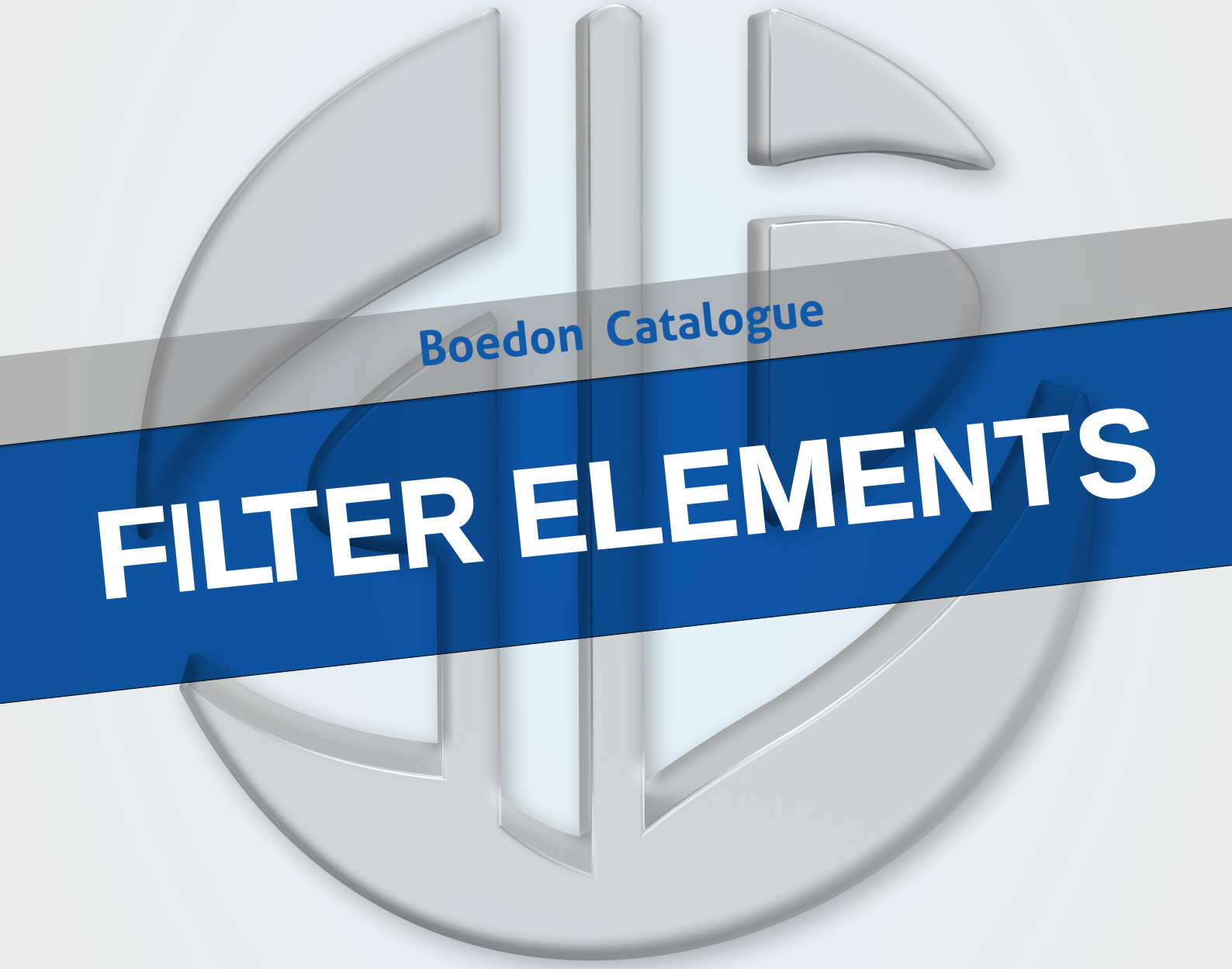
Boedon offers the right filter elements and perfect filtration solutions to meet your various filtration requirements.



Boedon Catalogue

FILTER ELEMENTS

BOEDON

www.boedon.com | sales@boedon.com

BOEDON

– Weave Impossible to Possible

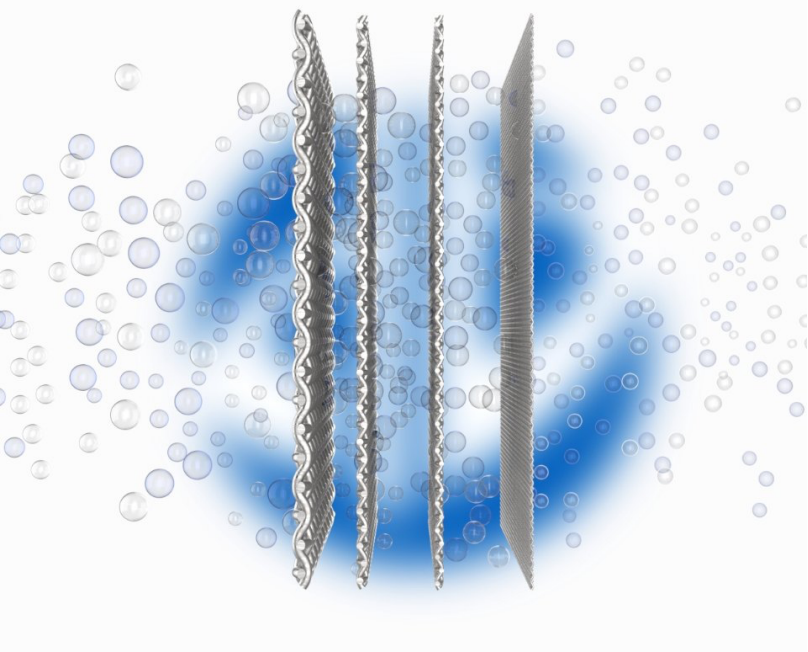
Boedon aims to improve weaving technology, weave impossible to possible and make your production more effective, our environment cleaner and all goes better.

Our filter materials, filter elements and industry solutions help to maximize equipment life, increase filtration efficiency and minimize equipment downtime and meet customers' exact requirements. We are ready to solve any filtration challenge.

BOEDON

Who We Are

Established in 1999, Boedon focus on wire mesh weaving. We realize the importance of filtration in industrial production, so we continuously improving weaving technology and equipment and innovating new products to solve all filtration challenges. Nowadays, we can supply design, manufacture and technical support one-stop filtration solutions to our customers. We aim to weave impossible to possible and make your industrial production more efficient, our environment cleaner and all life go better.



Filter Materials

Wide ranges of woven or other wire meshes supply premium quality material to filter element production and guarantee the excellent filtration efficiency.

Filter Elements

Full ranges of filter elements/cartridges covers almost all industrial productions for liquid, chemicals, polymer and edible oil filtration to supply reliable filtration and reduce downtime.

Industry Solutions

Various solutions to chemical, oil & gas, metallurgy, iron steel, plastic and other industries offer effective enhancement for industrial production and filtration process.

HISTORY

1999

Boedon established and focus on wire mesh weaving

Corporate Established and the main business focused on woven mesh weaving and supply the raw material for filter elements production.

2003

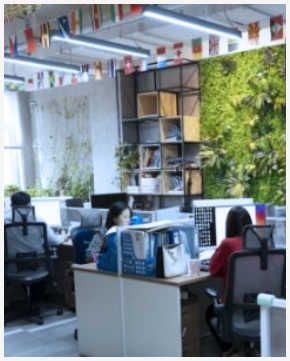
Imported German equipment and improved products quality

Import German weaving Equipment for More Precise production, reduce production cost and satisfy harsh filtration requirement.

2015

Established new office in Hengshui, City.

Established new office in Hengshui City, Hebei province and organized a enthusiastic, and professional sales team to satisfy the gradually increasing business needs and serve our customers better.



2005

Started to produce various filter elements for industrial filtration.

Company main business started to produce various filter elements in chemical filtration and liquid filtration. Benefits form the in-house wire mesh manufacturing as raw material, our filter elements gain customers satisfaction and overseas orders achieved rapid growth.

2009

Established R&D department to solve specific problems.

Established R&D department, including 13 engineers and 5 market researcher to design new products and supply complete filtration solution and solve customers filtration problems.

2012

Imported new equipment for different filter element order needs.

Imported sintered equipment, welding equipment and improved punching machine to achieve precise production and satisfy higher filtration requirements.

2018

Obtained national patent of "Wire Mesh Demister Pads"

Researched the new products of "wire mesh demister pads" to solve the low efficiency problems during customer using and obtained national patent.

2019

Updated ISO 9001-2015 certificate

Updated the ISO 9001 certification, which certified our production and quality control system complying with international and industrial standard requirements.

2021

Expanded workshop scale

Company Expanded the workshop scale to satisfy increasing order requirements and increased production capacity to serve urgent and large orders. Besides, it guaranteed the on time delivery to help customers seize market opportunity and get more benefits.

BOEDON

STRONG CAPACITY & FABRICATION TECHNOLOGIES

To guarantee the top quality of filter materials and filter elements, all important and critical process are manufactured in-house and supervise with strict Quality Control System.

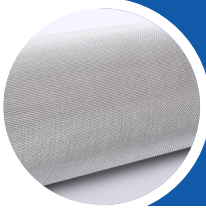
Our precise manufacturing can help us gain customers trust and help customer to solve all filtration challenges in industrial filtration.

- Basic material in filter elements production.
- Multiple materials fit for any extreme working conditions.
- Numerous mesh combinations capture all tiny particles or impurities.

Plain, dutch, twill and other weaving method satisfy different filtering requirements.

Weaving

Advanced weaving machine gives the best performance of woven wire mesh. Woven wire mesh is the basic material to sintered mesh filters, Plain weave, twill weave, dutch weave and other weaving method combination make our woven meshes can satisfy any filtration fineness requirements and match with all temperature, solvent and environments.

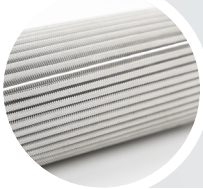


Suitable for products

- Woven mesh
- Polymer pleated filters
- Polymer leaf disc filters
- Polymer extruder screen
- Polymer continuous filter belts

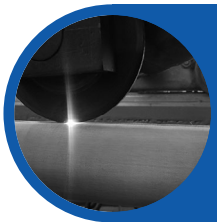
TIG/GTAW Welding

TIG (A.K.A gas tungsten arc welding) is the best choice for sintered products.
TIG is efficient welding process because it can melt and seal the full structure of sintered material and give a smooth, robust and strong seam between sintered material and other hardware.
Semi-automatic TIG welding is the important process of pleated mesh filters and sintered metal fiber filters to form the welding seam. Program control makes the welding torch moves continuously and supply consistent and straight welding seam.



Suitable for products

- Polymer pleated filters
- Polymer sintered filters
- Sintered mesh candle filters
- Sintered porous candle filters

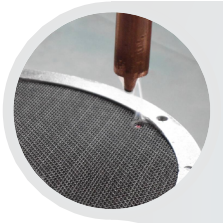


Roll Welding

Roll welding is a type of cost effective resistance welding method which is suitable for single layer or thin wire mesh filter cartridge. Continuous welding seam supplies good stability and strength for filtration.

Suitable for products

- Temporary filters
- Y strainer filters

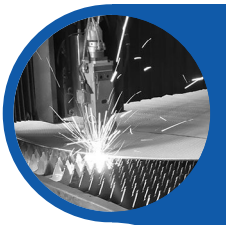


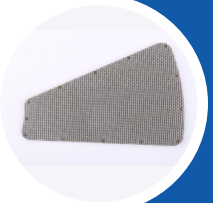
Spot Welding

Spot welding (or resistance spot welding) is a type of electric resistance welding used to weld various filter discs or single layer filter elements, through a process in which contacting metal surface points are joined by the heat obtained from resistance to electric current.

Suitable for products

- Polymer extruder screens
- Temporary strainers





Laser Cutting

Laser cutting is a one of the most popular manufacturing techniques in filter element production. Laser cutting technology can minimize loose wires, offer high accuracy and precision as well as clean cuts and smoother edge finish. It needs no tooling charges and satisfy endless shapes and dimensions with precise tolerances.

Suitable for products

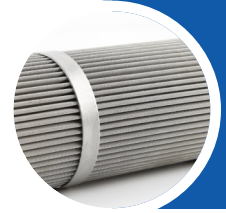
- Polymer extruder screens
- Leaf filter elements
- T strainer basket filters
- Y strainer filters
- Basket filters

CNC Punching

CNC punching is the main technology in perforated metal production. Perforating is the common used technology to supply the coarse filter material in pipeline liquid and support structure for polymer and chemical filtration cartridges. Our perforating techniques supplies precise hole sizes and various patterns (round, square, slot or others) available for choice.

Suitable for products

- Perforated metal
- T strainer basket filters
- Y strainer filters
- Temporary strainers
- Basket filters



Pleating

Pleating technology can help to increase filter surface area and carrying amount during filtration process through pleating the wire mesh or sintered felt to achieve higher filtration efficiency when the space is limited and filtration requirements is high.
The pleat heights can range from 0.08" to 0.473".
Single, double and triple layers of mesh screen can be pleated together depending on material thicknesses.

Suitable for products

- Polymer pleated filters
- Polymer sintered filters
- Sintered mesh candle filters
- Sintered felt candle filters
- Sintered felt filter bags

BOEDON

PRODUCT CONTENT

01

02

03

FILTER MATERIALS

01.

Filtration is an essential link in steel, petroleum and chemical industries. It ensures the quality of industrial products and provides sufficient securities for our life. The selection of filter material is crucial to industrial filtration as it concerns how to remove impurities without affecting the production environment. Therefore, in terms of filter material selection, the properties of different filter materials shall be taken into fully consideration. Only choosing the right filter material, perfect filtration results can be achieved.

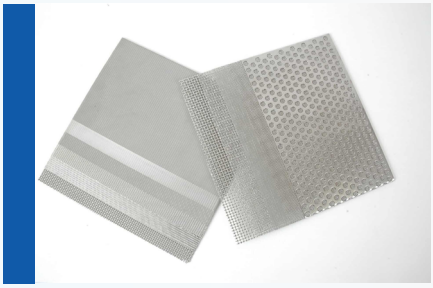
How Boedon Solve?

Industrial filter elements offered by Boedon are made of high quality filter materials and can meet Customers' different filtration requirements. Boedon supplies woven mesh, sintered mesh, sintered felt, sintered powder filter, knitted mesh and perforated metal filter materials and provides superior raw materials for various industrial filters. Meanwhile, we can recommend the right filter material based on your filtration requirements and working conditions.

What Boedon Supply?

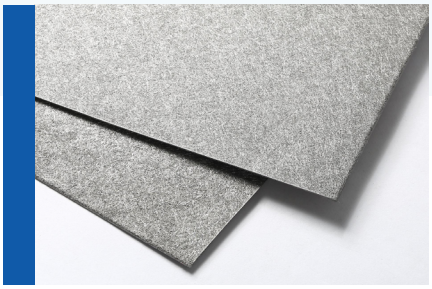
Woven Mesh

- One of the most widely used filter materials.
- Various opening sizes to meet different filtration demands.
- High finish, easy to maintain.
- Suitable for polymer filtration, chemical filtration and hot gas filtration.



Sintered Mesh

- Multilayer sintered structure ensures efficient, stable filtration.
- High strength after sintering, durable
- Adapt to high pressure filtration.
- Suitable for chemical filtration, air/dust filtration and polymer filtration.



Sintered Felt

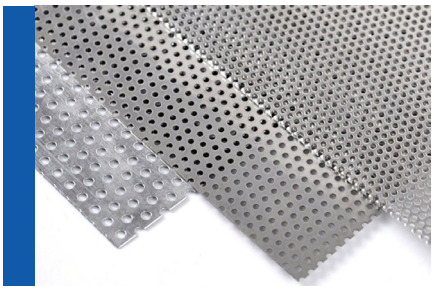
- 3D structure, depth filtration.
- 85% and above porosity.
- High dirt holding capacity, long replacement period.
- Suitable for polymer filtration, chemical filtration and hot gas filtration.

Sintered Porous Filter

- Offer micron rating filtration.
- Uniform pore sizes, stable internal structure.
- Good air permeability, easy to backwash.
- Suitable for chemical filtration, water treatment industry, pharmaceuticals, etc.

Knitted Mesh

- Suitable for gas-liquid filtration and separation.
- For demister pad production.
- High strength and good overall stability.
- Suitable for metallurgy, petroleum, chemicals, etc.



Perforated Metal

- Suitable for primary coarse particle filtration.
- Solid structure, strong support capacity.
- Stable opening size and good deformation resistance.
- Suitable for pipeline filters, automatic self cleaning filters and chemical filtration.

BOEDON

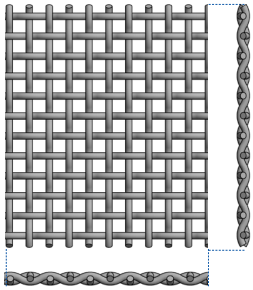
WOVEN MESH

We offer **woven mesh** with different weave types to give our customers more choices during the **filter manufacturing** process.

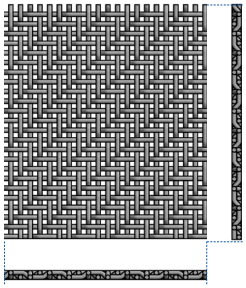
Woven mesh is constructed from high quality stainless steel wires, nickel wires, copper wires, brass wires, Monel wires, Hastelloy wires and other metal wires by using advanced weave technology. It features high temperature resistance, good corrosion resistance, high tensile strength and great abrasion resistance. In addition, its precise opening size also ensures a stable filter rating.

As one of the main filter materials, woven mesh can be fabricated into round, belt, cylinder, pleated, and other shape filter elements and are widely used in the separation and filtration of petroleum, chemical, pharmaceuticals, food and other industries.

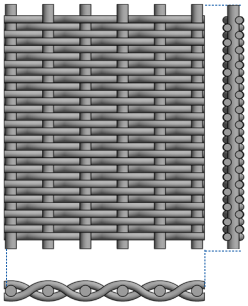
Weave Type



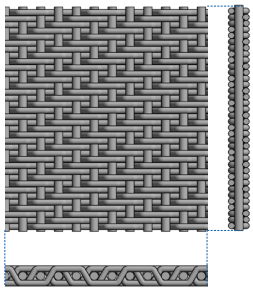
Plain Weave



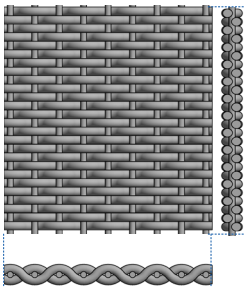
Twill Weave



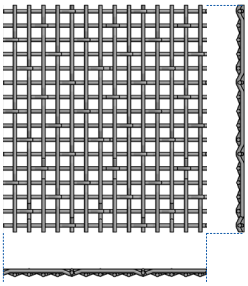
Plain Dutch Weave



Twill Dutch Weave



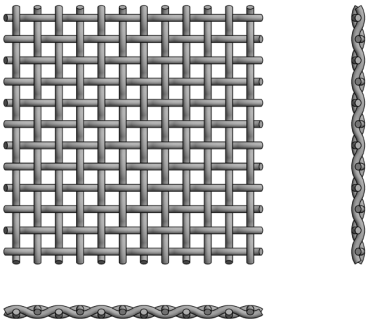
Reverse Dutch Weave



5-Heddle Weave

Plain Weave

The simplest and most commonly used type with square openings. It is woven by alternating the weft wire over and under the warp wire. The weft wire and warp wire are in the same diameter, delivering uniform opening sizes. It is often used for weaving coarse mesh and typically serves as the protection layer of coarse filtration and filter media.



BD — P — 11

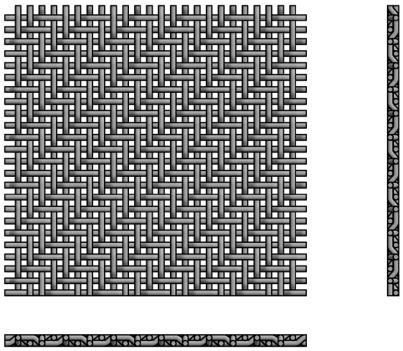
Company	Weave Type	Mesh Cout
Boedon	Plain Weave	1×1

Item	Mesh Count	Wire Diameter		Mesh Opening		Open Area
-	Warp/Inch × Weft/Inch	Inch	mm	Inch	mm	%
BD-P-11	1 × 1	0.08	2.03	0.92	23.37	84.6
BD-P-22	2 × 2	0.063	1.6	0.437	11.1	76.4
BD-P-33	3 × 3	0.054	1.37	0.279	7.09	70.1
BD-P-44	4 × 4	0.063	1.6	0.187	4.75	56
BD-P-44	4 × 4	0.047	1.19	0.203	5.16	65.9
BD-P-55	5 × 5	0.041	1.04	0.159	4.04	63.2
BD-P-66	6 × 6	0.035	0.89	0.132	3.35	62.7
BD-P-88	8 × 8	0.028	0.71	0.097	2.46	60.2
BD-P-1010	10 × 10	0.025	0.64	0.075	1.91	56.3
BD-P-1010	10 × 10	0.02	0.51	0.08	2.03	64
BD-P-1212	12 × 12	0.023	0.584	0.06	1.52	51.8
BD-P-1212	12 × 12	0.02	0.508	0.063	1.6	57.2
BD-P-1414	14 × 14	0.023	0.584	0.048	1.22	45.2
BD-P-1414	14 × 14	0.02	0.508	0.051	1.3	51
BD-P-1616	16 × 16	0.018	0.457	0.0445	1.13	50.7
BD-P-1818	18 × 18	0.017	0.432	0.0386	0.98	48.3
BD-P-2020	20 × 20	0.02	0.508	0.03	0.76	36
BD-P-2020	20 × 20	0.016	0.406	0.034	0.86	46.2
BD-P-2424	24 × 24	0.014	0.356	0.0277	0.7	44.2
BD-P-3030	30 × 30	0.013	0.33	0.0203	0.52	37.1
BD-P-3030	30 × 30	0.012	0.305	0.0213	0.54	40.8
BD-P-3030	30 × 30	0.009	0.229	0.0243	0.62	53.1
BD-P-3535	35 × 35	0.011	0.279	0.0176	0.45	37.9
BD-P-4040	40 × 40	0.01	0.254	0.015	0.38	36
BD-P-5050	50 × 50	0.009	0.229	0.011	0.28	30.3
BD-P-5050	50 × 50	0.008	0.203	0.012	0.31	36
BD-P-6060	60 × 60	0.0075	0.191	0.0092	0.23	30.5
BD-P-6060	60 × 60	0.007	0.178	0.0097	0.25	33.9
BD-P-7070	70 × 70	0.0065	0.165	0.0078	0.2	29.8
BD-P-8080	80 × 80	0.0065	0.165	0.006	0.15	23
BD-P-8080	80 × 80	0.0055	0.14	0.007	0.18	31.4
BD-P-9090	90 × 90	0.005	0.127	0.0061	0.16	30.1
BD-P-100100	100 × 100	0.0045	0.114	0.0055	0.14	30.3
BD-P-100100	100 × 100	0.004	0.102	0.006	0.15	36
BD-P-100100	100 × 100	0.0035	0.089	0.0065	0.17	42.3
BD-P-110110	110 × 110	0.004	0.1016	0.0051	0.1295	30.7
BD-P-120120	120 × 120	0.0037	0.094	0.0064	0.1168	30.7
BD-P-150150	150 × 150	0.0026	0.066	0.0041	0.1041	37.4
BD-P-160160	160 × 160	0.0025	0.0635	0.0038	0.0965	36.4
BD-P-180180	180 × 180	0.0023	0.0584	0.0033	0.0838	34.7
BD-P-200200	200 × 200	0.0021	0.0533	0.0029	0.0737	33.6
BD-P-250250	250 × 250	0.0016	0.0406	0.0024	0.061	36
BD-P-270270	270 × 270	0.0016	0.0406	0.0021	0.0533	32.2
BD-P-300300	300 × 300	0.0051	0.0381	0.0018	0.0457	29.7
BD-P-325325	325 × 325	0.0014	0.0356	0.0017	0.0432	30
BD-P-400400	400 × 400	0.001	0.0254	0.0015	0.37	36

WOVEN MESH

Twill Weave

Each weft wire passes alternately over and under 2 warp wires, staggered on successive warps. It is generally used for weaving fine mesh and is suitable for fine filtration than plain weave.



BD — T — 150150

Company	Weave Type	Mesh Cout
Boedon	Twill Weave	150×150

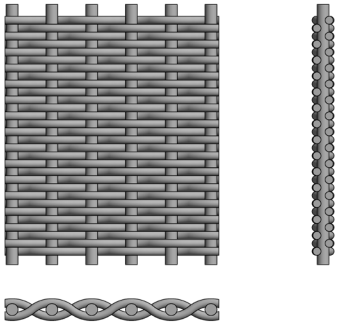
Item	Mesh Count	Wire Diameter	Mesh Opening	Open Area
-	Warp/Inch × Weft/Inch	mm	Inch	%
BD-T-150150	150 × 150	0.07	0.0993	34.4
BD-T-165165	165 × 165	0.058	0.0959	38.83
BD-T-180180	180 × 180	0.058	0.0831	34.69
BD-T-200200	200 × 200	0.058	0.069	29.52
BD-T-225225	225 × 225	0.05	0.069	33.62
BD-T-235235	235 × 235	0.045	0.0631	34.07
BD-T-250250	250 × 250	0.04	0.0616	36.76
BD-T-270270	270 × 270	0.04	0.0541	33.05
BD-T-280280	280 × 280	0.04	0.0507	31.25
BD-T-300300	300 × 300	0.035	0.0497	34.43
BD-T-300300	300 × 300	0.038	0.0467	30.4
BD-T-300300	300 × 300	0.04	0.0447	27.85
BD-T-315315	315 × 315	0.035	0.0456	32.01
BD-T-325325	325 × 325	0.035	0.0432	30.52
BD-T-350350	350 × 350	0.035	0.0376	26.82
BD-T-350350	350 × 350	0.03	0.0426	34.43
BD-T-363363	363 × 363	0.03	0.04	32.65
BD-T-385385	385 × 385	0.03	0.0377	31.01
BD-T-400400	400 × 400	0.025	0.0385	36.76
BD-T-400400	400 × 400	0.028	0.0355	31.25
BD-T-400400	400 × 400	0.03	0.0335	27.83
BD-T-420420	420 × 420	0.03	0.0302	25.17
BD-T-450450	450 × 450	0.025	0.0314	31
BD-T-500500	500 × 500	0.025	0.0258	25.79
BD-T-510510	510 × 510	0.025	0.0248	24.8
BD-T-530530	530 × 530	0.024	0.0239	24.9
BD-T-635635	635 × 635	0.018	0.022	30.25
BD-T-635635	635 × 635	0.02	0.02	25
BD-T-800800	800 × 800	0.016	0.0164	25.62

BOEDON

WOVEN MESH

Plain Dutch Weave

Similar to plain weave, but the diameter of the warp wire is bigger than the weft wire. During the weaving process, the finer weft wires are driven closer to form a tight filter medium that has higher filter rating and strength than plain weave. Besides, it also forms tapered or wedge-shaped openings. Typically, coarse mesh works as a reinforcing layer of the metal sintered mesh and the fine mesh as the filtration layer of the metal sintered mesh.



BD — PD — 885

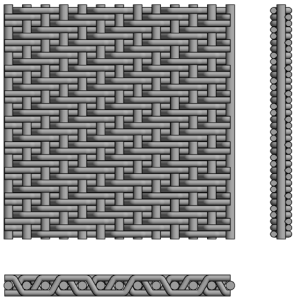
Company	Weave Type	Mesh Cout
Boedon	Plain Dutch Weave	8×85

Item	Mesh Count	Wire Diameter	Wire Diameter	Filter Rating	Weight	Weight
-	Warp/Inch × Weft/Inch	inch	mm	μm	lb/yd^2	kg/m^2
BD-PD-885	8 × 85	0.0140 × 0.01260	0.355 × 0.320	318–340	0.497	2.43
BD-PD-1070	10 × 70	0.0240 × 0.01400	0.600 × 0.350	300–325	0.622	3.04
BD-PD-1264	12 × 64	0.0230 × 0.01650	0.580 × 0.400	295–305	0.744	3.64
BD-PD-1488	14 × 88	0.0190 × 0.01200	0.500 × 0.330	195–205	0.644	3.15
BD-PD-20150	20 × 150	0.0098 × 0.00700	0.248 × 0.177	155–165	0.303	1.48
BD-PD-24110	24 × 110	0.0150 × 0.01000	0.355 × 0.250	145–155	0.552	2.7
BD-PD-24120	24 × 120	0.0130 × 0.00900	0.330 × 0.230	115–125	0.458	2.24
BD-PD-30150	30 × 150	0.0090 × 0.00700	0.230 × 0.180	95–105	0.327	1.6
BD-PD-40200	40 × 200	0.0070 × 0.00550	0.180 × 0.140	75–85	0.266	1.3
BD-PD-50250	50 × 250	0.0055 × 0.00450	0.140 × 0.114	55–65	0.204	1
BD-PD-60300	60 × 300	0.0055 × 0.00350	0.140 × 0.090	36–40	0.157	0.77
BD-PD-70400	70 × 400	0.0047 × 0.00256	0.120 × 0.065	36–40	0.138	0.67
BD-PD-80300	80 × 300	0.0049 × 0.00350	0.125 × 0.090	38–42	0.2	0.98
BD-PD-80400	80 × 400	0.0049 × 0.00280	0.125 × 0.071	38–42	0.166	0.81

WOVEN MESH

Twill Dutch Weave

It combines the Dutch and twill weaving process. Each warp wire passes over and under two fine weft wires. Weft wires are driven closer to each other, forming a tight woven mesh with tapered or wedge-shaped openings. In addition, it also forms smaller opening sizes. Typically, coarse mesh works as a reinforcing layer of the metal sintered mesh and the fine mesh as the filtration layer of the metal sintered mesh.



BD — TD — 20200

Company	Weave Type	Mesh Cout
Boedon	Twill Dutch Weave	20×200

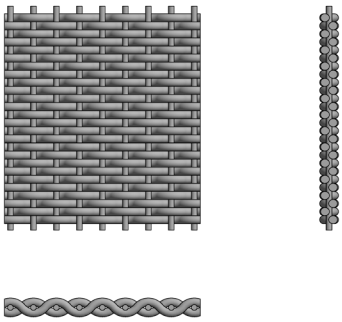
Item	Mesh Count	Wire Diameter	Wire Diameter	Filter Rating	Weight	Weight
-	Warp/Inch × Weft/Inch	inch	mm	μm	lb/yd^2	kg/m^2
BD-TD-20200	20 × 200	0.0135 × 0.0105	0.30 × 0.27	138	0.804	3.93
BD-TD-24220	24 × 220	0.0135 × 0.0100	0.30 × 0.25	105–112	0.814	3.98
BD-TD-2050	20 × 50	0.0098 × 0.0079	0.25 × 0.20	98–105	0.575	2.81
BD-TD-30360	30 × 360	0.0100 × 0.0060	0.02 × 0.15	80–84	0.509	2.49
BD-TD-40560	40 × 560	0.0070 × 0.0040	0.18 × 0.10	47–52	0.352	1.72
BD-TD-50500	50 × 500	0.0055 × 0.0043	0.14 × 0.11	37–45	0.36	1.76
BD-TD-80700	80 × 700	0.0040 × 0.0030	0.10 × 0.08	24–26	0.27	1.32
BD-TD-120160	120 × 160	0.0040 × 0.0025	0.10 × 0.063	28–32	0.094	0.46
BD-TD-120400	120 × 400	0.0040 × 0.0025	0.10 × 0.063	3–43	0.143	0.7
BD-TD-165800	165 × 800	0.0028 × 0.0020	0.071 × 0.05	14–16	0.148	0.72
BD-TD-1651400	165 × 1400	0.0028 × 0.0016	0.071 × 0.04	9–11	0.157	0.77
BD-TD-200600	200 × 600	0.0024 × 0.0018	0.061 × 0.046	19–21	0.103	0.5
BD-TD-2001400	200 × 1400	0.0028 × 0.0016	0.071 × 0.04	5–6	0.17	0.83
BD-TD-3252300	325 × 2300	0.0014 × 0.0010	0.035 × 0.025	2–3	0.094	0.46
BD-TD-4002800	400 × 2800	0.0012 × 0.0007	0.030 × 0.018	1–2	0.065	0.32

BOEDON

WOVEN MESH

Reverse Dutch Weave

It is in a reverse of the plain Dutch weave wire arrangement using larger warp wires and smaller weft wires. It adopts smaller warp wires to offer a tight mesh structure for filtration and larger weft wires deliver higher strength for the woven mesh to extend its service life. Polymer continuous filter belts are generally produced with reverse Dutch weave.



BD — RD — 4810

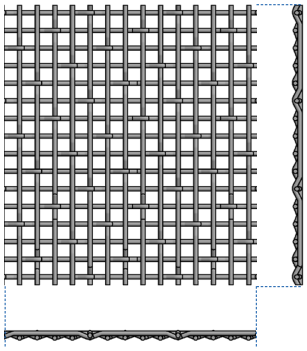
Company	Weave Type	Mesh Cout
Boedon	Reverse Dutch Weave	48×10

Item	Mesh Count	Wire Diameter	Wire Diameter	Filter Rating	Weight	Weight
-	Warp/Inch × Weft/Inch	inch	mm	μm	lb/yd^2	kg/m^2
BD-RD-4810	48 × 10	0.50 × 0.50	0.020 × 0.020	400	0.742	3.63
BD-RD-6318	63 × 18	0.40 × 0.60	0.016 × 0.024	220	0.847	4.14
BD-RD-7215	72 × 15	0.45 × 0.55	0.018 × 0.022	250	0.978	4.78
BD-RD-10016	100 × 16	0.35 × 0.45	0.014 × 0.018	190	0.791	3.87
BD-RD-10720	107 × 20	0.24 × 0.60	0.009 × 0.024	210	0.683	3.34
BD-RD-12016	120 × 16	0.35 × 0.45	0.014 × 0.018	180	0.918	4.49
BD-RD-13217	132 × 17	0.32 × 0.45	0.013 × 0.018	170	0.867	4.24
BD-RD-15224	152 × 24	0.27 × 0.40	0.011 × 0.016	160	0.763	3.73
BD-RD-16017	160 × 17	0.27 × 0.45	0.011 × 0.018	160	0.413	2.02
BD-RD-17018	170 × 18	0.27 × 0.45	0.011 × 0.018	160	0.826	4.01
BD-RD-17146	171 × 46	0.15 × 0.30	0.006 × 0.012	130	0.409	2
BD-RD-18020	180 × 20	0.27 × 0.45	0.011 × 0.018	170	0.877	4.29
BD-RD-20040	200 × 40	0.17 × 0.27	0.007 × 0.011	120	0.444	2.17
BD-RD-24040	240 × 40	0.15 × 0.25	0.006 × 0.010	70	0.405	1.98
BD-RD-26040	260 × 40	0.15 × 0.27	0.006 × 0.011	55	0.448	2.19
BD-RD-29076	290 × 76	0.09 × 0.19	0.004 × 0.007	40	0.26	1.27
BD-RD-30040	300 × 40	0.15 × 0.25	0.006 × 0.010	50	0.472	2.31
BD-RD-30080	300 × 80	0.15 × 0.20	0.006 × 0.010	35	0.509	2.49

WOVEN MESH

5-Heddle Weave

Every warp wire alternately up and down each single and four weft wires and vice versa. It provides a rectangular opening and offers high flow rates and good mechanical stability. It is widely used in drainage filtration, undercurrent filtration, and paper-making and chemical packing dehydration.



BD — 5H — 1513

Company	Weave Type	Mesh Cout
Boedon	5-Heddle Weave	15×13

Item	Mesh Count	Wire Diameter	Wire Diameter	Filter Rating	Weight	Weight
-	Warp/Inch × Weft/Inch	inch	mm	μm	lb/yd^2	kg/m^2
BD-5H-1513	15 × 13	0.9 × 0.9	1.15–1.20	0.85	2.6	5.67
BD-5H-2420	24 × 20	0.6 × 0.6	0.65–0.75	0.49	1.7	3.96
BD-5H-2817	28 × 17	0.47 × 0.47	0.75–0.80	0.46	1.41	2.53
BD-5H-3018	30 × 18	0.5 × 0.5	0.60–0.65	0.37	1.48	3
BD-5H-4825	48 × 25	0.3 × 0.3	0.46–0.50	0.25	0.82	1.64
BD-5H-4845	48 × 45	0.29 × 0.29	0.24–0.26	0.23	0.83	2
BD-5H-5536	55 × 36	0.3 × 0.3	0.25–0.28	0.175	0.84	2.05
BD-5H-6536	65 × 36	0.3 × 0.3	0.26–0.29	0.1	0.84	2.27
BD-5H-7740	77 × 40	0.24 × 0.24	0.38–0.40	0.095	0.68	1.65
BD-5H-8060	80 × 60	0.2 × 0.2	0.20–0.22	0.127	0.55	1.4
BD-5H-10759	107 × 59	0.16 × 0.16	0.16–0.18	0.077	0.45	1.09
BD-5H-107125	107 × 125	0.16 × 0.14	0.065–0.08	0.07	0.45	1.27
BD-5H-107132	107 × 132	0.16 × 0.14	0.055–0.065	0.055	0.44	1.3
BD-5H-13285	132 × 85	0.14 × 0.2	0.09–0.11	0.052	0.44	1.47

BOEDON

WOVEN MESH

Material

Stainless Steel

It includes 304, 304L, 316, 316L and other stainless steel materials, featuring rust resistance, corrosion resistance, acid and alkali resistance, high strength, durable, etc. It is widely used in liquid, gas and solid filtration applications.
It can be fabricated into filter discs, filter tubes and other filter elements or work as the protection layer to protect the main filtration layer.

Copper

It is 99.8% purity, featuring acid and alkali resistance, wear resistance, non-magnetic, sound insulation and good ductility.

It can be used as shielding screen in the circuits, laboratories and computer rooms. In addition, it can be installed on buildings for sound insulation or is fabricated into polymer extruder screen for polymer filtration.

Brass

It contains 65% copper and 35% zinc, featuring excellent filtration performance, bright color and smooth surface.
It can be as filtration materials, such as the filter disc or filter tube in the chemical, pharmacy and other fields, or used in paper-making dewatering, or used as the insect screen or window screen in home, hotel and other places.

Nickel

It is a sliver-white metal with high electrical conductivity, thermal conductivity, ductility and corrosion resistance. Nickel woven mesh is constructed from nickel wires with high purity not less than 99%.
It is widely used as the filter materials in the mining, oil, chemical, food, pharmaceutical, machinery and other fields.

Type	C (%)	Cu (%)	Fe (%)	Mn (%)	Ni (%)	S (%)	Si (%)	Co (%)	Cr (%)	Mg (%)	Ti (%)
Nickel 200	0.015	0.25	0.40	0.35	99.0	0.01	0.35	-	-	-	-
Nickel 205	0.02	0.001	0.005	0.001	99.97	0.001	0.001	0.001	0.001	0.001	0.001
Nickel 270	0.15	0.15	0.20	0.35	99.0	0.008	0.15	-	0.01–0.05	0.01–0.08	-

Monel

It is divided into Monel alloy 400 and Monel alloy K500. Alloy 400 has outstanding corrosion resistance performance while alloy K500 has higher tensile strength and hardness than Monel alloy 400 due to the addition of aluminum.
Monel woven mesh has excellent corrosion resistance performance and is widely used in the marine industries, such as the piping system and strainer baskets. It can also be used in petrochemical industries.

Type	C (%)	Mn (%)	Si (%)	S (%)	Cu (%)	Fe (%)	Ni (%)	Al (%)	Ti (%)
Monel 400	≤0.30	≤2.0	≤0.50	≤0.024	28.0–34.0	≤2.50	≥63.0	-	-
Monel K–500	≤0.25	≤1.5	≤0.50	≤0.01	27.0–33.0	≤2.0	≥63.0	2.3–3.15	0.35–0.85

Hastelloy

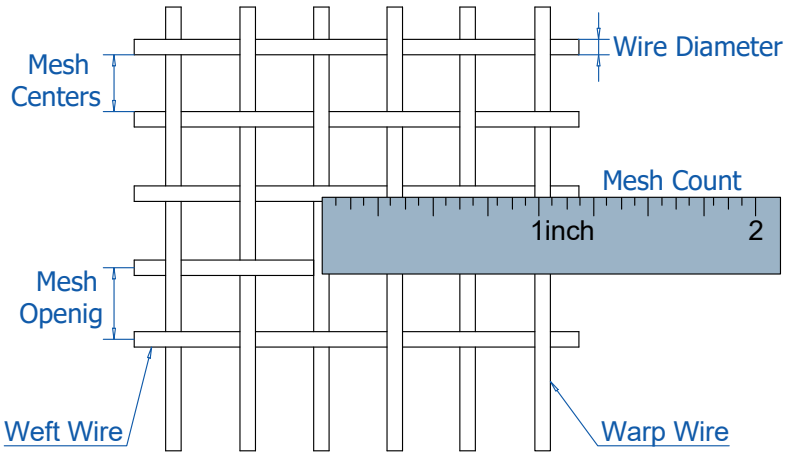
It is an alloy of nickel, molybdenum and chromium. It is the best corrosion resistant materials among all metal materials and has great chemical stability.
It is widely used in drugs manufacturing, chlorination devices, pesticide processing, incineration scrubber apparatus, etc.

Type	C (%)	Co (%)	Cr (%)	Cu (%)	Fe (%)	Mn (%)	Mo (%)	Ni (%)	P (%)	S (%)	Si (%)	Sn(%)	V (%)	W (%)
H–B	0.12	2.5	1.00	-	6.0	1.0	26.0–30.0	Rem.	0.01	-	0.03	-	0.6	-
H–C22	0.015	2.5	14.5–20.0	-	2.0–6.0	0.5	12.8–14.5	Rem.	-	0.02	0.08	-	0.35	-
H–C276	0.02	2.5	14.5–16.5	-	4.0–7.0	1.0	15.0–17.0	Rem.	0.03	0.02	0.08	-	0.35	3.0–4.5
H–X	0.08	-	17.0–20.0	1.0	Rem.	2.0	-	34.0–37.0	0.03	0.02	0.75–1.50	0.025	-	-

BOEDON

WOVEN MESH

Glossary



Mesh Centers

The distance between the middle point of two adjacent wires.

Wire Diameter

The thickness of the wire before weaving.

Mesh Opening

The distance between two adjacent wires.

Weft Wire

All wires running across the cloth as woven.

Warp Wire

All wires running lengthwise of the cloth as woven.

Mesh Count

The number of openings per lineal inch, reflecting the tightness of the mesh opening.

WOVEN MESH

Features & Application

Features

- Solid structure
- Multiple materials available
- Wide range applications
- High finish, simple and easy to maintain
- Easy to process
- Excellent resistant to acid, alkali, corrosion and high temperature

Application

Polymer Filtration
- Filter layer
- Support layer
- Protection layer

Chemical Filtration
- Filter layer
- Support layer
- Protection layer

Hot Gas Filtration
- Filter layer
- Support layer
- Protection layer

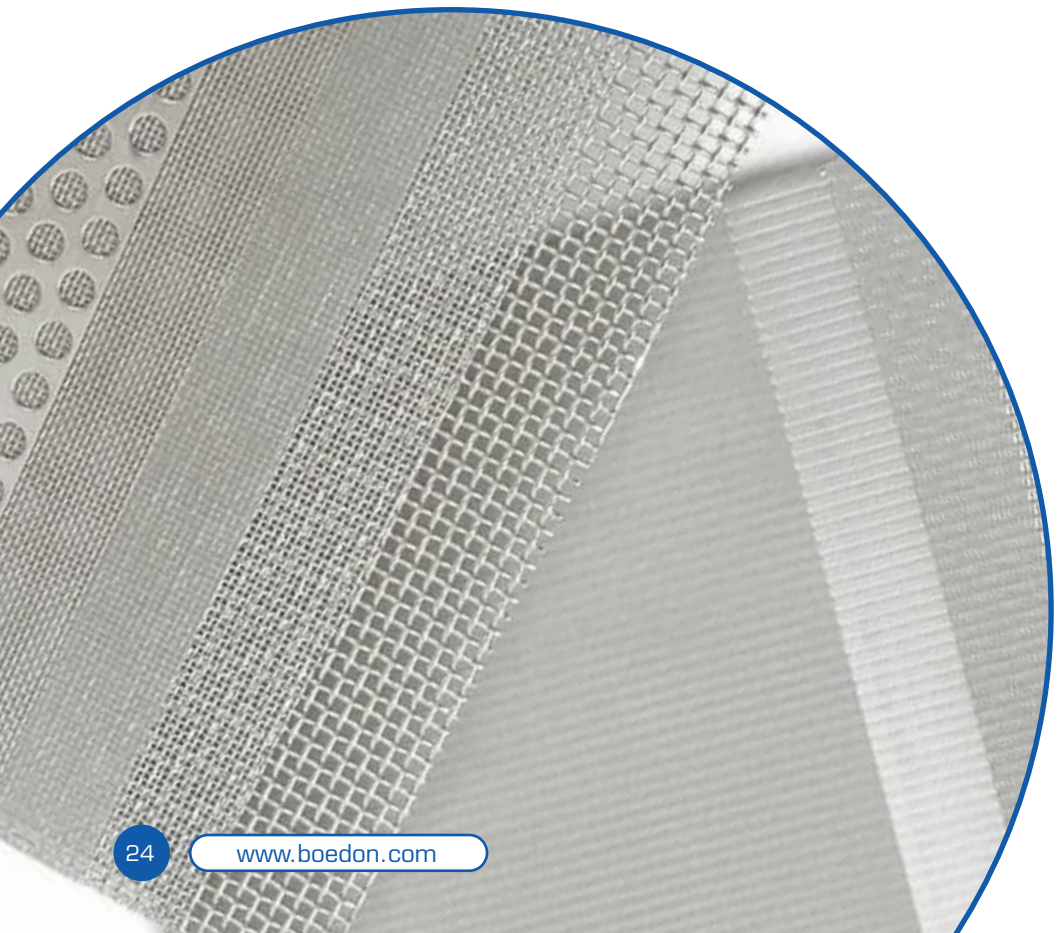
BOEDON

Sintered MESH

Sintered mesh performs well in fine filtration applications and has good resistant to acid, alkali and corrosion.

Sintered mesh is generally constructed from multiple layers of stainless steel woven mesh after special laminate pressing and vacuum sintering. It is a new type filter material with higher mechanical strength and overall rigidity, and can be fabricated into filter elements in various shapes, such as round, cylindrical, conical, and pleated shapes. Sintered mesh has uniform pores and not easy to deform, thus delivering a stable filter rating and easy to clean property. As a result, it is widely used in the filtration of chemical, petroleum, pharmaceutical industries, etc.

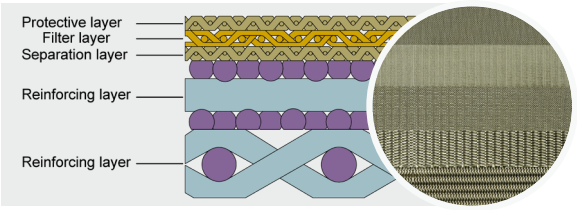
In addition, we can offer sintered mesh made of Hastelloy, Monel and other alloys to meet the needs of different customers.



SINTERED MESH

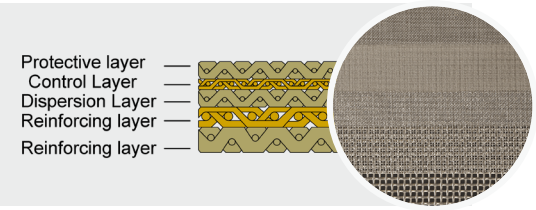
Category

Standard 5-Layer Sintered Mesh



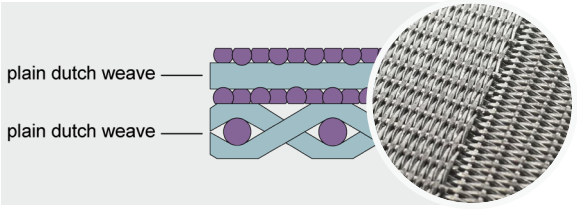
A standard and the most widely used sintered mesh. It is a combination of 5 layers of wire mesh with different openings and mesh counts after laminating and vacuum sintering. We can also offer 6-layer sintered mesh that adds a 8-mesh or a 12-mesh square weave mesh on the 5-layer sintered mesh to offer higher mechanical strength and compression strength.

All Square Weave Sintered Mesh



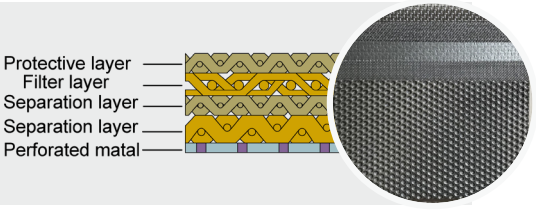
It is made of multiple layers of square plain weave wire mesh after sintering. Square weave wire mesh has square hole opening and high open area rate, so this sintered mesh has excellent permeability, low resistance, high flow rate, etc. It is widely used in powder handling, drying and cooling and other fields with functional requirements, for example, acting as sintered mesh candle filter in chemical filtration applications.

All Dutch Weave Sintered Mesh



It is constructed of two or three layers of plain Dutch weave wire mesh after laminating and sintering. It has uniform opening distribution and stable permeability and is widely used in fluidized bed, powder handling, air drying, cooling, etc.

Perforated Metal Sintered Mesh

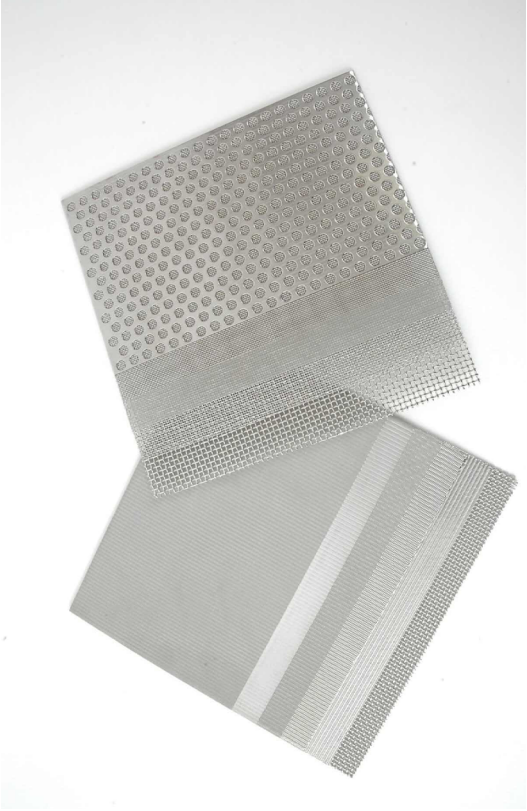


It is fabricated by sintering multiple layers of square weave mesh (or Dutch weave mesh) and stainless steel perforated metal (round or square pattern) together. As a result, it combines the good permeability of woven mesh and the excellent mechanical strength of perforated mesh. In addition, it has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

BOEDON

SINTERED MESH

Specification



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

Maximum operating temperature: 480 °C.

Filter rating: 1–100 μm

Filtration Performance of Standard 5-Layer Sintered Mesh

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

Notes

- The standard 5-layer sintered mesh is 8.4 kg/m2 in weight and 1.7 mm in thickness.
- The 6-layer sintered mesh is 14.4 kg/m2 in weight and 3.5 mm in thickness. It is added with a 12-mesh wire mesh on the 5-layer sintered mesh to offer better compression resistance.

SINTERED MESH

Features & Application

Features

- High temperature sintering, high strength and durable
- Corrosion resistance and up to 480 °C high temperature resistance.
- Stable filter rating
- Equipped with 2 protection layers, not easy to deform
- Stable opening size
- Can be cut, bent and welded

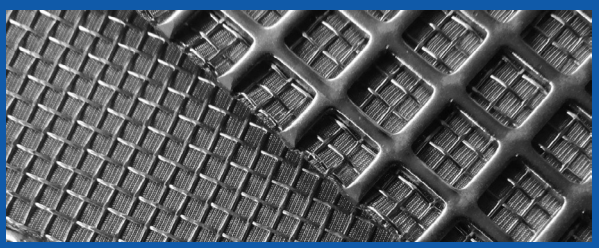
Application

Polymer Filtration

Polymer leaf disc filter production

Chemical Filtration

Sintered mesh candle filter production



Other Filter Elements

Fluidization plate and catalyst thickener filter

BOEDON

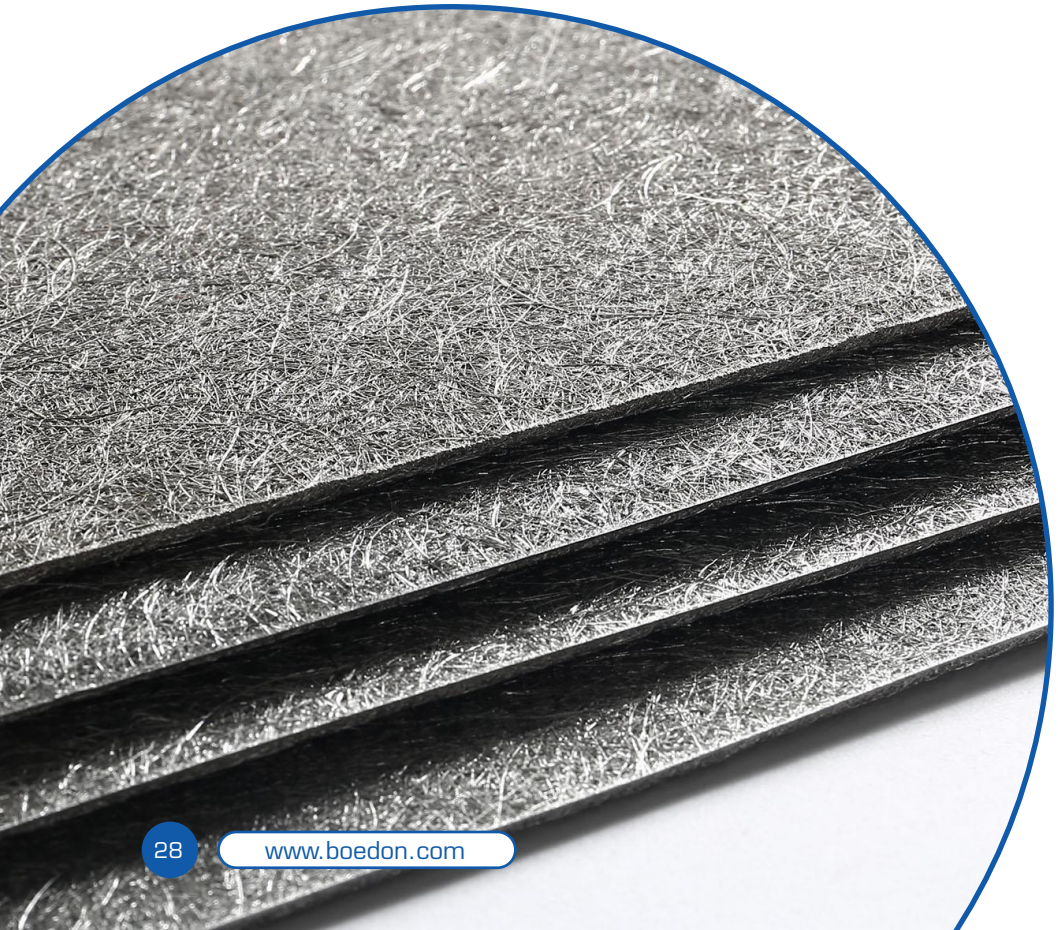
Sintered Felt

Sintered felt has high porosity and delivers high permeability and low pressure drop when filtering impurities.

Sintered felt is made of stainless steel, 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. Sintered mesh often acts as the main filtration layer in filtration applications and works with woven mesh as the protection layer. It can be pleated to increase the filter area and improve the filtration efficiency.

Sintered felt can be fabricated into filter elements of various shapes, such as cylindrical, pleated or round shape. It plays an important role in the filtration applications of various industries due to its precise filter rating.

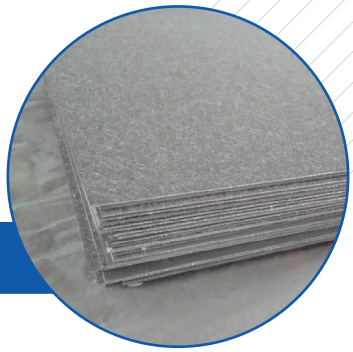


SINTERED FELT

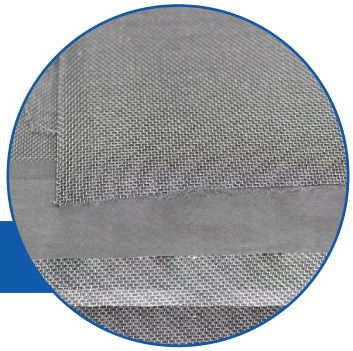
Category

Sintered felt is divided into sintered felt with or without woven mesh. Sintered felt without woven mesh is made of multiple layers of metal fibers after lapping and laminating. Sintered felt with woven mesh is produced by placing one or two layers of stainless steel woven mesh on ordinary sintered felt and then sintering. The addition of the woven mesh protects the filtration performance of the sintered felt. It is can be further divided into sintered felt with single-layer woven mesh or with double-layer woven mesh.

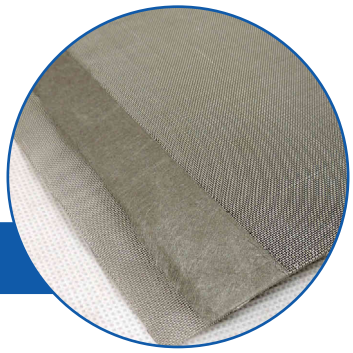
Sintered felt without woven mesh



Sintered felt with single-layer woven mesh



Sintered felt with double-layer woven mesh



BOEDON

SINTERED FELT

Specification

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

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

Filter rating: 1–60 μm

Porosity: about 85%

Standard size: 500 mm × 1000 mm, 600 mm × 1000 mm, 600 mm × 1200 mm, 1000 mm × 1000 mm, 1000 mm × 1200 mm, 1000 mm × 1480 mm, 1180 mm × 1450 mm, 1180 mm × 1500 mm

Specification of Standard Sintered Felt

Absolute Filter Rating (μm)	Bubble Point Pressure (Pa)±8%	Air Permeability (L/min/dm^2) ±10%	Porosity (±5%)	Dirt Holding Capacity (mg/cm^2) (±10%)	Thickness (mm) (±10%)	Breaking Strength (MPa) (±10%)
5	6800	47	75	5.0	0.30	32
7	5200	63	76	6.5	0.30	36
10	3700	105	77	7.6	0.37	32
15	2600	205	80	8.0	0.40	23
20	1950	280	81	15.5	0.48	23
25	1560	355	80	18.4	0.62	20
30	1300	520	80	25.0	0.63	23
40	975	670	78	25.9	0.68	26
60	650	1300	87	35.7	0.62	28

- *Bubble point test according to ISO 4003.*
- *Air permeability test according to ISO 4022.*

Specification of High-Pressure Type Sintered Felt

Absolute Filter Rating (μm)	Bubble Point Pressure (Pa)±8%	Air Permeability (L/min/dm^2) ±10%	Porosity (±5%)	Dirt Holding Capacity (mg/cm^2) (±10%)	Thickness (mm) (±10%)	Breaking Strength (MPa) (±10%)
20	2050	280	82	18	0.68	33×+20%
25	1500	350	80	20	0.66	30×+20%
30	1240	500	78	27	0.61	32×+20%
40	960	650	78	35	0.61	36×+20%

- *Bubble point test according to ISO 4003.*
- *Air permeability test according to ISO 4022.*
- *High pressure type sintered felt: compared with standard sintered felt, it is a thickened sintered felt applied with a certain pressure to get a higher dirt holding capacity and porosity.*

SINTERED FELT

Features & Application

Features

- Extreme high porosity, low pressure drop
- Multi layers 3D structure
- In-depth filtration property
- Great high temperature resistance
- High dirt holding capacity, long replacement period
- Easy to mold, fabricate and weld

Application

Polymer Filtration

- Polymer sintered filter production
- Polymer leaf disc filter production

Chemical Filtration

Sintered felt candle filter production

Hot Gas Filtration

Sintered felt filter bag production

BOEDON

Sintered Porous Filter

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

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

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

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

SINTERED POROUS FILTER

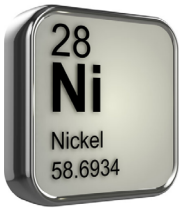
Material

Stainless steel

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

Titanium

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



Nickel

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

SINTERED POROUS FILTER

Connector Type

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

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

BOEDON

SINTERED POROUS FILTER

Specification

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

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

Filter rating: 0.2–80 μm

Porosity: 30%–45%

Max. compressive strength: 3.0 MPa

Specification of Sintered Stainless Steel Porous Filters

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

Specification of Sintered Titanium Porous Filters

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

Specification of Sintered Nickel Porous Filters

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

SINTERED POROUS FILTER

Features & Application

Features

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

Application

Chemical Filtration

- Filter layer
- Support layer
- Protection layer

BOEDON

Knitted Mesh

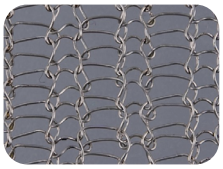
Our knitted mesh can meet the gas-liquid separation, filtration and purification requirements of various industries.

Knitted mesh is a continuous knitted mesh fabric produced by knitting metal wires on a circular knitting machine. This production process produces an extremely strong and flexible mesh fabric composed of a series of interlocking rings. It can be made of round or flat wires. The round wire knitted mesh is the most widely used type and the flat wire knitted mesh is used in special applications according to customers' requirements. It is widely used for gas-liquid filtration in the fields of petroleum, chemical industry, metallurgy, pharmaceuticals and for EMI shielding in the electronic field.

Knitted mesh can be made of stainless steel wires, copper wires, brass wires, galvanized wires, nickel wires and other alloy wires. It can also be made of PP, PTEF and other non-metallic wires and can be customized upon request.

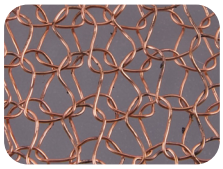
KNITTED MESH

Material



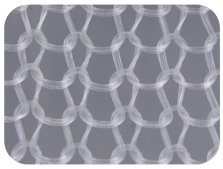
Stainless steel

Acid and alkali resistance, high temperature resistance



Copper

Corrosion resistance, reusable



PP

Better corrosion resistance, high strength

PP & stainless steel

Withstand extreme chemical conditions and good thermal stability

KNITTED MESH

Wire Type

The round wire knitted mesh is the most widely used type and the flat wire knitted mesh offers a larger contact area and an enhanced separation efficiency.

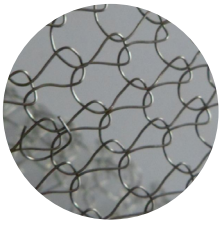
Round wire

Flat wire

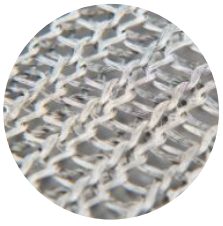
KNITTED MESH

Strand Type

Knitted mesh can be made of single-strand wires or multi-strand wires. The single-strand knitted mesh is simple and economical and is widely used in general-purpose applications. Multi-strand knitted mesh is made by knitting 3–12 strands metallic or non-metallic materials with a wire diameter ranging from 0.1 mm to 0.3 mm with knitters. In addition to the characteristics of common knitted mesh, it has a larger surface area and higher strength, and is mostly used in heavy duty applications, for example, the filtration and separation in chemical and petrochemical industries.



Single-strand



Multi-strand

KNITTED MESH

Surface Type

Flattened surface is a standard surface type for general-purpose applications. When the knitted mesh is produced completely, it is ginned by special technology to form ginning in various shapes, widths and depths. It can be applied in a variety of industrial applications.

Flattened type knitted mesh

Ginning type knitted mesh

BOEDON

KNITTED MESH

Specification

Material: stainless steel wire, copper wire, brass wire, galvanized wire, nickel wire and other alloy wires; PP, PTEF and other non-metallic wires.

Wire type: round wire, flat wire.

Strand type: single-strand type, multi-strand type

Surface type: flattened type, ginning type

Package: packed with Kraft paper and then into the carton.

Specification of Round Wire Knitted Mesh

Type	Wire Diameter (mm)	Width (mm)	Number of Stitches Per cm on Length	Number of Stitches Per cm Across Lay Flat
Fine Mesh	0.08–0.18	6–300	3.5	4.4
Medium-Fine Mesh	0.16	40–600	2.4	3.5
Standard Mesh	0.08–0.35	30–1000	1.6	1.9
Coarse Mesh	0.25–0.40	30–1000	1.6	0.74
Super Coarse Mesh	0.4–0.5	100–350	0.5	0.5

Specification of Flat Wire Knitted Mesh

Wire Diameter (mm)	Mesh Opening/Loop Size (mm)	Number of Needles	Maximum Width (mm)	Minimum Width (mm)
0.1 × 0.3	2 × 4	36	60	55
0.1 × 0.3	4.5 × 4,2.5 × 4	34	150	100
0.1 × 0.4	4.5 × 5.5,2.5 × 5.5	40	150	120
0.1 × 0.4	4 × 3.5,2.5 × 3.5	56	205	180
0.1 × 0.4	4 × 4,3 × 4	65	260	240
0.2 × 0.4	5.2 × 3.5,3 × 3.5	94	420	380
0.2 × 0.4	7.5 × 5,5 × 5	102	565	490
0.2 × 0.5	5 × 4,2.5 × 4	128	560	470

KNITTED MESH

Features & Application

Features

- High strength and great overall stability
- High filtration efficiency
- Excellent resistant to corrosion, acids, bases and high temperatures
- Excellent cleaning capacity
- Durable and long service life
- Soft and won't hurt the mechanical parts

Application

Demister & Tower Packing

Demister pad production

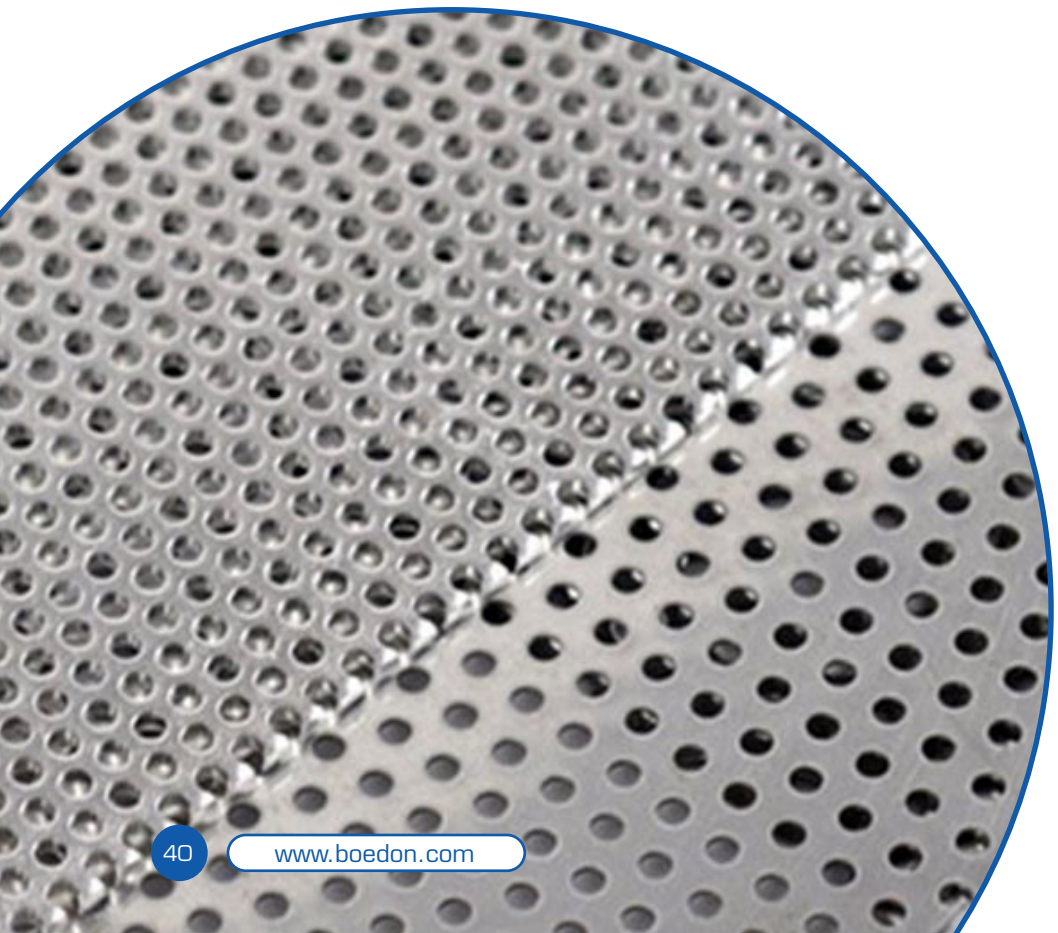
BOEDON

Perforated Metal

Our perforated metal has precise, stable filter pores to ensure stable filtration.

Perforated metal is a perforated metal sheet obtained by punching a variety of hole patterns on the metal sheets. Of which, round and square hole patterns are widely used in filter elements. It can not only act as filter elements in filters, but also serve as the support layer of industrial filters for higher pressure resistance and longer lifespan.

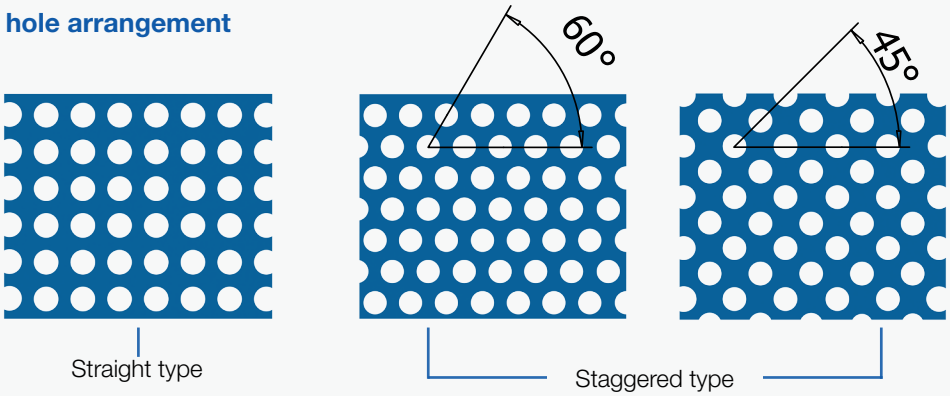
Perforated metal can be made of stainless steel, mild steel, aluminum, nickel or other alloys. We can provide customized solutions according to your filtration requirements and working conditions.



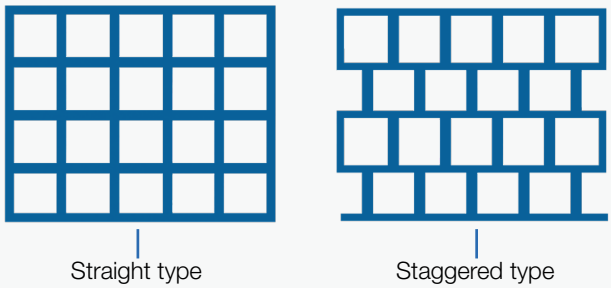
PERFORATED METAL

Hole Arrangement

Round hole arrangement

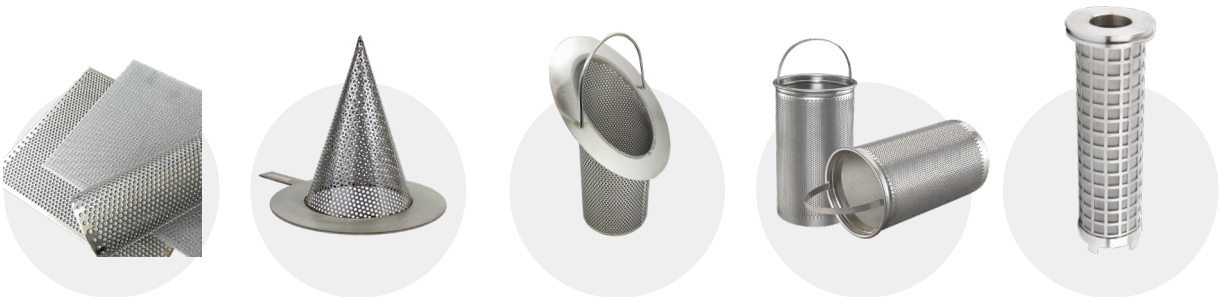


Square hole arrangement



PERFORATED METAL

Perforated Metal Products



Perforated metal sintered mesh

Temporary strainer

Slanted basket filter

Basket filter

Candle filter with perforated metal support

BOEDON

PERFORATED METAL

Specification

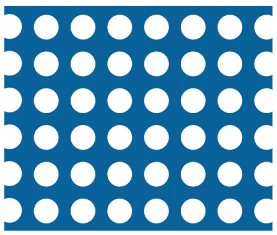
Material: stainless steel, low carbon steel, aluminum, nickel or other alloys, etc.

Hole shape: mainly round and square holes, or customized upon request.

Thickness: 0.3 mm, 0.5 mm, 0.8 mm, 1.0 mm, 1.5 mm, 2 mm, etc.

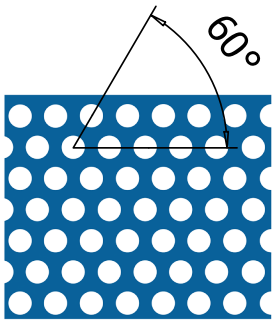
Hole pattern (for round holes): straight line, 60° staggered and 45° staggered.

Specification of Round Hole Perforated Metal (Straight Line)



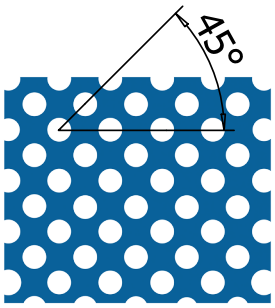
Hole Size		Hole Center		Open Area
inch	mm	inch	mm	%
0.023"	0.58	0.042"	1.07	22
0.027"	0.69	0.05"	1.27	23
0.033"	0.84	0.055"	1.4	28
0.045"	1.14	0.066"	1.68	36
0.05"	1.27	0.083"	2.11	29
3/16"	4.76	1/2"	12.7	10
1/4"	6.35	3/8"	9.53	34
1/4"	6.35	1/2"	12.7	20

Specification of Round Hole Perforated Metal (60° Staggered)



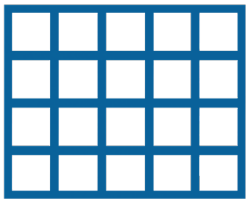
Hole Size		Hole Center		Open Area
inch	mm	inch	mm	%
3/64"	1.19	3/32"	2.38	23
1/16"	1.59	3/32"	2.38	41
1/16"	1.59	7/64"	2.78	27
1/16"	1.59	1/8"	3.17	23
5/64"	1.98	1/8"	3.17	36
3/32"	2.38	5/32"	3.97	33
3/32"	2.38	3/16"	4.76	23
1/8"	3.17	3/16"	4.76	40
1/8"	3.17	7/32"	5.56	30
1/8"	3.17	1/4"	6.28	23
9/64"	3.57	3/16"	4.76	51
5/32"	3.97	3/16"	4.76	63
5/32"	3.97	1/4"	6.28	34
3/16"	4.76	7/32"	5.56	67
3/16"	4.76	1/4"	6.28	50
3/16"	4.76	5/16"	7.94	32
3/16"	4.76	3/8"	9.83	23

Specification of Round Hole Perforated Metal (45° Staggered)

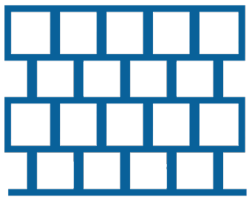


Hole Size		Hole Center		Open Area
inch	mm	inch	mm	%
0.02"	0.51	0.043"	1.09	20
1/32"	0.79	1/6"	4.23	23
0.045"	1.14	5/64"	1.98	32

Specification of Square Hole Perforated Metal (Straight Line and Staggered)



Straiht type



Staggered type

Hole Size		Hole Center		Open Area
inch	mm	inch	mm	%
3/64"	1.19	3/32"	2.38	23
1/16"	1.59	3/32"	2.38	41
1/16"	1.59	7/64"	2.78	27
1/16"	1.59	1/8"	3.17	23
5/64"	1.98	1/8"	3.17	36
3/32"	2.38	5/32"	3.97	33
3/32"	2.38	3/16"	4.76	23
1/8"	3.17	3/16"	4.76	40
1/8"	3.17	7/32"	5.56	30
1/8"	3.17	1/4"	6.28	23
9/64"	3.57	3/16"	4.76	51
5/64"	1.98	1/8"	3.17	36
3/32"	2.38	5/32"	3.97	33
3/32"	2.38	3/16"	4.76	23
1/8"	3.17	3/16"	4.76	40
1/8"	3.17	7/32"	5.56	30
1/8"	3.17	1/4"	6.28	23
9/64"	3.57	3/16"	4.76	51
5/32"	3.97	3/16"	4.76	63
5/32"	3.97	1/4"	6.28	34
3/16"	4.76	7/32"	5.56	67
3/16"	4.76	1/4"	6.28	50
3/16"	4.76	5/16"	7.94	32
3/16"	4.76	3/8"	9.83	23

BOEDON

PERFORATED METAL

Features & Application

Features

- Uniform filtration holes, stable filtration
- Rigid structure, strong support
- Corrosion resistance, acid and alkali resistance
- Stable filtration holes and great resistance to deformation
- Outstanding wear resistance
- Easy to cut and fabricate

Application

Pipeline Filter

- T strainer basket filter production
- Y strainer filter production
- Temporary strainer production

Automatic Self Cleaning Filter

- Sintered mesh self cleaning filter support layer

Chemical Filtration

- Sintered mesh candle filter production

DEMISTER & TOWER PACKING

02.

Packed towers are used increasingly in a variety of applications in the chemical process industries, such as scrubbing, distillation and precipitation.

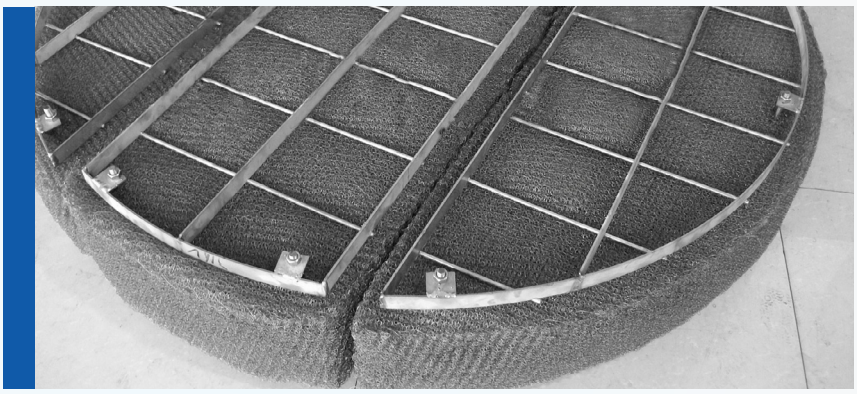
During packed tower, if the tower packing malfunctions, the mass transfer efficiency is greatly reduced and cause limitless problems and the entire process will suffer consequences that can be costly as well as lead to fines and shutdown.

Besides, if the filtration and separation is weak, there will be lots of pollutes discharges entraining valuable elements.

How Boedon Solve?

Boedon offers demisters and tower packings for distillation, scrubbers and other packed towers to increase surface areas, minimize pressure drops and improve mass transfer efficiency. No matter you want to build a new unit or replace your existing packing towers, our specialist will select the appropriate tower packing products for each application to ensure efficiency, performance and service life.

Products We Supply



Demister Pads

Install at the top of packed towers to capture micron sized mists and dry the vapor. It help to to reduce air pollution, save valuable materials and increase quality of processed liquids.

Random Packings

Fills the column with random structures, which uneven distribution and orientation of the random packings increase the surface area and enhances the transfer of mass between two fluids

Structured Packings

Honeycombed structures force fluids to take complicated paths down the length of the column to create a large surface area for contact between the liquid and the packing material without impeding gas flow.

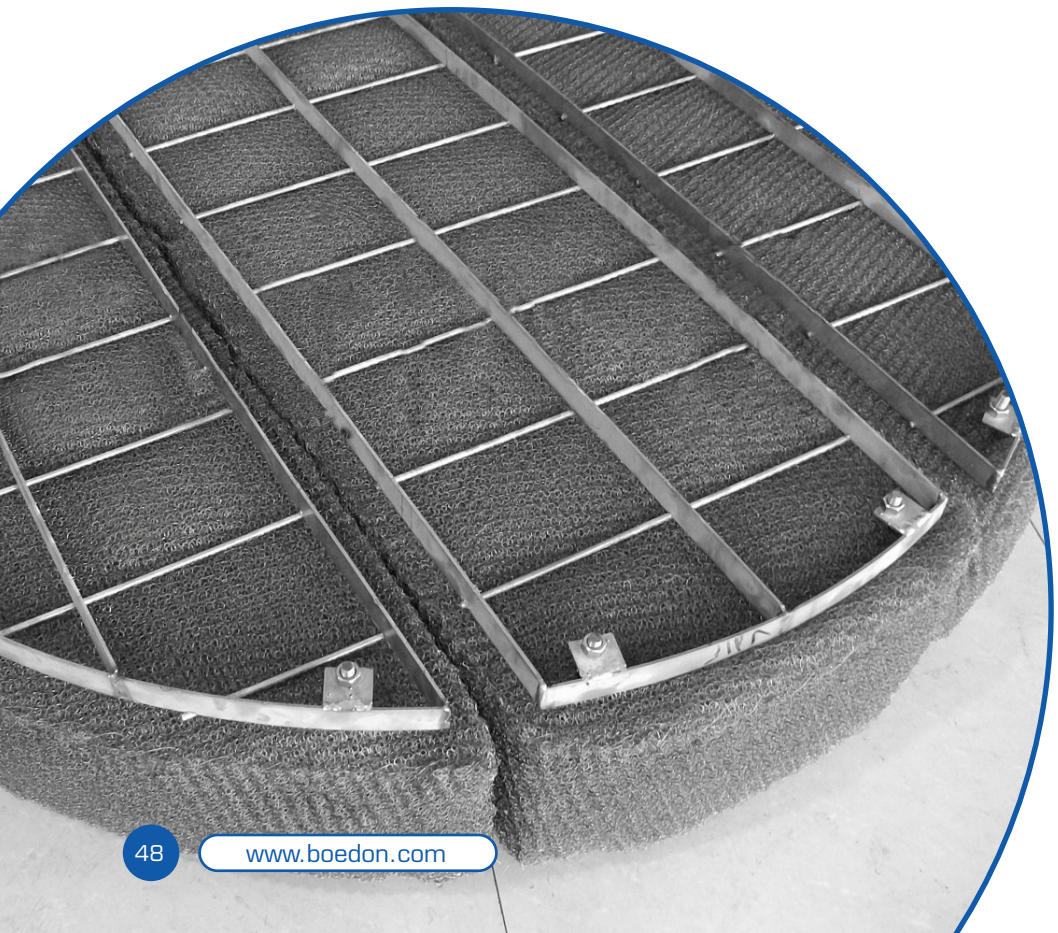
BOEDON

Demister Pads

We can supply full ranges of demister pads for liquid and gas separation. We can supply drawings and installation guide for your projects.

Demister pads, also called demister, mister eliminator, vapor pad, is installed at the top of packed tower to be used for removing micron-sized liquid particles from a vapor stream. It is made of knitted wire mesh, which is woven interlocked to increase contact surface and improve separating efficiency. Stainless steel, copper, Monel and other alloy as well as polypropylene and other non-metallic materials make demister pad be used in more corrosive and high temperature applications. Generally, the demister pad is commonly used with structured packing and random packing

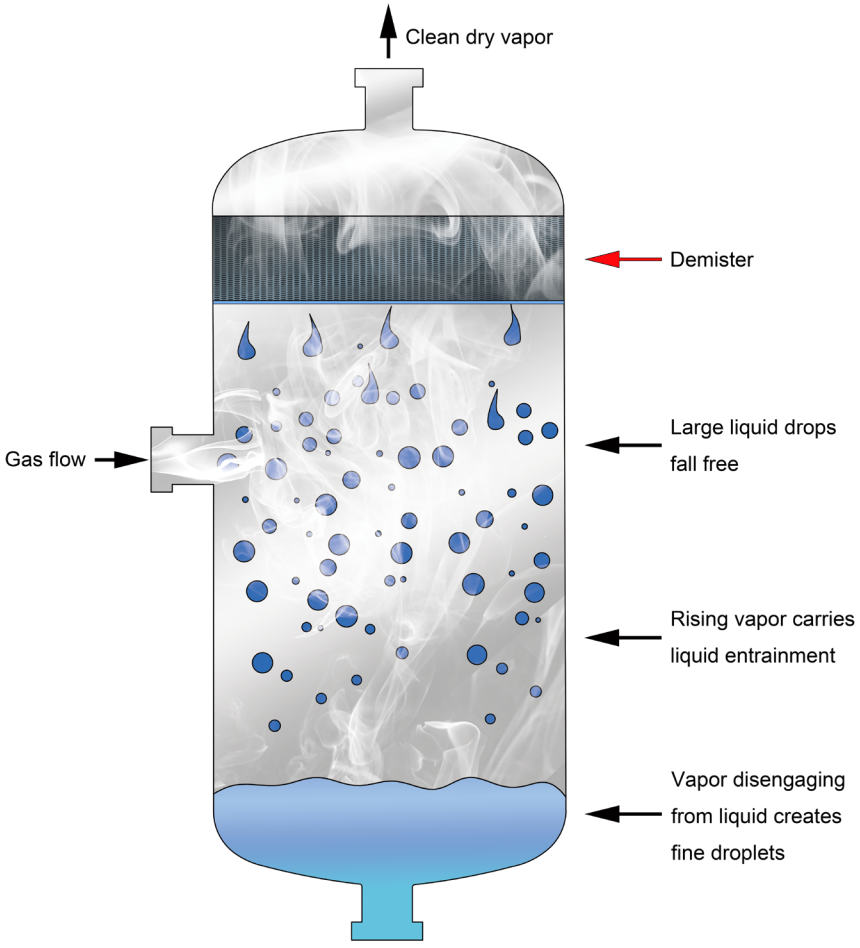
Demister pads can help to improve the operating condition, optimize process indicators, increase the amount of processing and recovery of valuable materials, protect the environment, and decrease air pollution.



DEMISTER PADS

Working Principles

The demister (demister pads) are installed at the top of packed tower. When the vapors carrying liquid entrainment rises at a constant speed and passes through the demister surface (interlocking knitted wire mesh), the vapor can easily passing through the demister while the rising liquid entrainment will collide with the mesh filament due to the inertia effect and are captured by the woven interlocked structure. Then the liquid will grow bigger and fall free when the droplets gravity exceeding vapor rising force and liquid surface tension force. As a result, the clean vapor passes through the demister and discharge out of the packed tower.



Materials

Material	Products Separated
SS304	For nitric acid, water steam
SS304L	For petroleum Fractions
SS316	For fatty acids, reduced crude
SS316L	Reduced crude containing acid & other corrosive
Copper	Alcohol, Aldehyde, Amines
Monel	For caustic soda & other alkali, dilute acid
Nickel	For caustic soda, food product
Alloy 20	Nitric acid, alkaline PH
Teflon FEP	For Highly corrosive conditions
Hostaflon PTFE	For Highly corrosive conditions
Inconel 825	For dilute acid media & alkaline solution
Inconel 625	For phosphoric and fatty acid
Polypropylene	For hydrilic acid, corrosive service at moderate temperature
P.V.D.F.	Corrosive Service for Temperature 140 °C
P.T.F.E. / FEP / PFA / ETFE / ECTFE	For highly corrosive and high temperature
Hostaflon	Sulphuric acid plant, temperature up to 150 °C
Glass Wool	For very fine mists

Stainless steel demister pad

PP demister pad

Technical Data of Demister Pads

Item	Density (kg/m^3)	Free volume (%)	Surface area (m^2/m^3)	Application
BDP-80	80	99.0	158	Moderate fouling, minimum press drop, dirty service
BDP-144	144	98.2	280	Heavy duty, e.g. oil & gas separators
BDP-128	128	98.4	460	Light fouling, high velocity, dirty service
BDP-193	193	97.5	375	General purpose, optimum efficiency & pressure drop, heavy duty
BDP-220	220	97.2	905	General purpose, optimum efficiency & pressure drop, high corrosive condition

DEMISTER PADS

Features & Application

Features

- Large surface area and high separating and removal efficiency.
- less maintenance and service required.
- Adapt to any corrosive and temperature conditions.
- Control emissions discharge and reduce air pollution
- Eliminate or reduce equipment damage caused by corrosion
- Increase the amount of processing and recovery of valuable materials

Application

Chemical Process Industry

- Absorbers
- Distillation and Rectification Columns
- Distillation Plants for Sea Water
- Gas Compression
- Strippers
- Steam Drums

Oil and Gas Production

- Amine Absorbers
- Separators
- Compressors
- Glycol dehydration
- Scrubbers

Power Generation

- Desalination Plants for Sea Water
- Flue Gas Desulphurization (FGD)
- Steam Drums
- Compressors

Refinery Operations

- Distillation
- Catalytic Cracking
- Alykylation
- Strippers
- Compressors
- Condensors

BOEDON

Random Packing

We offer random packing in different materials and structures to meet your various gas-liquid mass transfer demands.

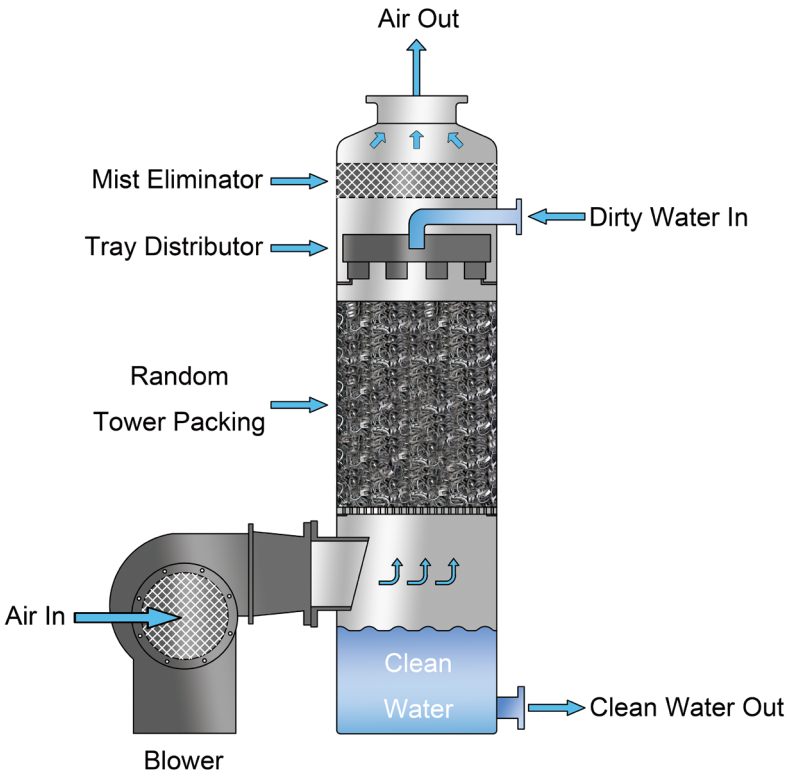
Random packing can be made of metal, plastic or ceramic materials. It is an efficient tower packing widely used in distillation, absorption and fractionation links in chemical plants and refineries. Random packing is divided into Raschig rings, Pall rings, saddle rings, mini rings and customized rings by structure, featuring low pressure drop, high flow rate and high mass transfer performance. We can offer random packing to satisfy your separation demands and working environments.

RANDOM PACKING

Working Principles

Random packing is widely used in absorption towers, distillation towers, degasification towers and stripping towers, aiming to achieve gas-liquid mass transfer. The following is an example of the working principle of random packing in stripping towers.

Stripping is a process of recovering the solute absorbed from the fluid and separating liquid from solute. First, differing from the orderly distribution of structured packing, random packing is randomly distributed on the packed bed, strippant (gas) enters from the bottom and moves upward. Dirty water sprays downward from tray distributors. During the process, the solute molecules are transferred into gases through an endothermic process. Gases and liquids contact each other in a form of counter-flow in the tower. The irregular distribution of random packing increases the surface area and enhances the mass transfer between two fluids. The solute turns into gas and mixes with strippant. Droplets are removed through the mist eliminator at the top of the tower and flows out from the top of the tower. Clean liquid moves downward due to gravity and flows out at the bottom of the tower.



BOEDON

RANDOM PACKING

Specification

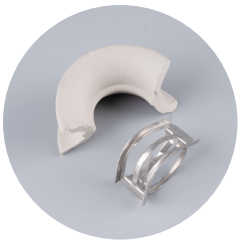
Material	Metal (stainless steel, carbon steel or other alloy), plastic (PP, PE, PVDF, etc.), ceramic
Structure	Raschig ring, Pall ring, saddle ring, mini ring, etc.

RANDOM PACKING

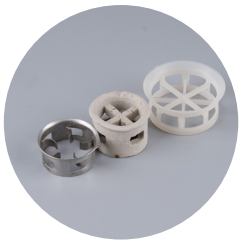
Popular Types

Raschig ring
Metal/plastic/ceramic

Pall ring
Metal/plastic/ceramic



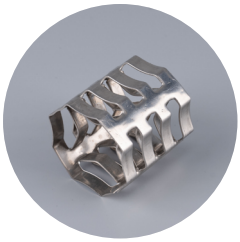
Saddle ring
Metal/plastic/ceramic



Cascade mini ring
Metal/plastic/ceramic

Super mini ring
Metal/plastic/ceramic

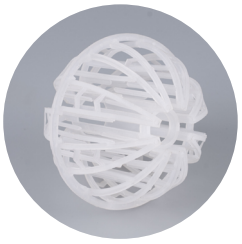
Super Raschig ring
Metal only



VSP ring
Metal only

Dixon ring
Metal only

Polyhedral hollow ball
Plastic only



Tri-Pack
Plastic only

Pentagon ring
Plastic only

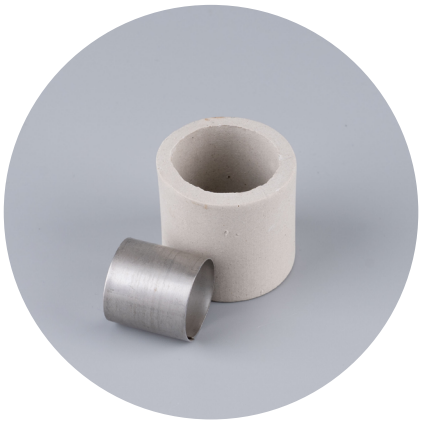
Super saddle ring
Plastic/ceramic

RANDOM PACKING

Raschig Ring

BD — M — RR — 01

Company	Material	Packing Type	Item
Boedon	M - Metal P - Plastic C - Ceramic	Raschig Ring	



Model	Size (D × T × H)	Bulk Density	Bulk Quantity	Surface Area	Voidage(%)
-	mm	kg/m^3	(pcs/m^3)	(m^2/m^3)	%
BD-M-RR-01	16 × 0.5 × 16	660	2480000	350	90
BD-M-RR-02	25 × 0.8 × 25	610	55000	220	93
BD-M-RR-03	50 × 1.0 × 50	430	7000	110	95
BD-M-RR-04	80 × 1.0 × 80	400	1820	60	96
BD-P-RR-05	25 × 1.0 × 25	88	48500	210	90
BD-P-RR-06	50 × 1.5 × 50	65	6500	105	92
BD-C-RR-07	6 × 2 × 6	750	3110000	789	73
BD-C-RR-08	10 × 2 × 10	700	720000	460	70
BD-C-RR-09	15 × 2 × 15	700	250000	350	70
BD-C-RR-10	25 × 2.5 × 25	600	49000	235	78
BD-C-RR-11	38 × 4 × 38	550	1200	178	75
BD-C-RR-12	50 × 5 × 50	530	6800	136	81
BD-C-RR-13	80 × 8 × 80	650	1930	108	680
BD-C-RR-14	100 × 10× 10	680	100	90	70
BD-C-RR-15	150 × 15 × 150	700	295	75	68

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RANDOM PACKING

Saddle Ring

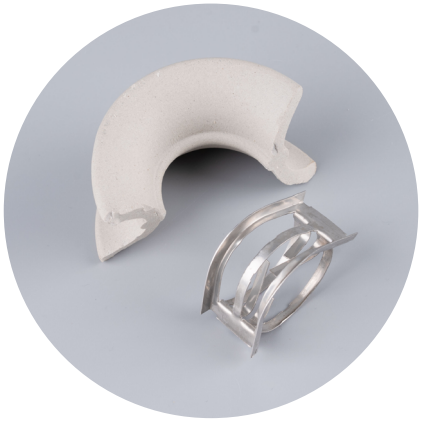
BD — M — PR — 01

Company	Material	Packing Type	Item
Boedon	M - Metal P - Plastic C - Ceramic	Pall Ring	

Model	Size (D × T × H)	Bulk Density	Bulk Quantity	Surface Area	Voidage(%)
-	mm	kg/m^3	(pcs/m^3)	(m^2/m^3)	%
BD-M-PR-01	16 × 0.3 × 16	360	201000	346	95.5
BD-M-PR-02	25 × 0.4 × 25	302	5100	212	96.2
BD-M-PR-03	25 × 0.5× 25	400	54000	216	95
BD-M-PR-04	25 × 0.6 × 25	461	5400	219	94.2
BD-M-PR-05	38 × 0.4 × 38	262	15180	145	96.7
BD-M-PR-06	38 × 0.6 × 38	328	15000	146	95.9
BD-M-PR-07	50 × 0.5 × 50	194	6500	106	97.5
BD-M-PR-08	50 × 0.7 × 50	285	6500	108	96.4
BD-M-PR-09	50 × 0.9 × 50	365	6500	109	95.4
BD-M-PR-10	76 × 0.8 × 76	205	183	69	97.4
BD-M-PR-11	90 × 1.0 × 90	229	1160	62	97.1
BD-P-PR-12	16 × 1 × 16	141	230000	260	91
BD-P-PR-13	25 × 1.2 × 25	85	48300	213	91
BD-P-PR-14	38 × 1.4× 38	82	15800	151	91
BD-P-PR-15	50 × 1.5 × 50	60	6300	100	92
BD-P-PR-16	76 × 2.6 × 76	62	1930	72	92
BD-C-PR-17	38 × 4 × 38	570	13400	150	75
BD-C-PR-18	50 × 5 × 50	550	6800	120	78
BD-C-PR-19	80 × 8 × 80	520	1950	75	80

RANDOM PACKING

Saddle Ring



BD — M — SR — 01

Company	Material	Packing Type	Item
Boedon	M - Metal P - Plastic C - Ceramic	Saddle Ring	

Model -	Size (D × T × H) mm	Bulk Density kg/m^3	Bulk Quantity (pcs/m^3)	Surface Area (m^2/m^3)	Voidage %	Packing Factor m^{-1}
BD-M-SR-01	16.5 × 0.25 × 10.6	223	324110	275	97.2	300.2
BD-M-SR-02	16.5 × 0.3 × 10.6	263	324110	275	96.7	304.9
BD-M-SR-03	25.9 × 0.25 × 12.6	163	127180	415	94.8	489.2
BD-M-SR-04	25.9 × 0.3 × 12.6	192	127180	344	95.5	393.2
BD-M-SR-05	25.9 × 0.4 × 12.6	266	127180	199	96.6	221
BD-M-SR-06	35.4 × 0.25 × 18.8	124	51180	151	98.4	158.3
BD-M-SR-07	35.4 ×0.3 × 18.8	146	51180	151	98.1	159.7
BD-M-SR-08	35.4 × 0.4 × 18.8	203	51180	151	97.4	163.2
BD-M-SR-09	48.5 × 0.3 × 28.6	95	15550	97	98.8	101
BD-M-SR-10	48.5 × 0.4 × 28.6	132	15550	97	98.3	102.5
BD-M-SR-11	48.5 × 0.5 × 28.6	169	15550	97	97.9	103.9
BD-M-SR-12	67 × 0.4 × 37	113	9000	84	98.6	87.3
BD-M-SR-13	67 × 0.5 × 37	145	9000	84	98.2	88.4
BD-M-SR-14	76.5 × 0.4 × 42.5	83	4690	61	99	62.9
BD-M-SR-15	76.5 × 0.5 × 42.5	106	4690	61	98.7	63.5
BD-P-SR-16	25 × 1.2 × 13	102	97680	288	85	467
BD-P-SR-17	38 × 1.2 × 19	91	25200	264	95	309
BD-P-SR-18	50 × 1.5 × 25	75	9400	250	96	282
BD-P-SR-19	76 × 3 × 38	59	3700	200	97	220
BD-C-SR-20	16 × 2 × 12	710	382000	450	70	1311
BD-C-SR-21	25 × 3 × 19	610	84000	250	74	617
BD-C-SR-22	38 × 4 × 30	590	25000	164	75	389
BD-C-SR-23	50 × 5 × 40	560	9300	142	76	323
BD-C-SR-24	76 × 9 × 57	520	1800	91	78	194

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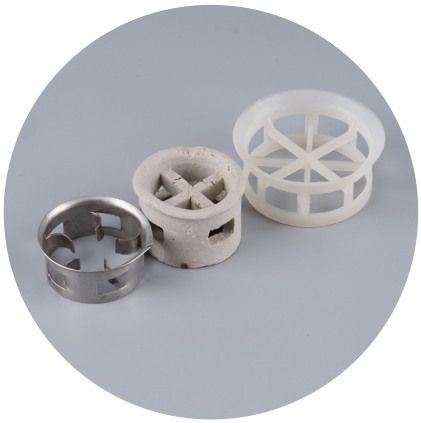
RANDOM PACKING

Cascade Mini Ring

BD — M — CMR — 01

Company	Material	Packing Type	Item
Boedon	M - Metal P - Plastic C - Ceramic	Cascade Mini Ring	



Model	Size (D × T × H)	Bulk Density	Bulk Quantity	Surface Area	Voidage	Packing Factor
-	mm	kg/m^3	(pcs/m^3)	(m^2/m^3)	%	m^{-1}
BD-M-CMR-01	25 × 0.5 ×12.5	383	98120	221	95	257
BD-M-CMR-02	38 × 0.6 × 19	325	30040	153	96	173
BD-M-CMR-03	50 × 0.8 × 25	308	12340	109	96	123
BD-M-CMR-04	76 × 1.2 × 38	306	3540	72	96	81
BD-P-CMR-05	25 × 1.2 × 13	98	81500	228	90	313
BD-P-CMR-06	38 × 1.4 × 19	58	27200	133	93	176
BD-P-CMR-07	50 × 1.5 × 25	55	10740	114	94	143
BD-P-CMR-08	76 × 3 × 38	698	3420	90	93	112
BD-C-CMR-09	25 × 3 × 15	650	72000	210	73	540
BD-C-CMR-10	38 × 4 × 23	630	21600	153	74	378
BD-C-CMR-11	50 × 5 × 30	580	9100	102	76	232
BD-C-CMR-12	76 × 9 × 46	530	2500	75	78	158

RANDOM PACKING

Super Mini Ring

BD — M — SMR — 01

Company	Material	Packing Type	Item
Boedon	M - Metal P - Plastic C - Ceramic	Super Mini Ring	

Model	Size (D × T × H)	Bulk Density	Bulk Quantity	Surface Area	Voidage	Packing Factor
-	mm	kg/m^3	(pcs/m^3)	(m^2/m^3)	%	m^{-1}
BD-M-SMR-01	16 × 0.5 × 5.5	604	630000	348	92	312
BD-M-SMR-02	25 × 0.6 × 9	506	160000	228	94	280
BD-M-SMR-03	38 × 0.7 × 12.7	390	48000	150	95	175
BD-M-SMR-04	50 × 0.8 × 17	275	21500	115	97	156
BD-P-SMR-05	38 × 1.2 × 12	70	46000	145	92	186
BD-P-SMR-06	50 × 1.5 × 17	67	21500	128	93	159
BD-P-SMR-07	76 × 2.5 × 26	58	6500	116	93	144
BD-C-SMR-08	16 × 1.5 × 10	750	300500	250	87	1150
BD-C-SMR-09	25 × 2.0 × 16	700	87040	180	85	800
BD-C-SMR-10	30 × 2.5 × 18	690	55000	170	85	850
BD-C-SMR-11	38 × 3.5 × 23	720	27600	140	85	905
BD-C-SMR-12	50 × 4.5 × 30	650	10100	110	84	880

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RANDOM PACKING

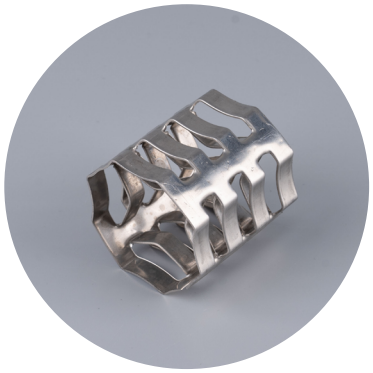
Super Raschig Ring

BD — M — SRR — 01

Company	Material	Packing Type	Item
Boedon	M - Metal	Super Raschig Ring	

Model	Size	Bulk Density 304	Bulk Quantity	Surface Area	Voidage	Packing Factor
-	mm	kg/m^3	(pcs/m^3)	(m^2/m^3)	%	m^{-1}
BD-M-SRR-01	0.3	230	180000	315	97.1	343.9
BD-M-SRR-02	0.5	275	145000	250	96.5	278
BD-M-SRR-03	0.6	310	145000	215	96.1	393.2
BD-M-SRR-04	0.7	240	45500	180	97	242.2
BD-M-SRR-05	1	220	32000	150	97.2	163.3
BD-M-SRR-06	1.5	170	13100	120	97.8	128
BD-M-SRR-07	2	165	9500	100	97.9	106.5
BD-M-SRR-08	3	150	4300	80	98.1	84.7
BD-M-SRR-09	3.5	150	3600	67	98.1	71

Metal VSP Ring



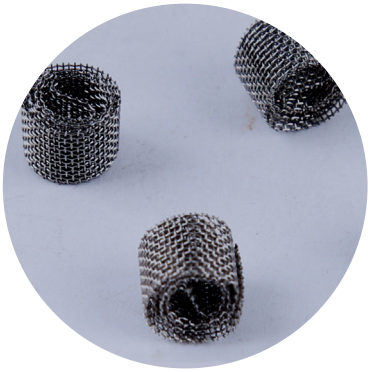
BD — M — VSPR — 01

Company	Material	Packing Type	Item
Boedon	M - Metal	VSP Ring	

Model	Size (D × T × H)	Bulk Density 304	Bulk Quantity	Surface Area	Voidage	Packing Factor
-	mm	kg/m^3	(pcs/m^3)	(m^2/m^3)	%	m^{-1}
BD-M-VSPR-01	25 × 0.6 × 25	420	59200	250	93	310
BD-M-VSPR-02	38 × 0.6 × 38	396	14000	138	94.7	163
BD-M-VSPR-03	50 × 0.8 × 50	350	7000	121	95	144
BD-M-VSPR-04	76 × 1.0 × 76	280	1950	75	95	86

RANDOM PACKING

Dixon Ring



BD — M — DR — 01

Company	Material	Packing Type	Item
Boedon	M - Metal	Dixon Ring	

Model	Specs	Mesh Size	Tower Diameter	Theoretical Plate	Bulk Density	Surface Area	Voidage	Pressure Drop
-	mm	mesh	mm	pcs/m	(kg/m^3)	(m^2/m^3)	%	mbar/m
BD-M-DR-01	2 × 2	100	10–35	60–65	670	3700	91	30
BD-M-DR-02	3 × 3	100	20–50	50–55	520	2800	93	15
BD-M-DR-03	4 × 4	100	20–70	30–32	380	1700	95	10
BD-M-DR-04	5 × 5	100	20–100	15–20	295	1100	95	10
BD-M-DR-05	6 × 6	80	20–150	12–15	280	950	95	10
BD-M-DR-06	7 × 7	80	20–200	14–17	265	800	95	8
BD-M-DR-07	8 × 8	80	20–250	12–20	235	750	95	8
BD-M-DR-08	10 × 10	80	20–300	7–8	200	550	95	8

Plastic Polyhedral Hollow Ring

BD — P — PHB — 01

Company	Material	Packing Type	Item
Boedon	P - Plastic	Polyhedral Hollow Ball	

Model	Size	Bulk Density	Bulk Quantity	Surface Area	Voidage	Packing Factor
-	mm	kg/m^3	(pcs/m^3)	(m^2/m^3)	%	m^{-1}
BD-P-PHB-01	25	64	64000	460	90	776
BD-P-PHB-02	38	72.5	25000	325	91	494
BD-P-PHB-03	50	52	11500	237	91	324
BD-P-PHB-04	76	75	3000	214	92	193
BD-P-PHB-05	100	56	1500	330	92	155

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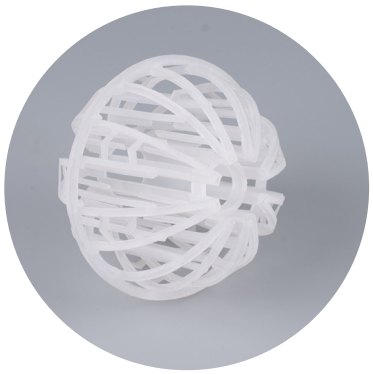
RANDOM PACKING

Plastic Tri-Pack Ring



BD — P — TPR — 01

Company	Material	Packing Type	Item
Boedon	P - Plastic	Tri-Pack Ring	

Model -	Size mm	Bulk Density kg/m^3	Bulk Quantity (pcs/m^3)	Surface Area (m^2/m^3)	Voidage %	Packing Factor m^{-1}
BD-P-TPR-01	25	81	81200	85	90	28
BD-P-TPR-02	32	70	25000	70	92	25
BD-P-TPR-03	50	62	11500	48	93	16
BD-P-TPR-04	95	45	1800	38	95	12

RANDOM PACKING

Plastic Pentagon Ring

BD — P — PR — 01

Company	Material	Packing Type	Item
Boedon	P - Plastic	Pentagon Ring	

Model -	Size (D×T×H) mm	Bulk Density kg/m^3	Bulk Quantity (pcs/m^3)	Surface Area (m^2/m^3)	Voidage %	Packing Factor m^{-1}
BD-P-PR-01	38 × 12 × 1.2	112	46000	246	95	260.3
BD-P-PR-02	50 × 17 × 1.5	107	21500	218	97	225.2
BD-P-PR-03	76 × 26 × 2.5	92	6500	198	96	207.1

RANDOM PACKING

Supper Saddle Ring

BD — P — SSR — 01

Company	Material	Packing Type	Item
Boedon	P - Plastic C - Ceramic	Supper Saddle Ring	

Model -	Size (D×T×H) mm	Bulk Density kg/m^3	Bulk Quantity (pcs/m^3)	Surface Area (m^2/m^3)	Voidage %	Packing Factor m^{-1}
BD-P-SSR-01	25 × 1.2 × 20	56000	238	85	340	260.3
BD-P-SSR-02	38 × 1.2 × 19	25200	178	75	201	225.2
BD-P-SSR-03	50 × 1.5 × 25	9400	168	68	184	260.3
BD-P-SSR-04	76 × 3 × 38	3700	130	52	138	225.2
BD-C-SSR-05	25 × 3 × 20	76600	190	78	340	260.3
BD-C-SSR-06	38 × 4 × 30	24600	131	84	190	225.2
BD-C-SSR-07	50 × 6 × 42	7344	88.4	81	166	260.3
BD-C-SSR-08	76 × 9 × 53	1976	58.5	77	127	225.2

BOEDON

RANDOM PACKING

Features & Application

Features

- Multiple materials are available to suit to different environments.
- Multiple types for different packed towers.
- High flux and low pressure drop.
- High temperature resistance and good chemical stability.
- High mass transfer performance.
- High efficiency and low resistance.

Application

Chemical

- Degasification
- Reduced pressure distillation
- Extraction
- Gas compression, etc.

Refinery

- Vacuum distillation
- Compression
- Stripping
- Catalytic etc.

Oil & Gas

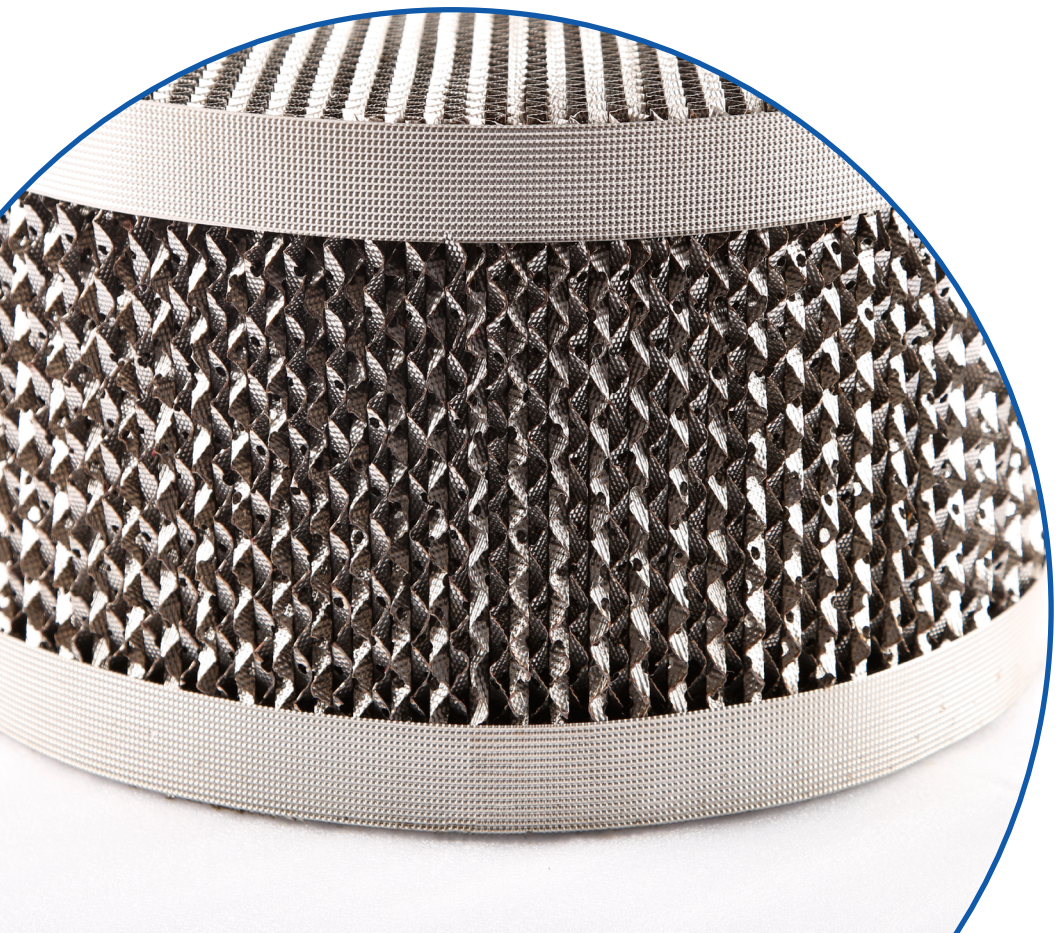
- Separation
- Dehydration
- Absorption
- Desulfurization etc.

Structured Packing

We supply a wide range of metal, ceramic and plastic structured packing to meet your various industrial separation and distillation demands.

Structured packing is a kind of a geometrically shaped and corrugated packing. Differing from random packing, structured packing is neatly piled in the tower. A series corrugated layers make up each packing element, so that gas/liquid is spread and distributed radially from layer to layer within the element and creates a large contact area between the gas/liquid and the packing. Structured packing features large surface area, low pressure drop, uniform fluids, high efficient thermal and mass transfer, etc. It is widely used for the rectification, absorption and extraction in various fields.

According to the corrugated angle, it is divided into X type and Y type. X type stands for the 30° angle and the Y type stands for the 45° angle. X type structured packing has low pressure drop and Y type structured packing has better mass transfer property.



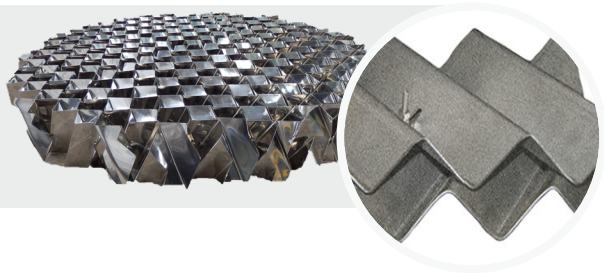
STRUCTURED PACKING

Metal Structured Packing

It can be made of various metal materials, such as low carbon steel, stainless steel, duplex stainless steel, Monel, Titanium alloy and others. The stainless steel structured packing is the most widely used due to its excellent corrosion and rust resistance and durable properties. Metal structured packing has different packing types, which can be divided into grid structured packing, woven structured packing, perforated structured packing and protruded structured packing.

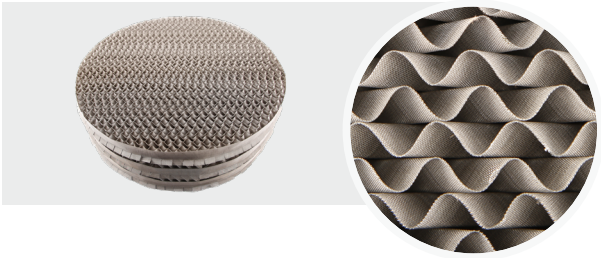
Metal gird structured packing

Features smooth surface and large contact area.



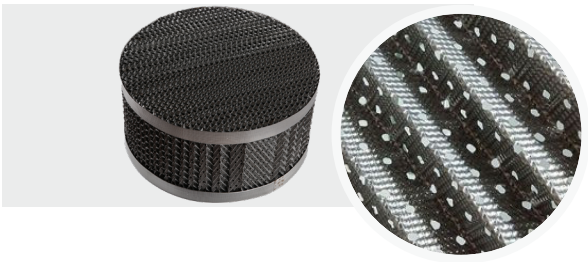
Metal woven structured packing

Is used for distillation of thermosenstive products



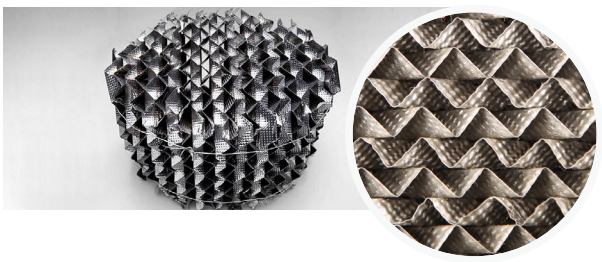
Metal perforated structured packing

Is used for rectification and absorption applications.



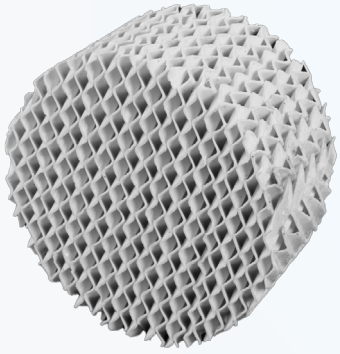
Metal protruded structured packing

Improves its lubricating property and ensures efficient filtration.



STRUCTURED PACKING

Ceramic Structured Packing

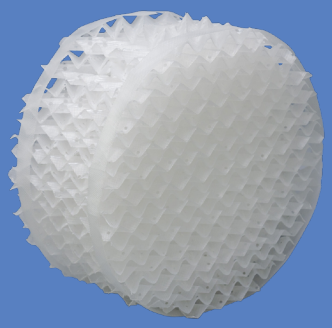


It consists of many similar geometric design packing units. The geometric design is a series of corrugated sheets, which are placed in parallel. Ceramic structured packing has high filtering and separating efficiency to suit the complex applications. It also has low pressure drop, increased operating elasticity, and maximum liquid treatment. Ceramic structured packing can be made into round or rectangular shapes to suit different applications. It can be made into various independent units to facilitate the transportation and assembly of structured packing with large diameters.

STRUCTURED PACKING

Plastic Structured Packing

It is generally plastic perforated structured packing. The perforated structured packing is made of PP and PE materials and the plate packing is made of PP or PVDF materials. Openings can be added onto the plate to improve the mass transfer efficiency. Plastic wire gauze packing made of PP or PE materials are also available. Similar to the ceramic structure packing and metal structured packing, the plastic structured packing can also be made into round or rectangular shapes. Special shapes can be customized.



BOEDON

STRUCTURED PACKING

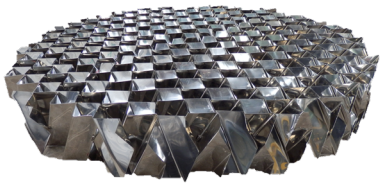
Specification

Material — metal (stainless steel, low carbon steel, duplex stainless steel, Monel, Titanium alloy, etc.), plastic, ceramic

Arrangement — X type (30°) and Y type (45°) corrugated angle geometrical shape.

STRUCTURED PACKING

Metal Grid



BD — M — GSP — 90X

Company	Material	Packing Type	Model
Boedon	Metal	Metal Grid Structured Packing	

Model	Mould	Surface Area	Height (mm)	Surface Structure	Material Thickness
-	-	m^2/m^3	mm	-	mm
BD-M-GSP-90X	90X	90	140	Smooth	0.5–2
BD-M-GSP-64X	64X	64	220	Smooth	0.5–2
BD-M-GSP-64Y	64Y	64	130	Smooth	0.5–2
BD-M-GSP-40Y	40Y	40	200	Smooth	0.5–2

STRUCTURED PACKING

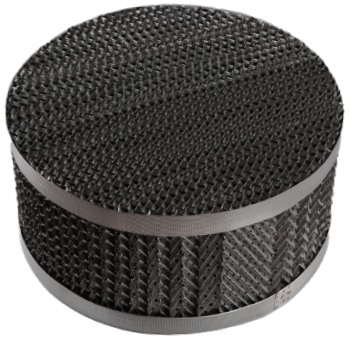
Metal Woven

BD	M	MSP	250X
Company	Material	Packing Type	Model
Boedon	Metal	Mesh Structured Packing	

Model	Mould	Surface Area	Bulk Density	Voidage	Pressure Drop	Theoretical Plate Number
-	-	m^2/m^3	kg/m^3	%	Pa/m^3	m^{-1}
BD-M-MSP-250X	250X	250	125	95	100–400	2.5–3
BD-M-MSP-500X	500X	500	250	90	400	4–5
BD-M-MSP-700Y	700Y	700	280	85	600–700	8–10

STRUCTURED PACKING

Metal Perforated



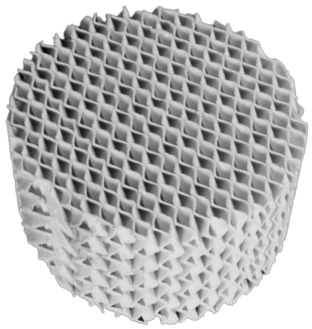
BD	M	PSP	150Y
Company	Material	Packing Type	Model
Boedon	Metal	Perforated Structured Packing	

Model	Mould	Surface Area	Bulk Density	Voidage	Pressure Drop	Theoretical Plate Number
-	-	m^2/m^3	kg/m^3	%	Pa/m^3	m^{-1}
BD-M-PSP-125Y	125Y	125	100	98	200	1–1.2
BD-M-PSP-250Y	250Y	250	200	97	300	2–2.5
BD-M-PSP-350Y	350Y	350	280	94	350	3.5–4
BD-M-PSP-500Y	500Y	500	360	92	400	4–4.5
BD-M-PSP-125X	125X	125	100	98	140	0.8–0.9
BD-M-PSP-250X	250X	250	200	97	180	1.6–2
BD-M-PSP-350X	350X	350	280	94	230	2.3–2.8
BD-M-PSP-500X	500X	500	360	92	280	2.8–3.2

BOEDON

STRUCTURED PACKING

Ceramic Structured Packing



BD — C — SP — 125Y

Company	Material	Packing Type	Model
Boedon	Ceramic	Structured Packing	

Model	Mould	Voidage	Plate Thickness	Bulk Density	Peak Height	Corrugation Distance	F Factor m/s	Theoretical Plate Number
-	-	%	mm	kg/m^3	mm	%	(kg/m^3)$^{0.5}$	m^{-1}
BD-C-SP-125Y	125Y	85	2.5±0.5	490	23	42	3	1–1.5
BD-C-SP-150Y	150Y	84	2.2±0.2	520	17	30	2.8	1.5–2
BD-C-SP-250Y	250Y	82	1.4±0.2	580	13	22	2.5	2–3
BD-C-SP-350Y	350Y	80	1.2±0.2	590	9	15	2	3.5–4
BD-C-SP-450Y	450Y	76	1±0.2	630	6.5	11	1.5–2	4–5
BD-C-SP-500Y	500Y	72	0.8±0.2	650	6	10-10.5	9–12	5–6
BD-C-SP-550Y(X)	550Y(X)	74	0.8±0.2	680	5	10	1–1.3	5–6
BD-C-SP-700Y(X)	700Y(X)	72	0.8±0.2	700	4.5	8	1.2–1.4	6–7

STRUCTURED PACKING

Plastic Structured Packing

BD — P — SP — 125Y

Company	Material	Packing Type	Model
Boedon	Plastic	Structured Packing	

Model	Mould	Voidage	Plate Thickness	Bulk Density	Peak Height	Corrugation Distance	F Factor m/s	Theoretical Plate Number
-	-	%	mm	kg/m^3	mm	%	(kg/m^3)$^{0.5}$	m^{-1}
BD-P-SP-125Y	125Y	125	98.5	37.5	200	0.2–100	3	1.0–2.0
BD-P-SP-125X	125X	125	98.5	37.5	140	0.2–100	3.5	0.8–0.9
BD-P-SP-250Y	250Y	250	97	75	300	0.2–100	2.6	2.0–2.5
BD-P-SP-250X	250X	250	97	75	180	0.2–100	2.8	1.5–2.0
BD-P-SP-350Y	350Y	350	95	105	200	0.2–100	2	3.5–4.0
BD-P-SP-350X	350X	350	95	105	130	0.2–100	2.2	2.3–2.8
BD-P-SP-550Y	550Y	550	93	150	300	0.2–100	1.8	4.0–4.5
BD-P-SP-500X	500X	500	93	150	180	0.2–100	2	2.8–3.2

STRUCTURED PACKING

Features & Application

Features

- Low pressure drop
- Large contact area
- High separation and filtering efficiency
- High capacity
- Reduced liquid hold-up performance
- Corrosion and high temperature resistance

Application

Chemical

- Degasification
- Extraction
- Degasification, etc.

Oil & Gas

- Dehydration
- Separation
- Absorption, etc.

Pharmaceutical

- Dehydration
- Extraction, etc.

INDUSTRIAL FILTRATION

03.

ndustrial 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.

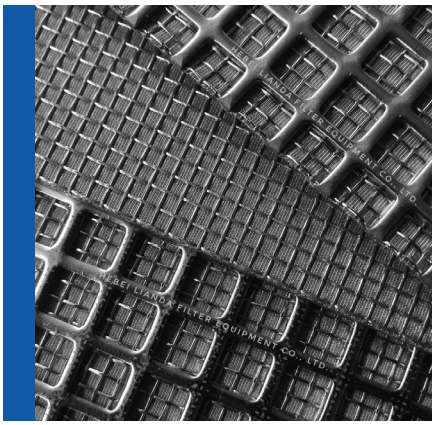
What Boedon Supply?

Polymer Filtration

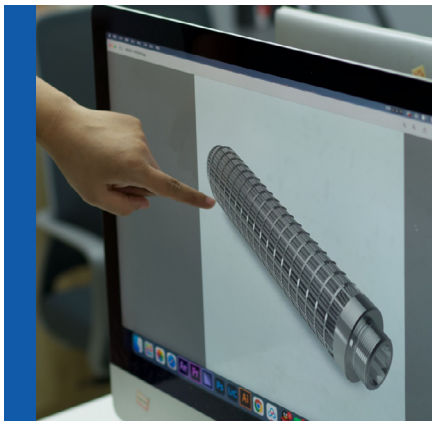
Fluid Filtration

Chemical Filtration

Edible Oil Filtration

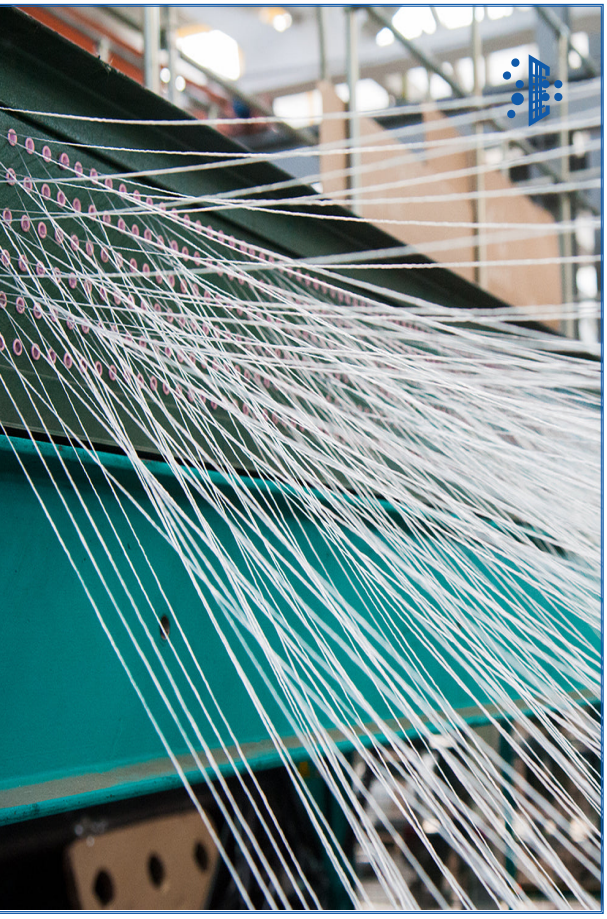


Other Filter Elements



Custom Filters

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

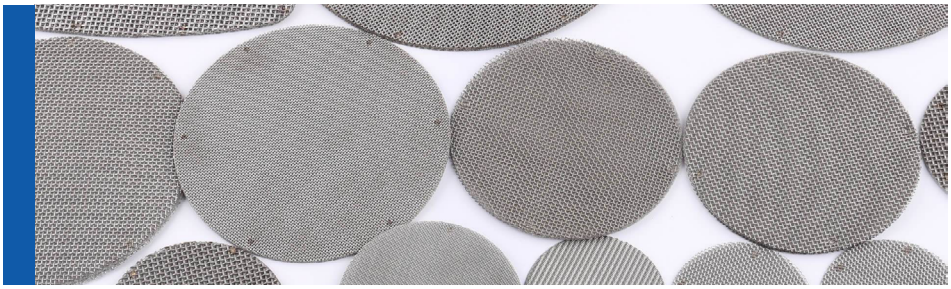
- Suitable for candle filter housing, with a maximum operating temperature of 1000 °C
- High porosity, low pressure drop
- Great dirt holding capacity
- Good regeneration property and can be washed repeatedly
- For rubber, plastic, chemical processing industries, etc.

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.

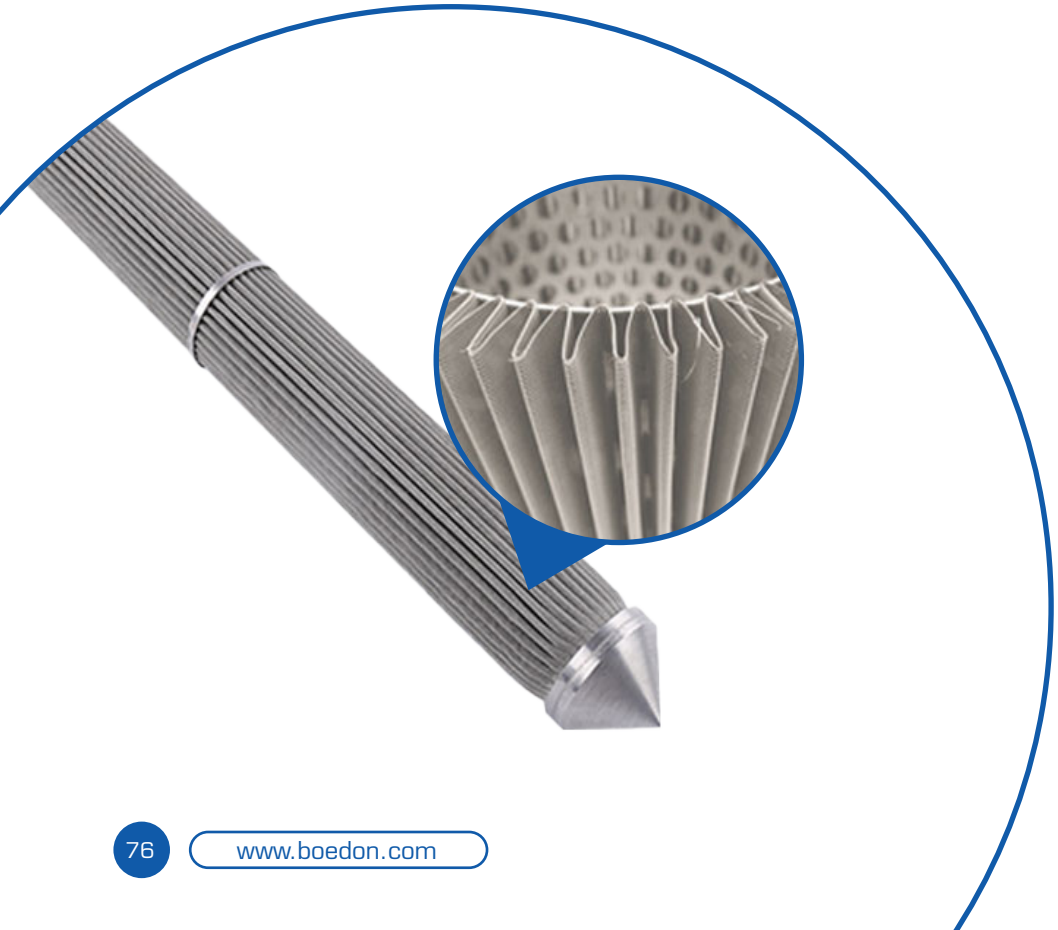
BOEDON

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.

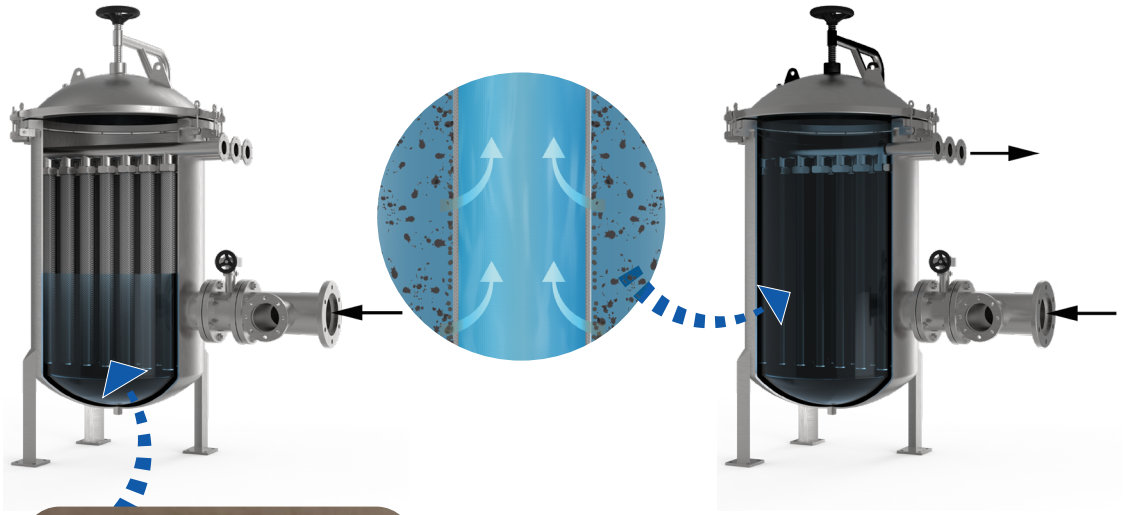
Polymer pleated filter can effectively remove impurities such as gels and other solid permeates from polymer melts in chemical fibers, textile and plastic industries. In addition, we can also offer polymer pleated filter made of other alloy materials such as Hastelloy, Monel for you to choose from and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

BOEDON

POLYMER PLEATED FILTER

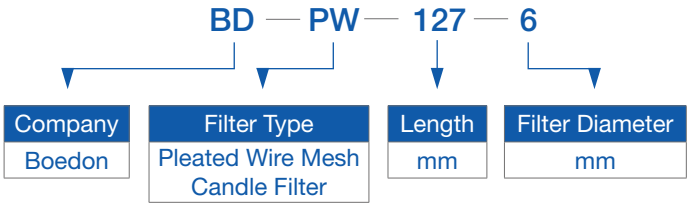
Specification

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

-	Size				Filter Area	
Model	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.

BOEDON

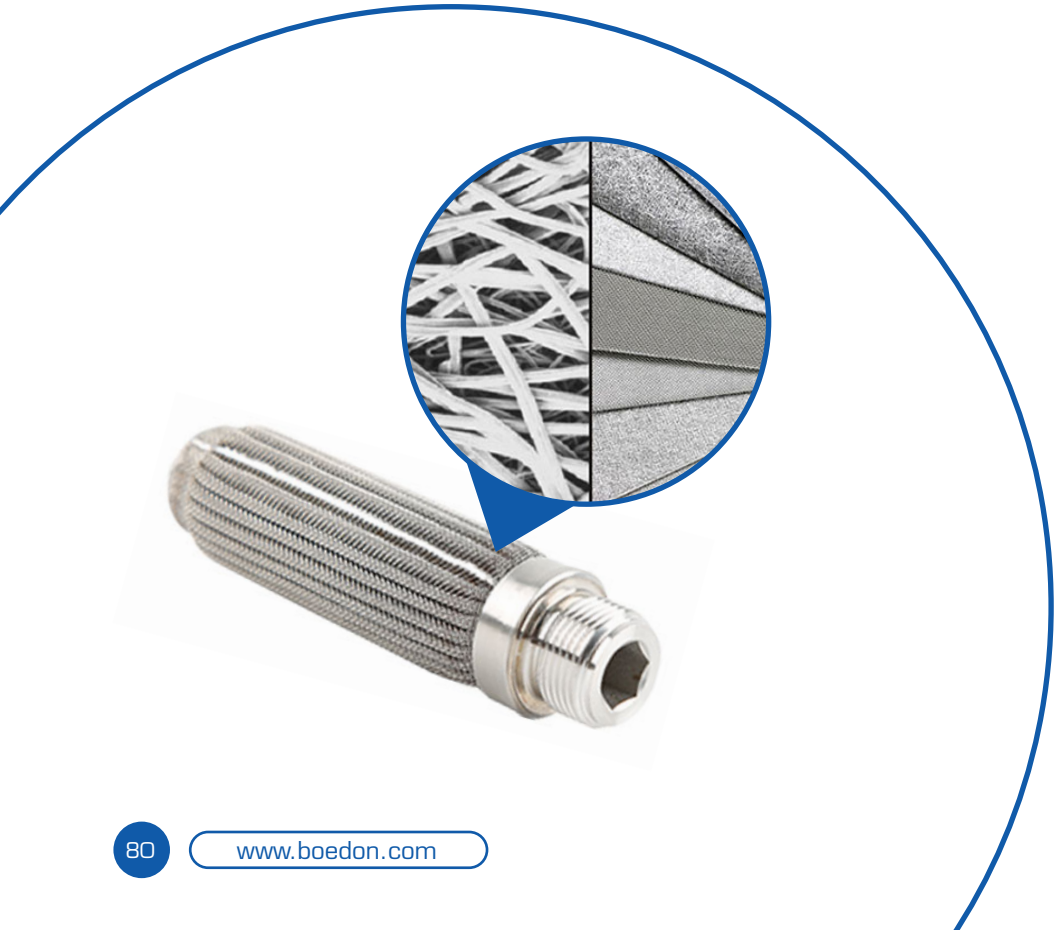
Polymer Sintered Filter

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.

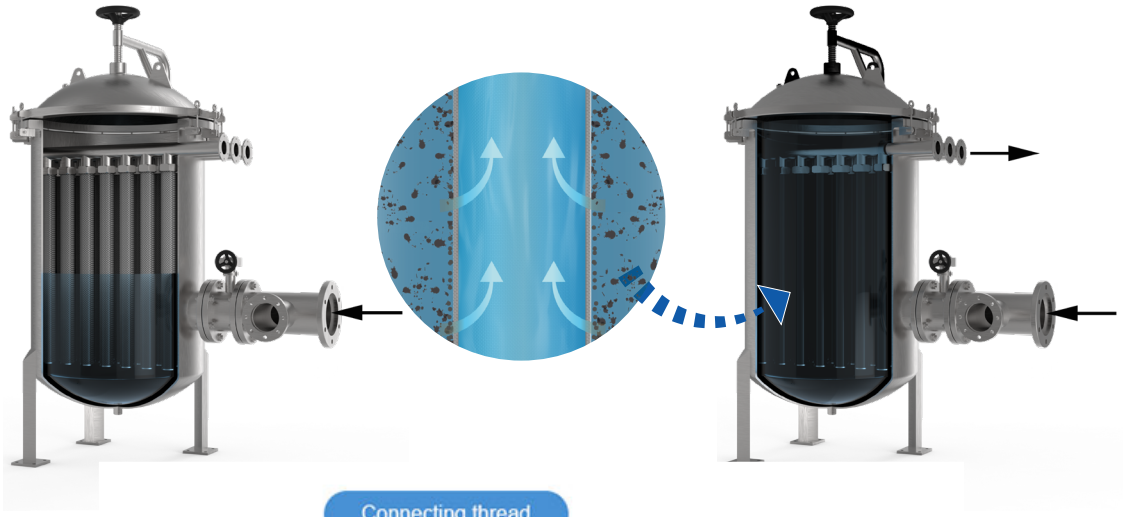
We can also offer polymer sintered filters made of Hastelloy, Monel and other alloys for you to choose from.

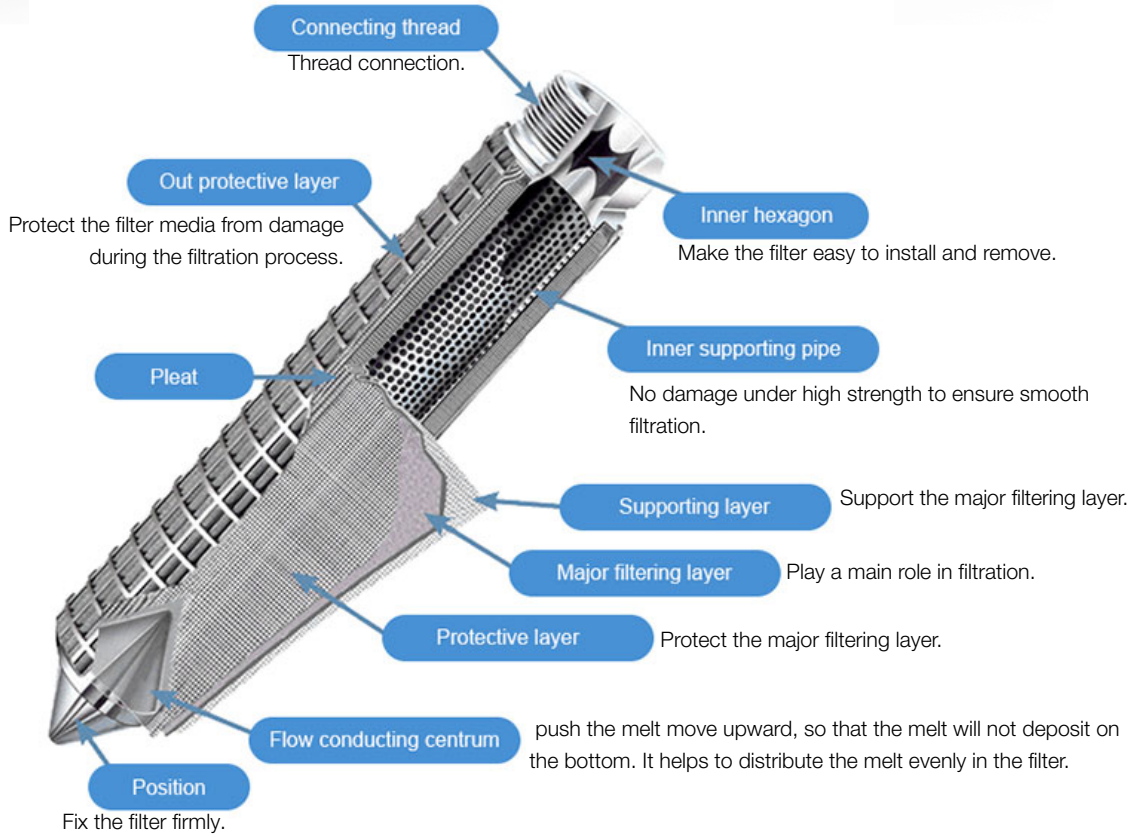


POLYMER SINTERED FILTER

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

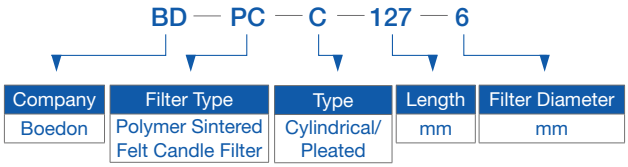
Material: Stainless steel (304, 316L, etc.), Hastelloy, Monel, etc.

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

Porosity: about 85%

Filter rating: 1– 60 μm

Maximum differential pressure: 25 bar



Popular Specification of Polymer Sintered Filters

-	Size				Filter Area	
Model	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

BOEDON

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.

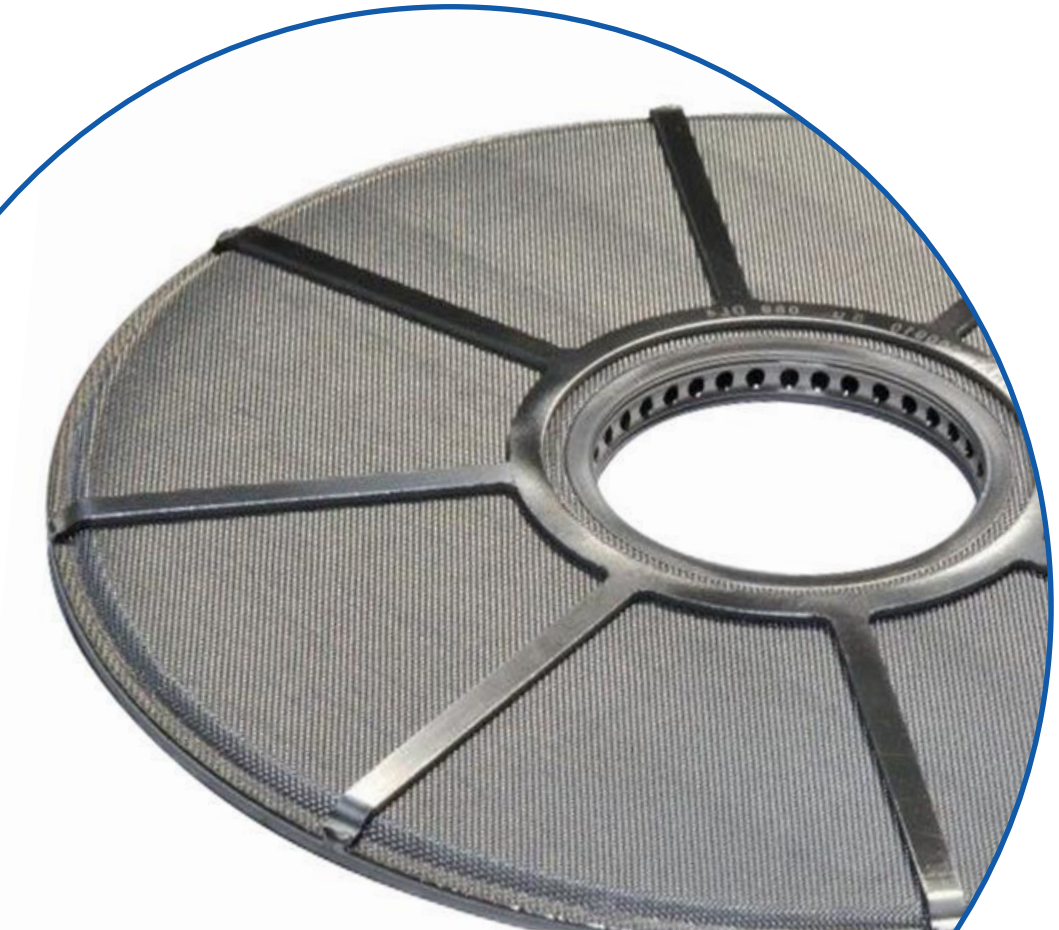
BOEDON

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.

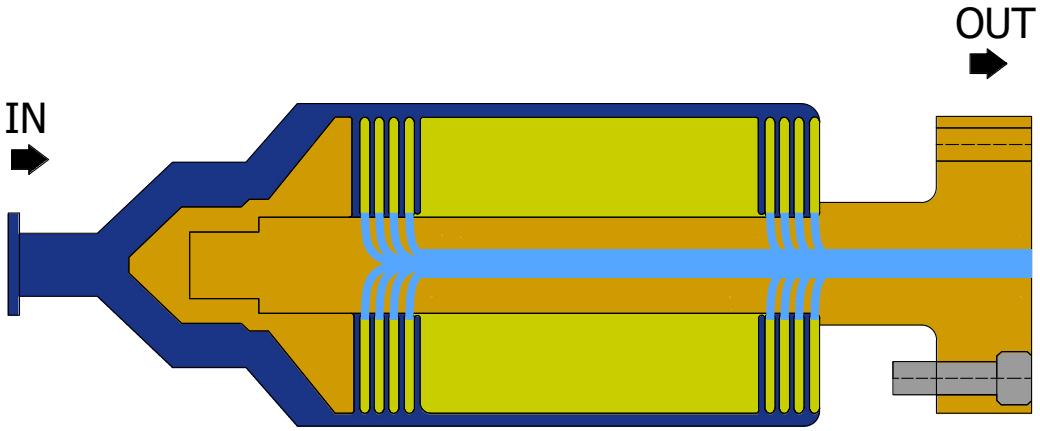
In addition, we can also offer stainless steel (304, 316, etc.), Monel or other alloy as the filter media.



POLYMER LEAF DISC FILTER

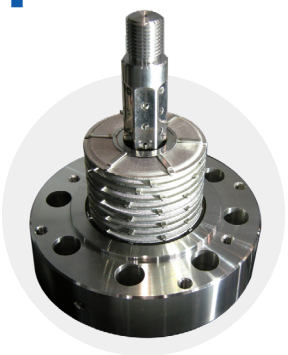
Working Principle

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

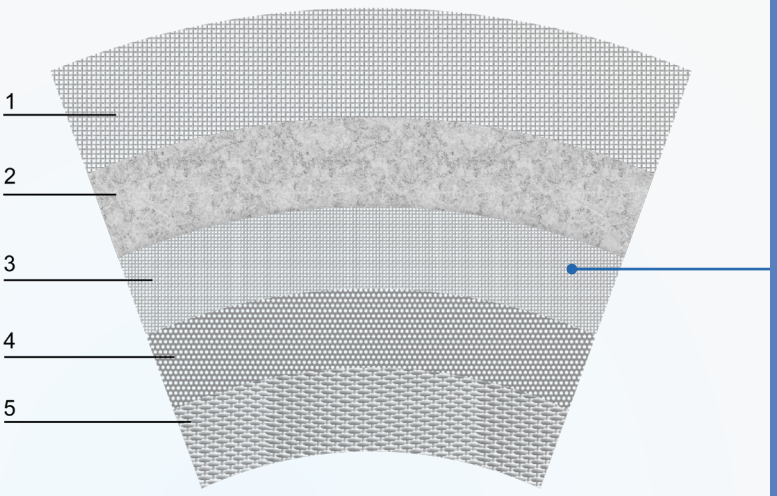
After Installation

POLYMER LEAF DISC FILTER

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.

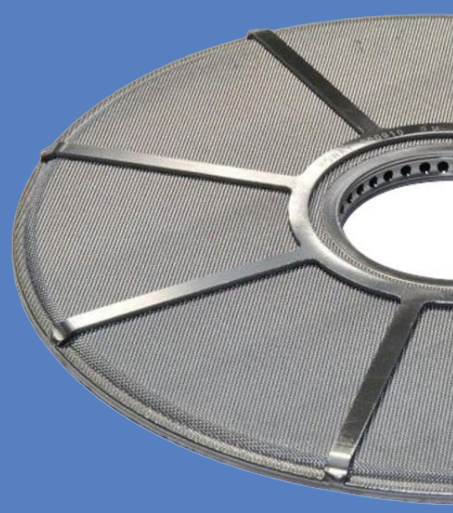
4

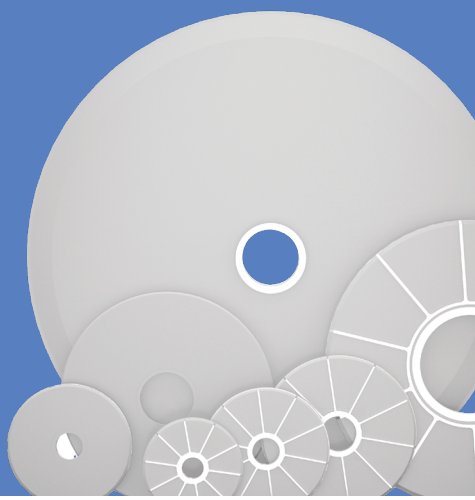
Drainage layer
Guide the clean melt to flow towards the center tube.

5

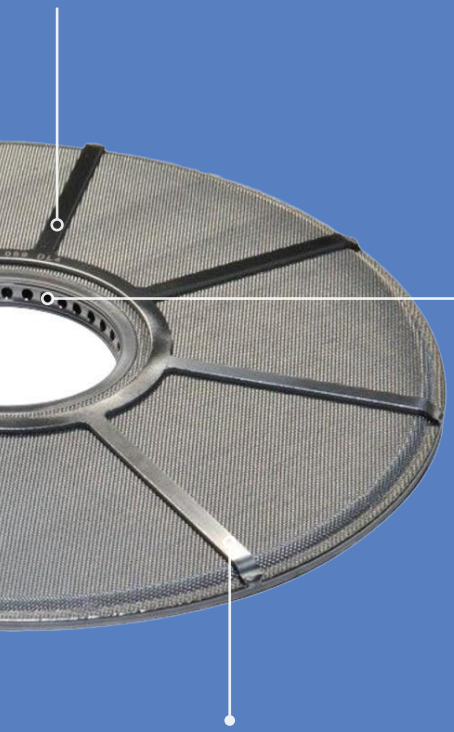
Mesh support layer
Support the whole mesh structure.

Suppor



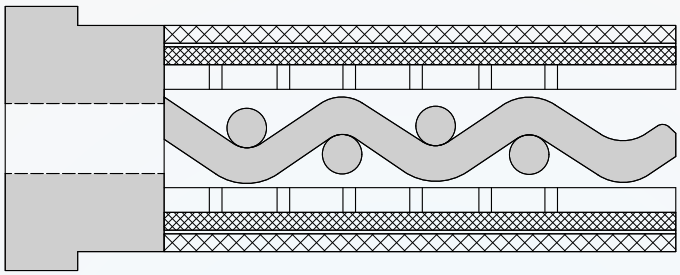


rt Frame

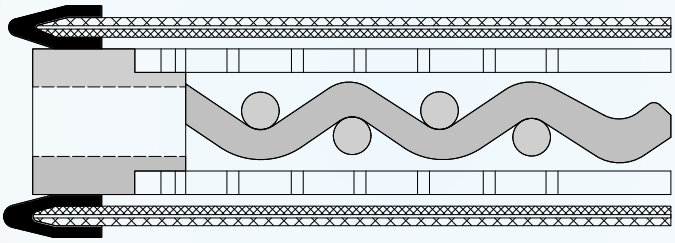


Keep the space between adjacent disc filters being maintained and guide the fluid to flow towards the center tube evenly.

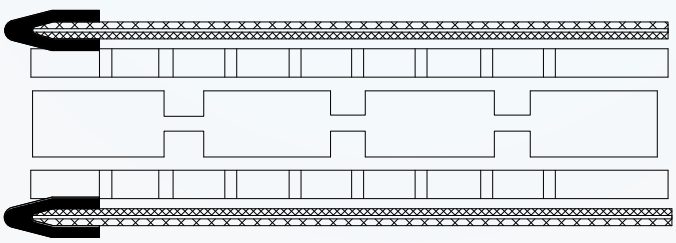
Hub



Hard hub



Semi-hard hub



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

BOEDON

POLYMER LEAF DISC FILTER

Specification

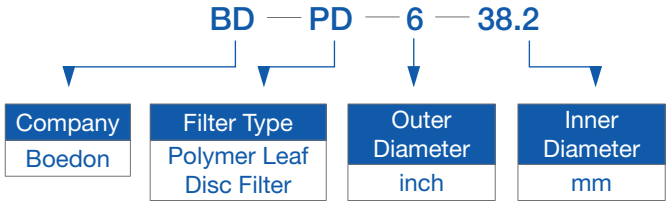
Material: sintered wire mesh, sintered metal fiber felt.

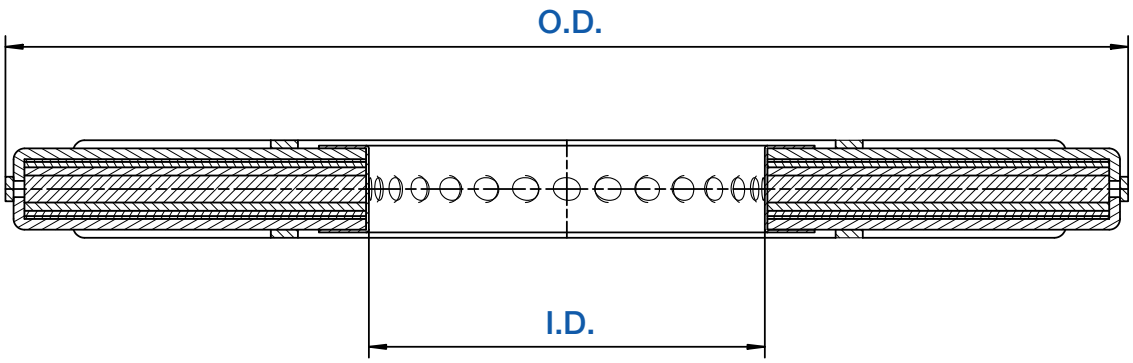
Maximum continuous: up to 400 °C

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

BOEDON

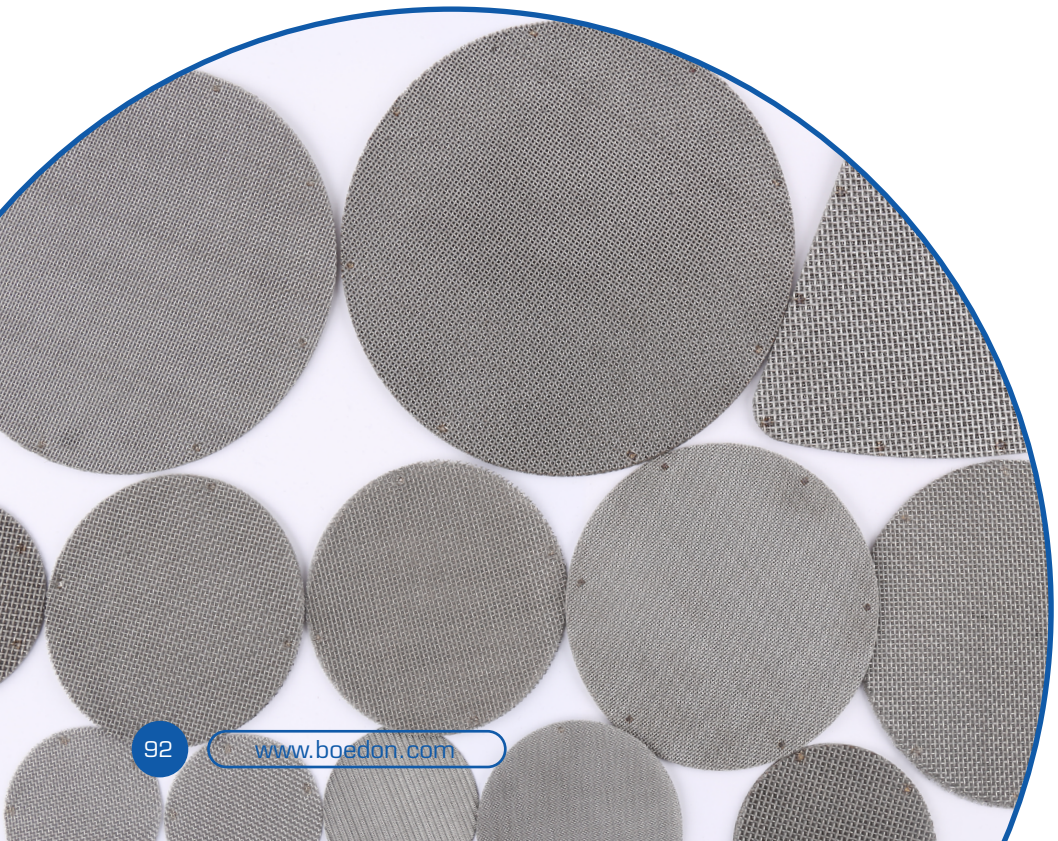
Polymer Extruder Screen

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.

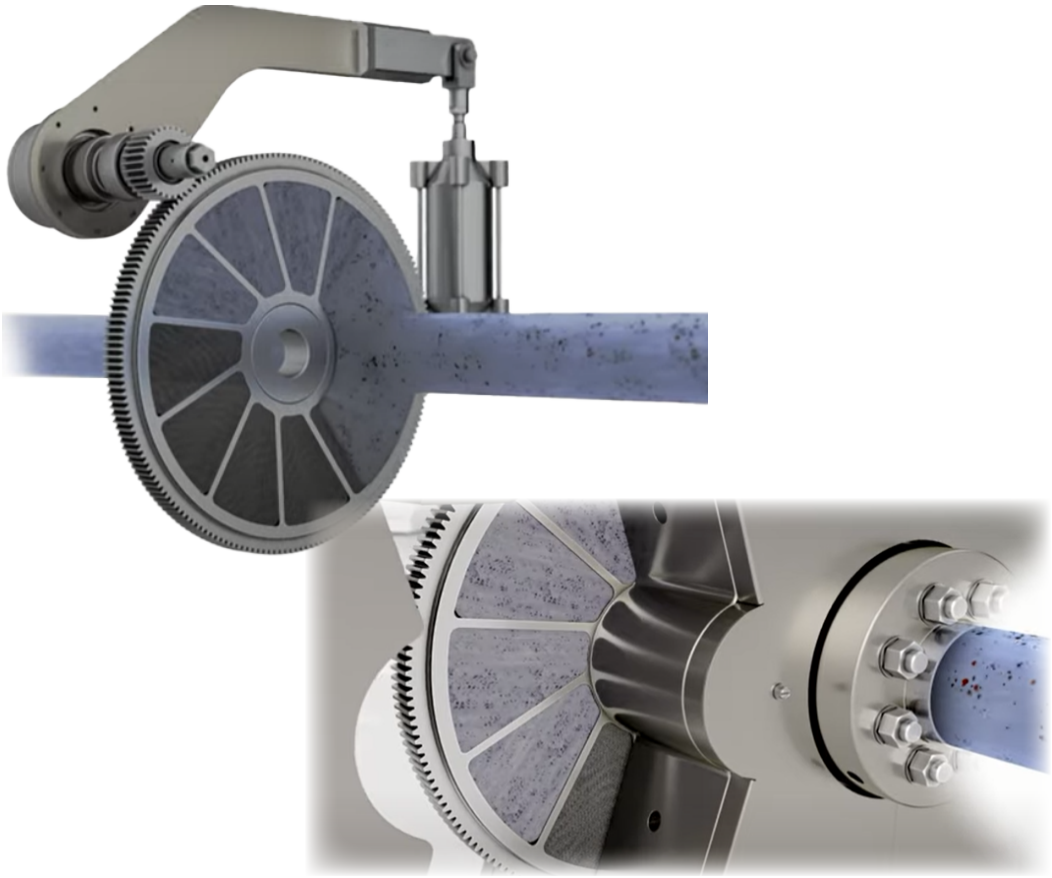
As we use high quality non-toxic raw materials, our polymer extruder screens can also be used in the food and beverage industry.



POLYMER EXTRUDER SCREEN

Working Principle

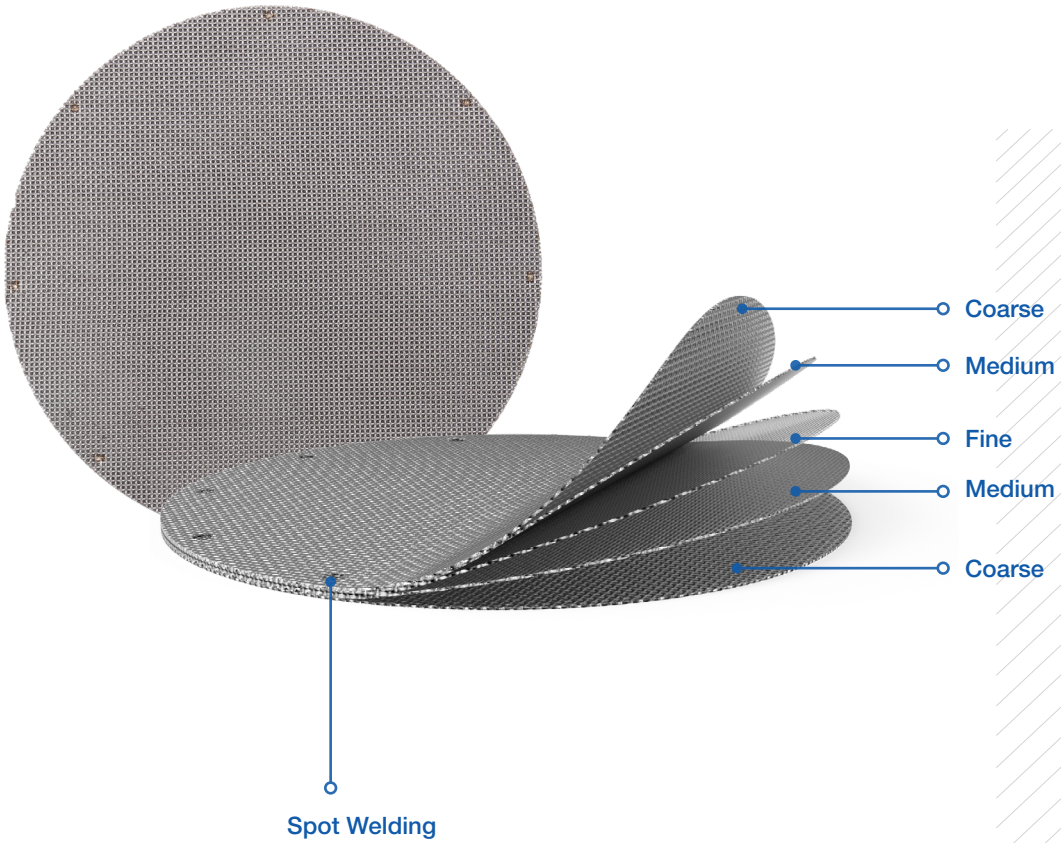
The filter disk is equipped with a large under of polymer extruder screens. The filtration time or pressure value is preset. The melt enters from the inlet, the screen at the inlet starts to filter impurities and gel impurities are trapped on the screen surface. When the filtration time or pressure reaches 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

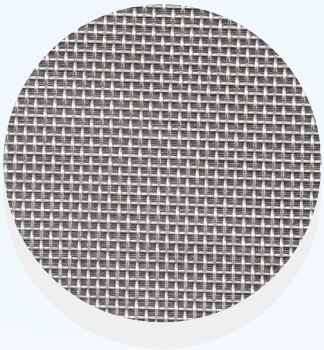
Polymer extruder screen is generally made of plain weave and Dutch weave wire mesh. The plain weave wire mesh features simple structure, economic to process and high cost-effectiveness and can meet the most filtration requirements of plastic products and rubber industries. In a filter, the Dutch weave 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.



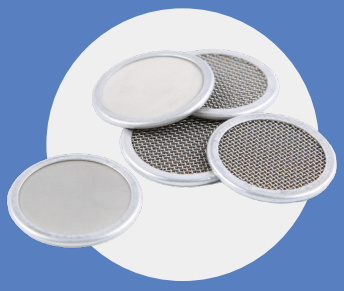
Plain Weave

Dutch Weave

POLYMER EXTRUDER SCREEN

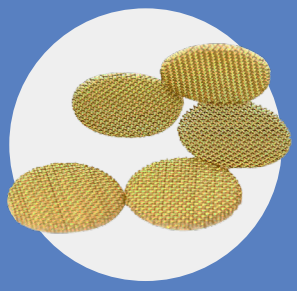
Material

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.

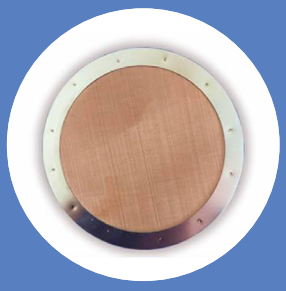


Stainless steel.
Good corrosion resistance and rust resistance.

Black wire.
Exceptional durability.



Brass.
Good ductility and machinability.

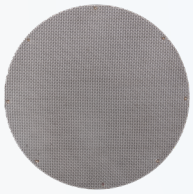


Copper.
Great conductivity and soft texture.

POLYMER EXTRUDER SCREEN

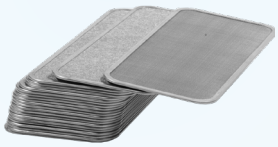
Shape

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



Round

Ring



Rectangular

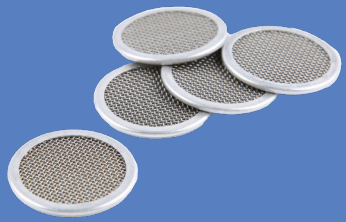
Oval

Kidney

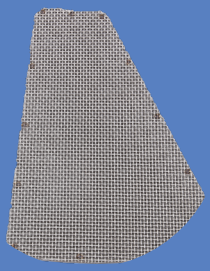
POLYMER EXTRUDER SCREEN

Edge Processing

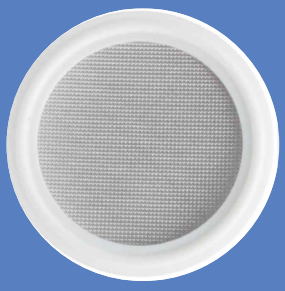
We offer metal (stainless steel or aluminum alloy) edges, spot welded or rubber edges to reduce the wear and tear of the polymer extruder screen, improve the durability and strength of the screen, ensure the stability of the overall structure and extend the life of the screen. Other edges are available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

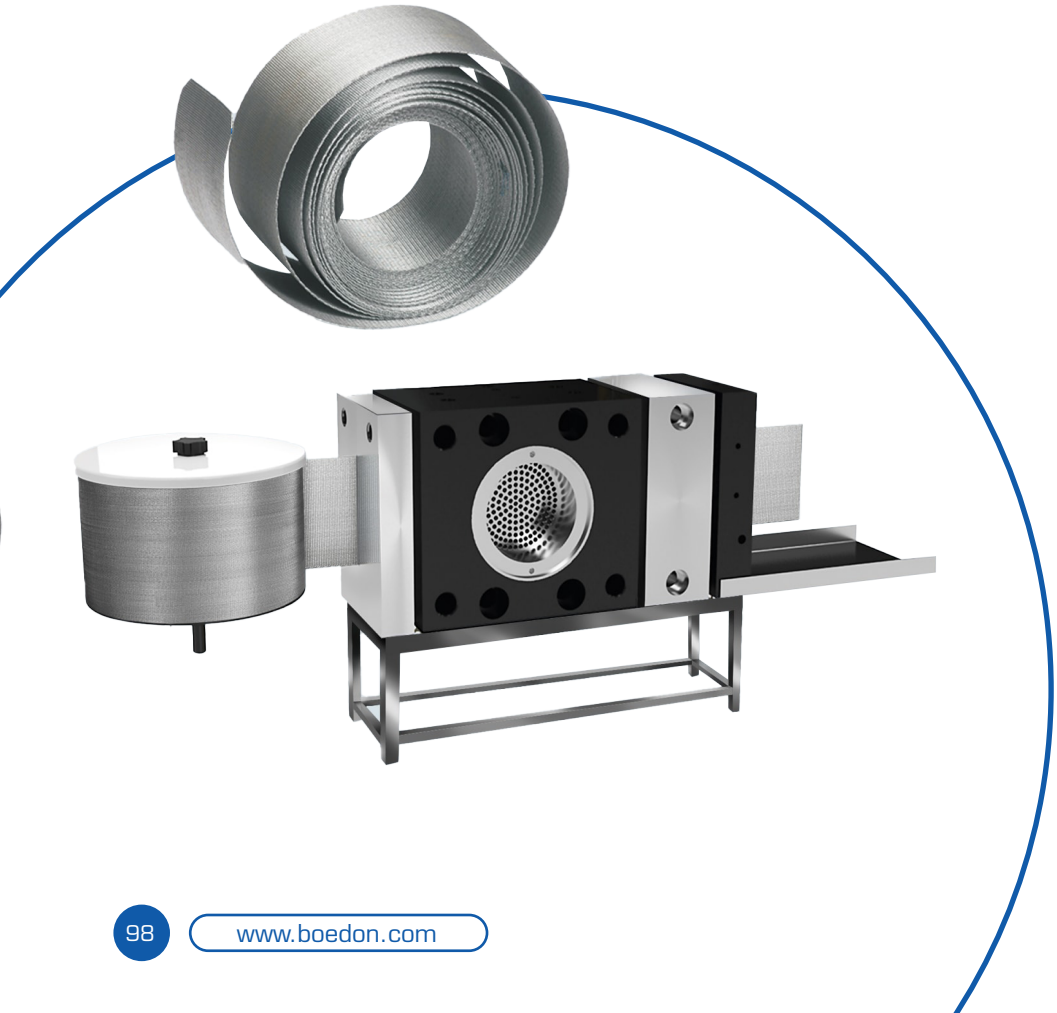
Notes: Other specifications are available upon request.

BOEDON

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**

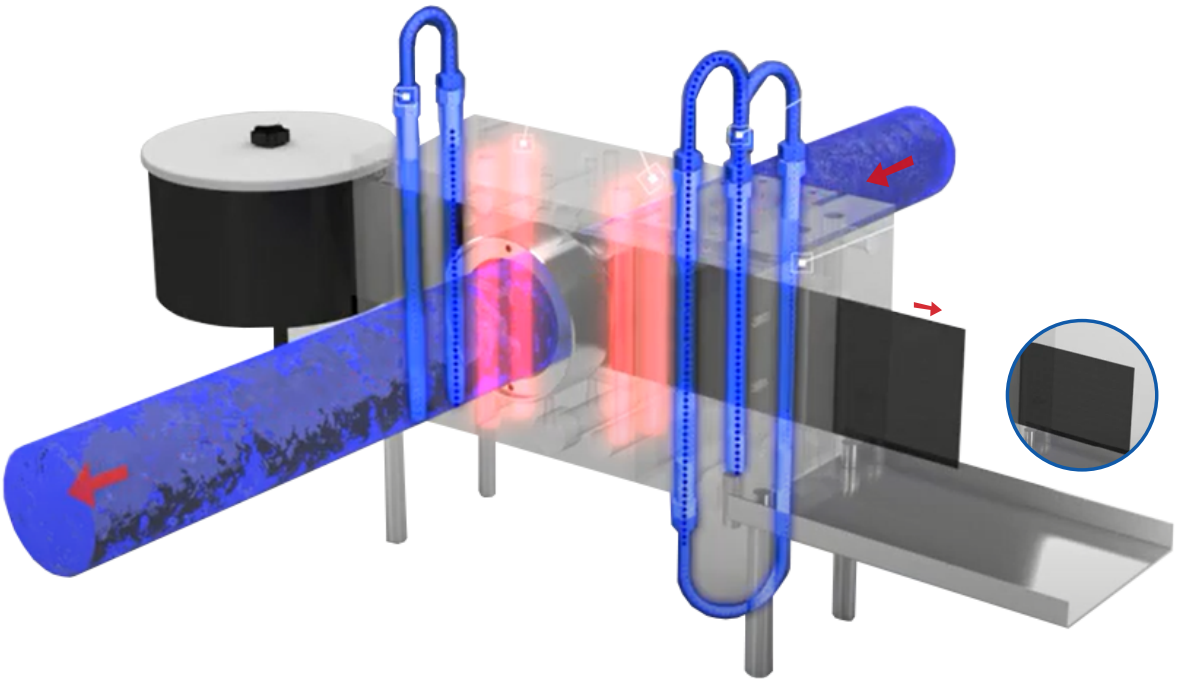
Polymer continuous filter belts are reverse Dutch woven filter belts made of stainless steel wire. They are primarily used to filter impurities from molten plastics and often work with continuous screen changers to achieve uninterrupted production and high filtration performance in the process of blow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



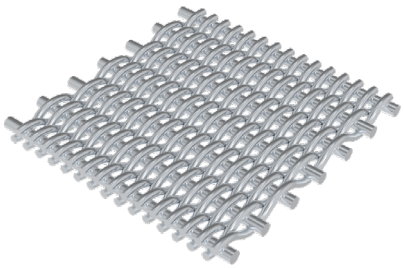
BOEDON

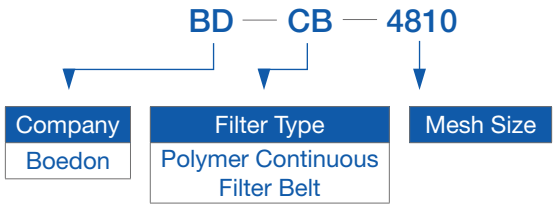
POLYMER CONTINUOUS FILTER BELT

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

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.

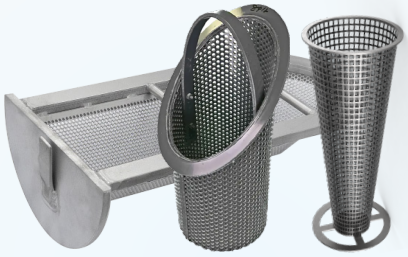
We have a full range of filter elements for fluid filtration applications in chemical, petroleum, water treatment, food industries, etc. Our technicians are ready to help you choose the right filter element to adapt to your operating conditions.

How Boedon Solve?

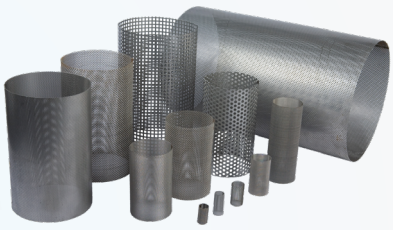
Boedon offers a variety of pipeline filters, automatic self cleaning filters and backwash filters to suit to different filter housings. These filters can effectively remove solid particles in fluids, protect downstream key equipment and components and ensure the quality of industrial products. We can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

What Boedon Supply?

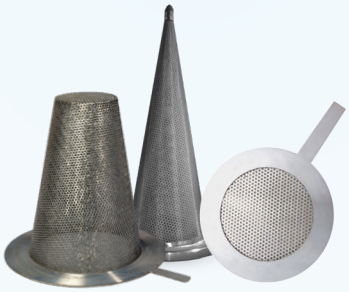
Pipeline Filter



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

BOEDON

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.

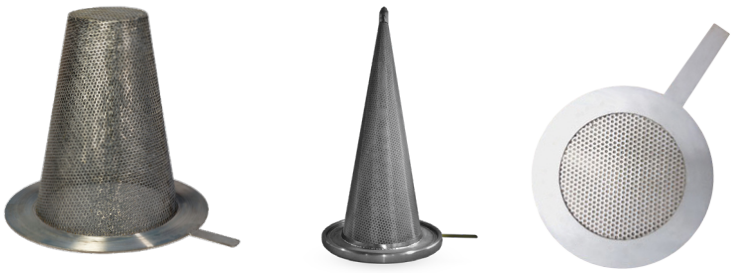
What Boedon Supply?

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

BOEDON

T Strainer Basket Filter

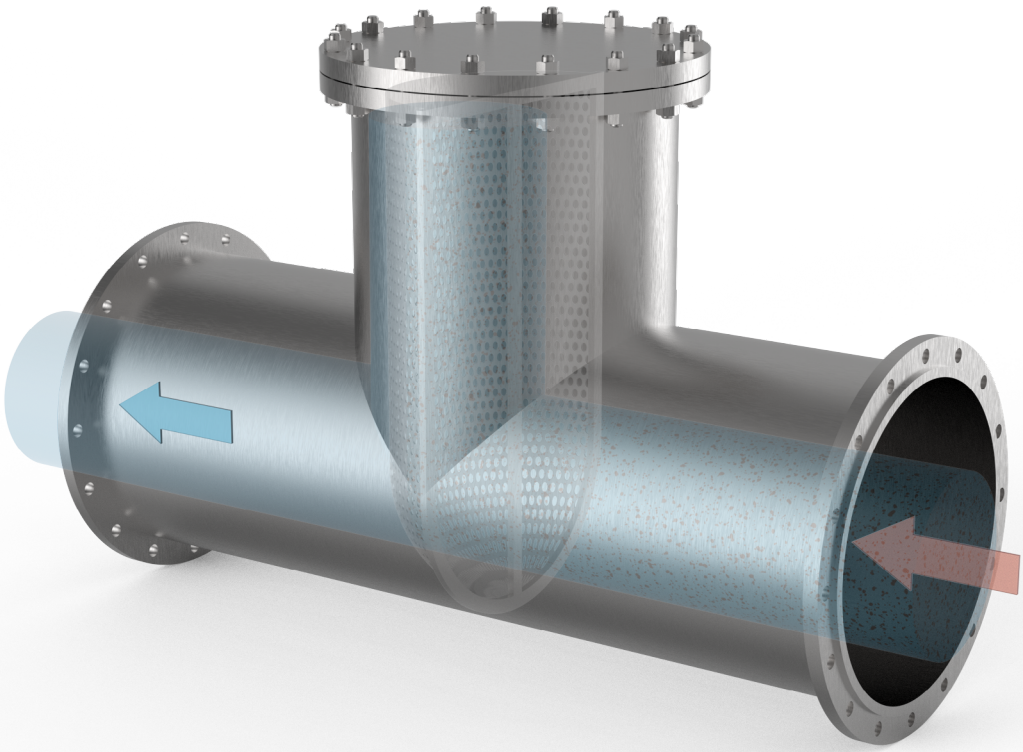
T strainer basket filter is used to filter out liquid, gaseous and viscous particles.

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

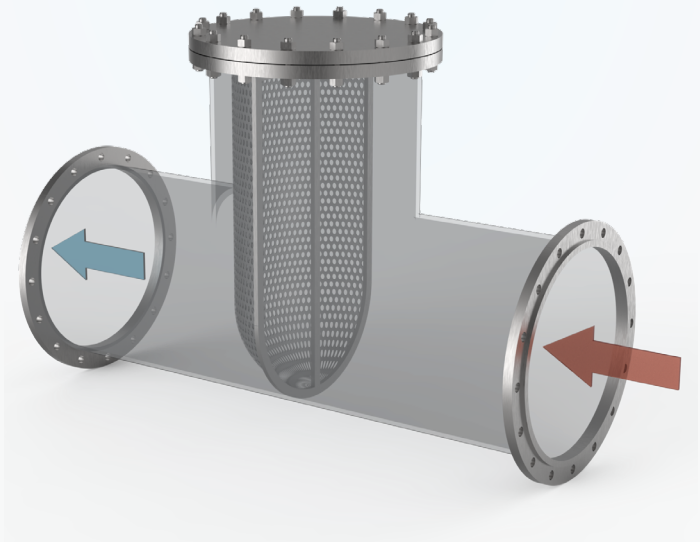
When the fluid enters the basket strainer through the main pipe, the particle impurities will be trapped in the T strainer basket filter. The clean filtrate will be discharged from the outlet. The basket filter ensures the normal operation of equipment (including compressors, pumps, etc.) and instruments 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.



Category

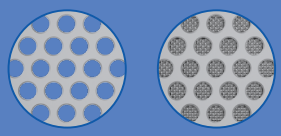
T Type Basket filter

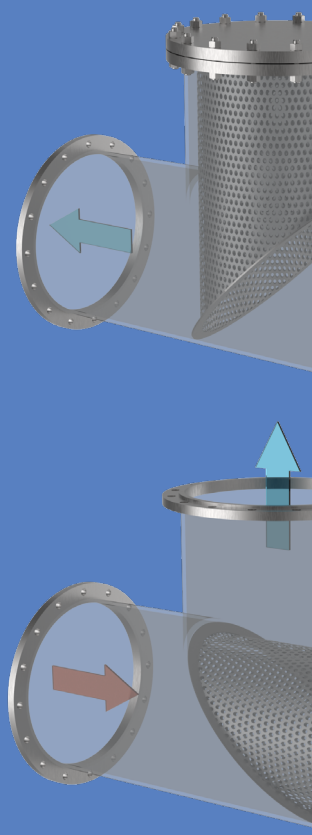
T type basket filter is installed inside straight flow T type strainer to filter out large particulate impurities.

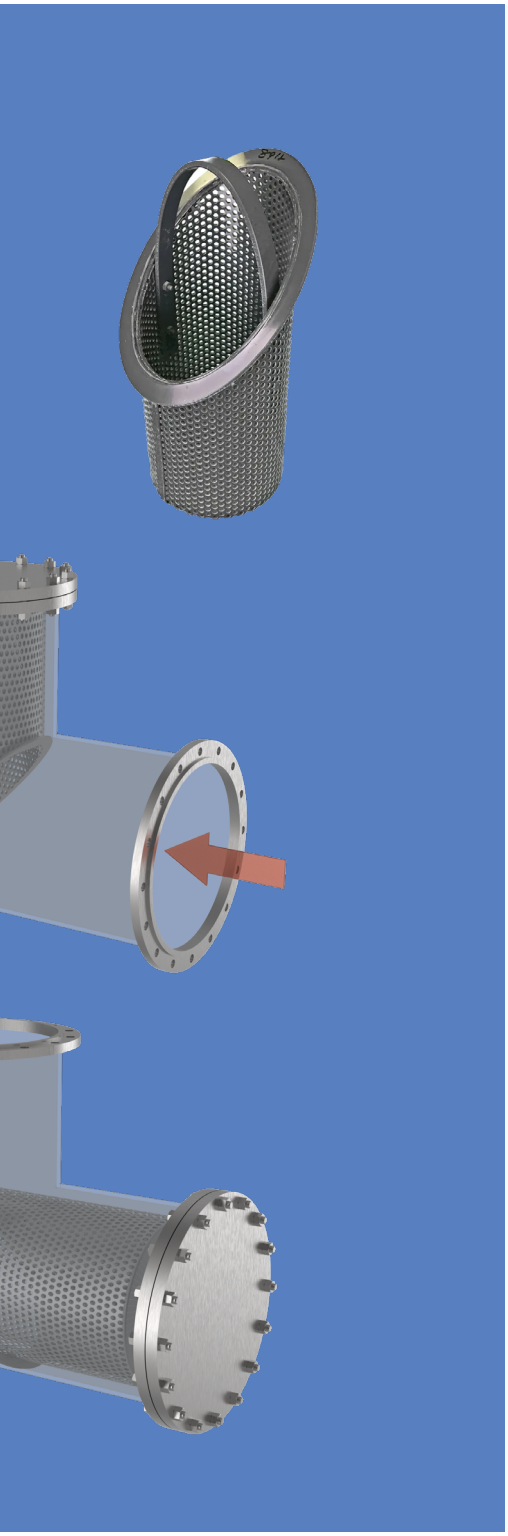


Slanted Basket Filter

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.

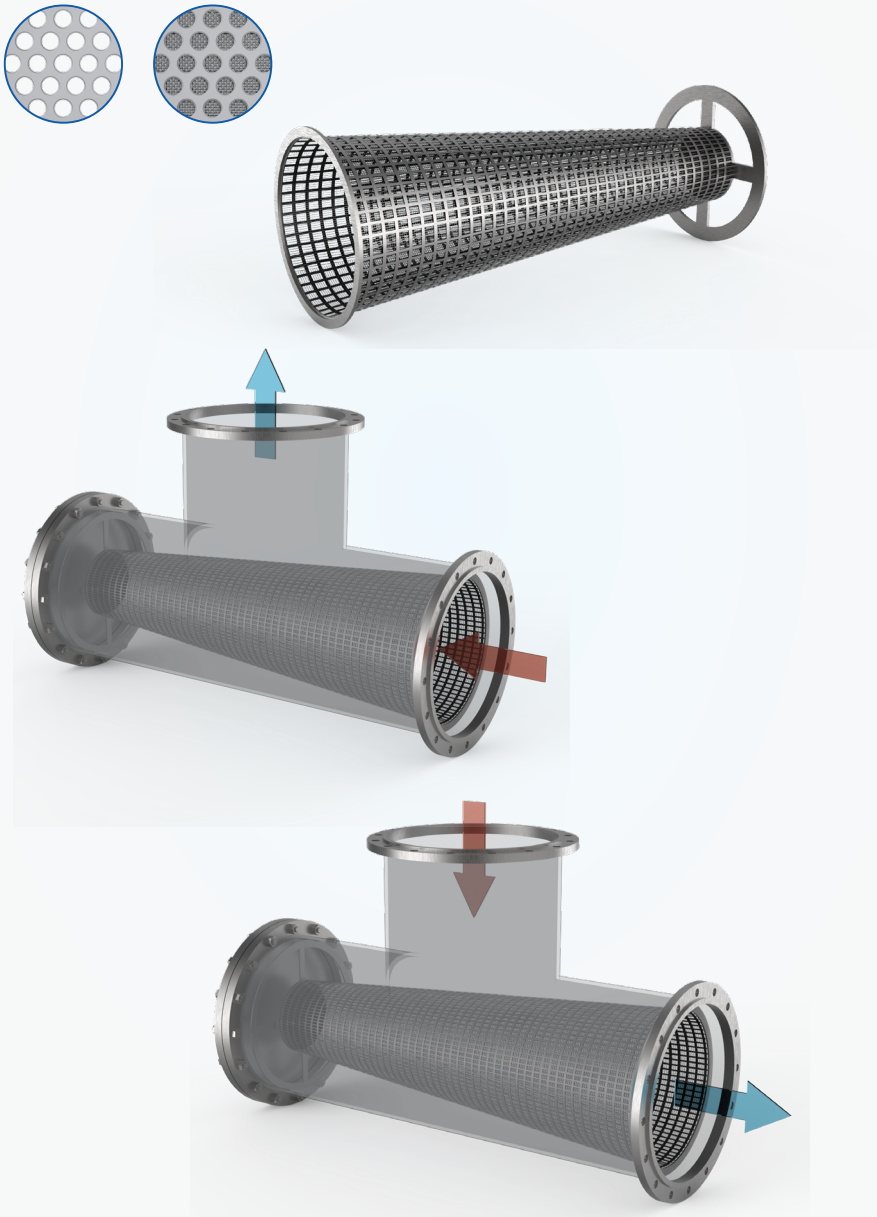






Cartridge Filter

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



BOEDON

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

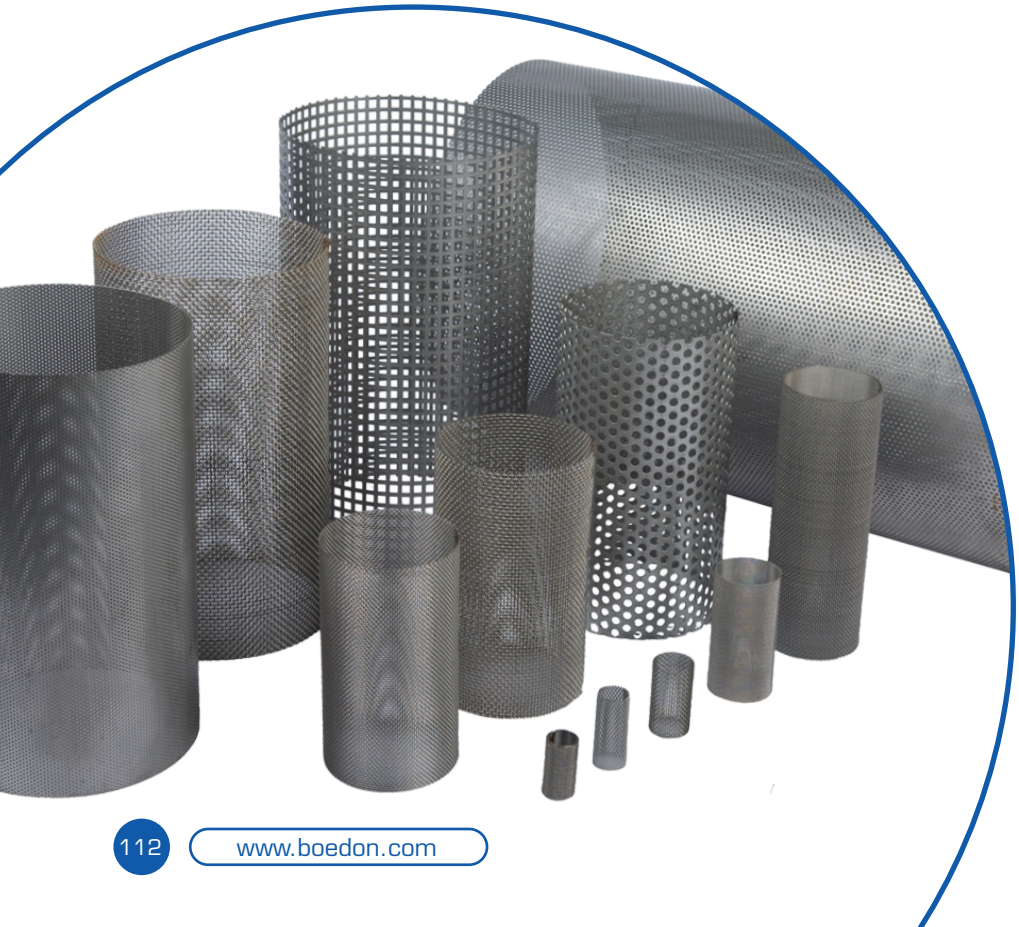
Filtering impurities from juice, beer and dairy products during production

BOEDON

Y Strainer Basket Filter

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

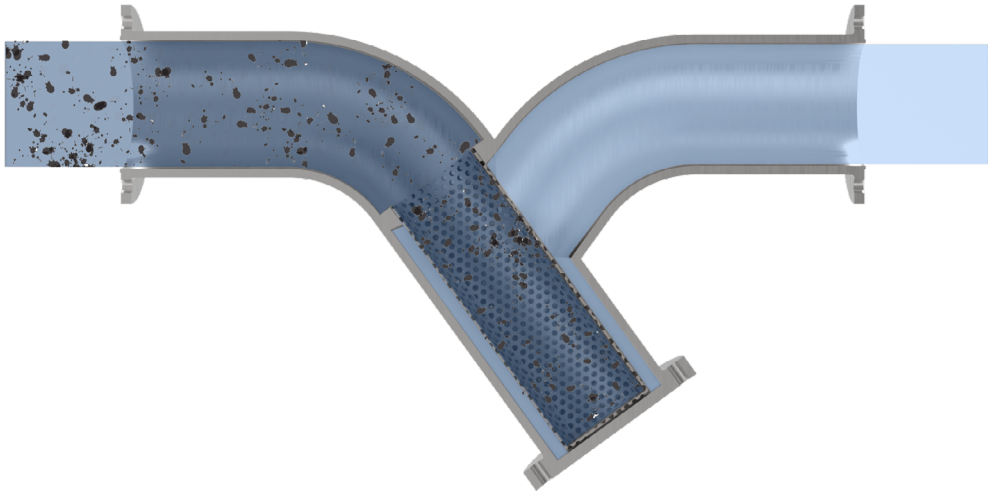
Y strainer filter is mainly constructed of stainless steel, carbon steel, titanium and other metal alloy perforated metal or woven mesh by welding process. It is an important filter unit for Y type strainers and helps to remove impurities in the medium (gas, steam or liquid) and ensure the normal operation 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

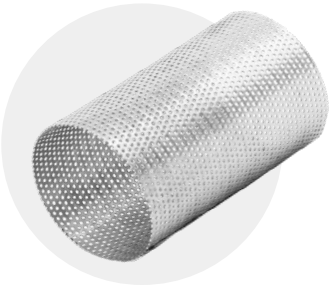
Y strainer filter is a small device installed in Y strainers that is used to remove solid particles in the liquid and get clean liquid. Meanwhile, it protects the normal operation of the equipment. When the Y strainer filter needs cleaning, just take out the detachable strainer filter, clean and reload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



Y STRAINER FILTER

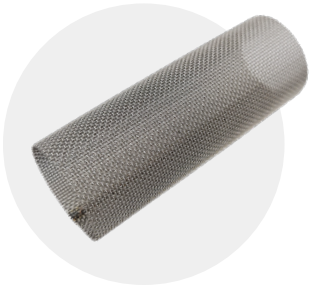
Category

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.

BOEDON

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

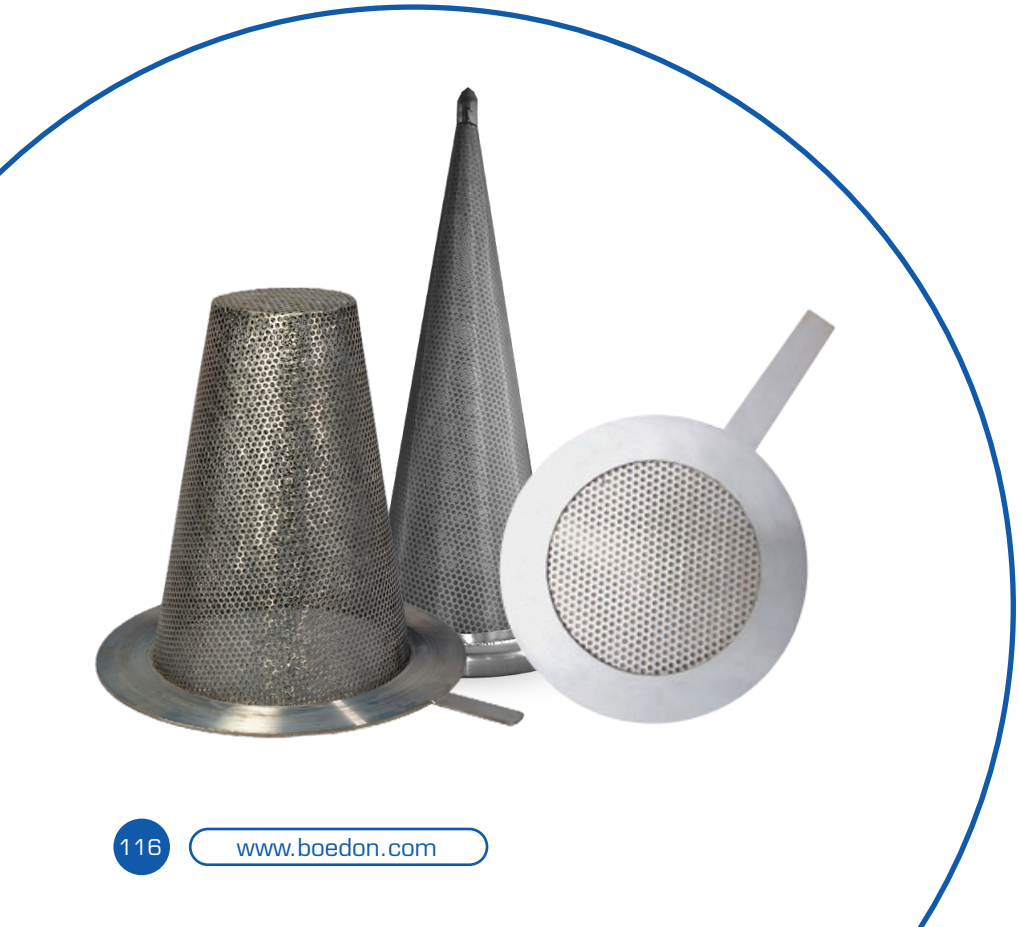
BOEDON

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-u 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.

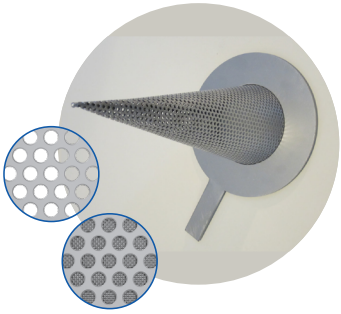
Temporary strainers are divided into temporary cone strainers, temporary basket strainers and temporary plate strainers. We can the right temporary strainer for you according to your pipeline system and filtration requirements.



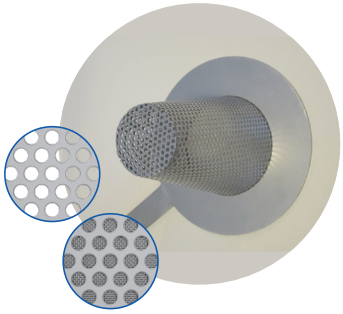
TEMPORARY STRAINER

Category

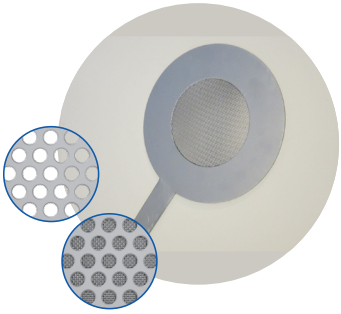
Temporary strainers are divided into temporary cone strainers, temporary basket strainers and temporary plate strainers by shape.



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

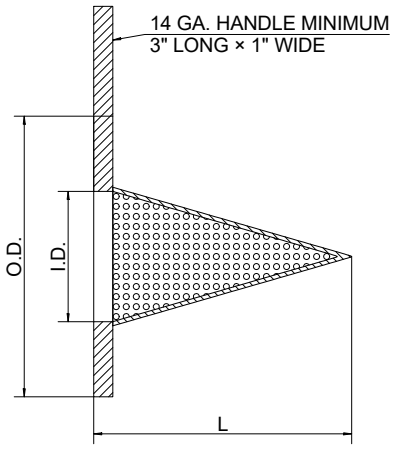
End connection: water flat faced, raised face, ring joint flanges

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

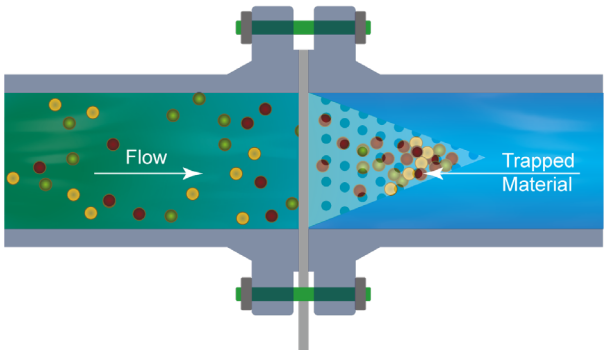
BOEDON

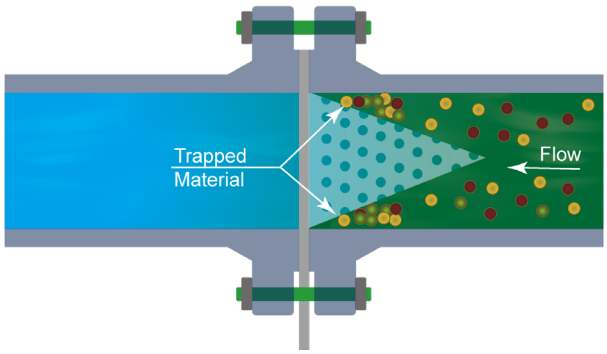
TEMPORARY STRAINER

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.



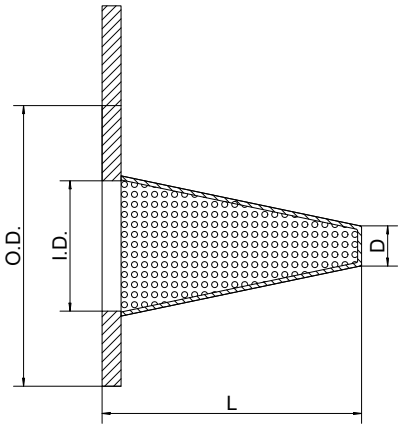


Model	Nominal Pipe Size	I.D. (inch)	150/300# ANSI (O.D.)	600# ANSI (O.D.)	900# ANSI (O.D.)	1500# ANSI (O.D.)	Standard Length (L)	L-150%	L-200%
BD-TCS-01	0.75	0.625	2.125	2.5	2.625	2.625	2.25	2.25	3
BD-TCS-02	1	0.75	2.5	2.75	3	3	2.625	2.75	3
BD-TCS-03	1.5	1.25	3.25	3.625	3.75	3.75	3.1875	4	5
BD-TCS-04	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

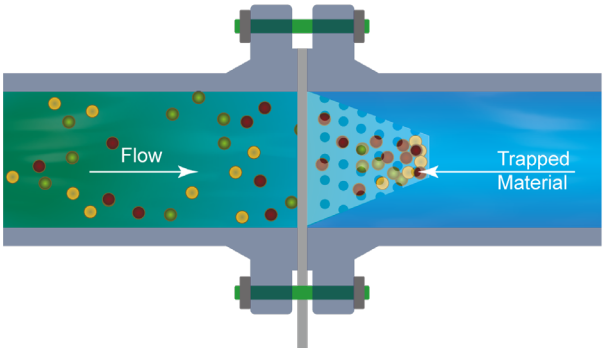
Notes: the above dimensions are based on using 1/8" perforations on 3/16" center.

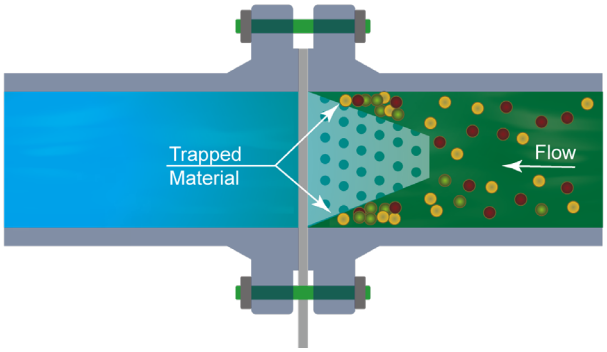
TEMPORARY STRAINER

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.





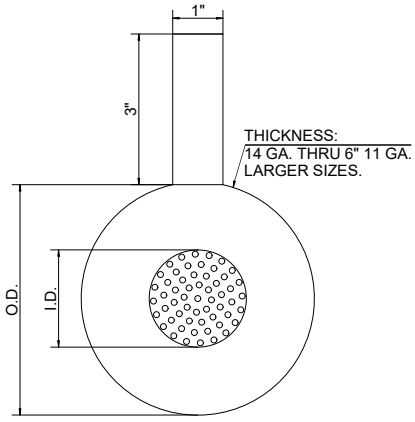
Model	Nominal Pipe Size	I.D. (inch)	150/300# ANSI (O.D.)	600# ANSI (O.D.)	900# ANSI (O.D.)	1500# ANSI (O.D.)	D	Standard Length (L)	L-150%	L-200%
BD-TBS-01	0.75	0.625	2.125	2.5	2.625	2.625	0.375	2	–	–
BD-TBS-02	1	0.75	2.5	2.75	3	3	0.5	2	–	–
BD-TBS-03	1.5	1.25	3.25	3.625	3 .75	3.75	0.75	2.75	–	3
BD-TBS-04	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.

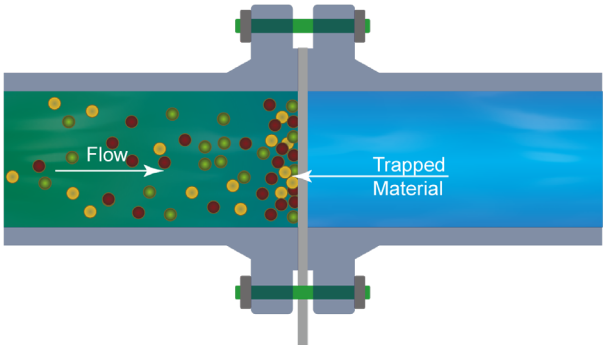
BOEDON

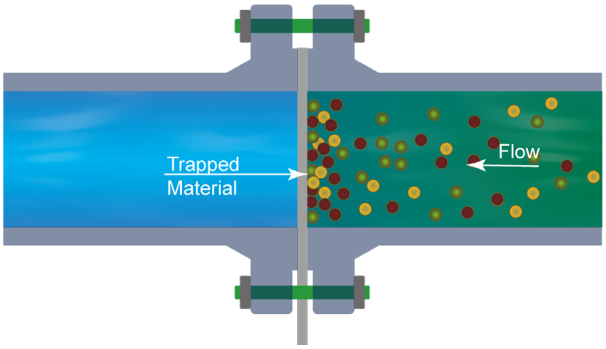
TEMPORARY STRAINER

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.

BOEDON

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.

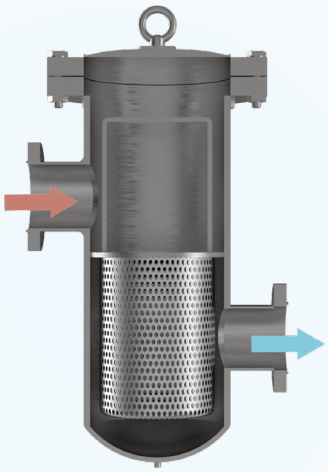
Basket filters can be made of stainless steel, carbon steel or other alloys. Stainless steel basket filter has excellent corrosion resistance while the rigidity and strength of carbon steel basket filter depend on its carbon content. We can offer customized solutions according to your applications and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

BASKET FILTER

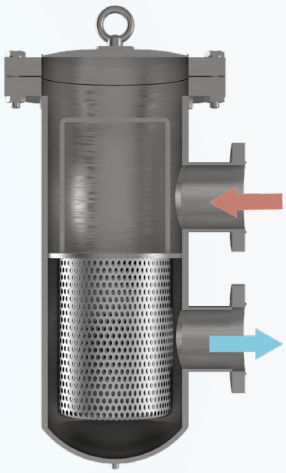
Category

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

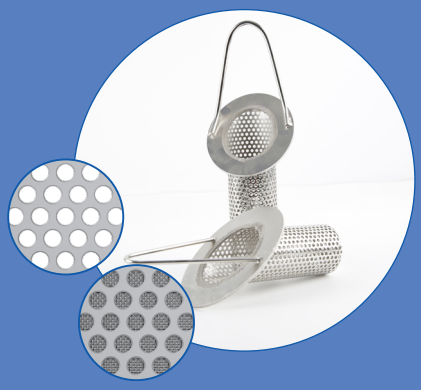


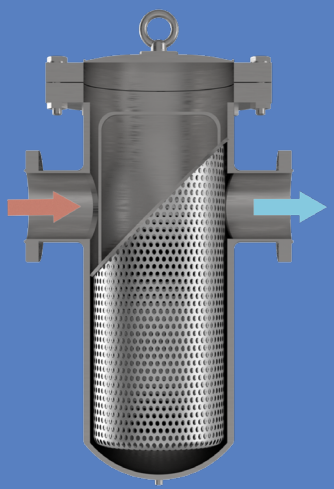
The working principle of left-in, right-out basket filter



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

Slanted Basket Filter





The working principle of slanted basket filter

BOEDON

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

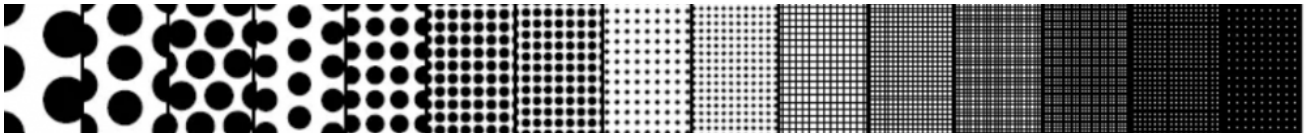
Mesh: 20, 30, 40, 50, 60, 70, 80, 100, 150, 200

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

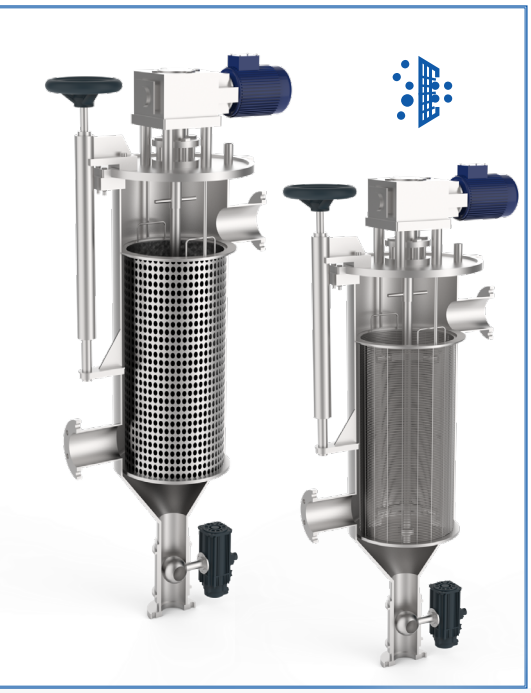
Food

- Beer, beverage
- The filtration of diary products

BOEDON

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.

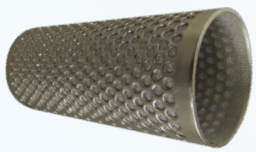
How Boedon Solve?

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.

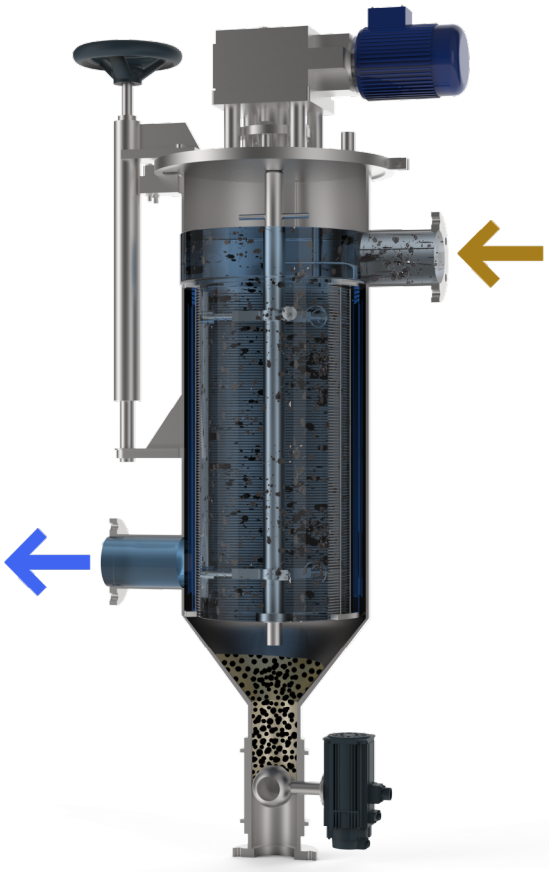
Wedge wire self cleaning filter is a filter element constructed of high quality V-shaped wedge wires and support wires. It is installed in automatic self cleaning filter housings to intercept suspended solids and particles in the fluid, reduce turbidity and remove system impurities, thus purifying water 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 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.

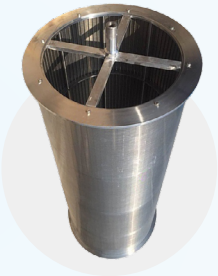


WEDGE WIRE SELF CLEANING FILTER

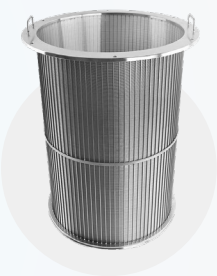
Top Type

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

BOEDON

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.

BOEDON

Sintered Mesh
Self Cleaning Filter

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

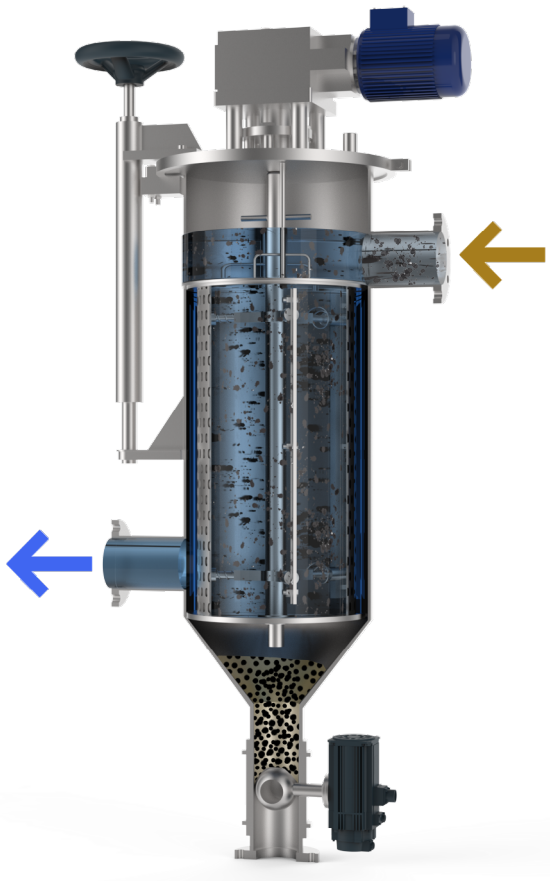
Sintered mesh self cleaning filter is a filter element constructed of multiple layers of woven mesh and an outer perforated metal sheet by sintering. It is installed in automatic self cleaning filters to intercept suspended solids and particles in the fluid, reduce turbidity and remove system impurities, 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.



BOEDON

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

BD — SSC — 8 — 20

Company	Filter Type	Diameter	Length
Boedon	Sintered Mesh Self Cleaning Filter	80 mm	200 mm

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.

BOEDON

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.

BOEDON

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

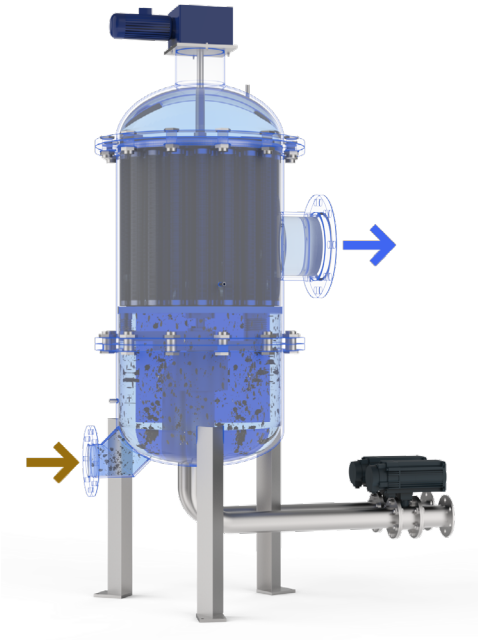
Working Principle

Filtering Status.

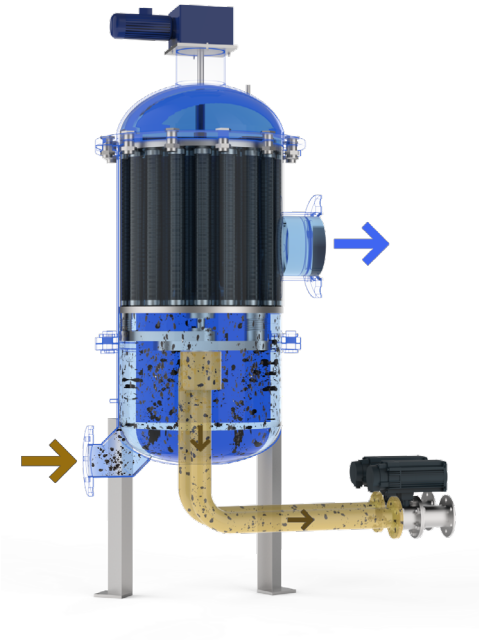
The liquid containing impurities flows inside from the filter inlet. Part of the liquid flows inside directly from the filter lower end and the other part flows through the central distribution tube into the filter upper end and then flows inside the filter element from the upper end. The filter element 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.

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.



Filtering Status



Backwashing Status

BOEDON

WEDGE WIRE BACKWASH FILTER

Specification

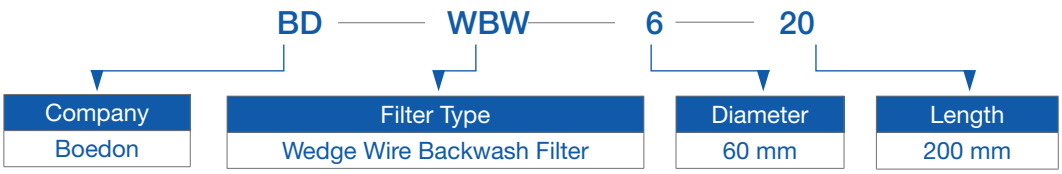
Material: stainless steel (304, 316L, etc.), duplex stainless steel (2205, 2507), Monel, etc.

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.

BOEDON

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.

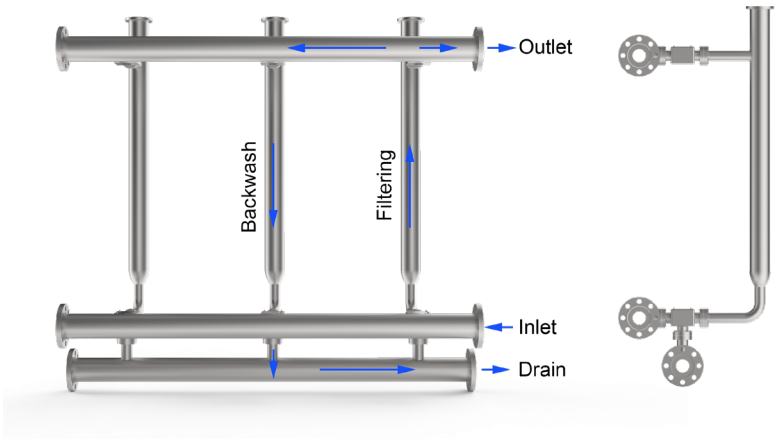
Tubular backwash filters are made of stainless steel, Monel and other alloys. We can choose the right filter material to perfectly match up with your applications according to your filtration environments.

TUBULAR BACKWASH FILTER

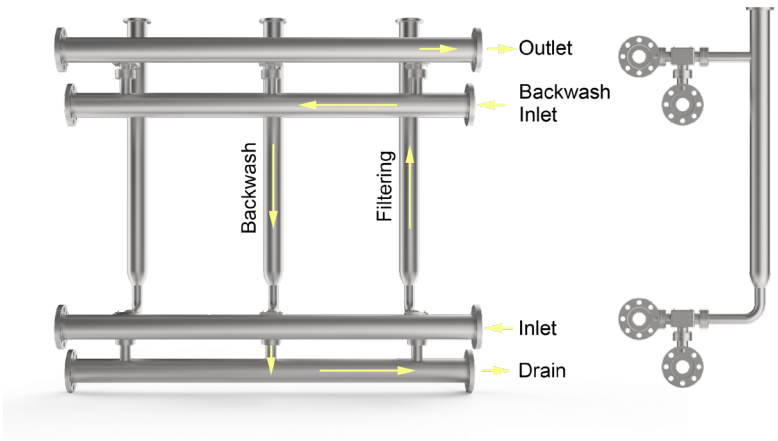
Working Principle

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



BOEDON

TUBULAR BACKWASH FILTER

Specification

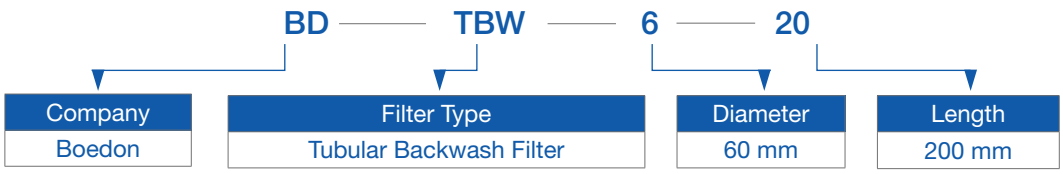
Material: stainless steel: stainless steel (304/316L, etc.), Monel, etc.

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.

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 coalescation-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

BOEDON

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. Theses 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.

BOEDON

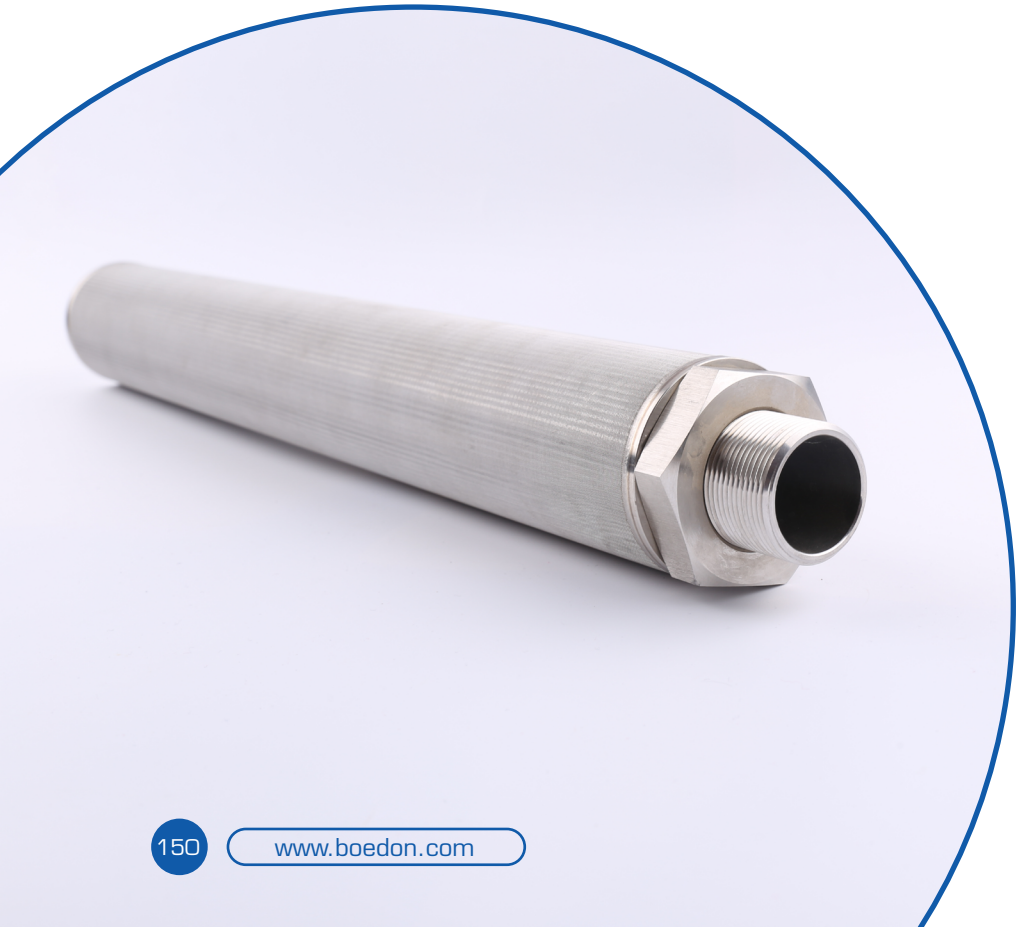
Sintered Mesh Candle Filter

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.

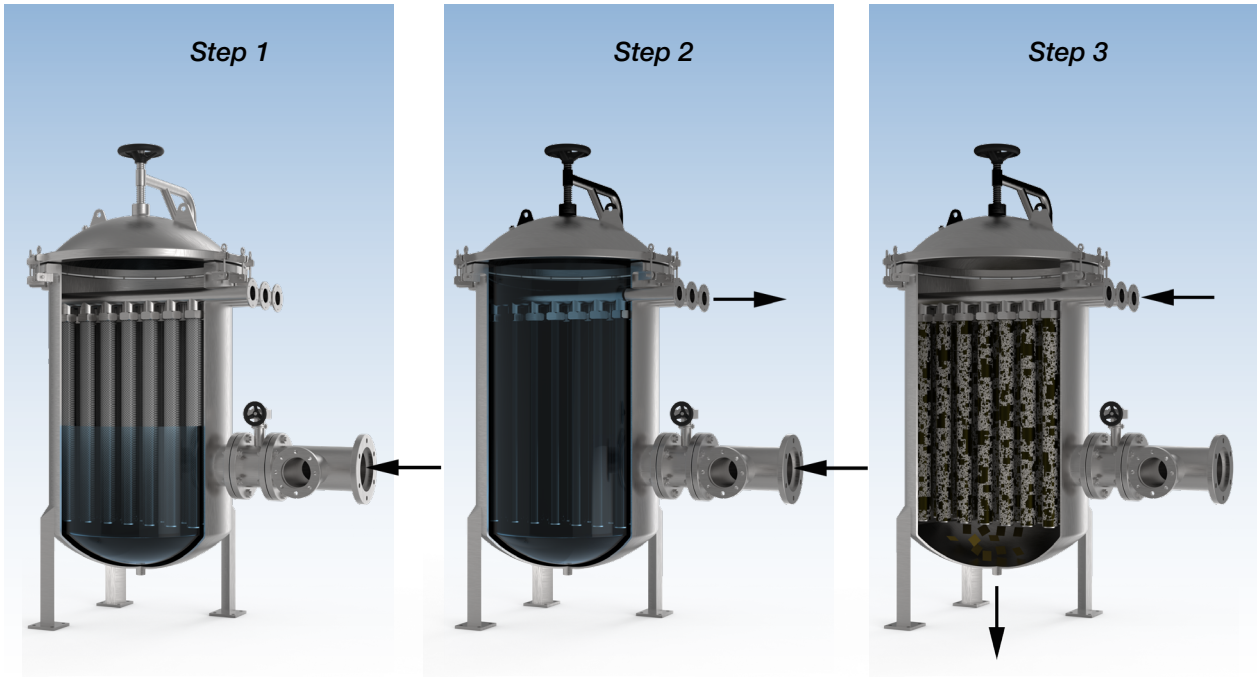
We can offer sintered mesh candle filters made of Hastelloy, Monel and other alloys to meet the various requirements of customers.



SINTERED MESH CANDLE FILTER

Working Principle

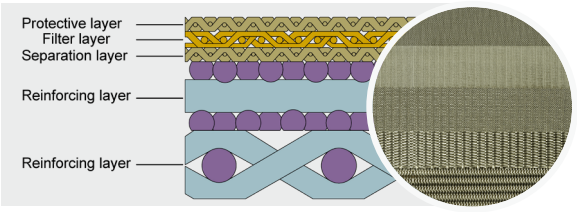
The filtrate enters at the bottom of the filter and moves upward, which helps to keep the solids in suspension so that they are evenly deposited on the surface of the filter elements. Impurities are retained on the surface of filter elements, and clean filtrate is discharged from the filter through the 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

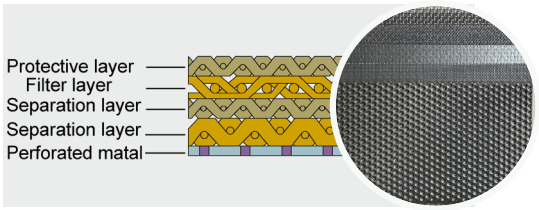
Sintered Mesh Type

Standard 5-Layer Sintered Mesh



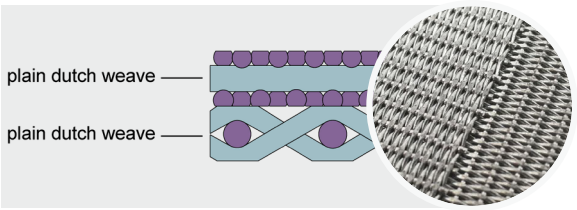
A standard and the most widely used sintered mesh. It is a combination of 5 layers of wire mesh with different openings and mesh counts after laminating and vacuum sintering. Standard 5-layer sintered mesh has higher strength than stainless steel fiber felt, and better air permeability than sintered 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



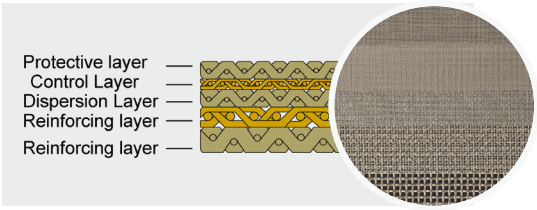
It is fabricated by sintering multiple layers of square weave mesh (or Dutch weave mesh) and stainless steel perforated metal (round or square pattern) together. As a result, it combines the good permeability of woven mesh and the excellent mechanical strength of perforated mesh. In addition, it features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

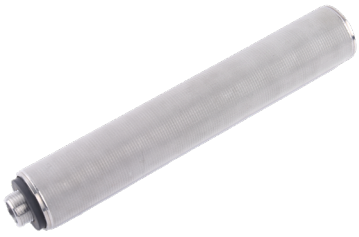
Internal thread

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

BOEDON

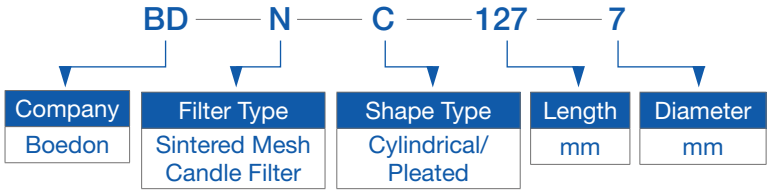
SINTERED MESH CANDLE FILTER

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

BOEDON

Sintered Felt
Candle Filter

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

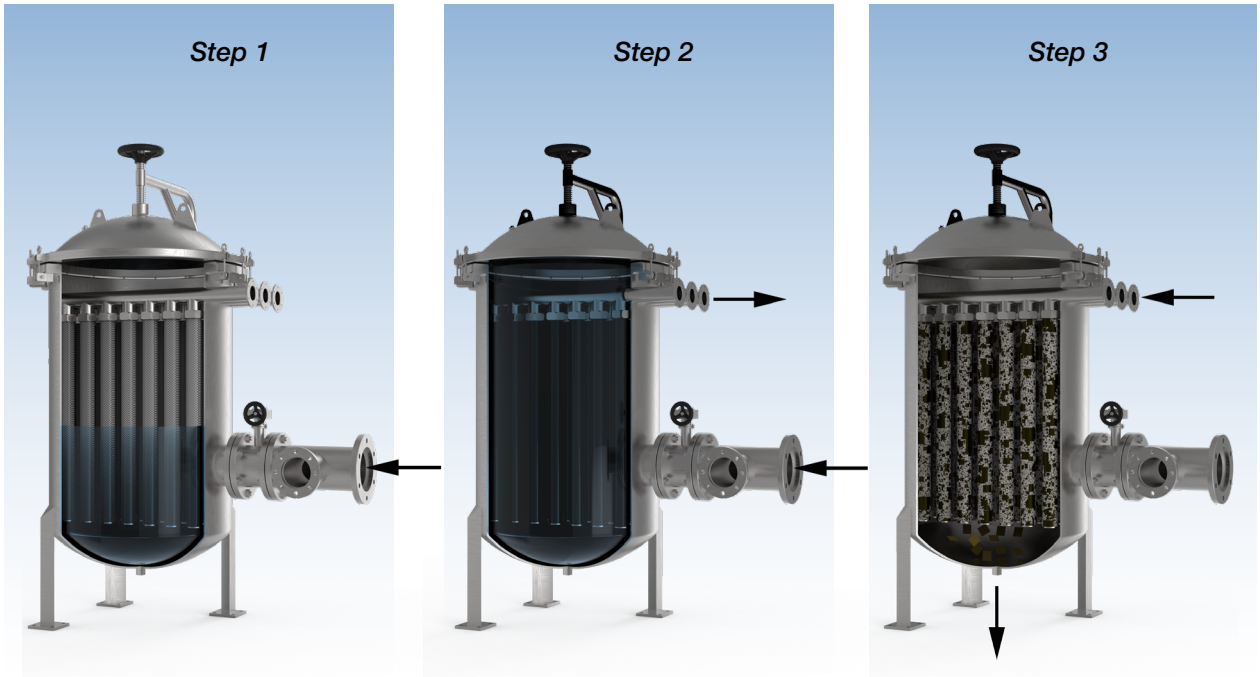
Sintered felt candle filter is made of stainless steel (304, 316L, etc.), FeCrAl and other metal fibers with a diameter of micro rating by sintering in high temperature and welding after special non-woven laying and laminating.
Multilayer sintered felt is composed of different pore size layers to form 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

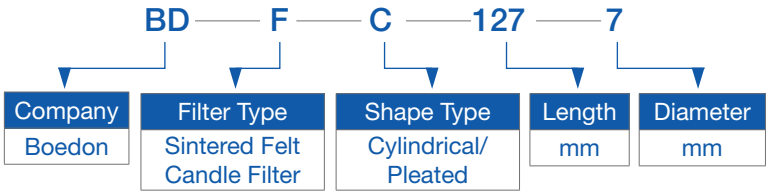
Material: stainless steel (304, 316L, 314, etc.), FeCrAl, etc.

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

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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.

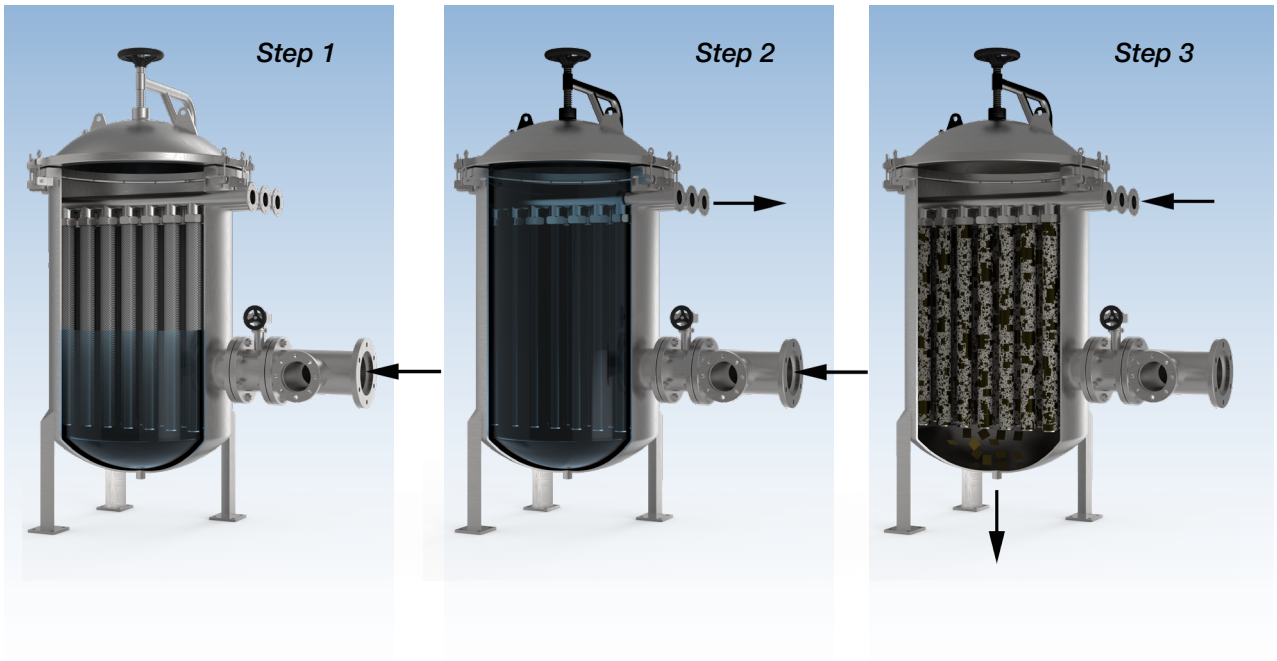
Sintered porous candle filter, also known as sintered powder candle filter, is made of sintered metal powder after pressing, forming and high temperature sintering, featuring stable shape, good air permeability and great separation effect.

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 addiction, titanium, nickel, Monel and other materials are available upon request.

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.



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.

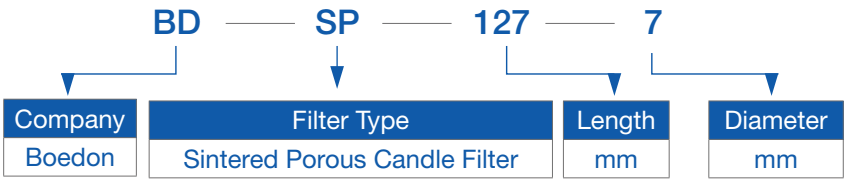
Max. operating temperature: 500 °C

Filter rating: 0.1–100 μm

Porosity: 30%–40%

Compressive strength: 3 MPa

Max. differential pressure: 0.6 MPa



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.

BOEDON

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

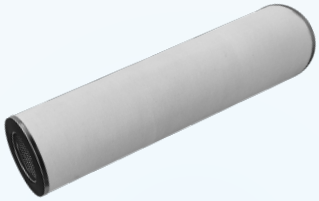
Coalescer Separation Filter

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?

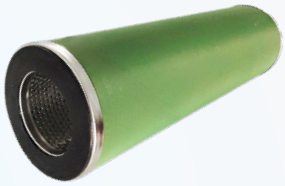
Boedon offers coalescer filter elements made of polyester layer or glass fiber layer after special processing. It has good compatibility with various liquids and its multilayer composite structure can effectively filter out solid impurities and coalesce small droplets into larger droplets. Separator 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.

BOEDON

Coalescer
Filter Element

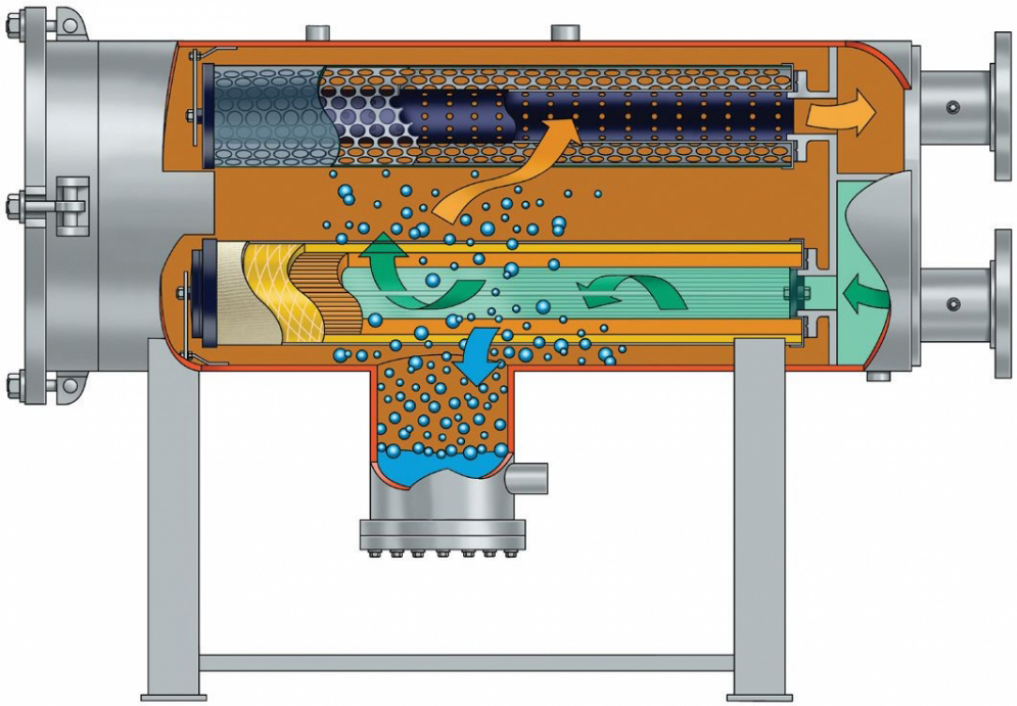
The hydrophilic property of coalescer filter element allows it to coalesce small droplet into larger drops in liquid-liquid separation applications in chemical industry.

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.



Material

Polyester Fiber Coalescer Filter Element

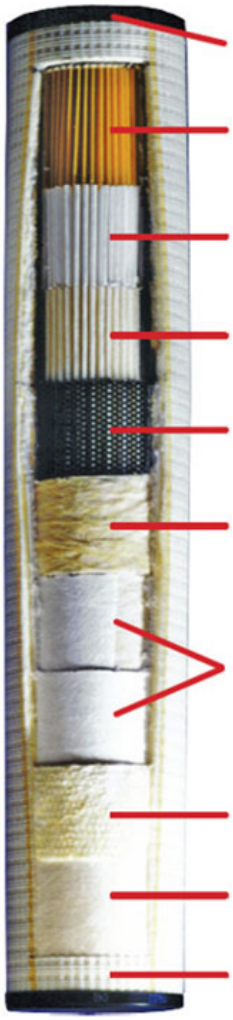
It is usually made of synthetic polyester fiber that has good compatibility with various fluids. The filter cartridge is spirally rolled in a multi-layer structure, with each layer using fibers of different properties. The desired filter rating is achieved by controlling parameters such as the shape,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



Endcap (thread or flat base)

Cellulose Paper/Fine Filter Paper.
It is used to filter out solid impurities from the media.

Fine Filter Paper

Non-woven Support Fabric.
It absorbs tiny liquid droplets onto the surface and separate oil from water.

Supporting Tube.
It is generally made of stainless steel or carbon steel to provide support for the filter media and offer good acid and alkali resistance and corrosion resistance.

Glass Fiber Matt.
It allows larger droplets to fall off and finish the water-oil prefiltration.

Water Absorbent Material.
It absorbs small droplets and gathers into larger droplets.

Glass Fiber Matt.
It allows larger droplets to fall off and finish the water-oil prefiltration.

Reinforced Non-woven

Reinforced Support Mesh.
It provides great outer support for the filter element

COALESCER FILTER ELEMENT

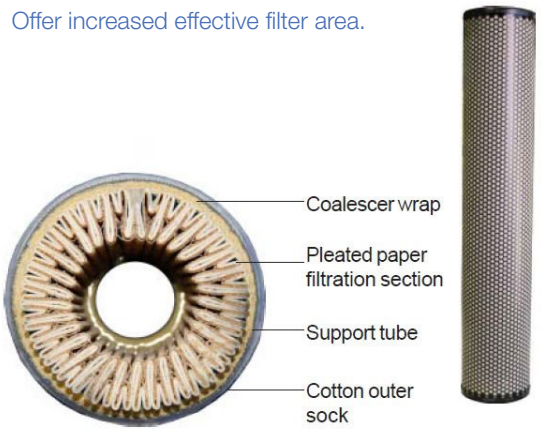
Pleat Type

Standard pleats

Deliver effective impurities removal efficiency.

M pleats

Offer increased effective filter area.



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 ≤ 0.05%

Dirt holding capacity: 1.3 g (L/min)

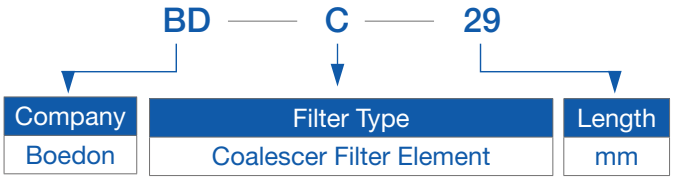
Fuel cleanliness after filtration:

- 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 °C



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.

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COALESCER FILTER ELEMENT

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

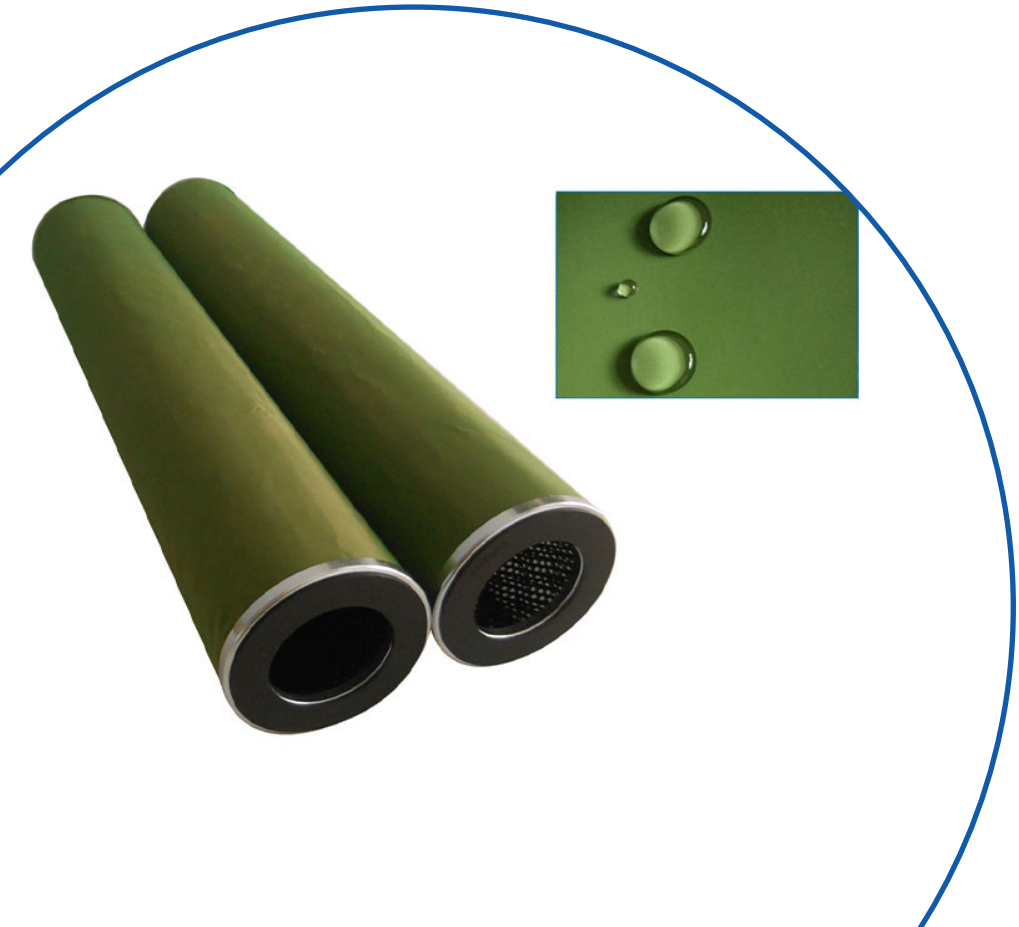
Chemical

- 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.

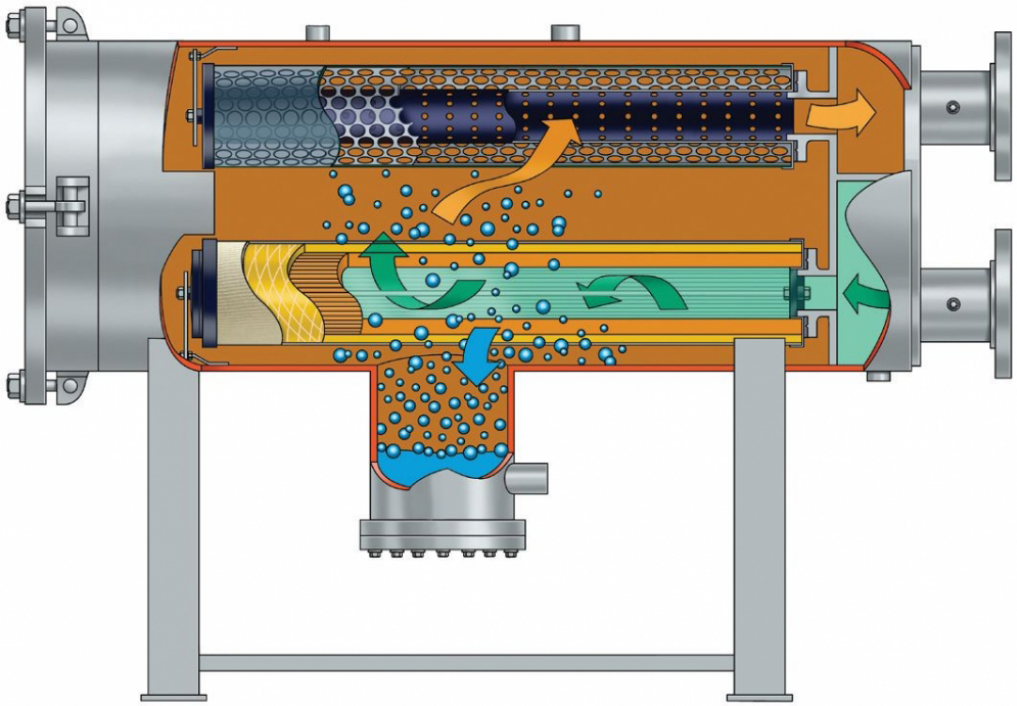
Separator filter element is made of Teflon material with natural hydrophobic property after special processing. Oil flows from outside to inside of the separator filter element. The outer Teflon material can effectively prevent droplets from passing through, leaving droplets on the surface of the filter 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

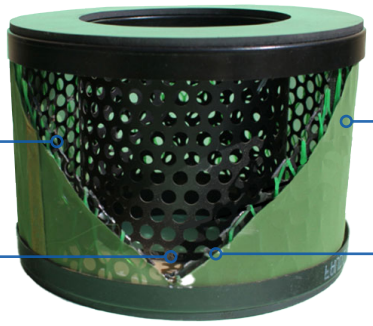
Working Principle

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 using 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.

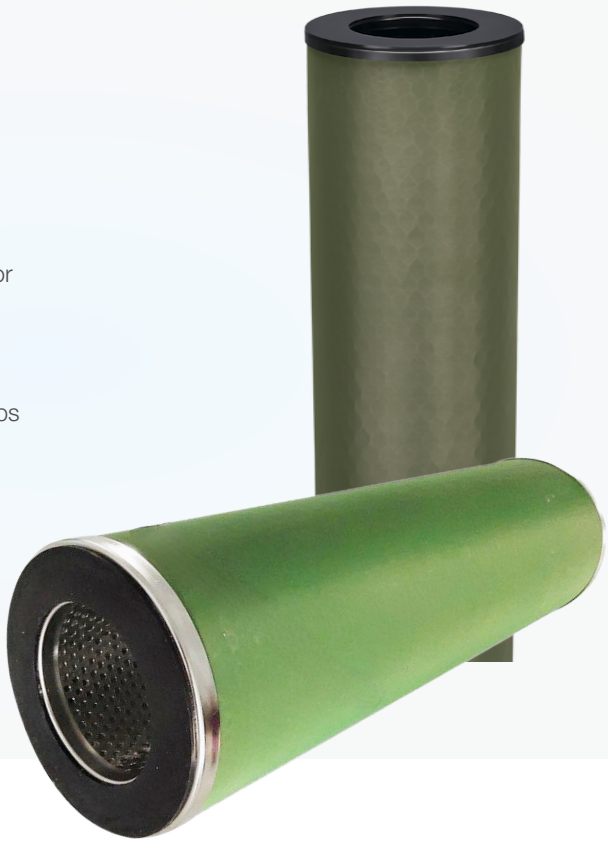
Teflon Mesh
It has natural hydrophobic property to effectively prevent droplets from passing through.

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

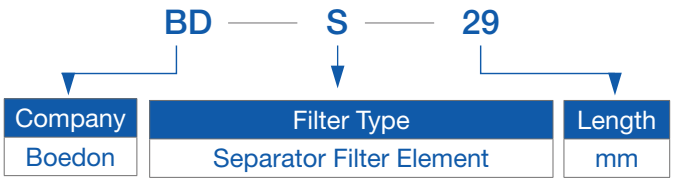
Disposable: can be washed for reuse

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

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.

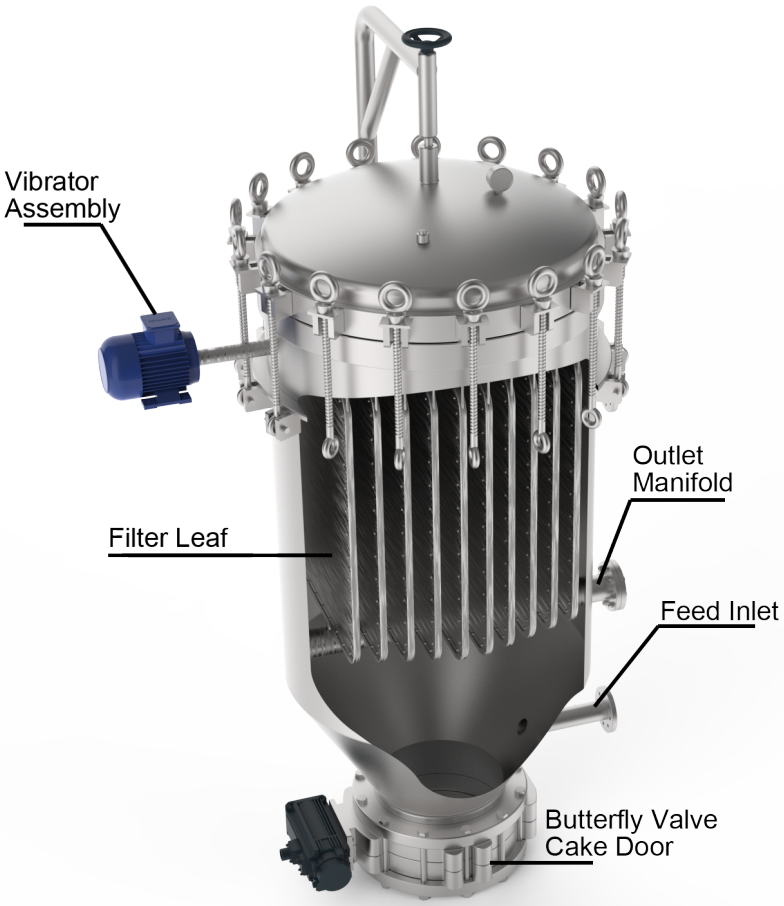
Leaf filter elements are made of stainless steel (304, 316, 316L). We can choose the right leaf filter element to match up with your application according to your filtration environments.

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.

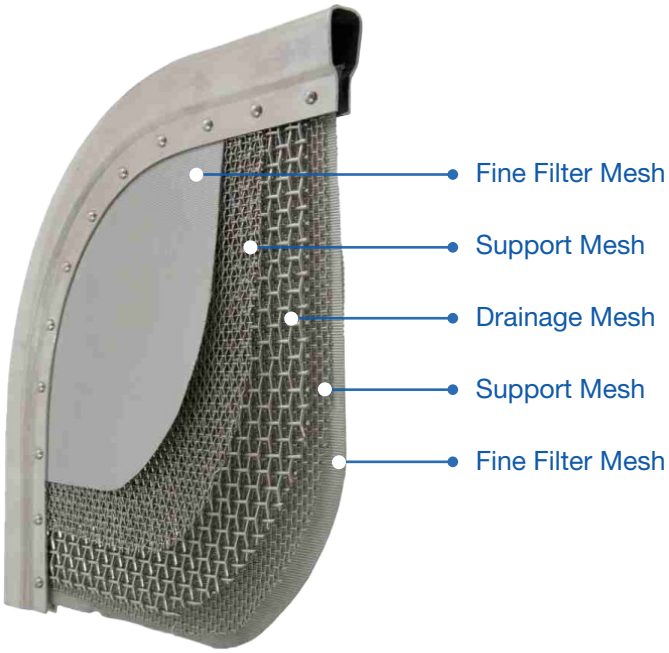
First, the liquid to be filtered flows in from the inlet at the bottom of the filter and moves upward under the action of pressure to make the liquid evenly distributed on every leaf filter element. Both sides of the filter element play the role of filtration. Impurities are trapped on the surface and 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

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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

BD	RLF	29	54
Company	Filter Type	Length	Width
Boedon	Rectangle Leaf Filter	mm	mm

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

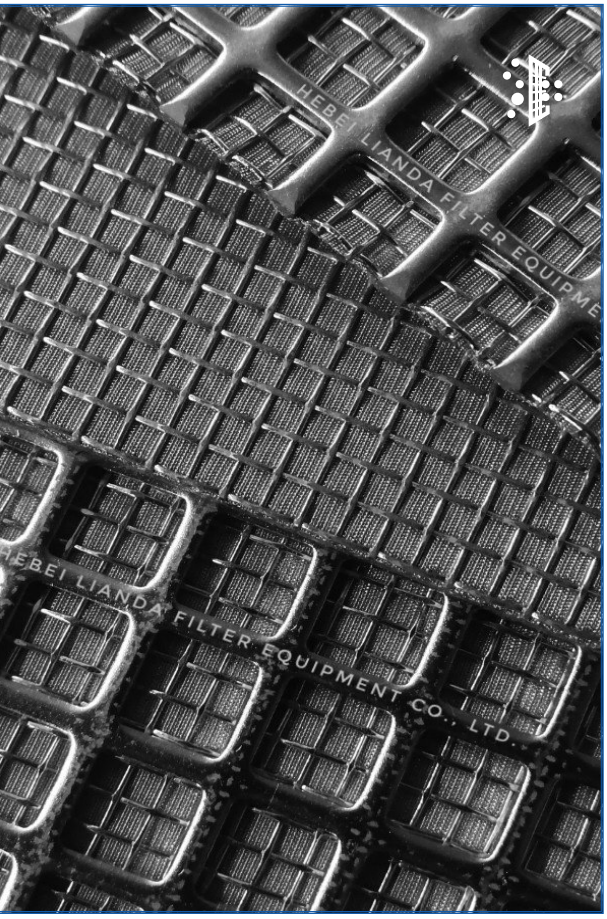
- Corrosion, acid and alkali resistant material
- Work with various filtering aids to enhance the filtering effect.
- High firjgfyk
- Multiple leaf filter elements for filtration, providing a large filter area and high filtration efficiency
- Easy to install, low maintenance costs
- Reusable, cost saving

Application

Food

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

03.5 OTHER FILTER ELEMENTS



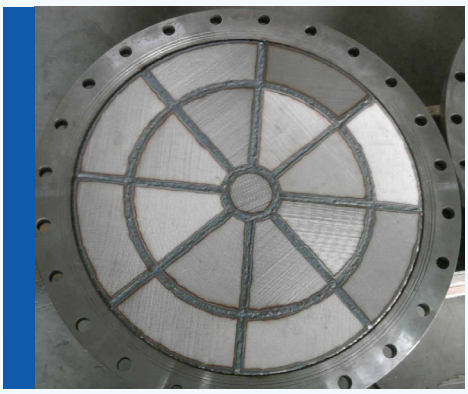
In addition to polymer filtration, fluid filtration, chemical filtration and edible oil filtration, we also offer a variety of other filter elements to meet your various industrial filtration demands.

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

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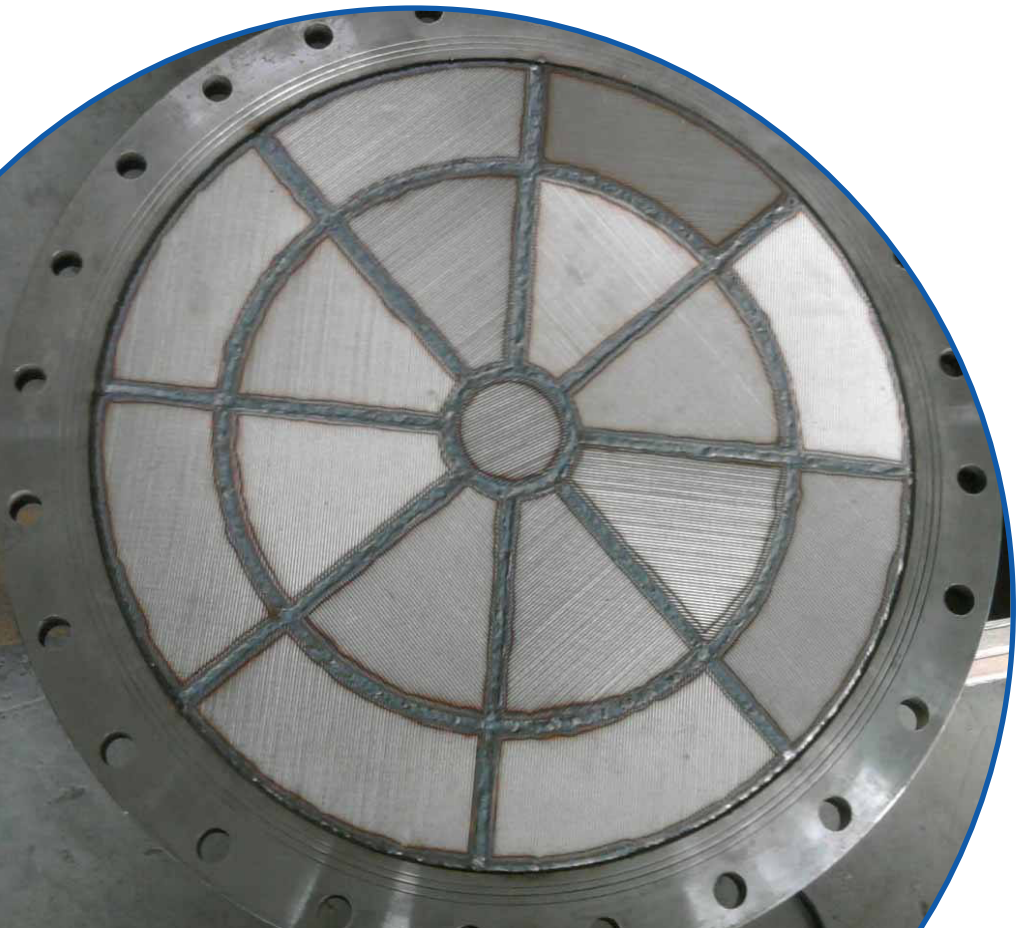
Fluidization Plate

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.

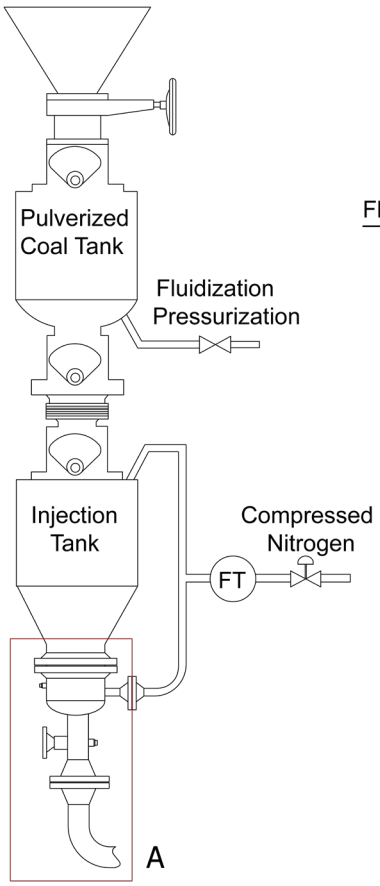
Stainless steel sintered filter mesh is constructed of multiple layers of metal woven mesh after laminating, pressing and vacuum sintering. Square weave wire mesh is generally adopted as the filtration layer to enhance the open area, air permeability and filtration precision of the fluidization plate. 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.

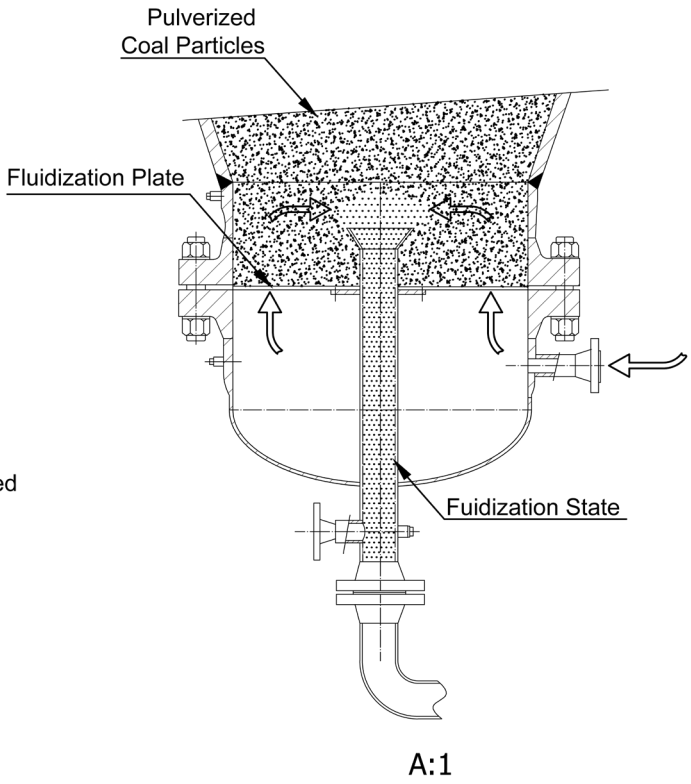


FLUIDIZATION PLATE

Working Principle

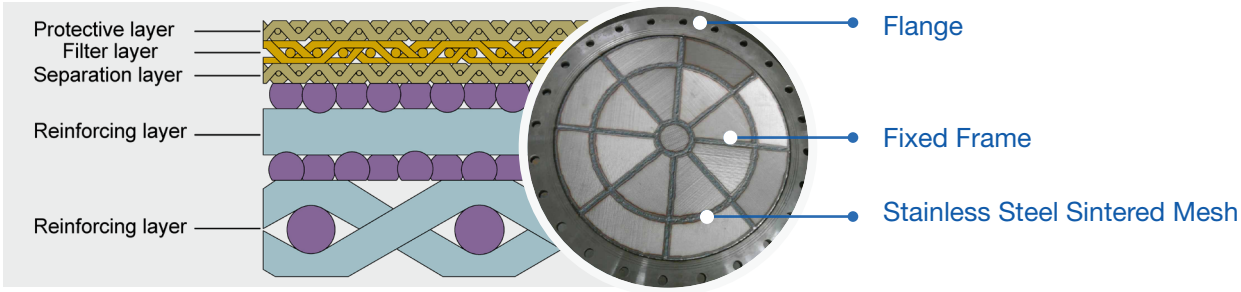
The pulverized coal in the pulverized coal tank flows towards the injection tank under gravity. At that time, the compressed nitrogen gas blows the flowing down pulverized coal through the pores of the fluidization plate, keeps it fluidizing and the pulverized coal particles are separated from each other. 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 fluidiazation 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

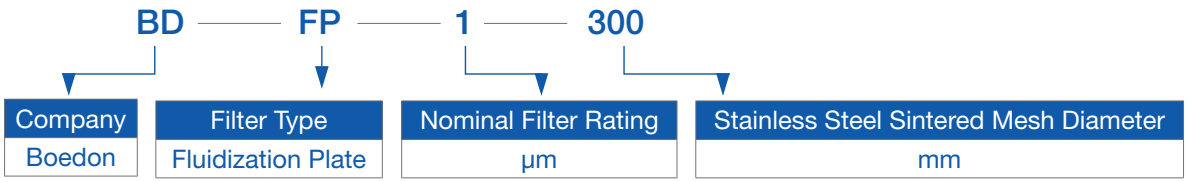
Diameter: 300–3000 mm

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

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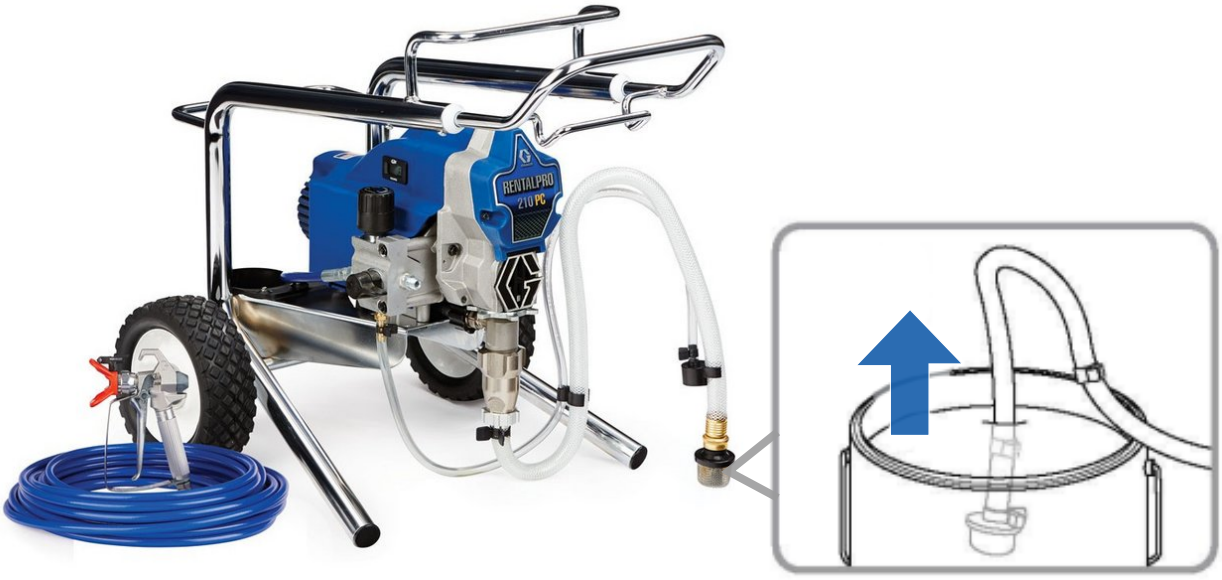
SPRAY GUN FILTER

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

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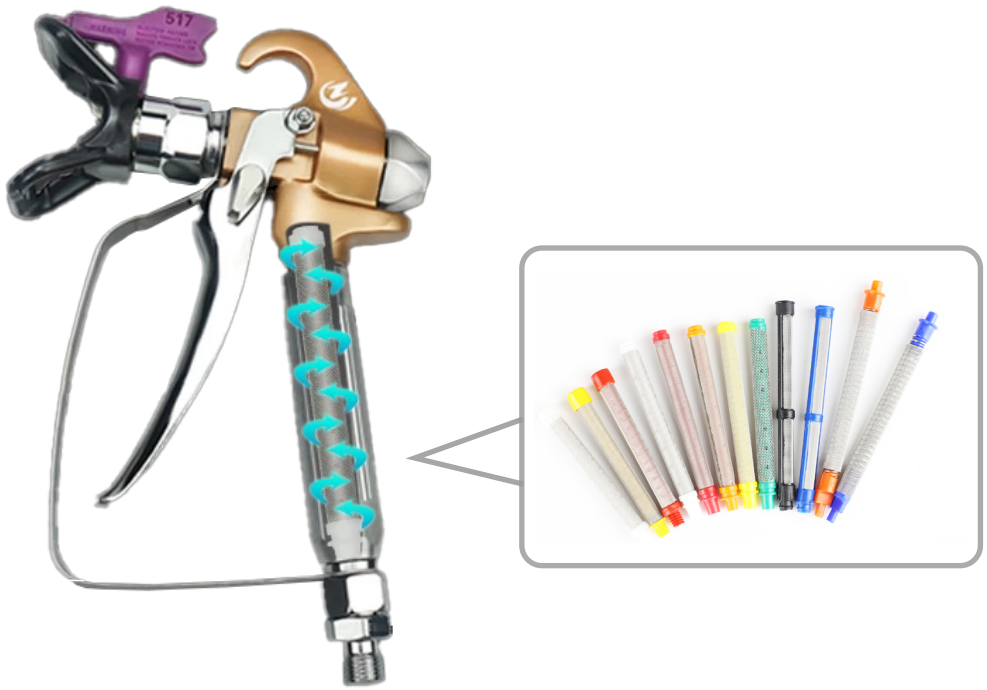
SPRAY GUN FILTER

Pen Spray Gun Filter

Description

Pen spray gun filer 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 filers 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

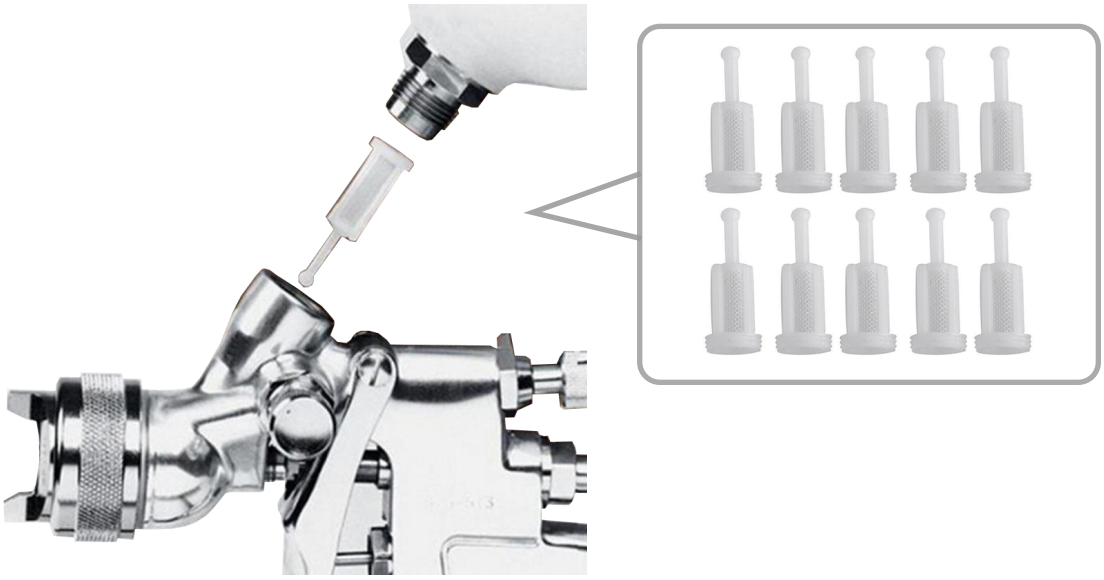
Filter mesh material: stainless steel
Fitting material: plastic
Size: 0.7" × 8.5" × 2.7", or customized.
Mesh: 30, 50, 60, 65, 100, 150, etc.
Color: customized

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

BOEDON

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.

BOEDON

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.

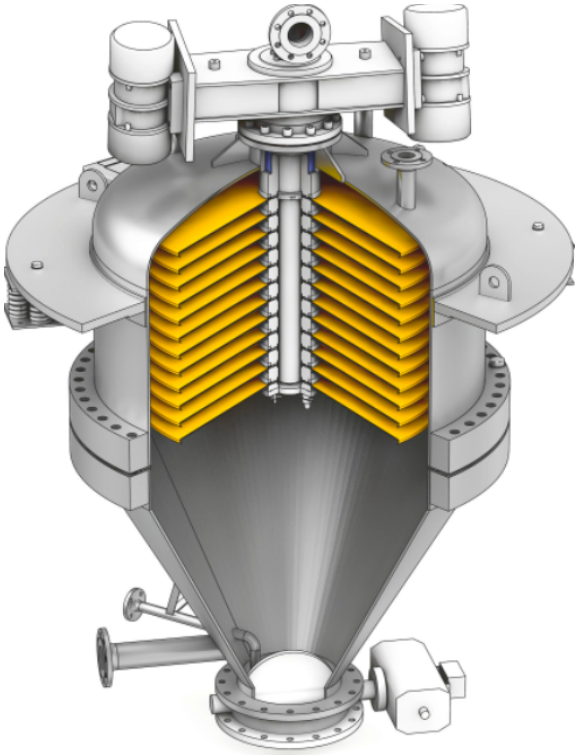
It is installed in the catalyst thickener and is used to purify chemicals and recover catalyst during the production process of aniline, TDI, MDI, BDO and other chemicals.

CATALYST THICKENER FILTER DISC

Working Principle

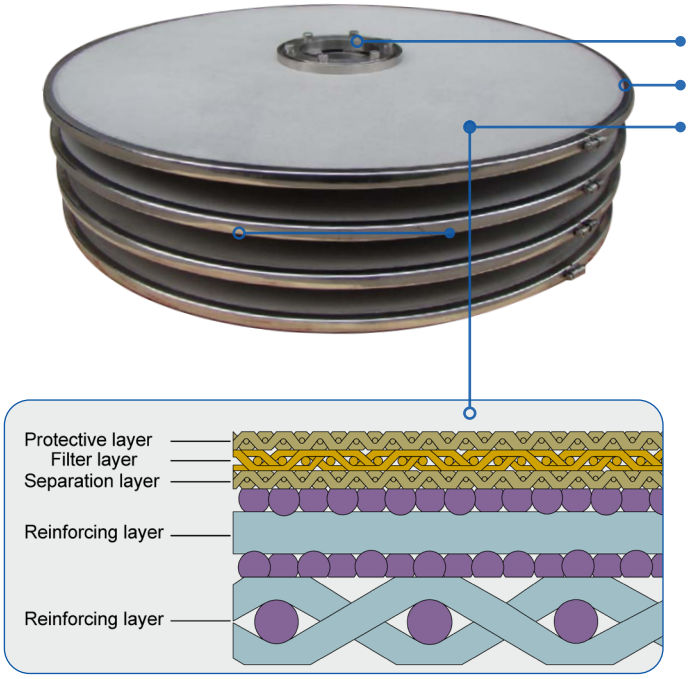
First, the suspension of aniline and other chemical products and solid catalyst particles is injected into the catalyst thickener. The solution flows through the high precision filter disc and into the center pipe, and then flows out of the filter. The separated catalyst returns to the agitated reactor 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



- Central pipe and flange plate
- Stainless steel clamp
- 2 pieces of symmetrically placed sintered mesh

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.

BOEDON

CATALYST THICKENER FILTER DISC

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.

Stainless steel

Copper

Brass

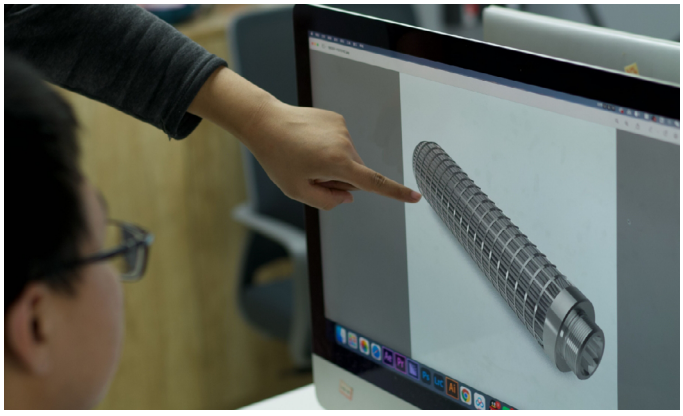
Metal Materials

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



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.

HOT GAS FILTRATION

04.

Recently, iron and steel, energy, non-ferrous metallurgy industries grow rapidly, a large number of hot gases containing dust particles is generated during the production, if discharged into the air directly, it is bound to pollute the environment. Therefore, hot gas filtration is essential to the environment protection.

Currently, organic fiber dust collector bags prevail on the market. This kind of dust filter bag is lightweight and low price. However, it has poor resistant to high temperature and easily damaged. When cake is forming on the bag, it will cause clogging and not easy to clean.

There are also ceramic fiber, glass fiber and other inorganic fiber filter bags on the market. Ceramic fiber has good resistant to high temperature and corrosion, but poor ductility and easy to rupture when the temperature rises suddenly. Glass fiber has high strength, but poor folding resistance and wear resistance.

How Boedon Solve?

Boedon offers 3 types of metal hot gas filters. These filters can not only effectively overcome the disadvantages of poor high temperature resistance and easily damaged exists in organic fiber filter bags, but also overcome the disadvantages of ceramic fiber and glass fiber. The metal filters can withstand the harsh filtration environment such as high temperature or acid and alkali corrosive gases, and have obvious advantages over other non-metallic materials.

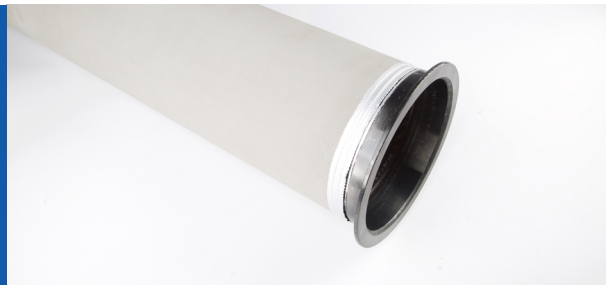
What Boedon Supply?

Sintered Felt Filter Bag

- Maximum operating temperature 1000 °C
- Good porosity
- High dirt holding capacity
- Pleats offer enhanced filter area
- Chemical, ceramic, waste incineration, thermal power generation, etc.

Strengthened Hot Gas Cleaning Filter

- Maximum operating temperature 650 °C
- High strength, stable structure
- High filtration accuracy
- Good thermal shock resistance
- Energy & chemical, nonferrous metallurgy, new coal chemical, etc.



Standard Hot Gas Cleaning Filter

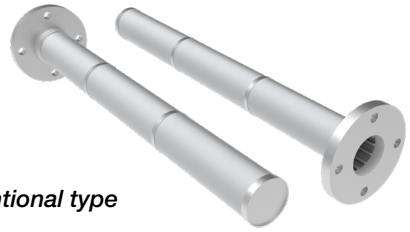
- Maximum operating temperature 450 °C
- Great dust removal capacity
- Good electrical conductivity
- Great abrasion resistance
- Cement, iron & steel, boiler, glass, metallurgy, etc.

BOEDON

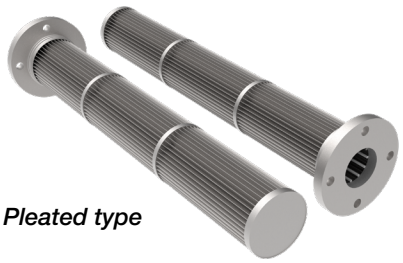
Sintered felt filter bag

We supply both conventional type and pleated type sintered felt filter bags to meet your demands on high temperature hot gas dust removal.

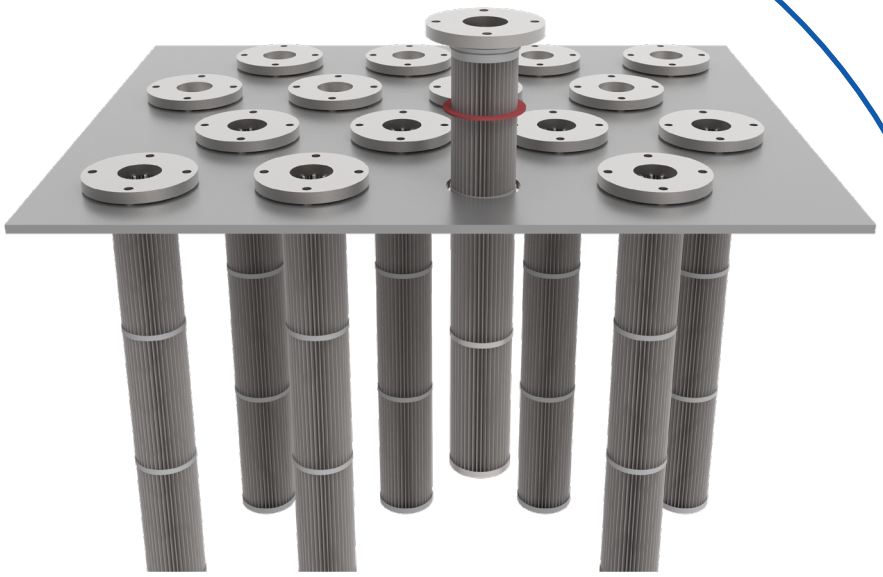
Sintered felt filter bag is a porous filter bag for depth filtration. It is made of bundle metal fibers by sintering in high temperature and welding after special non-woven laying and stacking with the pore gradient formed by layers of different pore sizes. Our filter media are composed of a metal cage skeleton, coarse metal fiber layer and fine metal fiber layer. It is widely used in various industries involving high temperature flue gas dust removal due to its excellent resistant to high temperature and corrosion.



Conventional type



Pleated type



SINTERED FELT FILTER BAG

Specification

Material: stainless steel (304, 316L, 310S, 314, etc.), FeCr Al

Working temperature: Max. 1000 °C.

Porosity: 75% – 88%

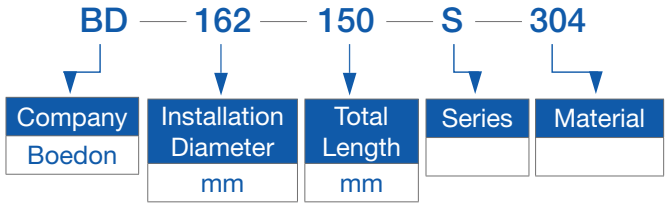
Connection: flange

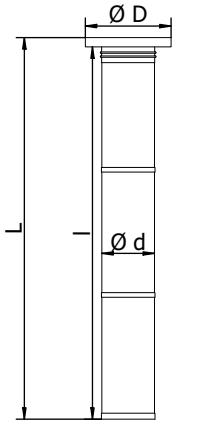
Initial resistance: 30–100 Pa

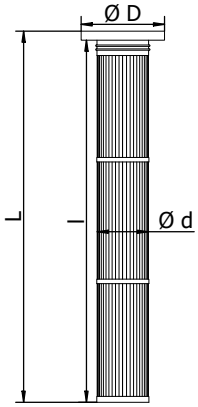
Emission concentration: < 5 mg/Nm^3

Cleaning method:

regular cleaning or online pulse cleaning







Popular Specification of Sintered Felt Filter Bags

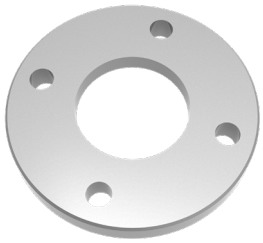
Model	Installation Diameter (mm)	Total Length L (mm)	Length l (mm)	Diameter D (mm)	Diameter d (mm)	Filter Area (m^2)
BD-162-150-S	162	1500	1466	177	143	0.76
BD-162-150-F	162	1500	1466	177	143	2.03
BD-162-75-S	162	750	716	177	143	0.38
BD-162-75-F	162	750	716	177	143	1
BD-162-50-S	162	500	466	177	143	0.25
BD-162-50-F	162	500	466	177	143	0.66
BD-133-150-S	133	1500	1466	153	118	0.62
BD-133-150-F	133	1500	1466	153	118	1.62
BD-133-75-S	133	750	716	153	118	0.31
BD-133-75-F	133	750	716	153	118	0.8
BD-133-50-S	133	500	466	153	118	0.21
BD-133-50-F	133	500	466	153	118	0.53
BD-125-150-S	125	1500	1466	142	108	0.59
BD-125-150-F	125	1500	1466	142	108	1.49
BD-125-75-S	125	750	716	142	108	0.29
BD-125-75-F	125	750	716	142	108	0.73
BD-125-50-S	125	500	466	142	108	0.2
BD-125-50-F	125	500	466	142	108	0.48

Notes:

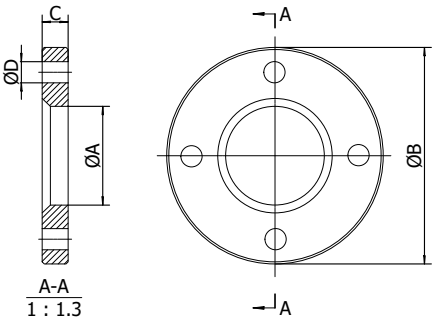
- Installation diameter refers to the diameter for filter installed on the installation plate.
- Other specifications are available upon request.

SINTERED FELT FILTER BAG

Connection



Flange plate



Flange structure plan

Filters are generally provided with a flange for connection to enhance its high temperature and high pressure resistance.

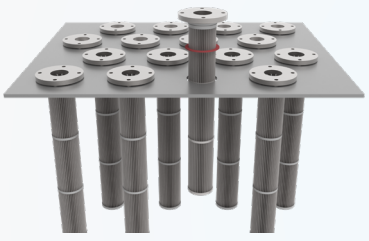
- ϕA (flange ID): 108 mm, 118 mm, 143 mm.
- ϕB (flange OD): 142 mm, 153 mm, 177 mm.
- C (flange thickness): 34 mm
- ϕD (flange hole diameter): 15 mm, 19 mm
- Number of holes: 4
- Special sizes are available upon request.

SINTERED FELT FILTER BAG

Seal Fittings

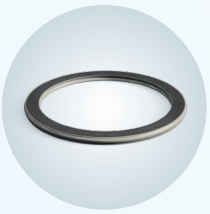
Seal Gasket

The filter is sealed by tightly compressing the seal gasket onto the back of the flange to the upper surface of the installation plate. The roughness of the upper surface of the installation plate and the fitting surface of the flange shall be well designed to perfectly match with the chosen seal gasket as it directly determines whether the seal is reliable and leek-free.



Flange & seal gasket installation

Metal seal gasket



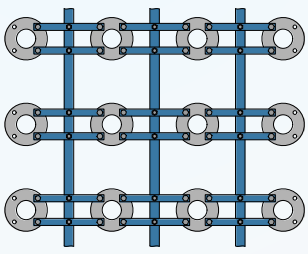
Semi-metallic seal gasket

Asbestos rubber seal gasket

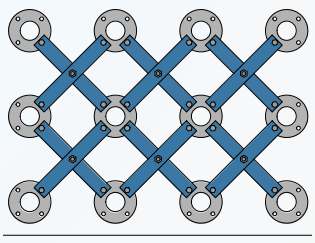
PTFE seal gasket

Hold Down Bar

Hold down bars are the seal fittings between flange holes and the installation plate for fixing. Both parallel and cross hold down bars are available for your option.



Parallel hold down bars



Cross hold-down bars

SINTERED FELT FILTER BAG

Application

Metallurgy

• Submerged arc furnace gas dust removal in iron alloy, ferronickel, silicomagnganese industries

Power Plant

• Thermal power plant coal fired boiler dust removal

Cement

• Rotary kiln fuel gas dust removal, etc.

Ceramic

• Aluminum oxide, high titanium slag dust removal

Chemical

• Gas purification and filtration
• Calcium carbide furnace gas dust removal

BOEDON

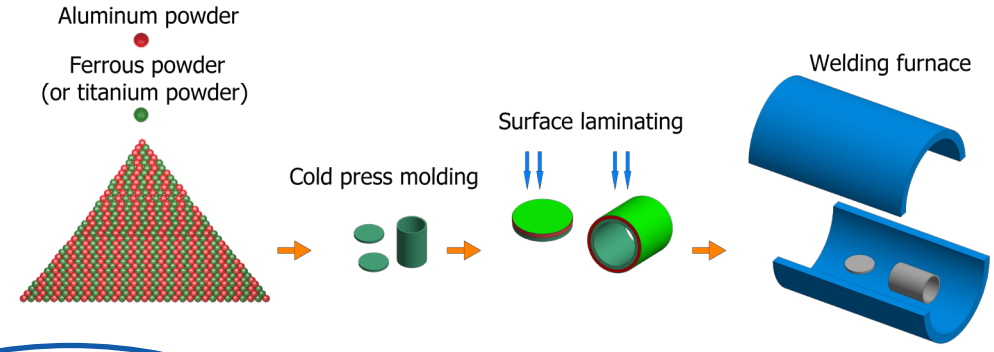
Strengthened Hot Gas Cleaning Filter

We offer **strengthened hot gas cleaning filter** with good thermal shock resistance to meet your demands on **hot gas dust removal.**

Strengthened hot gas cleaning filter features large flux, low resistance and fast filtration speed. It can reduce the chemical reaction of organic molecules, reduce the clogging and make the back flush or pulse dust removal much easier. It uses a cage skeleton as a supporting structure to increase its strength. The flange connection design ensures the sealing effect and prevents the leakage.

Filter Media Production Flow

Generally, FeAl or TiAl is made into metal powder blanks by molding or cold isostaic forming. And then the surface is coated and vacuum sintered.



STRENGTHENED HOT GAS CLEANING FILTER

Specification

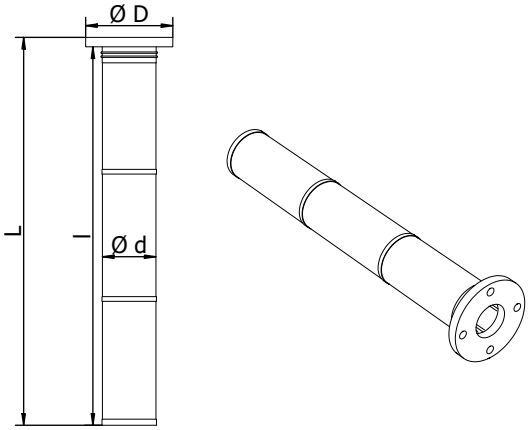
Working temperature: 450 °C – 650 °C

Wall thickness: 1 mm – 2 mm

Dust content after filtration: ≤ 5 mg/Nm^3

Retained dust particle size: ≤ 0.1 μm

Air permeability: 100 m^3/(m^2·h)



BD — T — 60 — 150

Company	Filter Type	Installation Diameter	Total Length
Boedon	Strengthened Hot Gas Cleaning Filter	mm	mm

Popular Specifications of Strengthened Hot Gas Cleaning Filters

Model	Installation Diameter (mm)	Diameter D (mm)	Diameter d (mm)	Total Length L (mm)	Length l (mm)	Filter Area (m^2)
BD-T-60-150	60	90	56	1500	1466	0.28
BD-T-60-175	60	90	56	1750	1716	0.33
BD-T-60-200	60	90	56	2000	1966	0.38
BD-T-60-225	60	90	56	2250	2216	0.42
BD-T-60-250	60	90	56	2500	2466	0.47
BD-T-60-300	60	90	56	3000	2966	0.57

Notes:

- Installation diameter refers to the diameter for filter installed on the installation plate.
- Other specifications are available upon request.

BOEDON

STRENGTHENED HOT GAS CLEANING FILTERS

Features & Application

Features

- Withstand high temperature ranging from 450 °C to 650 °C.
- High filtration efficiency
- High strength, stable structure
- Make the online dust cleaning easier.
- Excellent resistant to corrosive gases
- Good thermal shock resistance

Application

Metallurgy

- Non-ferrous smelting arsenic removal, dust removal and purification, etc.
- High-precision gas-solid separation of high-temperature gases

Chemical

- Sulfuric acid combustion furnace dust removal
- Combustion finery dust removal and purification, etc.

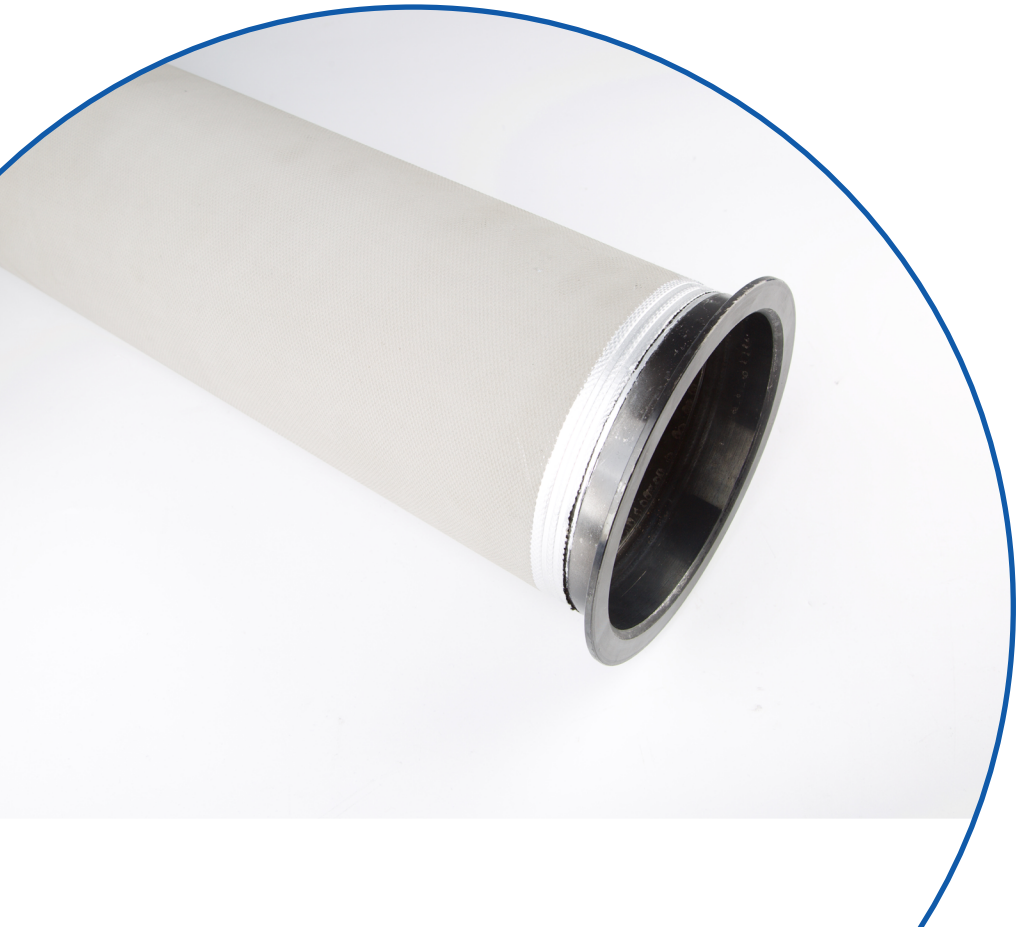
Oil & Gas

- Flue gas generated during oil extraction
- Flue gas dust removal in other energy industries

Standard Hot Gas Cleaning Filter

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

Standard hot gas cleaning filter is a kind of filter bag made of metal powder by sintering into flexible metal powder sintered filter sheet, then cut into suitable size to fit for the cage bone, and welded to the cage bone. Its filtration efficiency is 2 times of the bag filter under the same working conditions and resistance. A metal ring is welded at the opening of the flexible metal membrane for installation and positioning. Hexagonal metal gasket is used for the sealing of the metal ring and the installation plate to prevent the leakage of dust removal gas.



BOEDON

STANDARD HOT GAS CLEANING FILTER

Specification

Working temperature: ≤ 450 °C

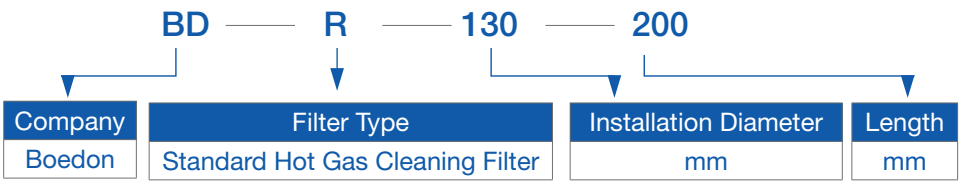
Wall thickness: 0.5–1 mm

Porosity: 30% – 70%

Dust content after filtration: ≤ 5 mg/Nm^3

Retained dust particle size: ≤ 0.1 μm

Air permeability: 100 m^3/(m^2·h)



Popular Specification of Standard Hot Gas Cleaning Filters

Model	Installation Diameter (mm)	Diameter d (mm)	Length l (mm)	Filter Area (m^2)
BD-R-130-200	130	128	2000	0.82
BD-R-130-250	130	128	2500	1.02
BD-R-130-450	130	128	4500	1.84
BD-R-160-200	160	158	2000	1
BD-R-160-250	160	158	2500	1.26
BD-R-160-450	160	158	4500	2.26

Notes:

- Installation diameter refers to the diameter for filter installed on the installation plate.
- Other specifications are available upon request.

STANDARD HOT GAS CLEANING FILTER

Features & Application

Features

- Maximum operating 450 °C
- 2 times of dust removal capacity compared with bag filters.
- Corrosion resistance, can withstand corrosive gases.
- Metal structure offers great abrasion resistance.
- Good electrical conductivity
- Good performance and easy machining performance

Application

Power Plant

- Coal-fired boiler flue gas purification and dust removal

Cement

- Cement industry fuel gas purification and dust removal

Iron & Steel

- Sintering machine produced flue gas dust removal
- High-precision gas-solid separation of high-temperature gases

QUALITY CONTROL

Boedon is committed to meeting and exceeding customer requirements and enhancing customer satisfaction through strict quality control. Quality, for us, is more than products quality, which covers all area of our business (our products, processes, services and quality management system) to enable us to provide the best possible level of customer satisfaction.

Quality is guaranteed

ISO 9001:2015 Certified

Boedon strives to provide our customers with high-quality products, fast lead times and excellent customer service. We furthered that commitment when we updated certification to ISO 9001:2015 certified in 2018. With our quality management system ISO certified, Boedon continues to do our very best, every day, to ensure that you are confident in our services and that you get exactly what you need, precisely when you need it.conditions.

恒 标
HBQA

QUALITY MANAGEMENT SYSTEM
CERTIFICATE OF CONFORMITY

Registration No.: 06719Q20388R0M

This is to certify that the Quality Management System of:

Hengshui Boedon Industech Co., Ltd.

Registered Add: 1-4 Yu Hua North RD. Anping, Hengshui City, Hebei, China
Office Add: 1009, Huizhong Square Suite A, Renmin Road, Taocheng District, Hengshui City, Hebei, China
Unified Social Credit Code: 91131125308118670G Postcode: 053000

has been found to conform to Quality Management System Standard:

GB/T19001-2016/ISO 9001: 2015

This certificate is valid only to quality Management System certification related to the following product(s)/service(s):

Industrial Filtration & Separation Technology and Equipment, Special Alloy Technology, Architectural Decorative Mesh & Façade Design, Marine Enclosure Netting Design Services; Special Alloy Materials, Plastic Fiber Filter Materials, Metal Sintered Materials, Filtration & Screen Parts, Chemical Tower Packing, Metal Wire Mesh Products to Sale

Date of Issue: May.9.2019
Valid Date: May.9.2019 — May.8.2022

Certified organizations within the validity period of the certificate surveillance audit at least once a year, and supervision of qualified audit logo paste on the corresponding position,the certificate is valid. This certificate can be found in CNCA website (www.cnca.gov.cn) or check Hengbiao website (www.hbqc.com.cn).

BEIJING HENGBIAO QUALITY CERTIFICATION CO.,LTD.
6 Huayuan Rd,Building2 room9720,Haidian,Beijing

General Manager:

恒 标 HBQA | IAF | CNAS 中国认可 国际互认 管理体系 MANAGEMENT SYSTEM CNAS C087-M

Professional, Considerate

Pre-Sales

All our sales have rich products and industrial knowledge to fully understand customer needs and give the professional recommendation and accurate quotation to customers. As for the specific requirements our customers propose, they can organize discussion with technicians department to give the best solution.

Rigorous, Thorough

Design & Solutions

We will try our best to provide the cost effective products and solutions to specific needs. Before we deliver our solutions, the drawings and designs are discussed and checked repeated to confirm the solutions is the best for customers no matter in the costs or functions.

BOEDON

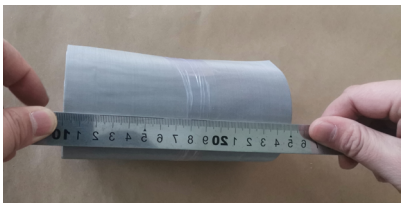
Standardized, Strict

Manufacturing

All production is carried out under the ISO 9001 and industrial standards. From raw material to loading, each link has its own quality control system and we will inform our customers about the order process timely.

Raw material

Incoming material inspection will be launched including chemical and physical properties of steel wires and steel plates.



Test before storage

All products will be tested of performance before storage. Only qualified products can be stored in specific position and all tests will be record in the report.

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In-production

All molds and equipment are debugging to guarantee the smallest tolerance and comply with the order requirements and industrial standard. Besides, sampling inspection is carried out during production.

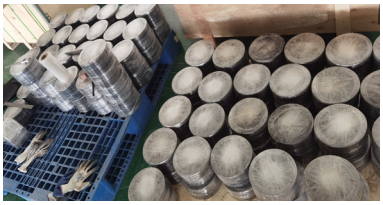
Perfect Package

1 Test

Final Inspection guarantee quality

2 Plastic Film

Avoid moisture and guarantee best performance

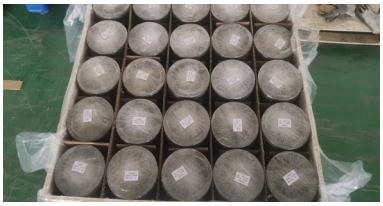


3 Plastic Cloth

Additional waterproof and damp proof

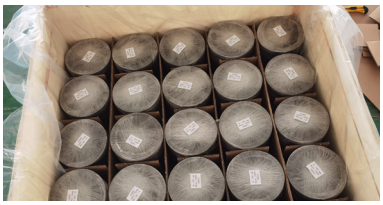
4 Wooden Case

Anti-friction and anti-collision



5 Paper Board Division

Limit moving and Prevent collapse

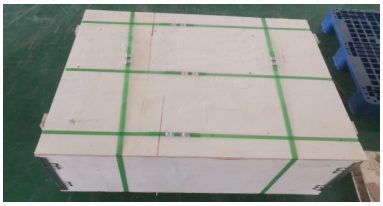


6 Metal Strengthened Strip

Protect wooden case from cracking and damage

7 Packing Strap

Seal and prevent crack and damage



8 Skilled Loading

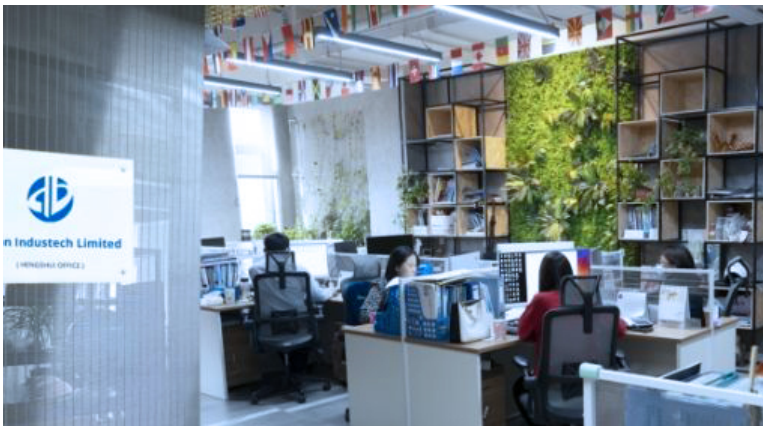
Prevent cracking and damage during loading.

BOEDON

Timely, Effective

After-Sales

All orders will have regular return visit to learn products performance and problems during installation and using.
All compliant and technical problems will be solved within 24 hours to reduce downtime and production costs.give the best solution.



BOEDON Industech Limited

Weave Impossible to Possible

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