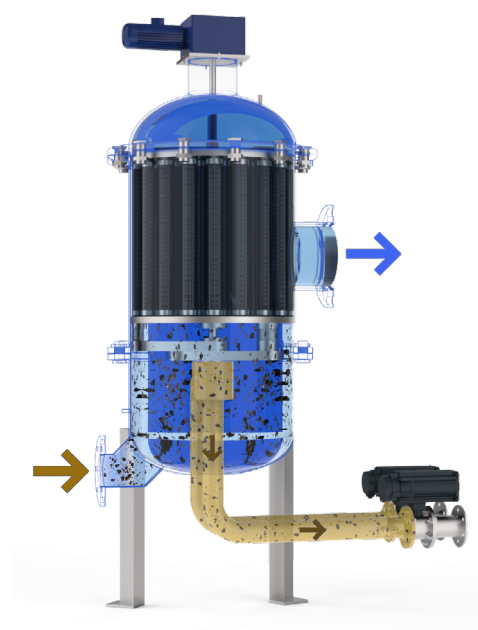
The liquid containing impurities flows inside from the filter inlet. Part of the liquid flows inside directly from the filter lower end and the other part flows through the central distribution tube into the filter upper end and then flows inside the filter element from the upper end. The filter element begins filtration from the upper and lower ends at the same time. The filtered clean liquid flows out from the filter outlet through the internal surface of the filter element. Contaminants are intercepted by the filter elements and the filter cake slowly accumulates, which leads to gradual pressure drop increase and flux decrease.



Filtering Status

Backwashing Status.

When the pressure drop or time reaches the preset value, the automatic self cleaning sequence will be triggered. The gear motor drives the backwashing rotation arm to aim at the filter element. The upper end of the filter element is covered by the sliding block and the lower end is coupled to the backwashing nozzle. The backwashing valve opens. The differential pressure between the filter element's outside and the backwashing outlet makes the outer clean liquid reversely flush the inner surface of the filter element at high speed. The filter cake is dislodged and purged through the sewage pipe. After all filter elements have been cleaned, the backwashing sequence is finished.



Backwashing Status

WEDGE WIRE BACKWASH FILTER

Specification

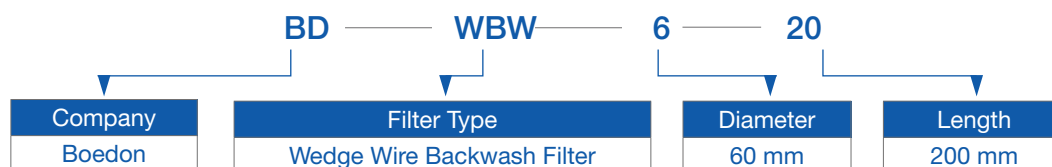
Material: stainless steel (304, 316L, etc.), duplex stainless steel (2205, 2507), Monel, etc.

Applicable liquids: all kinds of raw water, cooling water, process water and low viscous liquids (< 40 cps), TSS < 300 ppm.

Filter rating: 50–2000 μm

Operating temperature: 0–95 °C

Backwashing differential pressure: 0.05 MPa–0.07 MPa



Wedge Wire Backwash Filter

Model	Diameter (mm)	Length (mm)	Filter Area (m ²)
BD-WBW-6-20	60	200	0.08
BD-WBW-12-40	120	400	0.30
BD-WBW-18-60	180	600	0.68
BD-WBW-24-80	240	800	1.21
BD-WBW-30-10	300	1000	1.88
BD-WBW-36-120	360	1200	2.71
BD-WBW-42-140	420	1400	3.69
BD-WBW-48-160	480	1600	4.82
BD-WBW-54-180	540	1800	6.10
BD-WBW-60-200	600	2000	7.54

Notes: Other specifications are available upon request.

WEDGE WIRE BACKWASH FILTER

Features & Application

Features

- Uninterrupted filtration during backwashing
- High strength and good corrosion resistant filter material
- V-shaped opening structure, not easy to clog
- Multi-core structure, large filter area
- High filter rating, stable water quality
- Short backwashing period, less water consumption

Application



Water Treatment

- Boiler feed water filtration, etc.



Oil & Gas

- Injection water filtration, etc.



Metallurgy

- Mill coolant filtration, etc.

Tubular Backwash Filter

Tubular backwash filter adopts V-shaped wedge wire screens to effectively remove solid particles in fluids and is easy to backwash.

Tubular backwash filter is mainly constructed of V-shaped wedge wire screens. It is installed in tubular backwash filter housings, aiming to remove suspended solid contaminants from various low viscous liquids such as raw water, sewage water, gasoline and diesel. It purifies the fluid and protects the downstream key equipment, and is widely used in the backwash filters in petrochemical, water treatment and other fluid filtration applications.

Tubular backwash filters are made of stainless steel, Monel and other alloys. We can choose the right filter material to perfectly match up with your applications according to your filtration environments.

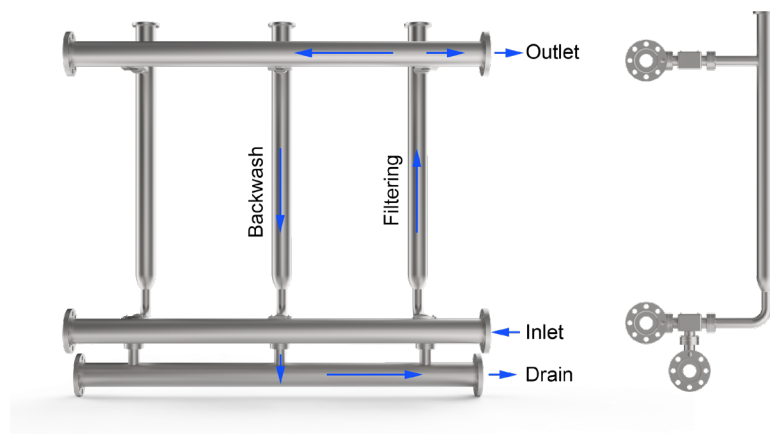


TUBULAR BACKWASH FILTER

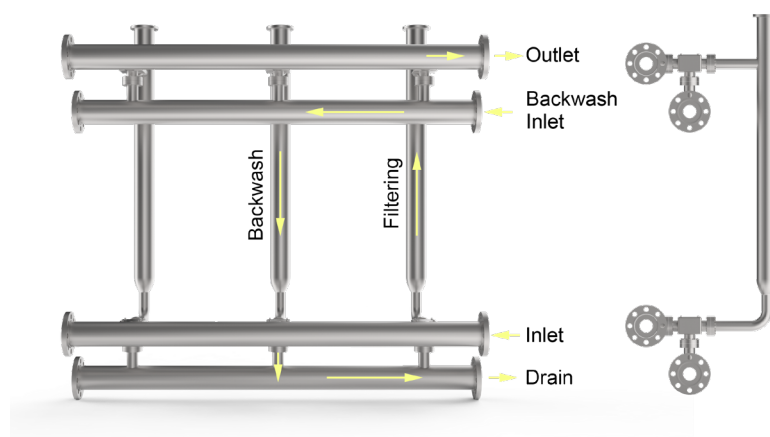
Working Principle

Two or more tubular backwash filters are generally connected for continuous operation. The fluid enters from the filter inlet and impurities in the fluid are trapped on the surface of the filter element, and clean liquid flows out from the filter outlet. When the system reaches the preset pressure value, the backwashing sequence is triggered. At that time, there are 2 backwashing modes for you to choose from. One is internal backwashing mode by using the system's filtrate to clean the inner surface of the filter element from the upper direction, and impurities fall off from the inner surface and are discharged from the drain; The other one is external backwashing mode by introducing external clean water or gas to backwash the filter element. All filter elements are backwashed one by one, and will not interrupt the normal filtration of the fluid.

Internal Backwashing



External Backwashing



TUBULAR BACKWASH FILTER

Specification

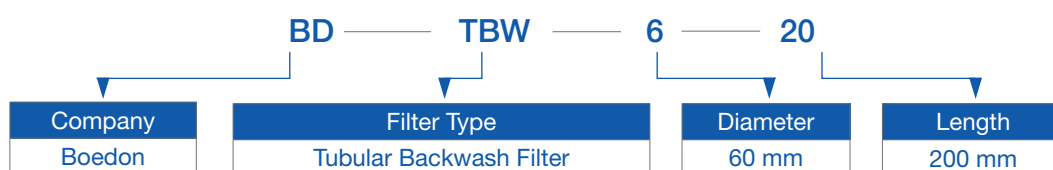
Material: stainless steel: stainless steel (304/316L, etc.), Monel, etc.

Applicable viscosity: < 50 cps

Filter rating: 50–2000 µm

Operating temperature: 0–250 °C

Backwash differential pressure: 70 kPa–130 kPa



Tubular Backwash Filter

Model	Diameter (mm)	Length (mm)	Filter Area (m ²)
BD-TBW-6-20	60	200	0.08
BD-TBW-12-40	120	400	0.30
BD-TBW-18-60	180	600	0.68
BD-TBW-24-80	240	800	1.21
BD-TBW-30-10	300	1000	1.88
BD-TBW-36-120	360	1200	2.71
BD-TBW-42-140	420	1400	3.69
BD-TBW-48-160	480	1600	4.82
BD-TBW-54-180	540	1800	6.10
BD-TBW-60-200	600	2000	7.54

Notes: Other specifications are available upon request.

TUBULAR BACKWASH FILTER

Features & Application

Features

- High strength wedge wire screen
- Highly precise V-shaped slot size, low pressure drop
- Multiple connected for continuous filtration during backwashing
- 2 backwashing mode options
- High filter rating, stable water quality
- Short backwashing period, low water consumption

Application



Water Treatment

- Raw water and process water filtration
- Circulating cooling water filtration, etc.



Oil & Gas

- Diesel and gasoline filtration
- Naphtha filtration, etc.



Metallurgy

- Hot rolling coolant filtration, etc.
- Cold rolling coolant filtration, etc.

INDUSTRIAL FILTRATION

03.3

CHEMICAL FILTRATION



Various production processes of chemical industry are inseparable from filtration, from the raw material impurity removal filtration to material precision filtration, and then to the liquid-liquid coalescence-separation filtration. During the process, choosing the right filter element is a necessary to help achieve product filtration and purification.

In the chemical industry, raw materials always contain acidic or alkaline substances, or corrosive substances. So the material properties must be taken into full consideration when selecting the filter element.

How Boedon Solve?

Boedon offers a variety of filter elements for chemical filtration, including candle filters and coalescer separation filters. Sintered candle filters have excellent corrosion resistance and adopt to the harsh filtration environments of the chemical industry. Coalescer separation filters are used in gas-liquid separation or liquid-liquid separation applications of the chemical industry, thus making the finished products clean and free from impurities.

What Boedon Supply?



Candle Filter



Sintered Mesh Candle Filter



Sintered Felt Candle Filter



Sintered Porous Candle Filter

Coalescer Separation Filter



Coalescer Filter Element



Separator Filter Element

03.3

CHEMICAL FILTRATION

Candle Filter



Filtration is an indispensable part of all chemical processes. From chemical raw material impurities removal and filtration to material fine filtration, proper filter elements are required to finish product filtration and purification.

The chemical raw materials generally contain acid or alkali materials, or other corrosive substances. When choosing the filter element, the property of materials to be filtered and the filtration performance of the filter elements must be taken fully into consideration.

How Boedon Solve?

Candle filter plays an important role in the chemical industry filtration due to its excellent corrosion resistance. Boedon offers 3 types of candle filters, sintered mesh candle filters, sintered felt candle filters and sintered porous candle filters. These candle filters have excellent corrosion resistance and their features vary due to their materials and construction. Customers can choose the right candle filters according to your filtration requirements.

What Boedon Supply?



Sintered Mesh Candle Filter

- Up to 480 °C maximum operating temperature
- Good mechanical strength
- Good stable pore size
- Stable filter rating
- For chemical, pharmaceuticals, plastic, etc.



Sintered Felt Candle Filter

- Up to 1000 °C maximum operating temperature
- High dirt holding capacity
- High porosity
- Easy processing and forming
- For chemical, pharmaceuticals, petroleum, etc.



Sintered Porous Candle Filter

- Up to 500 °C maximum operating temperature
- Good air permeability
- High filter rating
- No particle shedding
- For chemical, pharmaceuticals, metallurgy, etc.

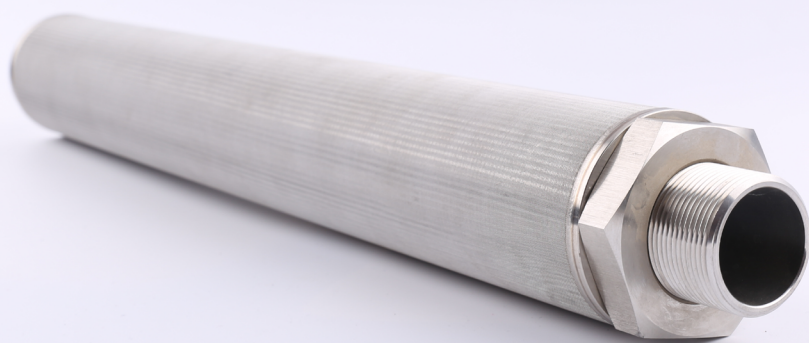
Sintered Mesh Candle Filter

Our anti-corrosion sintered mesh candle filters can meet your filtration requirements of various chemical processes.

Sintered mesh candle filter is generally made of 5-layer 304 or 316L stainless steel woven mesh after special laminating or vacuum sintering. This filter not only has excellent corrosion and high temperature resistance, but also offers high mechanical strength and overall rigidity after laminating and sintering. The mesh opening is not easy to deform and delivers stable filter rating and easy cleaning property during filtration.

The excellent corrosion resistance of the sintered mesh candle filter not only helps to filter out corrosive solids or liquid impurities, but also protects the process equipment and the inner surface of pipeline, thus improving the chemical industrial process and reducing the frequency of regular maintenance operations.

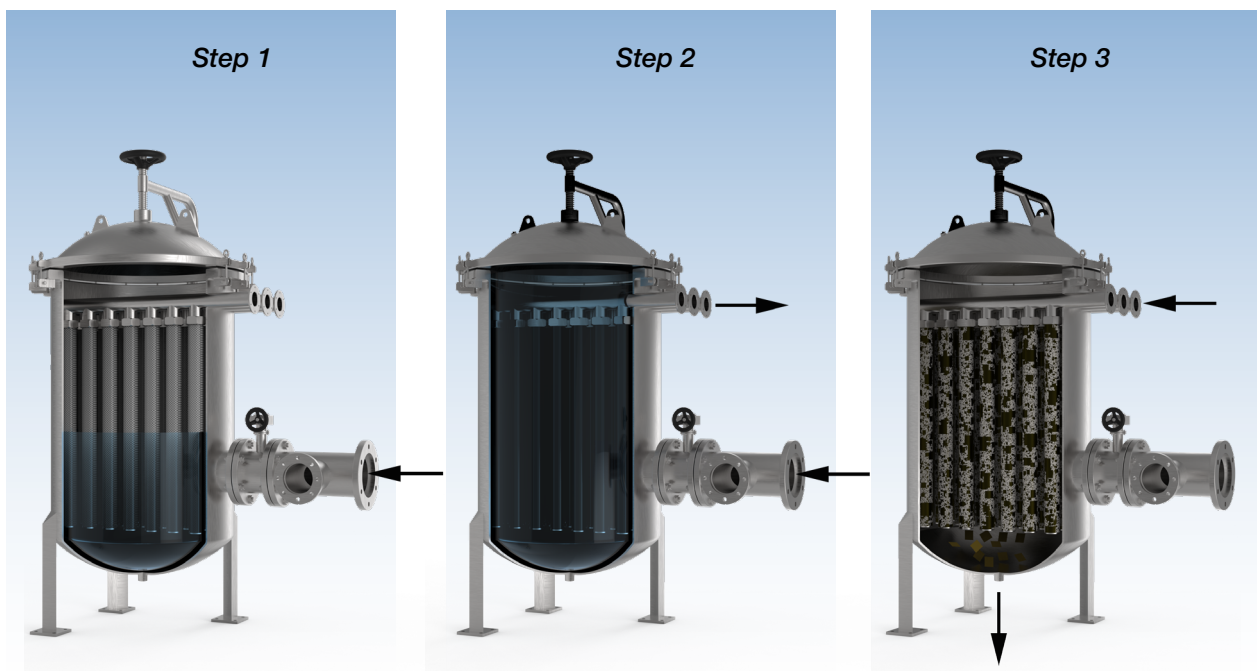
We can offer sintered mesh candle filters made of Hastelloy, Monel and other alloys to meet the various requirements of customers.



SINTERED MESH CANDLE FILTER

Working Principle

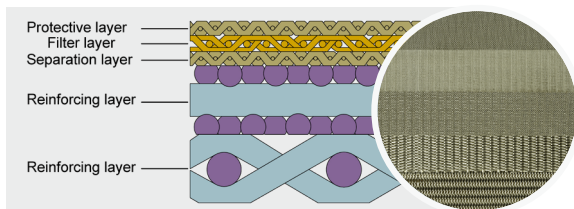
The filtrate enters at the bottom of the filter and moves upward, which helps to keep the solids in suspension so that they are evenly deposited on the surface of the filter elements. Impurities are retained on the surface of filter elements, and clean filtrate is discharged from the filter through the register. When the filter reaches the set pressure value, the control system stops feeding and the residue liquid in the filter is drained out. The backblowing begins. When the backblowing is finished, the dry cake is discharged from residue discharge nozzle. Close the residue discharge nozzle when the dry cake discharging is finished. The surface of the filter elements is clean and ready for the next round of filtration.



SINTERED MESH CANDLE FILTER

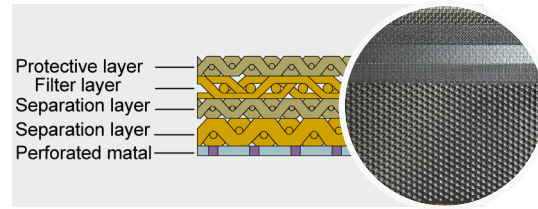
Sintered Mesh Type

Standard 5-Layer Sintered Mesh



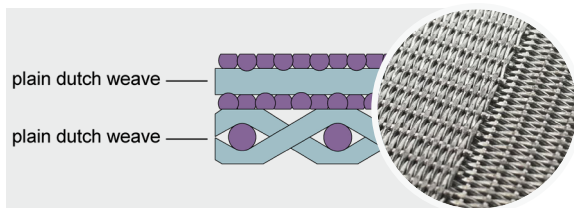
A standard and the most widely used sintered mesh. It is a combination of 5 layers of wire mesh with different openings and mesh counts after laminating and vacuum sintering. Standard 5-layer sintered mesh has higher strength than stainless steel fiber felt, and better air permeability than sintered porous products. We can also offer 6-layer sintered mesh that adds another layer of square weave mesh on the 5-layer sintered mesh to offer higher mechanical strength and compression strength.

Perforated Metal Sintered Mesh



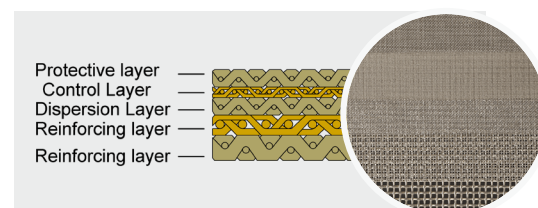
It is fabricated by sintering multiple layers of square weave mesh (or Dutch weave mesh) and stainless steel perforated metal (round or square pattern) together. As a result, it combines the good permeability of woven mesh and the excellent mechanical strength of perforated mesh. In addition, it features great backwashing effect and low pressure lose.

All Dutch Weave Sintered Mesh



It is constructed of two or three layers of plain Dutch weave wire mesh after laminating and sintering. It features uniform opening distribution and stable permeability.

All Square Weave Sintered Mesh



It is made of multiple layers of square plain weave wire mesh after sintering. Square weave wire mesh has square hole opening and high open area rate, so this sintered mesh has excellent permeability, low resistance, high flow rate, etc.

SINTERED MESH CANDLE FILTER

Connection Type

Compared with polymer melt filtration, chemical filtration requires low temperature and low pressure. So, sintered mesh candle filter has a diversity of connection types. Connection types are customized upon request.

- ▶ Standard connection (such as, 222, 226, etc.)
- ▶ Quick opening connection
- ▶ DOE
- ▶ Thread connection (M20, M30, internal thread)
- ▶ Customized connection



226 connector

Quick opening
connector

M20 connector



Internal thread

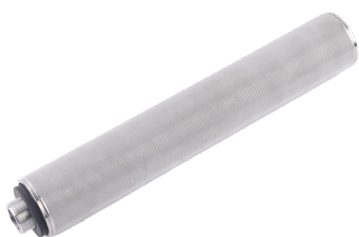


DOE connector

Customized
connector

SINTERED MESH CANDLE FILTER

Shape Type



Cylindrical Sintered Mesh Candle Filter (C series)

- The finished products do not need additional outer protection layer or inner support layer
- Easy to clean
- Compared with pleated candle filter, it features simple processing and low costs.
- Broad availability

Pleated Sintered Mesh Candle Filter (P series)

- It typically offers 3 times the filter area of a cylindrical candle filter for longer runtime.
- Enhanced dirt holding capacity.
- Increased surface area helps to reduce pressure drop.
- Can be cleaned and reused up to 20 times



SINTERED MESH CANDLE FILTER

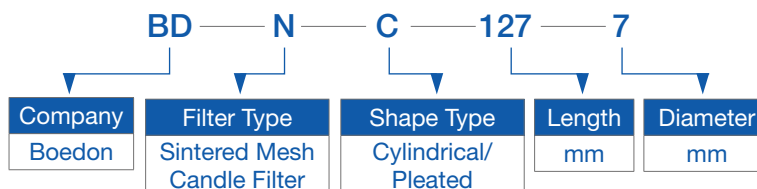
Specification

Material:

stainless steel (304, 316L, etc.), Hastelloy, Monel, etc.

Filter rating: 480 °C

Filter rating: 1–200 µm



Popular Specifications of Sintered Mesh Candle Filter

Model	Size				Filter Area	
	Length		Diameter		ft ²	m ²
	inch	mm	inch	mm		
BD-N-C-127-7	5	127	2.76	70	0.32	0.03
BD-N-P-127-7	5	127	2.76	70	1.10	0.10
BD-N-C-254-7	10	254	2.76	70	0.64	0.06
BD-N-P-254-7	10	254	2.76	70	2.14	0.20
BD-N-C-508-7	20	508	2.76	70	1.17	0.11
BD-N-P-508-7	20	508	2.76	70	3.84	0.36
BD-N-C-762-7	30	762	2.76	70	1.82	0.17
BD-N-P-762-7	30	762	2.76	70	5.98	0.56
BD-N-C-1016-7	40	1016	2.76	70	2.35	0.22
BD-N-P-1016-7	40	1016	2.76	70	7.80	0.73

Notes:

- 65 mm, 80 mm, 110 mm and other diameter sizes are available upon request;
- Length can also be customized upon request.

Sintered Mesh Candle Filter Filtration Performance

Nominal Filter Rating (µm)	Support Layer	Reinforcing Layer	Separation Layer	Filter Layer	Protective Layer	Thickness (mm)	Air Permeability (L/min/cm ²)	Bubble Point Pressure (Pa)	Weight (kg/m ²)	Porosity (%)
1	64 × 12	12 × 64	100	400 × 3000	100	1.7	1.81	360–600	5-layer sintered mesh (8.4); 6-layer sintered mesh (14.4)	
2	64 × 12	12 × 64	100	325 × 2300	100	1.7	2.35	300–590		
5	64 × 12	12 × 64	100	200 × 1400	100	1.7	2.42	260–550		
10	64 × 12	12 × 64	100	165 × 1400	100	1.7	3.00	220–500		
15	64 × 12	12 × 64	100	165 × 1200	100	1.7	3.41	200–480		
20	64 × 12	12 × 64	100	165 × 800	100	1.7	4.50	170–450		
25	64 × 12	12 × 64	100	165 × 600	100	1.7	6.12	150–410		
30	64 × 12	12 × 64	100	400	100	1.7	6.86	120–390		
40	64 × 12	12 × 64	100	325	100	1.7	7.10	100–350		
50	64 × 12	12 × 64	100	250	100	1.7	8.41	90–300		
75	64 × 12	12 × 64	100	200	100	1.7	8.70	80–250		
100	64 × 12	12 × 64	100	150	100	1.7	9.10	70–190		

Notes: A 12 mesh woven mesh is added on the 5-layer sintered mesh to form a 6-layer sintered mesh with a thickness of 3.5 mm and better compression resistance.

SINTERED MESH CANDLE FILTER

Features & Application

Features

- Better mechanical strength
- Reliable quality, large particle filtration
- Good cleaning property
- Stable opening size
- Stable filter rating
- Excellent resistant to acids, alkalis and high temperatures

Application



Chemical

- High temperature filtration
- Corrosive liquid filtration
- Catalytic gas filtration



Pharmaceutical

- Material impurities removal and filtration
- Material washing & drying
- Acid gas dry dedusting



Plastic & Plastic Recycling

- Plastic waste recycling
- Impurities removal during plastic film production
- Polymer melt filtration at high temperatures

Sintered Felt Candle Filter

We offer a variety of sintered felt candle filters to meet your filtration requirements of various chemical processes.

Sintered felt candle filter is made of stainless steel (304, 316L, etc.), FeCrAl and other metal fibers with a diameter of micro rating by sintering in high temperature and welding after special non-woven laying and laminating. Multilayer sintered felt is composed of different pore size layers to form gradient and deliver higher porosity, permeability, filter rating and dirt holding capacity than single layer sintered felt. It can be pleated to increase the filter area and improve the filtration efficiency.

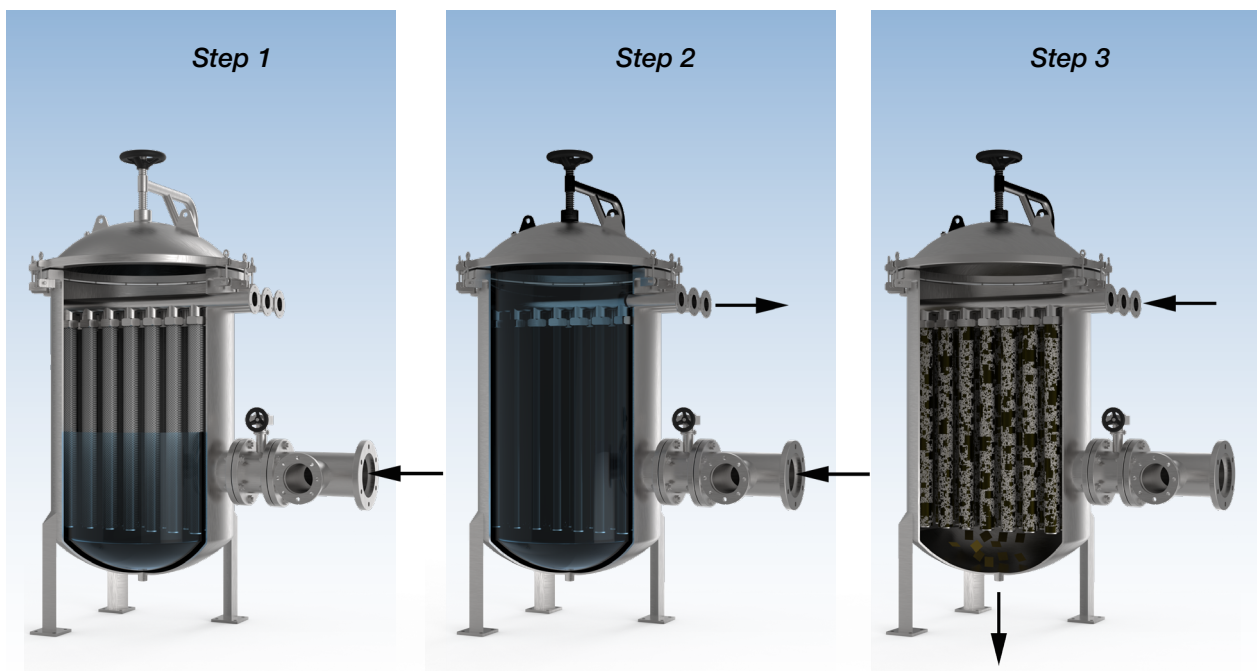
Sintered felt candle filter plays an important role in the filtration applications of various industries due to its precise filter rating.



SINTERED FELT CANDLE FILTER

Working Principle

The filtrate enters at the bottom of the filter and moves upward, which helps to keep the solids in suspension so that they are evenly deposited on the surface of the filter elements. Impurities are retained on the surface of filter elements, and clean filtrate is discharged from the filter through the register. When the filter reaches the set pressure value, the control system stops feeding and the residue liquid in the filter is drained out. The backblowing begins. When the backblowing is finished, the dry cake is discharged from residue discharge nozzle. Close the residue discharge nozzle when the dry cake discharging is finished. The surface of the filter elements is clean and ready for the next round of filtration.



SINTERED FELT CANDLE FILTER

Shape Type



Cylindrical Sintered Felt Candle Filter

- The finished products do not need additional outer protection layer or inner support layer
- Easy to clean
- Compared with pleated candle filter, it features simple processing and low costs.
- Broad availability

Pleated Sintered Felt Candle Filter

- It typically offers 3–5 times the filter area of a cylindrical candle filter for longer runtime.
- Enhanced dirt holding capacity.
- Increased surface area helps to reduce pressure drop.
- Can be cleaned and reused up to 20 times



SINTERED FELT CANDLE FILTER

Connection Type

- ▶ Standard connection (such as, 222, 226, etc.)
- ▶ Quick opening connection
- ▶ DOE
- ▶ Thread connection (M20, M30, internal thread)
- ▶ Customized connection



226 connector



DOE



Internal thread



Customized connector

SINTERED FELT CANDLE FILTER

Specification

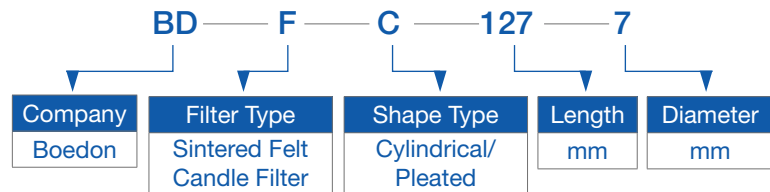
Material: stainless steel (304, 316L, 314, etc.), FeCrAl, etc.

Max. operating temperature: 600 °C; FeCrAl: 1000 °C.

Filter rating: 1–60 µm

Porosity: about 85%

Max. differential pressure: 6.9 MPa



Popular Specifications of Sintered Felt Candle Filter

Model	Size				Filter Area	
	Length		Diameter		ft ²	m ²
	inch	mm	inch	mm		
BD-F-C-127-7	5	127	2.76	70	0.32	0.03
BD-F-P-127-7	5	127	2.76	70	1.10	0.10
BD-F-C-254-7	10	254	2.76	70	0.64	0.06
BD-F-P-254-7	10	254	2.76	70	2.14	0.20
BD-F-C-508-7	20	508	2.76	70	1.17	0.11
BD-F-P-508-7	20	508	2.76	70	3.84	0.36
BD-F-C-762-7	30	762	2.76	70	1.82	0.17
BD-F-P-762-7	30	762	2.76	70	5.98	0.56
BD-F-C-1016-7	40	1016	2.76	70	2.35	0.22
BD-F-P-1016-7	40	1016	2.76	70	7.80	0.73

Notes:

- 65 mm, 80 mm, 110 mm and other diameter sizes are available upon request;
- Length can also be customized upon request.

Sintered Felt Candle Filter Filtration Performance

Absolute Filter Rating (µm)	Bubble Point Pressure (Pa)	Average Air Permeability (L/dm ² /min)	Thickness (mm)	Weight (g/m ²)	Porosity (%)	Dirt Holding Capacity (mg/cm ²)
3	12300	9	0.35	975	65	6.40
5	7600	34	0.34	600	78	5.47
7	5045	57	0.27	600	72	6.47
10	3700	100	0.32	600	77	7.56
15	2470	175	0.37	600	80	7.92
20	1850	255	0.49	750	81	12.44
25	1480	320	0.61	1050	79	19.38
30	1235	455	0.63	1050	79	23.07
40	925	580	0.66	1200	77	25.96
60	630	1000	0.70	750	87	33.97

SINTERED FELT CANDLE FILTER

Features & Application

Features

- Higher dirt holding capacity, longer replacement cycle
- Working at 600 °C for long term operation
- High porosity, good air permeability, low differential pressure
- High strength, good high temperature and corrosion resistance
- Good regeneration capacity and can be repeatedly washed and used
- Easy processing, forming and welding

Application



Chemical

- Feed solution impurities removal and filtration
- Catalyst recovery



Pharmaceutical

- Material decarbonization, decolorization and precision filtration
- Sterile air preparation and steam filtration



Oil & Gas

- Petroleum products terminal filtration, etc.
- Polymer filtration, etc.

Sintered Porous Candle Filter

We can offer **sintered porous candle filter** with good air permeability and stable separation effect to meet your **chemical filtration demands**.

Sintered porous candle filter, also known as sintered powder candle filter, is made of sintered metal powder after pressing, forming and high temperature sintering, featuring stable shape, good air permeability and great separation effect.

The pore size, distribution, strength and air permeability of the sintered porous candle filter depends on the powder fineness, compacting and sintering processes. Our sintered porous candle filter achieves a filter rating of 0.1–100 μm .

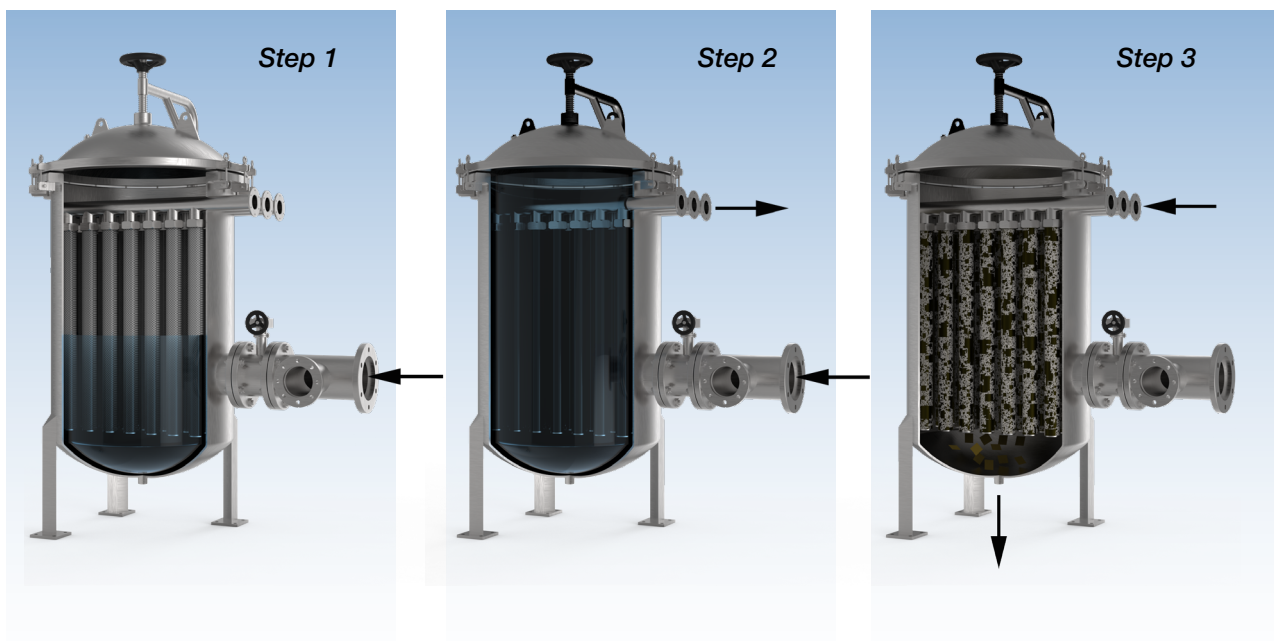
The most commonly used sintered metal materials are stainless steel and bronze. In addition, titanium, nickel, Monel and other materials are available upon request.



SINTERED POROUS CANDLE FILTER

Working Principle

The filtrate enters at the bottom of the filter and moves upward, which helps to keep the solids in suspension so that they are evenly deposited on the surface of the filter elements. Impurities are retained on the surface of filter elements, and clean filtrate is discharged from the filter through the register. When the filter reaches the set pressure value, the control system stops feeding and the residue liquid in the filter is drained out. The backblowing begins. When the backblowing is finished, the dry cake is discharged from residue discharge nozzle. Close the residue discharge nozzle when the dry cake discharging is finished. The surface of the filter elements is clean and ready for the next round of filtration.



SINTERED POROUS CANDLE FILTER

Connector Type

Compared with polymer melt filtration, chemical filtration requires low temperature and low pressure. So, sintered porous candle filter has a diversity of connection types. Connection types are customized upon request.

- ▶ Standard connection (such as, 215, 222, 226)
- ▶ Thread connection (M20, M30, M32, M42, etc.)
- ▶ DOE
- ▶ Customized connection



SINTERED POROUS CANDLE FILTER

Specification

Material: stainless steel (304, 316L, etc.), bronze, nickel, Monel, etc.

Max. operating temperature: 500 °C

Filter rating: 0.1–100 µm

Porosity: 30%–40%

Compressive strength: 3 MPa

Max. differential pressure: 0.6 MPa

	BD	SP	127	7
	↓	↓	↓	↓
Company	Filter Type		Length	Diameter
Boedon	Sintered Porous Candle Filter		mm	mm

Popular Specifications of Sintered Porous Candle Filter

Model	Size				Filter Area	
	Length		Diameter		ft ²	m ²
	inch	mm	inch	mm		
BD-SP-127-7	5	127	2.76	70	0.32	0.03
BD-SP-254-7	10	254	2.76	70	0.64	0.06
BD-SP-508-7	20	508	2.76	70	1.17	0.11
BD-SP-762-7	30	762	2.76	70	1.82	0.17
BD-SP-1016-7	40	1016	2.76	70	2.35	0.22

Notes:

- 65 mm, 80 mm, 110 mm and other diameter sizes are available upon request
- Length can also be customized upon request.

SINTERED POROUS CANDLE FILTER

Features & Application

Features

- Uniform pore sizes, suitable for fluid distribution and other applications requiring high uniformity
- Good air permeability low pressure loss, great separation effect
- High filter rating, effectively suspended solids and particles removal, great purification effect
- No particle shedding, avoiding the secondary pollution of reed solution
- Good mechanical strength, great rigidity and plasticity
- Excellent resistant to high temperatures, high pressures and corrosion

Application



Chemical

- Liquid products and liquid raw material filtration in chemical industry
- High temperature and highly corrosive substances filtration in chemical industry



Pharmaceutical

- Ultrafine crystal and catalyst filtration and recovery
- Material decarbonization filtration and fine filtration



Metallurgy

- High temperature fuel gas purification
- Petroleum, thermal power generation and other high temperature fuel gas dust removal applications

03.3

CHEMICAL FILTRATION

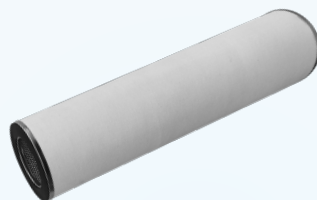
Coalescer Separation Filter



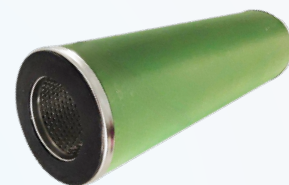
In the chemical industry, oil-water separation or gas-liquid separation is required to ensure the products are free from impurities and trace droplets. Therefore, chemical compatibility and hydrophilic or hydrophobic properties of filter material must be taken into fully consideration. Coalescer separation filter is mainly used in liquid-liquid separation and gas-liquid separation applications, aiming to filter out trace droplets (water or oil) and solid particles from gases, or remove another dispersion from liquid. So, it can classify and purify various media and effectively protect downstream crucial equipment.

How Boedon Solve?

Boedon offers coalescer filter elements made of polyester layer or glass fiber layer after special processing. It has good compatibility with various liquids and its multilayer composite structure can effectively filter out solid impurities and coalesce small droplets into larger droplets. Separator filter elements are made of Teflon with natural oleophilic and hydrophobic properties to effectively retain and capture larger droplets and ensure the smooth passing through of oil liquid.

What Boedon Supply?**Coalescer Filter Element**

- Multilayer composite structure filter paper is used for high filtration precision
- Filter material after special processing is adopted to provide good coalescing effect.
- High dirt holding capacity, long lifespan.
- For petrochemical, metallurgy, chemical industries, etc.

**Separator Filter Element**

- Teflon with good water resistance is adopted to create good separation effect.
- Carbon steel inner frame support is provided for long lifespan.
- Good lipophilic property allows clean oil to pass through smoothly.
- For petrochemical, metallurgy, chemical industries, etc.

Coalescer Filter Element

The hydrophilic property of coalescer filter element allows it to coalesce small droplet into larger drops in liquid-liquid separation applications in chemical industry.

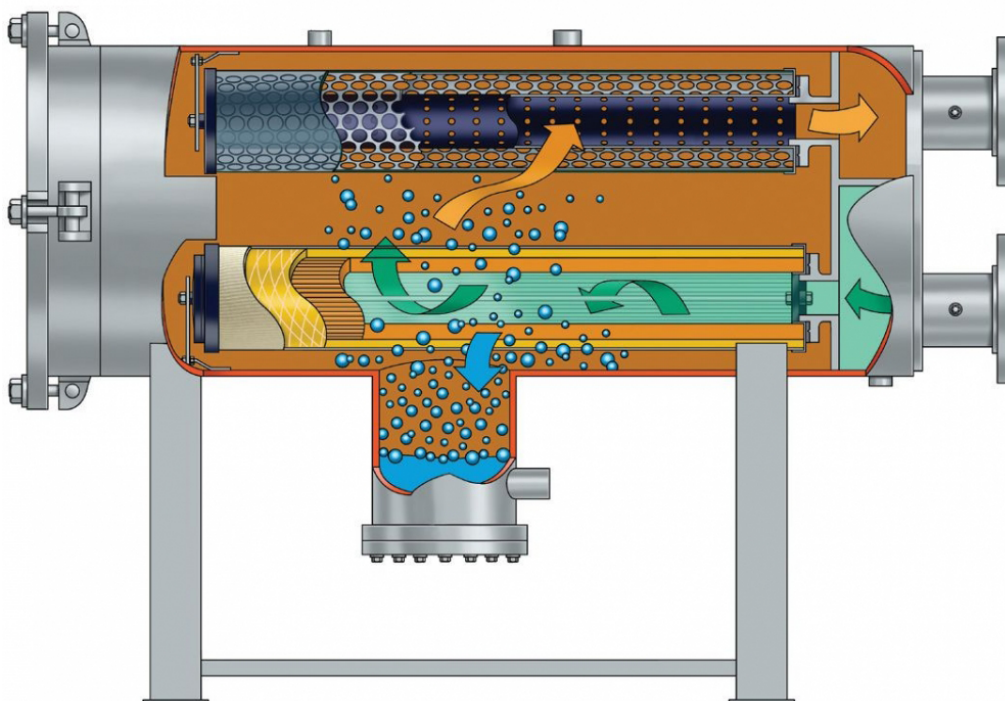
Coalescer filter element is constructed of multiple composite materials after special processing. It has good hydrophilic property and is mainly used in gas-liquid separation and liquid-liquid separation applications in the chemical industry. It not only removes solid particles from gases, but also separates trace liquid droplets (water droplets or oil droplets) from the gas through demulsification, and coalesces these small droplets into larger droplets for further medium purification.



COALESCER FILTER ELEMENT

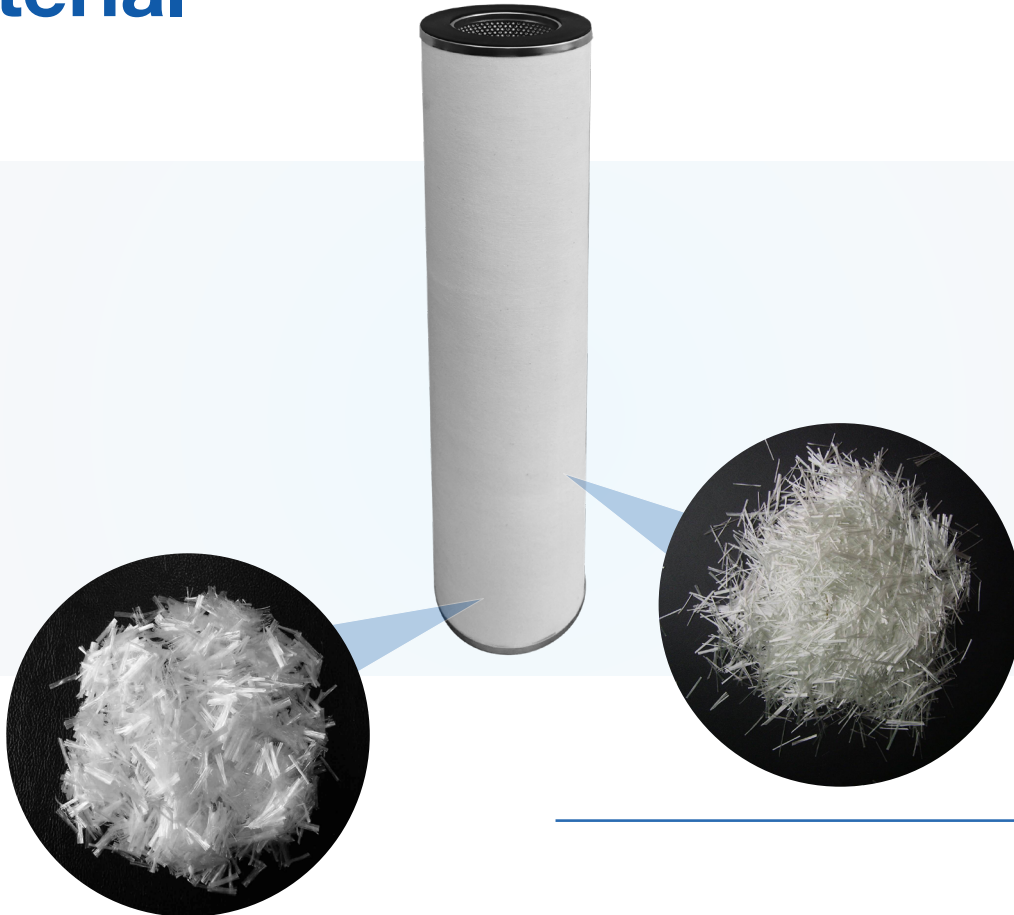
Working Principle

The medium enters the coalescer filter shell and is distributed to each coalescing filter element by the coalescing filter tray. The liquid flows from inside to outside of the coalescer filter element. Firstly, the liquid passes through the filter layer and filters out solid impurities, and then flows through the demulsification layer and separates the emulsified water from oil. Finally, small droplets coalesce on the coalescence layer and forms larger droplets. The larger droplets settle to the bottom of the shell due to gravity. The whole filtration process of the coalescer filter element is finished.



COALESCER FILTER ELEMENT

Material



Polyester Fiber Coalescer Filter Element

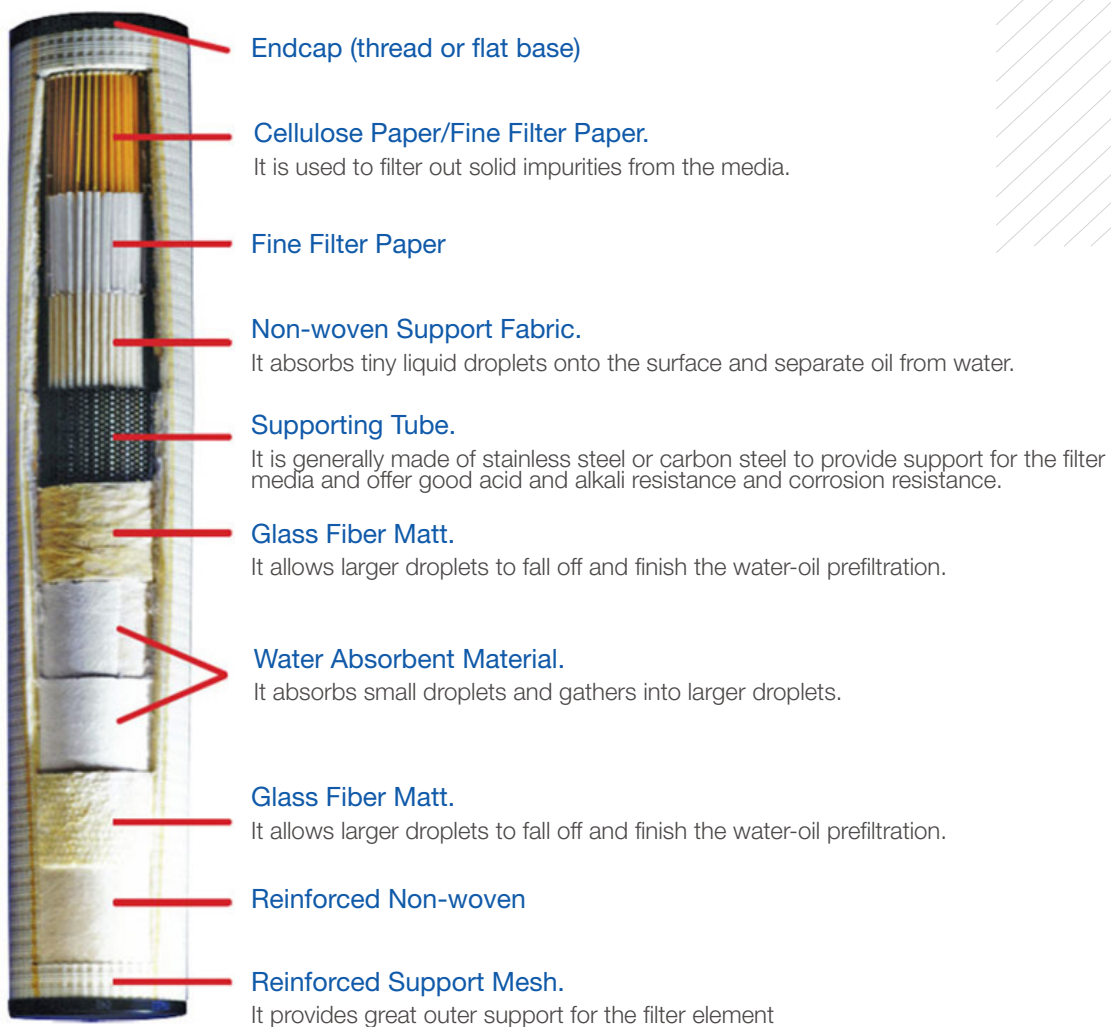
It is usually made of synthetic polyester fiber that has good compatibility with various fluids. The filter cartridge is spirally rolled in a multi-layer structure, with each layer using fibers of different properties. The desired filter rating is achieved by controlling parameters such as the shape, size, thickness and density of each fiber layer.

Glass Fiber Coalescer Filter Element

It is made of high density gradient glass fiber that can efficiently coalesce liquid mists and liquid droplets in the airflow with high filtration precision. In addition, it has a stable structure, no media fiber shedding, no pollution to the environment and downstream products. It has good compatibility with various fluids, and good environmental protection property.

COALESCER FILTER ELEMENT

Structure



COALESCER FILTER ELEMENT

Pleat Type



COALESCER FILTER ELEMENT

End Cap Type

As coalescer filter element filters out impurities from inside to outside and then coalesces tiny droplets, so it is single open ended. Generally, bolt in end caps or end caps with a handle are adopted for the sealing end while flat end caps or threaded end caps are used for the opening end.

The end caps are made of integral thermally bonded polyester, polypropylene, or metal. As for filter elements with a metal flat end cap, their seal rings can be constructed of NBR, Viton, EPDM or silicone rubber. Customers can customize the end cap type and seal material according to their needs.



End cap with a seal ring
Offers good seal effect.



Thread connection
Makes the filter element installation more stable.



Seal end bolt connection
Makes the filter element installation firmer.



Coalescer filter element with a handle end cap
Makes the installation and removal easier and faster.

COALESCER FILTER ELEMENT

Specification

Filter rating: < 0.3 μm , 0.3 μm , 0.5 μm , 1 μm , 5 μm , 10 μm .

Initial differential pressure: < 0.05 MPa

Water separation capability: water content \leq 0.05%

Dirt holding capacity: 1.3 g (L/min)

Fuel cleanliness after filtration:

- Free and emulsified water content: diesel < 50 ppm, jet fuel/avgas < 15 ppm
- Solid impurity content: < 0.26 mg/L
- Fiber content: < 10 PCS/L

Operating differential pressure: 0.1 MPa

Construction strength: 0.7 MPa

Recommended operating temperature: 115 $^{\circ}\text{C}$

	BD	C	29
▼	▼	▼	▼
Company	Filter Type		Length
Boedon	Coalescer Filter Element		mm

Specifications of Coalescer Filter Element

Model	Length (mm)	Inner Diameter (mm)	Outer Diameter (mm)
BD-C-29	290	89	152
BD-C-58	580	89	152
BD-C-73	730	89	152
BD-C-86	860	89	152
BD-C-114	1140	89	152
BD-C-145	1450	89	152

Notes: Other specifications are available upon request.

Features & Application

Features

- Multilayer composite structure filter paper is used for high filtration precision
- Filter material after special processing is adopted to provide good coalescing effect.
- High dirt holding capacity, long lifespan

Replacement Conditions

- Pressure rises. It may lead to reduced flow rate and affect the fluid flowing.
- Damaged end cap. It may result in plastic chips circulating in the filter and further leading to filtration failure.
- Flattened pleats. Contaminants in the coalescer filter element are saturated, hindering the fluid flowing
- Damaged filter media. It may cause the contaminants flowing through the fluid.

Application



Oil & Gas

- Jet fuel
- Gasoline, diesel, kerosene
- Turbine oil
- Lubricating oil filtration
- Natural gas filtration, etc.



Metallurgy

- Rolling mill and continuous casting machine hydraulic system filtration
- Various lubricating equipment filtration



Chemical

- Cyclohexane
- Isopropanol
- Cycloethanol
- Cycloacetophenone
- Other hydrocarbon compound filtration

Separator Filter Element

The hydrophobic property of **separator filter element** makes it effectively prevent droplets not coalesced on the **coalescer filter** element from passing through.

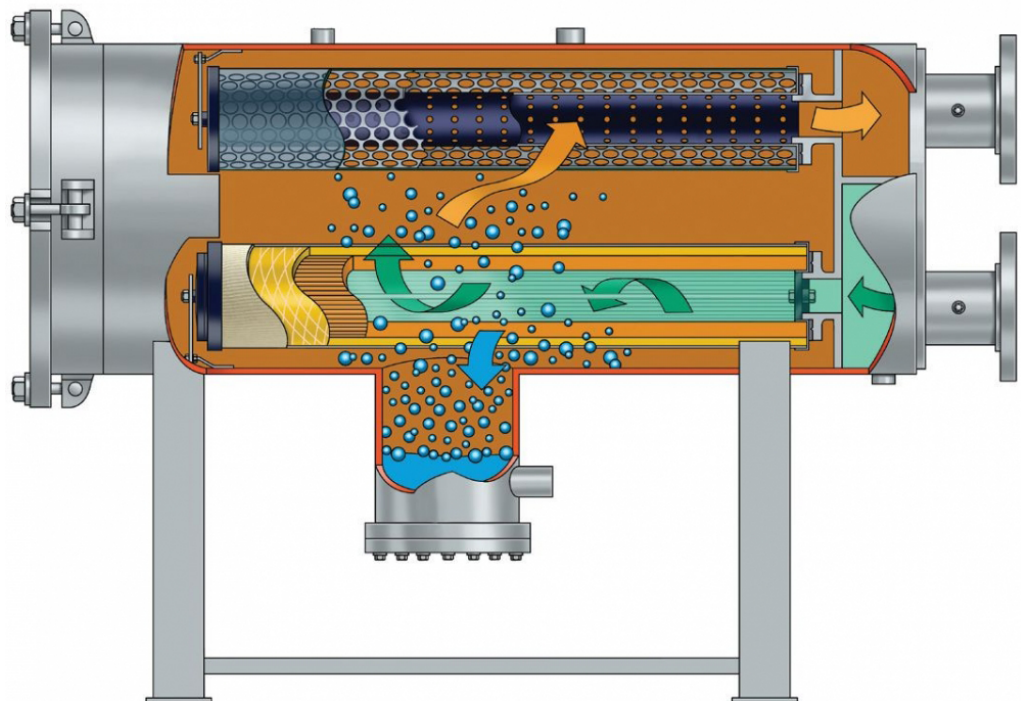
Separator filter element is made of Teflon material with natural hydrophobic property after special processing. Oil flows from outside to inside of the separator filter element. The outer Teflon material can effectively prevent droplets from passing through, leaving droplets on the surface of the filter element. These droplets coalesce to form larger droplets under the gravity and settle to the bottom of the filter shell, while oil passing through the filter element smoothly, thus realizing oil-water separation.



SEPARATOR FILTER ELEMENT

Working Principle

Coalescer filter element makes the coalesced larger droplets settle to the bottom of the filter shell, while small droplets that have not been coalesced require further separation by making use of the hydrophobic property of separator filter element. Separator filter element makes these droplets settle to the bottom of the filter shell and flow out from the drain valve. Clean fuel is collected by the separation filter tray and flows out from the separator outlet.

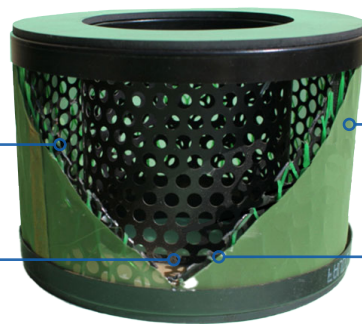


SEPARATOR FILTER ELEMENT

Structure

Support Mesh
It is used to support the plastic protection mesh.

Inner Frame
It is made of carbon steel and supports the whole filter media.



Teflon Mesh
It has natural hydrophobic property to effectively prevent droplets from passing through.

Plastic Protection Mesh
It is used to protect the outer Teflon mesh.

SEPARATOR FILTER ELEMENT

End Cap Type

The same as coalescer filter element, one end of separator filter element is also sealed for fixing the filter element in the coalescer separation filter. The other end is opened and mostly flat end caps. The metal flat end cap is also provided with a seal ring to offer good seal effect. End caps are customized according to customers' demands.



SEPARATOR FILTER ELEMENT

Specification

Frame: carbon steel perforated metal

Filter media: Teflon

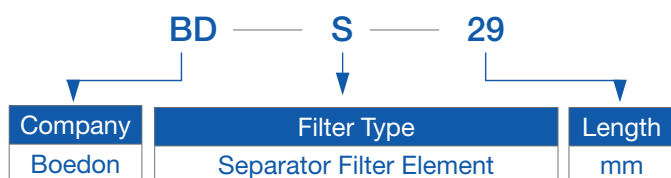
Disposable: can be washed for reuse

Dirt holding capacity: 1.3 g (L/min)

Features: good hydrophobic property, great oil passage capacity; large filter area, simple structure, easy to install.

Recommended operating temperature: 115 °C

PH range: 5–9



Specifications of Separator Filter Element

Model	Length (mm)	Inner Diameter (mm)	Outer Diameter (mm)
BD-S-29	290	89	152
BD-S-58	580	89	152
BD-S-73	730	89	152
BD-S-86	860	89	152
BD-S-114	1140	89	152
BD-S-145	1450	89	152

Notes: Other specifications are available upon request.

SEPARATOR FILTER ELEMENT

Features & Application

Features

- Teflon with good water resistance is adopted to create good separation effect.
- Carbon steel inner frame support is provided for long lifespan.
- Good lipophilic property, prevent water droplets from passing through while allowing oil to pass through smoothly.

Replacement Conditions

- **Damaged filter media.**
It may lead to incomplete oil-water separation.
- **Unqualified water pouring test.**
Water resistance goes down and lead to incomplete oil-water separation.

Application



Oil & Gas

- Jet fuel
- Gasoline, diesel, kerosene
- Turbine oil
- Lubricating oil filtration
- Natural gas filtration, etc.



Metallurgy

- Rolling mill and continuous casting machine hydraulic system filtration
- Various lubricating equipment filtration



Chemical

- Cyclohexane
- Isopropanol
- Cycloethanol
- Cycloacetophenone
- Other hydrocarbon compound filtration

INDUSTRIAL FILTRATION

03.4

EDIBLE OIL FILTRATION



Edible oil is seen everywhere in our daily diet and its cleanliness is closely related to our health. The most common edible oils are vegetable fats and oils. The crude oil extracted from plants contains a large number of solid impurities and needs to go through a series of processing such as filtration, decolorization and dewaxing before getting finished edible oil. Leaf filters can effectively remove impurities in crude oil, pigments in oil and waxes in fats and oils to ensure that we can get high quality and safe edible oil.

How Boedon Solve?

Boedon offers a variety of leaf filter elements, which play an important role in edible oil filtration. Leaf filter elements often work with filtering aids before filtrating to effectively remove pigments and other impurities in the edible oil. Besides, it can also be used to remove the wax in the oil and improve the appearance quality of the edible oil to ensure that the edible oil will not become cloudy in winter due to crystallization. It is also used for filtration in petroleum and chemical industries. You may choose the right leaf filter element according to your working environments.

**What
Boedon
Supply?**



Leaf Filter Element

We offer high quality leaf filter elements for oil and grease decolorization filtration, pharmaceutical oil filtration, etc.

Leaf filter element is generally constructed of 5 layers of metal woven mesh with different mesh counts by riveting. As the filter elements of the pressure leaf filter, generally 10 to 60 leaf filter elements are evenly placed. At the bottom, they are inserted into the manifold that collects the filtrate. At the top, they are clamped by leaf clamping bar with spacer rings for easy installation and removal. Leaf filter elements can work with a variety of filtering aids and is suitable for decolorization filtration, pharmaceutical oil filtration, crystallization separation process, etc. in the production of oil and grease and chemicals.

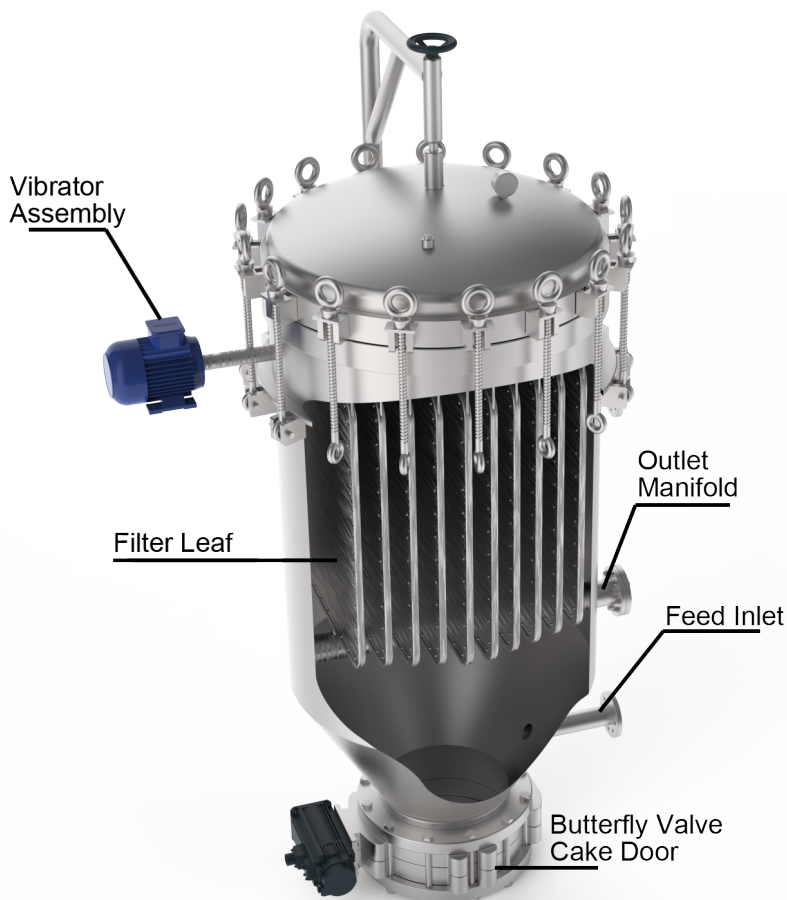
Leaf filter elements are made of stainless steel (304, 316, 316L). We can choose the right leaf filter element to match up with your application according to your filtration environments.

LEAF FILTER ELEMENT

Working Principle

Pressure leaf filters are divided into vertical pressure leaf filters and horizontal pressure leaf filters. Let's take the vertical pressure leaf filter as an example to explain how it works.

First, the liquid to be filtered flows in from the inlet at the bottom of the filter and moves upward under the action of pressure to make the liquid evenly distributed on every leaf filter element. Both sides of the filter element play the role of filtration. Impurities are trapped on the surface and clean liquid flows into the manifold connected with the filter leaves through the central drainage layer and flows out from the outlet. When the impurities on the surface of the filter element reaches a certain thickness and the filtration efficiency slows down, compressed gas is blown into the filter housing. Dry the filter cake and shake it off to the butterfly valve at the bottom of the filter through the pneumatic vibration valve at the top of the filter and discharge the filter cake.



LEAF FILTER ELEMENT

Structure

Every filter leaf consists of a drainage mesh, 2 layers of support mesh and 2 layers of fine filter mesh. Filter mesh adopts plain weave, plain Dutch weave, plain or twill reverse Dutch weave. Drain mesh and supporting mesh adopts plain weave, fine filter mesh adopts plain weave, plain Dutch weave, reverse plain Dutch weave or reverse Dutch twill weave.



Construction	Mesh	Wire Thickness (mm)	Aperture (μm)
1 layer of drainage mesh	Plain weave, 4 × 4	1.6	4750
2 layers of support mesh	Plain weave, 8 × 8	0.7	2470
2 layers of fine filter mesh	Plain weave, 60 × 60	0.18	240
	Plain Dutch weave, 24 × 110	0.54	152
	Plain Dutch weave, 24 × 128	0.58	75
	Plain Dutch weave, 30 × 150	0.53	85
	Reverse plain Dutch weave, 132 × 32	0.77	91
	Reverse Dutch twill weave, 325 × 40	0.73	100

LEAF FILTER ELEMENT

Specification



Material: stainless steel (304, 316, 316L)

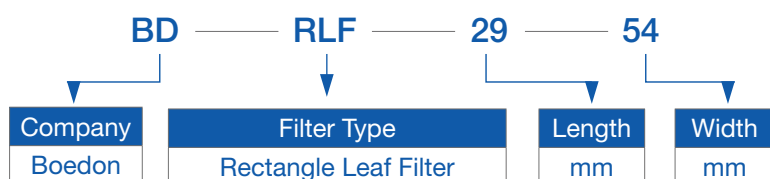
Filter rating: 3–80 µm

Filter efficiency: 98%

Shape: Rectangular, square, round

Applicable filter: vertical pressure leaf filters and horizontal pressure leaf filters

Weave type: plain weave, plain Dutch weave, reverse plain Dutch weave, reverse twill Dutch weave



Specifications of Rectangular Leaf Filter Element

Model	Height (mm)	Width (mm)	Filter Area (m ²)
BD-RLF-92-54	920	540	1.00
BD-RLF-92-60	920	600	1.10
BD-RLF-92-61	920	610	1.12
BD-RLF-92-62	920	620	1.14
BD-RLF-125-45	1250	450	1.13
BD-RLF-125-66	1250	660	1.65
BD-RLF-125-72	1250	720	1.80
BD-RLF-125-77	1250	770	1.93
BD-RLF-135-90	1350	900	2.43
BD-RLF-135-100	1350	1000	2.70
BD-RLF-150-100	1500	1000	3.00
BD-RLF-150-120	1500	1200	3.60
BD-RLF-165-120	1650	1200	3.96
BD-RLF-165-140	1650	1400	4.62

Notes: Square and round leaf filter elements are also available upon request.

LEAF FILTER ELEMENT

Features & Application

Features

- Corrosion, acid and alkali resistant material
- Work with various filtering aids to enhance the filtering effect.
- High firjgfyk
- Multiple leaf filter elements for filtration, providing a large filter area and high filtration efficiency
- Easy to install, low maintenance costs
- Reusable, cost saving

Application

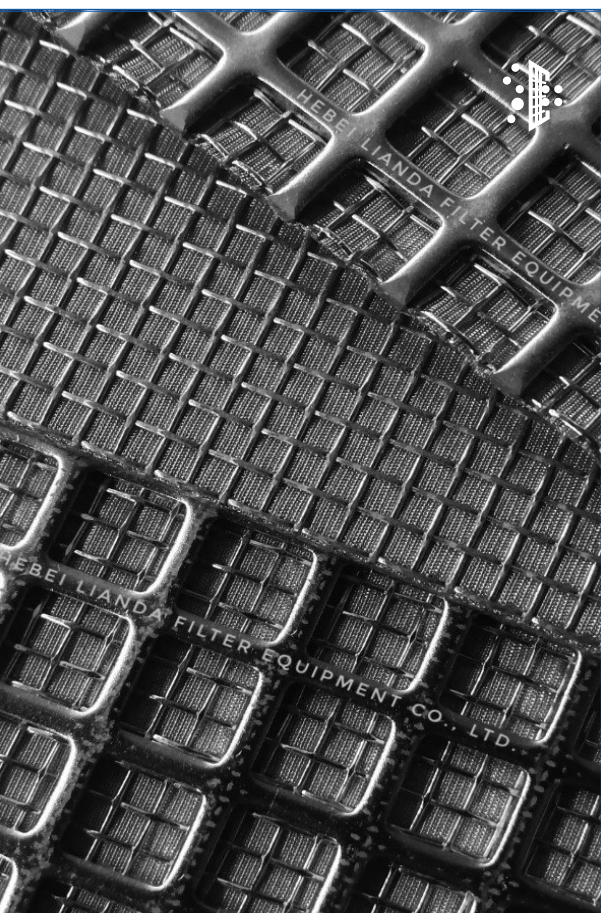


Food

- Edible oil, bleached oil filtration
- Gelatin, starch filtration
- Beer, juice filtration

INDUSTRIAL FILTRATION

03.5 OTHER FILTER ELEMENTS



In addition to polymer filtration, fluid filtration, chemical filtration and edible oil filtration, we also offer a variety of other filter elements to meet your various industrial filtration demands.

For example, in blast furnace ironmaking, fluidization plate is adopted to keep pulverized coal fluidizing; in the process of coating spraying, spray gun filter is used to filter out particle impurities in paint and catalyst thickener filter disc is employed to recover the catalyst. Moreover, we also offer customized filter elements and solutions according to your filtration requirements.

How Boedon Solve?

Boedon offers a wide range of other filter elements including fluidization plates, spray gun filters and catalyst thickener filter discs. Fluidization plate keeps the pulverized coal fluidizing to facilitate pulverized coal transportation. Spray gun filter can effectively remove particulate impurities in paints to avoid poor spraying quality arising from particulate impurities. Catalyst thickener filter discs can effectively filter out suspended solids in chemical catalyst to recover clean catalyst for participating in other chemical reaction.

What Boedon Supply?



Fluidization Plate

- Good mass and heat transfer, great fluidization effect
- High porosity, uniform gas distribution, high filtration precision
- For steel industry



Spray Gun Filter

- Nylon or stainless steel material, suitable for most solvents
- Small size, simple structure, easy to install and clean
- Effectively reduce particulate impurities in paints and improve the quality of spraying surface
- For automobile, furniture, etc.



Catalyst Thickener Filter Disc

- Double-side filtration, increased filter area, high filtration efficiency
- Uniform pore distribution, precise filter rating.
- Achieving online cleaning without disassembling the equipment
- For chemical industry

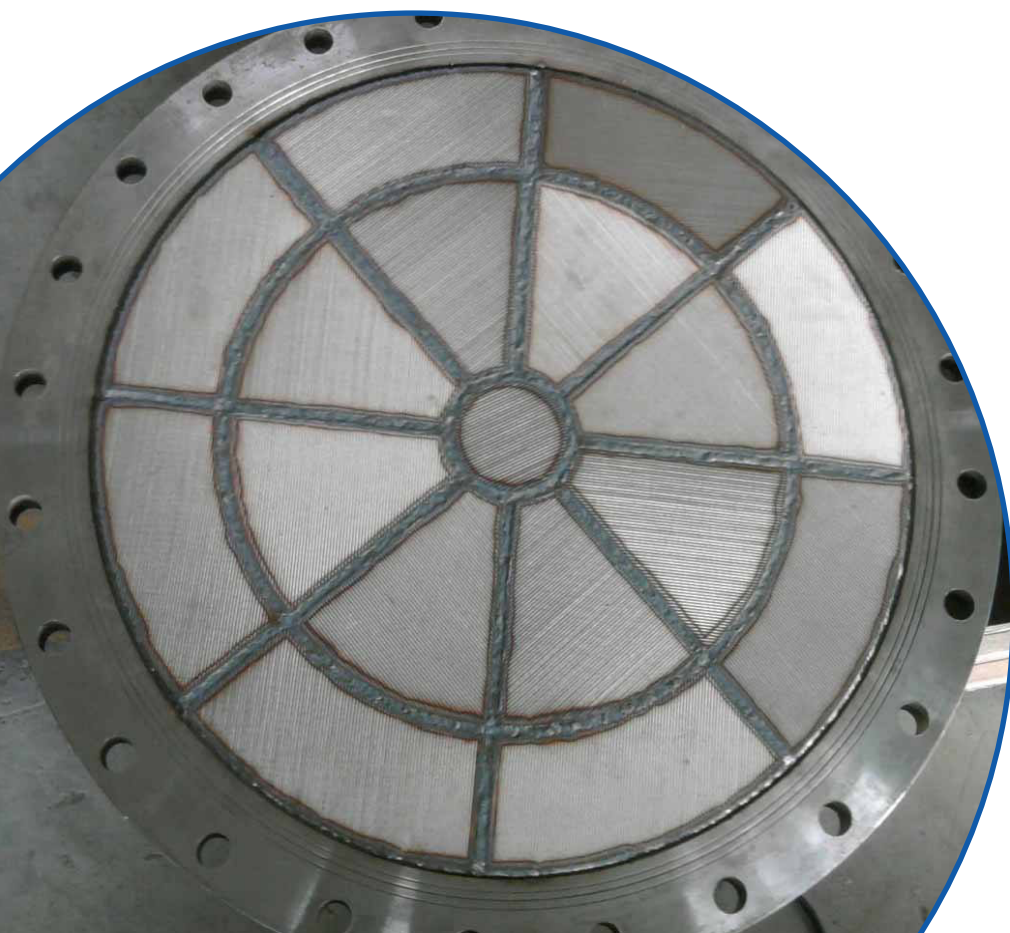


Fluidization Plate

We offer customized fluidization plate to meet your pulverized coal transmission demands.

Fluidization plate, also known as pulverized coal tank fluidization plate, consists of stainless steel sintered filter mesh, fixed frame and flange.

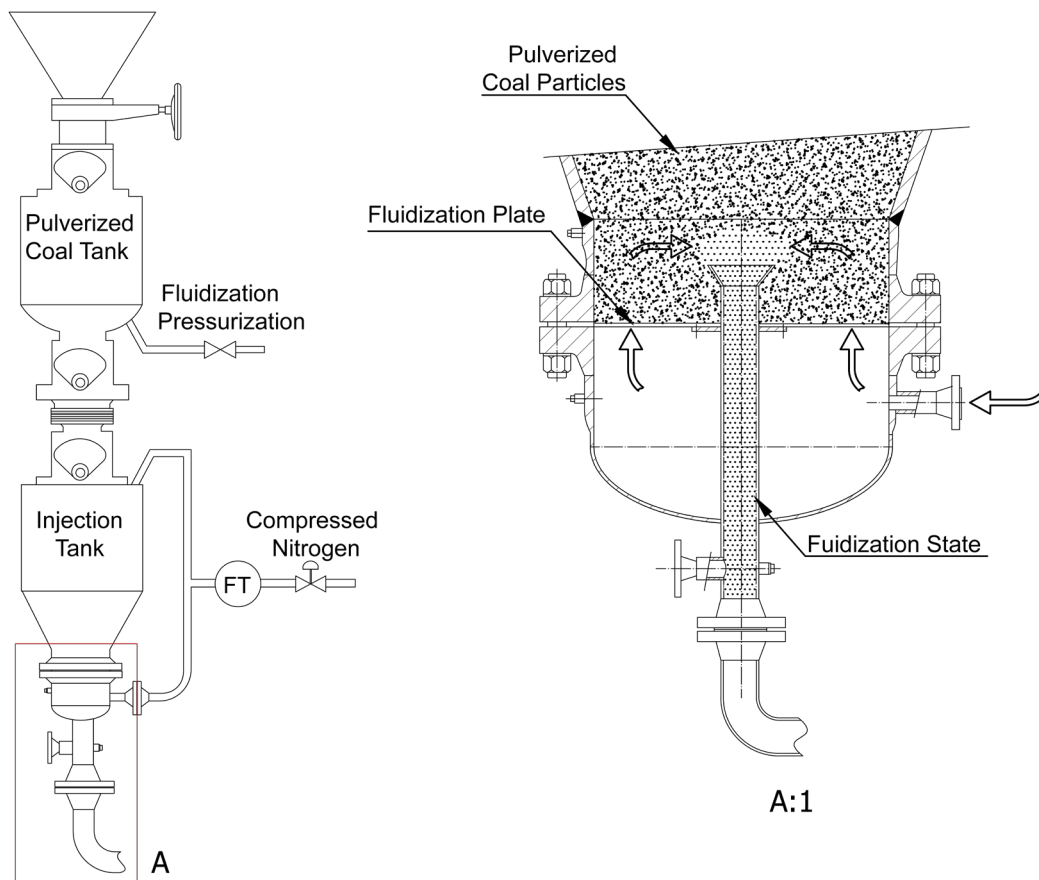
Stainless steel sintered filter mesh is constructed of multiple layers of metal woven mesh after laminating, pressing and vacuum sintering. Square weave wire mesh is generally adopted as the filtration layer to enhance the open area, air permeability and filtration precision of the fluidization plate. Stainless steel sintered filter mesh is also provided with a stainless steel fixed frame to improve its mechanical strength and rigidity, and extend the lifespan of the fluidization plate.



FLUIDIZATION PLATE

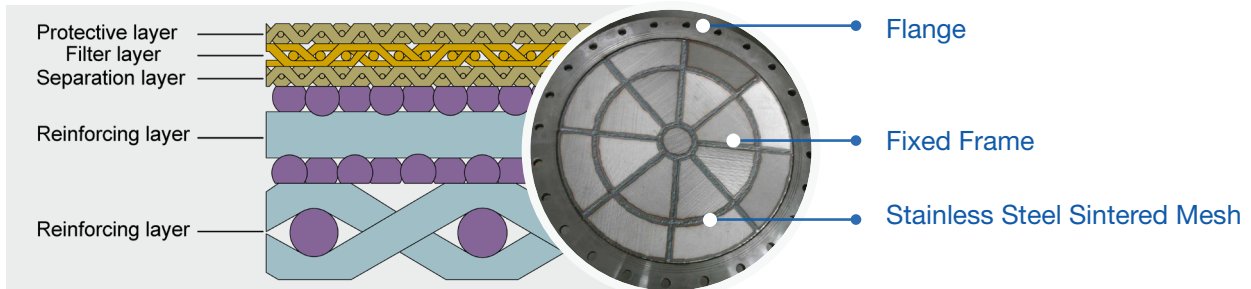
Working Principle

The pulverized coal in the pulverized coal tank flows towards the injection tank under gravity. At that time, the compressed nitrogen gas blows the flowing down pulverized coal through the pores of the fluidization plate, keeps it fluidizing and the pulverized coal particles are separated from each other. The fluidity of pulverized coal increases consequently to prevent the pulverized coal from caking, lumping and bridging in the injection tank. And then it is conveyed to the distributor through the lower outlet to the coal injection system of the blast furnace.



FLUIDIZATION PLATE

Structure



FLUIDIZATION PLATE

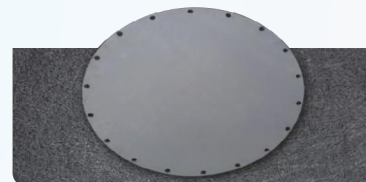
Category

Fluidization plates are divided into bottom fluidization plates and top fluidization plates by the installation position.

- The bottom fluidization plate is provided with a hole in the center whose size is exactly the same as the outlet, thus facilitating pulverized coal flowing out and ensuring the air-tightness of the fluidized bed. It is generally installed under the outlet.
- The top fluidization plate is not provided with a hole to prevent pulverized coal leakage. It is generally installed above the outlet.



Bottom fluidization plate



Top fluidization plate

FLUIDIZATION PLATE

Installation/Fixing Method

We offer fluidization plates in a variety of diameters ranging from 300 mm to 3000 mm to suit to different fluidized bed. Typically, large diameter fluidization plates are directly welded to the fluidized bed while small diameter fluidization plates are fixed to the fluidized bed by tightening the flange.



Large diameter fluidization plate



Small diameter fluidization plate

FLUIDIZATION PLATE

Specification

Fixed frame & flange material: stainless steel

Filter mesh material: stainless steel sintered mesh; standard material: ss304, ss316L

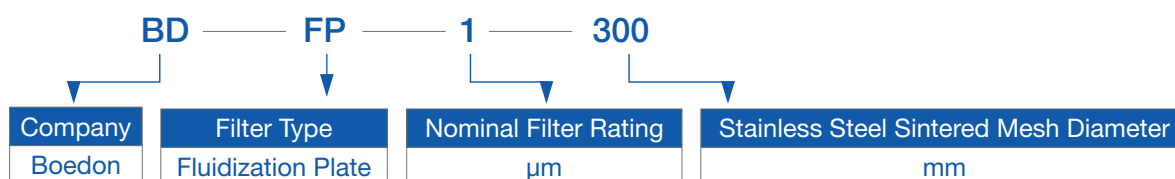
Diameter: 300–3000 mm

Thickness: 1.7 mm, 2 mm, 3.5 mm, 4 mm, 6 mm, 8 mm

Max. operating temperature: 480 °C

Filter rating: 1–300 µm

Porosity: 70%–85%



Specification of Fluidization Plate

Model	Nominal Filter Rating (µm)	Stainless Steel Sintered Mesh Diameter (mm)	Filter Area (m ²)
BD-FP-1-300	1	300	70650
BD-FP-1-900	1	900	635850
BD-FP-1-1100	1	1100	949850
BD-FP-1-1500	1	1500	1766250
BD-FP-1-2900	1	2900	6601850
BD-FP-20-300	20	300	70650
BD-FP-20-900	20	900	635850
BD-FP-20-1100	20	1100	949850
BD-FP-20-1500	20	1500	1766250
BD-FP-20-2800	20	2800	6154400
BD-FP-300-300	300	300	70650
BD-FP-300-900	300	900	635850
BD-FP-300-1100	300	1100	949850
BD-FP-300-1500	300	1500	1766250
BD-FP-300-2700	300	2700	5722650

Notes: Fluidization plate materials, sizes and filter ratings are customized upon request.

FLUIDIZATION PLATE

Features & Application

Features

- Little pulverized coal residue, easy to clean
- Good mass and heat transfer, great fluidization effect, high efficiency, low oxygen consumption
- High porosity, uniform gas distribution, high filtration precision
- No dead zone, allowing pulverized coal to flow freely
- High temperature resistance, corrosion resistance, wide application range
- Avoid equipment breakdown, short circuit and blocking
- High temperature resistance, corrosion resistance, wide application range
- Simple operation, easy installation

Application



Iron & Steel

- Blast furnace injection pulverized coal fluidization
- Blast furnace pulverized coal dense phase conveying systems

Spray Gun Filter

We offer a full range of spray gun filters to meet your demands for paint gun filters.

Spray gun filter is commonly used in air spray guns, airless spray guns, air-assisted airless spray guns and other spray guns to remove particulate impurities from paints. It reduces nozzle clogging and avoids uneven paint coatings arising from paint impurities. Meanwhile, installing a spray gun filter can effectively reduce the wear and tear of parts and components and extend their service life.

We can offer spray gun filters made of different materials and in different structures to adapt to various spray guns. Our main products include inlet spray gun filters, manifold spray gun filters and pen spray gun filters for airless painting, and gravity feed spray gun filters, siphon feed spray gun filters and tip spray gun filters for air painting, etc.



Inlet spray gun filter



Manifold spray gun filter



Pen spray gun filter



Gravity feed spray gun filter



Siphon feed spray gun filter



Tip spray gun filter

SPRAY GUN FILTER

Inlet Spray Gun Filter



Description

Inlet spray gun filter, also known as suction spray gun filter, generally consists of metal woven mesh screen and a stainless steel (or plastic) fitting. It is commonly used in the first stage spraying filtration of airless spray gun, and is an indispensable part of airless spray gun. Inlet spray gun filter can prevent large paint particles and debris from entering the pump, thus improving the spraying quality, reducing nozzle clogging and extending the service life of airless spray gun.



Working Principle

Inlet spray gun filter is installed at the paint inlet of airless spray gun pump and serves as a suction filter of rigid pipes or flexible hoses with thread connection. At the first stage of filtration, paint is pumped into the spray gun pump under pressure. Large particles are intercepted after flowing into the spray gun filter and clean paint flows into the pipe.

Specification

- Filter mesh material:** stainless steel
- Fitting material:** plastic/stainless steel
- Diameter:** 50 mm, or customized
- Height:** 40 mm, or customized
- Inlet thread type:** pipe thread (NPT)
- Mesh layer:** single layer/double layer/customized
- Thread:** 1", 1/2", 3/4", etc.
- Mesh:** 10, 15, 30, 60, 100, 200, etc.

SPRAY GUN FILTER

Manifold Spray Gun Filter

Description

Manifold spray gun filter generally consists of stainless steel woven mesh and a plastic frame. It is typically used in the second stage spraying filtration of airless spray gun to effectively reduce nozzle clogging. Meanwhile, its vertical design makes it easy to replace and clean.



Working Principle

Manifold spray gun filter is used in the second stage spraying filtration of airless spray gun. The paint after going through the first stage filtration of inlet spray gun filter is pumped into the manifold spray gun filter for fine filtration. The paint is further filtered and flows into the pipe.

Specification

Filter mesh material: stainless steel 304, 306

Fitting material: plastic

Overall size: 0.785" × 3.585"

Inner diameter: 0.676"

Mesh: 30, 60, 100, 150, etc.

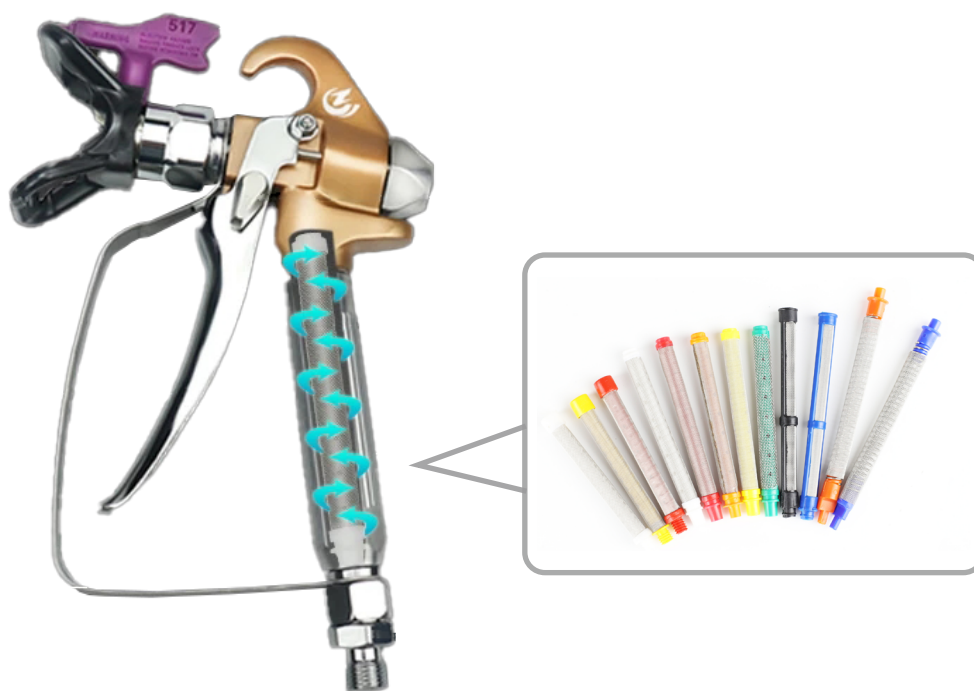
Color: customized

SPRAY GUN FILTER

Pen Spray Gun Filter

Description

Pen spray gun filter generally consists of stainless steel woven mesh and a plastic frame. It is typically used in the third stage spraying filtration of airless spray gun. It features small size and good portability. Stainless steel woven mesh is available in a full range of sizes to meet the paint requirements of various applications. In addition, pen spray gun filters can also be used in air-assisted airless spray gun.



Working Principle

Pen spray gun filter is generally used in the third stage spraying filtration of airless spray gun and is installed inside the spray gun of airless spray gun. The paint after going through the first and second stage filtration is pumped into the spray gun for the third filtration. As the pen spray gun filter adopts the finest mesh, so it ensures the best paint quality and spraying effect.

Specification

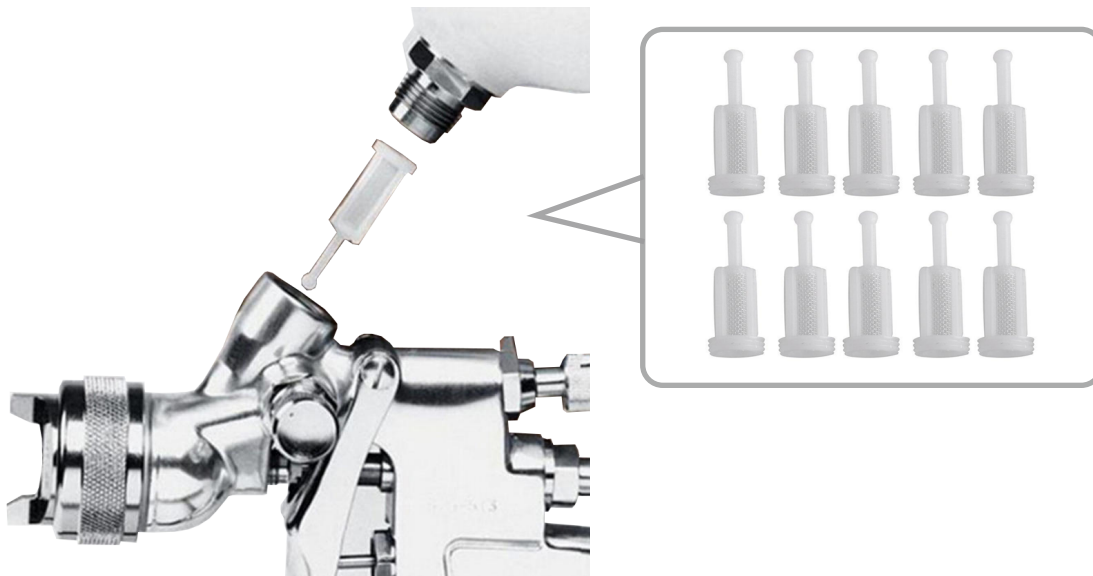
Filter mesh material: stainless steel
Fitting material: plastic
Size: 0.7" × 8.5" × 2.7", or customized.
Mesh: 30, 50, 60, 65, 100, 150, etc.
Color: customized

SPRAY GUN FILTER

Gravity Feed Spray Gun Filter

Description

Gravity feed spray gun filter consists of nylon woven mesh and a plastic frame and is generally installed between the spray gun and the paint cup. It can effectively remove contaminants from paints in gravity feed spray gun to ensure great spraying effect. It features small sizes and easy to install. Nylon has great corrosion resistance and can be used in a variety of paint filtration applications. Gravity feed spray gun filters are mostly disposable.



Working Principle

Gravity feed spray gun filter is installed between the spray gun and the paint cup. Under the gravity, the paint passes the paint cup and flows into the filter. Large particulate impurities are intercepted and clean paint flows into the spray gun.

Specification

Filter mesh material: nylon, plastic

Fitting material: plastic

Size: 35 × 11 mm, or customized.

Mesh: 30, 60, 100, 150, etc.

Color: white, customized

SPRAY GUN FILTER

Siphon Feed Spray Gun Filter

Description

Siphon feed spray gun filter generally consists of stainless steel woven mesh (or nylon monofilament mesh) and a plastic frame. It is generally installed at the end of spray gun suction pipe to effectively remove impurities, dust and debris from the paint. It has a small size, easy to install and clean.



Working Principle

Siphon feed spray gun filter is generally installed at the end of spray gun suction pipe. The paint flows through the siphon feed spray gun filter under pressure. Large particulate particles are intercepted, and clean paint flows into the spray gun and is atomized by compressed air for paint spraying.

Specification

Filter mesh material: nylon, stainless steel

Frame material: plastic

Top width: 25 mm, or customized

Bottom width: 35 mm or customized

Height: 42 mm, or customized

Mesh: 30, 60, 100, 150, etc.

Wire diameter: 0.5 mm

Aperture: 8 mm, 10 mm, 12 mm, etc.

Color: white

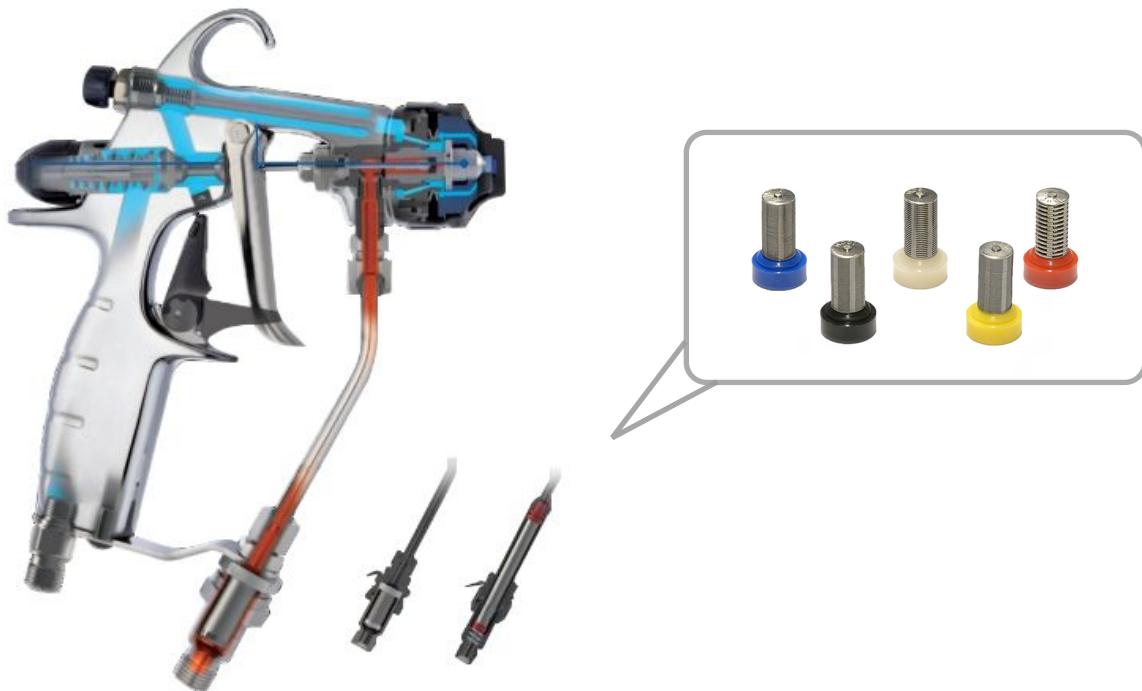
SPRAY GUN FILTER

Tip Spray Gun Filter

Description

Tip spray gun filter generally consists of stainless steel woven mesh and a plastic cap. It is installed at the nozzle of the airless spray gun or is embedded inside the spray gun paint pipe to filter out impurities from paints and prevent nozzle clogging, thus achieving a better spraying finish.

It has a small size, easy to install and clean. It is widely used in conventional pressure feed spray guns, HVLP spray guns, air-assisted spray guns, high pressure airless spray guns, etc. It is especially suitable for furniture, automobile and other industries requiring good surface treatment effects.



Working Principle

It typically connects to the stainless steel shell and is installed at the flexible hose of tip spray gun filter. The paint is sucked into the hose under pressure and flows through the tip spray gun filter. Large particulate particles are intercepted and clean paint flows into the spray gun.

Specification

Filter mesh material: nylon, stainless steel

Fitting material: plastic

Length (height): 15/16", customized

Cap O.D. (width): 9/16" (W), customized

Mesh: 60, 80, 20, 200, etc.

Color: customized.

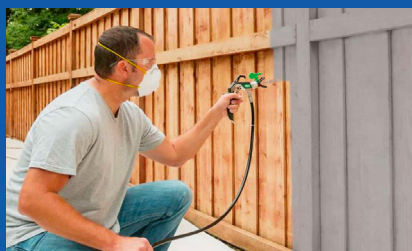
SPRAY GUN FILTER

Features & Application

Features

- Nylon or stainless steel material, suitable for most solvents, excellent corrosion resistance.
- Small size, simple structure, lightweight, easy to install and clean.
- Effectively reduce particulate impurities in paints and improve the quality of spraying surface.

Application



Building outer wall spraying



Sidewalk spraying



Automobile spraying



Furniture spraying

Catalyst Thickener Filter Disc

We offer **catalyst thickener filter discs** in a variety of filter ratings and sizes to maximize the catalyst recovery and meet your **various filtration demands**.

Catalyst thickener filter disc takes the sintered mesh constructed from multiple layers of stainless steel (304, 316, 316L) woven mesh after special laminate pressing and vacuum sintering as the main filter layer.

It is installed in the catalyst thickener and is used to purify chemicals and recover catalyst during the production process of aniline, TDI, MDI, BDO and other chemicals.

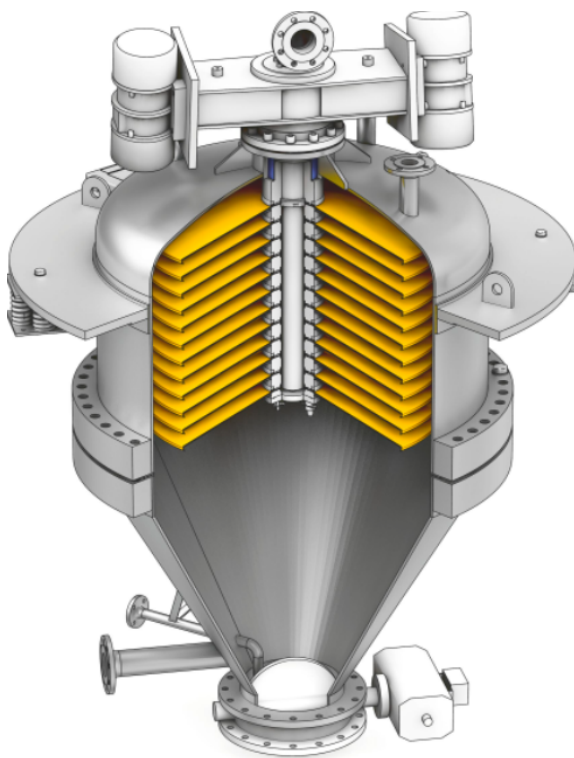


CATALYST THICKENER FILTER DISC

Working Principle

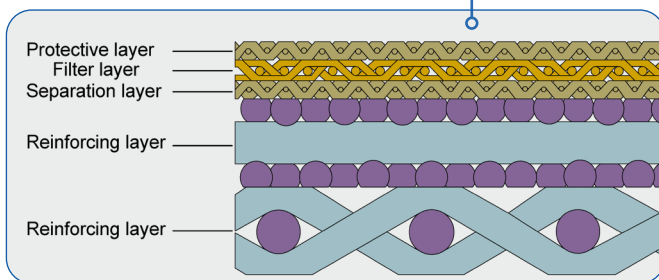
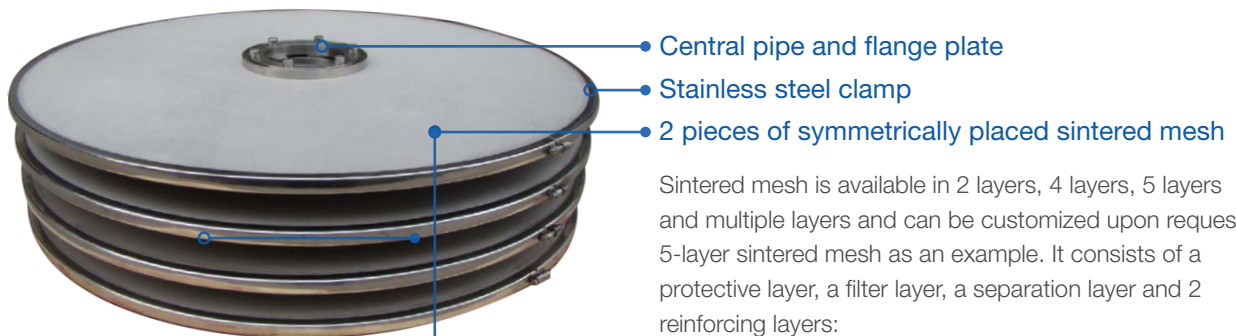
First, the suspension of aniline and other chemical products and solid catalyst particles is injected into the catalyst thickener. The solution flows through the high precision filter disc and into the center pipe, and then flows out of the filter. The separated catalyst returns to the agitated reactor and continues to take part in the reaction. Its filtration mechanism is a new form of filtration similar to cross-flow filtration and filter cake filtration.

When the differential pressure of the filter disc is too high and affects the filtration efficiency, the washing liquid can be pressurized to the washing nozzle in the middle of the filter disc through the water flushing system to wash the filter disc. In this way, the purpose of cleaning the filter disc is achieved without disassembling the equipment, thus extending the service cycle of the filter disc.



CATALYST THICKENER FILTER DISC

Structure



Sintered mesh is available in 2 layers, 4 layers, 5 layers and multiple layers and can be customized upon request. 5-layer sintered mesh as an example. It consists of a protective layer, a filter layer, a separation layer and 2 reinforcing layers:

- Protective layer. It is a metal woven mesh used to maintain the pore size and dimension stability of the sintered mesh.
- Filter layer. It is a fine mesh used to control the filter rating of the sintered mesh.
- Separation layer. It is a metal woven mesh used to guide the direction of clean liquid.
- Reinforcing layer. It is a metal woven mesh used to enhance the overall strength and rigidity of sintered mesh.

CATALYST THICKENER FILTER DISC

Specification

Material:

- Standard material: stainless steel 304, 316, 316L;
- Special material: Hastelloy, Monel, Inconel, etc.

Nominal filter rating: 1–200 μm

Max. operating temperature: 480 °C

Catalyst content at outlet: 0.001%

990 mm installation size, and can perfectly replace PALL thickener filter discs.

Features & Application

Features

- **High filtration precision.**
Uniform pore distribution, precise filter rating.
- **High temperature resistance.**
Adapt to 480 °C high temperature environments.
- **High filtration efficiency.**
Double-side filtration, increased filter area.
- **High strength.**
Multiple sintered mesh structure offers great compression resistance and mechanical strength.
- **Easy cleaning.**
It is provided with a washing pipe and can be cleaned without disassembling the equipment.
- **High flow rate.**
The special sintering process makes it have a high flow rate and a high production efficiency.

Application



Chemical

- Aniline material production
- BDO material production
- TDI material production

INDUSTRIAL FILTRATION

03.6 CUSTOM FILTERS

No matter you need to remove harmful contaminants from liquids or gases or separate a material from another, you will always get a desired result from Boedon. We have full capabilities to provide you with best custom solutions from development, design and manufacturing aspects. We will communicate with our customers about the product details and their working environments and turn the design ideas into reality. In the end, we will offer custom filters with reliable functions and fitting for actual working environments.

Customization with Special Requirements

We can offer a full range of metal materials and master a variety of processing technologies to meet the special requirements of custom filters in actual working environments.

Metal Materials

We offer a full range of high quality metal materials including most popular stainless steel 304, 316L, carbon steel, brass, copper, Monel and other alloys. These materials can be made into woven mesh, sintered mesh, sintered felt, sintered porous filter, knitted mesh and perforated metal to meet the requirements of various filtration applications.

Processing Technology

We have a broad range of welding equipment and technologies to provide our customers with most reliable connection for every weld joint. We have multiple cutting lines and advanced cutting technologies to cut filter materials into desired sizes and shapes. We also master advanced CNC punching technologies to produce perforated metal in various patterns and sizes. Besides, we also have pleating technologies to increase the filter area of the filter media and improve the filtration efficiency.

- TIG/GTAW welding
- Roll welding
- Spot welding
- Laser cutting
- CNC punching
- Pleating



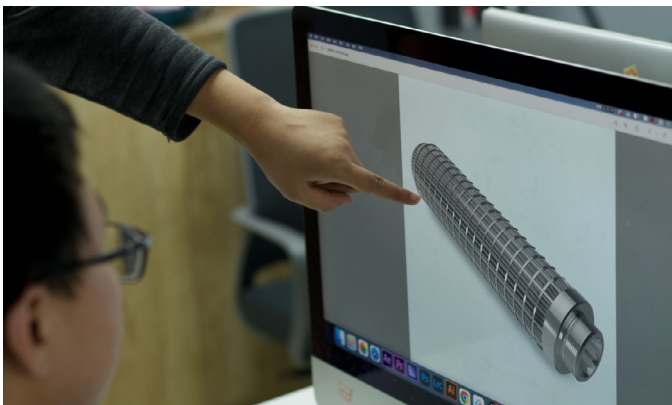
Stainless steel



Copper



Brass



Customization According to Samples

If you have samples, you can send them to us. We have years of manufacturing experience and expertise in the filtration field. In addition, we are familiar with the structure of filter materials and filter products and have the capabilities to produce filters of the same or even better quality according to samples.

We aim to provide our customers with best custom filters & filtration solutions and deliver these superior solutions within limited period.

Contact us and make your own custom filters & filtration solutions.



BOEDON Industech Limited

Weave Impossible to Possible



E-Mail: sales@boedon.com

www.boedon.com