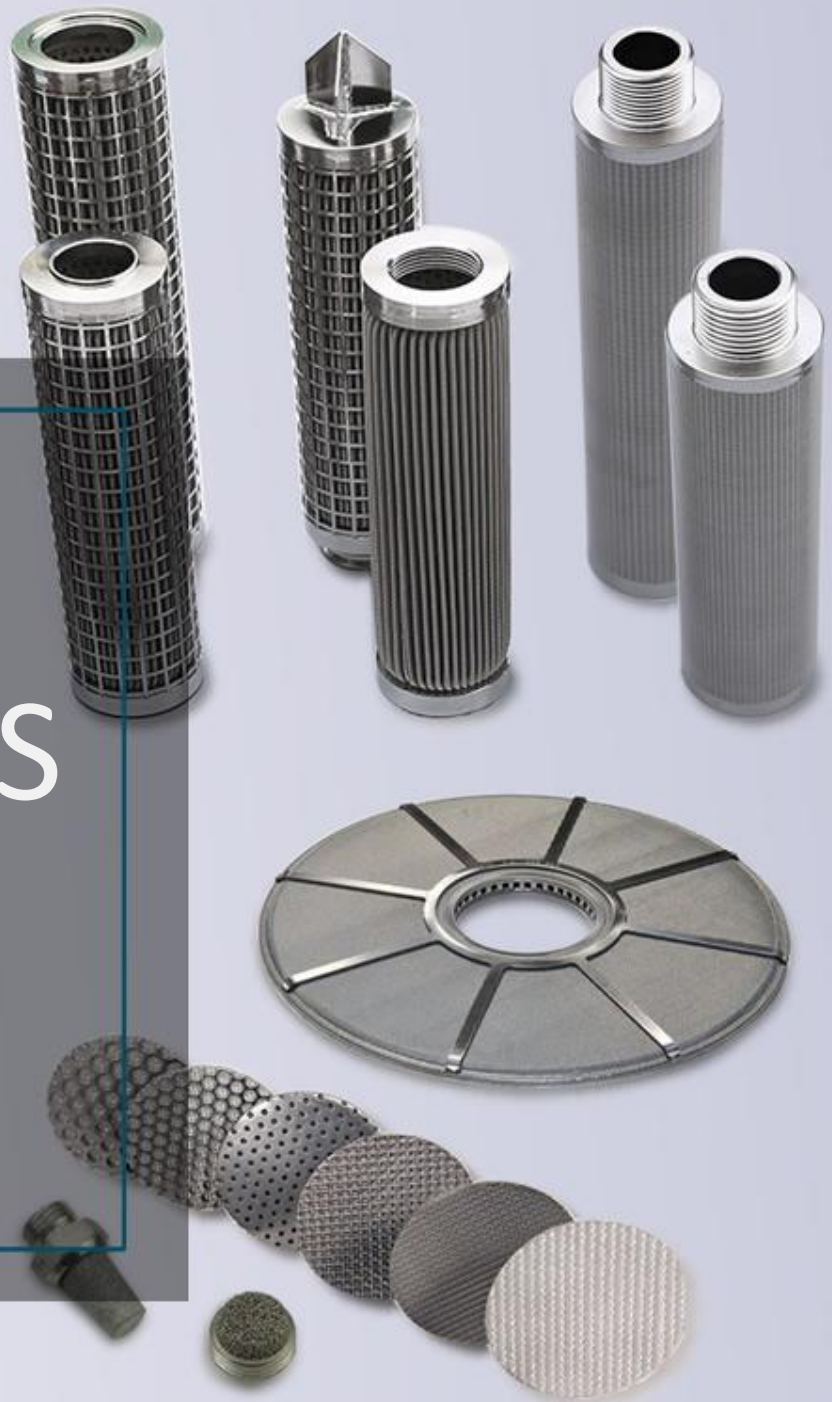




FILTALLOY TECHNOLOGY

FILTER ELEMENTS





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ABOUT US

Fitalloy Technology Limited

Fitalloy is an advanced metal filter elements manufacturer & supplier, with more than 20 years of experience. We have introduced the state of art machines and employed experienced technicians to supply high-performance, innovative materials, and solutions for applications in filtration and separation. Our products include:

- | Sintered Mesh Filter
- | Sintered Plate Filter
- | Pleated Metal Filter
- | Sintered Fiber Felt
- | Polymer Filter Elements
- | Polymer Leaf Disc
- | Polymer Extruder Screen
- | Sintered Powder Filter
- | Asymmetric Sintered Metal Filter
- | Hot Gas Filtration Elements
- | Filter Leaf
- | SPL Filter

Our products are widely used in numerous industries including aerospace, oil and gas, petrochemical, water, mine, polymer, food & beverage, automotive, and many other filtration and separation industries. With so many applications, we have built the R&D, design, machining, sales, and quality control departments. With the design and tailored solutions, we then translate them into high-level products. And our team has been learning about the forefront of filtration technology from industrial leading companies. Here customers could get high-quality products at an economic price!

MISSION & VISION

No matter in industrial production or our daily life, filtration plays a critical role and helps to contribute to sustainable development and clean our life, such as purifying water and air.



OUR MISSION - FINDING OPTIMAL FILTRATION SOLUTIONS

Focusing on customers' requirements, our mission is to continuously improve our technique, and provide customers with the optimal filtration solution and best services. Our solution is reducing cost by improving efficiency, shortening the production period, delivering stock goods soon, and so on.

Why Choose Us?

High Flexibility

With support from the professional technical department, our staff works with clients to identify the best filter element type and adapt alloy material for their application/requirements.

Rich Experience

Our skilled production team helps to make your prototype come real. With over 20 years of experience, we have the confidence to supply customized products that meet and exceed your product requirements.

Cost Analysis

In many cases the lowest cost product may backfire and really cost you more in the end, we will provide our customers with different choices and do a cost analysis to find the most cost-effective one.

First-class Customer Service

With support from our technical department, our sales team gives a quick turnabout and first-class service as we will learn more about your needs and share more info with you.

Quality Control

Every aspect of the quality control circle is concerned, from the supply chain, production management, QC system, packing, inventory system, inspection, and after-sales services.

Application Engineering

We pay high interest to new applications for our products. Welcome to consult, we will help to suggest from the tech and production aspect, and let's develop your idea together.

Certificate

All our products are tested by our test team before shipment. To meet different requirements of our clients, we can find a third party to test and issue the SGS certificate.

Stock Availability

We have rich stock of woven wire mesh, the material ranges from SS304, SS316, SS316L, brass, copper, bronze to special alloy such as nickel, titanium, Hastelloy, Inconel, Monel, etc.



DESIGN A FILTER



ADDITIONAL PROCESS



BESPOKE SERVICE



OUR VISION - SAFER, HEALTHIER AND CLEANER WORLD

Our vision is to make the world much safer, healthier, and cleaner with our filtration and separation products. To fulfill this aim, we are willing to improve ourselves and overcome each difficulty. That drives us. Many customers choose to cooperate with us because we are a professional and reliable partner. To go further, we'll continuously pay more attention to technique and machine.

OUR COMPANY IN NUMBERS

20+

Years' Experience

100+

Countries We Deliver

1,000+

Filter Product Choices

100%

Customer Satisfaction

QUALITY CONTROL SYSTEM

Supply System

QC System

Inventory System

After-Sale Service System

01

02

03

04

05

06

07

Production Management

Packaging System

Inspection System

SINTERED MESH CLOTH & FILTER

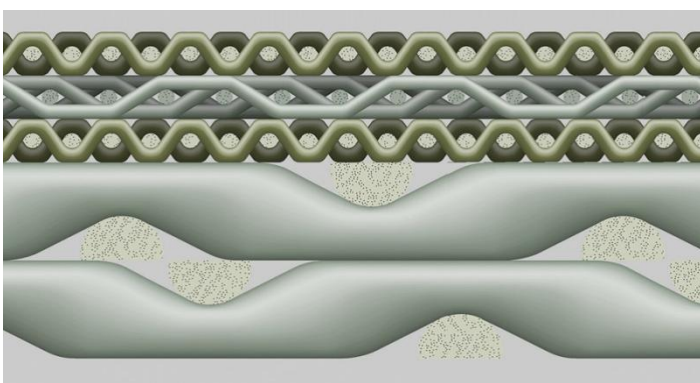
Fitalloy manufacture the sintered powder filter plate and sintered wire cloth, which are mainly used for gas and liquid filtration.

Sintered mesh cloth is usually constructed by 2 - 7 layers of stainless steel wire mesh, also can be combined with perforated (punching) sheet with higher strength.

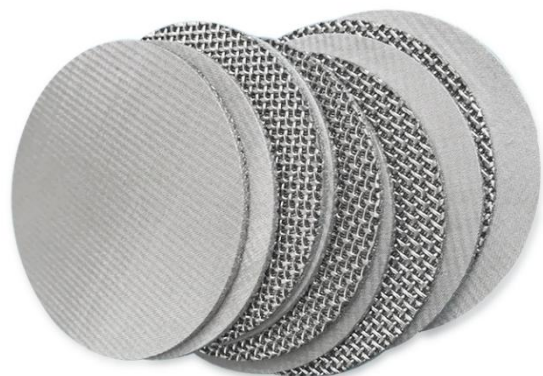
Features:

- ✓ High strength to resist high differential pressure
- ✓ Cleanable and long lifespan

MATERIAL	Stainless steel 304 or 316
FILTRATION	1-100um
WALL THICKNESS	0.7-10mm
PLATE SIZE	500×1000mm,600×1200mm,1000×1000mm, 1200×1500mm not welding together. Other sizes could also be customized



Sintered Candle Filter Elements



Sintered Mesh Disc

HOT SALE PRODUCTS



Sintered Suction Filter Elements



Sintered Cylinder Filter Elements

APPLICATIONS



Automatic Self-Cleaning Filter Elements



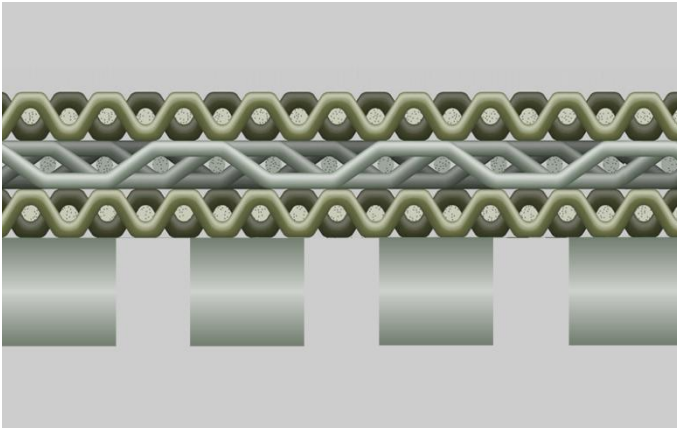
Candle Filter Elements

Standard Five-Layer Sintered Wire Cloth					
Model	Nominal Rating	Structure	Thickness	Air Permeability	Bubble Point Pressure
	μm		mm	l/min/cm ²	mmH ₂ O
SMF5-1	1	100+400×2800+100+12×64+64×12	1.7	1.81	360-600
SMF5-2	2	100+325×2300+100+12×64+64×12	1.7	2.35	300-590
SMF5-5	5	100+200×1400+100+12×64+64×12	1.7	2.42	260-550
SMF5-10	10	100+165×1400+100+12×64+64×12	1.7	3	220-500
SMF5-15	15	100+165×1200+100+12×64+64×12	1.7	3.41	200-480
SMF5-20	20	100+165×800+100+12×64+64×12	1.7	4.5	170-450
SMF5-25	25	100+165×600+100+12×64+64×12	1.7	6.12	150-410
SMF5-30	30	100+400+100+12×64+64×12	1.7	6.7	120-390
SMF5-40	40	100+325+100+12×64+64×12	1.7	6.86	100-350
SMF5-50	50	100+250+100+12×64+64×12	1.7	8.41	90-300
SMF5-75	75	100+200+100+12×64+64×12	1.7	8.7	80-250
SMF5-100	100	100+150+100+12×64+64×12	1.7	9.1	70-190

Note: Weight kg/m², 5 layers sintered 8.4kg; 6 layers sintered 14.4kg
Add another layer of 12 mesh to resist high pressure. Thickness reaches 3.5mm

Data Sheet of 2-7 Layers Sintered wire cloth					
Item	Filter rating(um)	Structure (mesh /inch)	Thickness (mm)	Porosity (%)	Weight (kg/m ²)
SMF2-T0.5	2-100	Filter layer+60	0.5	60	1.6
SMF3-T0.7	2-100	60 +Filter layer+60	0.7	56	2.4
SMF3-T1.0	2-200	50 +Filter layer+20	1.0	58	3.3
SMF3-T2.0	2-200	Filter layer +20 +8	2.0	58	6.5
SMF4-T1.0	2-200	60 +Filter layer+40 +20	1.0	45	4.4
SMF4-T1.7	2-200	40 +Filter layer +20 +16	1.7	55	6.2
SMF5-T1.9	2-200	30 +Filter layer+ 60 +20 +16	1.9	52	5.3
SMF5-T2.5	2-200	80 +Filter layer +30 +10 +8	2.5	55	8.8
SMF7-T2.0	2-200	50 +filter layer+ 40 +20 +40 +filter layer+50	2.0	58	7.4

Note: 1. Filter layer could be customized according to your demand.
2. Other layer structures could be adjusted based on your specific requirement.



Technical Data Sheet of Sintered wire cloth and Perforeated Plate					
Model	Filter Rating (μm)	Structure	Thickness (mm)	Weight (kg/m ²)	Porosity (%)
SMF-T2	2-200	30 +filter layer +30 +D4×P5×T1.0	2	6.7	57
SMF-T2.5	2-200	30 +filter layer +30 +D5×P7×T1.5	2.5	9.8	50
SMF5-T3	2-200	60 +filter layer +60 +20 +D6×P8×T2.0	3	11.9	50
SMF5-T3.5	2-200	20 +filter layer +20 +10 +D8×P10×T2.0	3.5	12.6	54
SMF5-T4.0	2-200	20 +filter layer +20 +10 +D8×P10×T2.5	4	14.2	55
SMF5-T4.3	2-200	20 +filter layer +20 +10+D10×P13×T3.0	4.3	16.8	50
SMF5-T5.3	2-200	20 +filter layer +20 +10+D10×P13×T4.0	5.3	20.6	51

Note: Other structures could also be customized
It's suitable for higher differential pressure drop application.



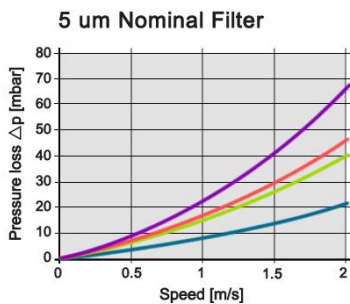
Coal Mine Filter Element



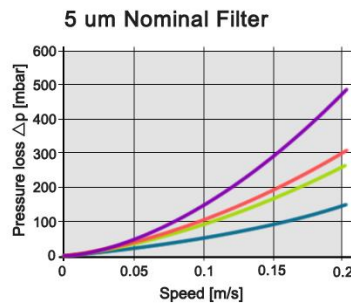
Water Filter Element



Backwash Filter Element



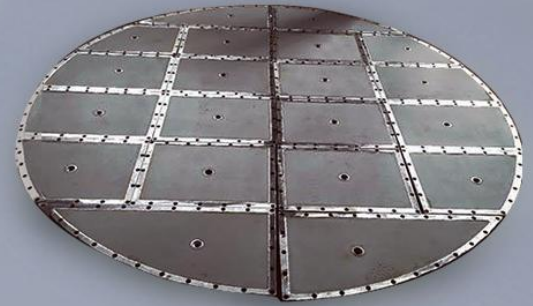
Air Flow Pressure Loss



Water Flow Pressure Loss

Color	Thickness	Layer
—	1.7mm	10
—	1.7mm	5
—	1.7mm	7
—	2.5mm	5

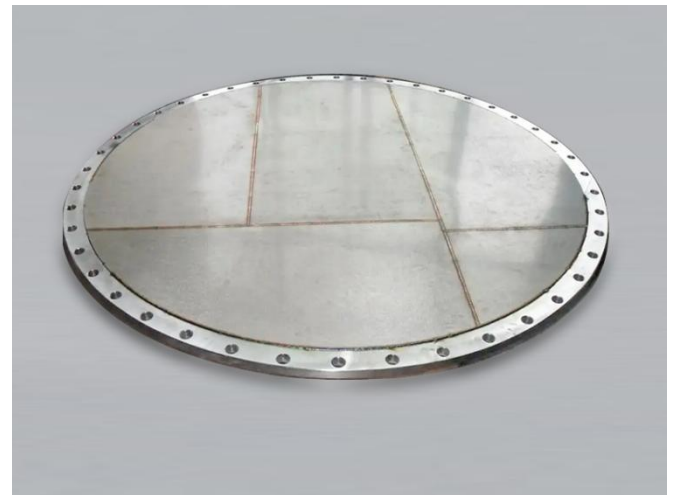
SINTERED PLATE FILTER



The sintered metal filter is constructed of sintered metal wire cloth or sintered powder disc. With ultra-high purity and high strength, it's ideal material for Agitated nutsche filter/dryer (ANF or ANFD) and fluidization bed (FBD). When blowing into the gas to suspend the solid particles, it makes the solid particles dry.

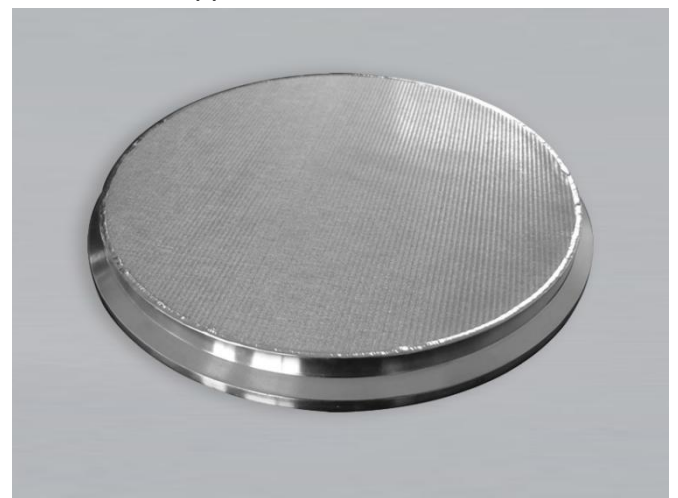
Features:

- ✓ Robust for high-pressure vessel
- ✓ Uniform and stable filtration
- ✓ Easy to assemble
- ✓ Easy to clean
- ✓ Long life-span: 20,000+ hours



Sintered Filter Plate

Application: fine chemical



Sintered Filter Disc

Application: pharmaceutical

MATERIAL	Standard SS316L, other option SS316Ti, SS 904L, Duplex, Titanium and Alloy C22
FILTRATION	1-300um
TEMPERATURE	-200~600℃
STRUCTURE	one whole piece or constructed by several parts, fixed by threads.



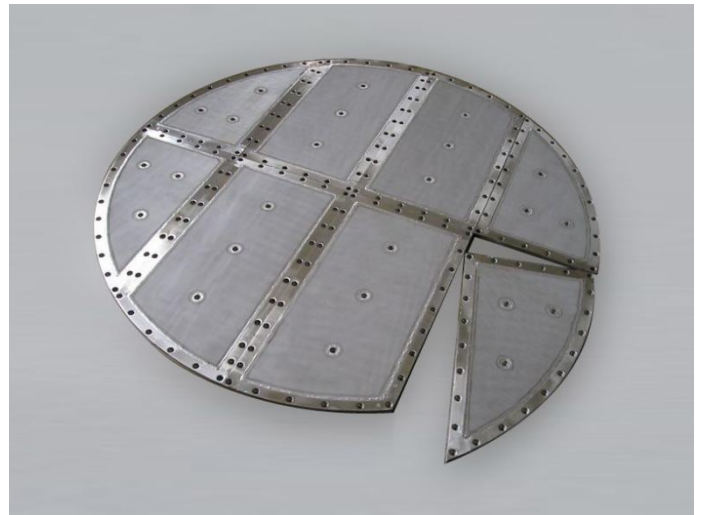
Single Piece Filter Plate
Without outer frame



ANF Sintered Filter Plate
For pigment&pharmaceutical filed



Sintered Filter Plate
For Nutsche Filter



ANFD Sintered Filter Plate
Application: fine chemical



Sintered Plate Filter
In Ring Shape



Cone Fluidized Bed Filter
With welded perforated layer

Application of Sintered Filter Plate 2-1	Hydroxides	Metal powders	Metal oxides, mixed oxides	Pigments, silicates, aluminium silicates	Pigments: carbon black, others
Chemical Process					
Oxidation		√		√	√
Reduction (CO, H₂)	√		√	√	
Gas-gas reactions on fluidized catalyst			√		
Gas-solid reactions with gas or solid generation	√	√	√	√	√
Calcining, Tempering	√	√	√	√	√
Chemical coating of supporting material		√	√	√	√
Surface treatment, passivation, activation		√	√	√	√
Physical Process					
Cooling and drying	√	√	√	√	√

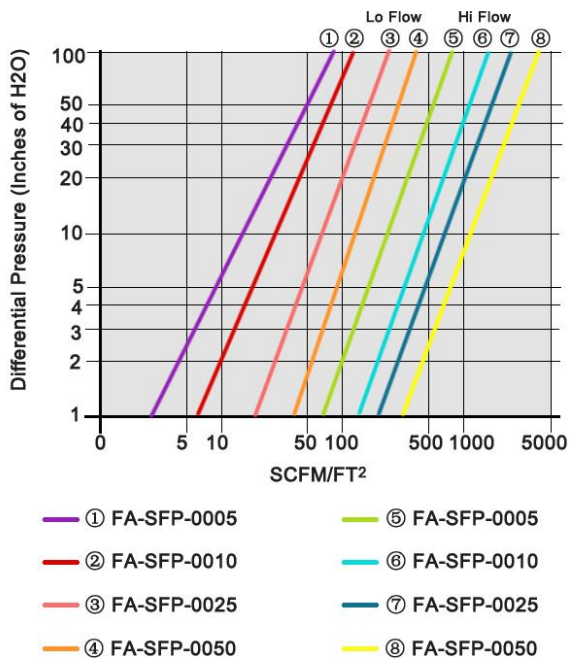
Application of Sintered Filter Plate 2-2	Organic substances	Catalysts	Silicon, silicon compounds	Ores, salts: sulfate, carbonates, chlorides, oxalates
Chemical Process				
Oxidation	√	√		
Reduction (CO, H₂)	√	√	√	√
Gas-gas reactions on fluidized catalyst	√			
Gas-solid reactions with gas or solid generation	√	√	√	√
Calcining, Tempering	√	√		√
Chemical coating of supporting material	√	√		
Surface treatment, passivation, activation	√	√		
Physical Process				
Cooling and drying	√	√	√	

The Specification of High Flow Fluidizing Media

Item	Air flow		Nominal thickness	
	CFM/ft ² @ 2inches water	m ³ /m ² @50.8mm water column	mm	inch
FA-SFP-0005	5	1.524	1.37	0.054
FA-SFP-0010	10	3.048	1.47	0.058
FA-SFP-0025	25	7.62	1.57	0.062
FA-SFP-0050	50	15.24	1.65	0.065

The Specification of Low Flow Fluidizing Media

Item	Air flow		Nominal thickness	
	CFM/ft ² @ 2inches water	m ³ /m ² @50.8mm water column	mm	inch
FA-SFP-0200	200	1.524	1.02	0.04
FA-SFP-0400	400	3.048	1.19	0.047
FA-SFP-0600	600	7.62	1.32	0.052
FA-SFP-1000	1000	15.24	1.63	0.064

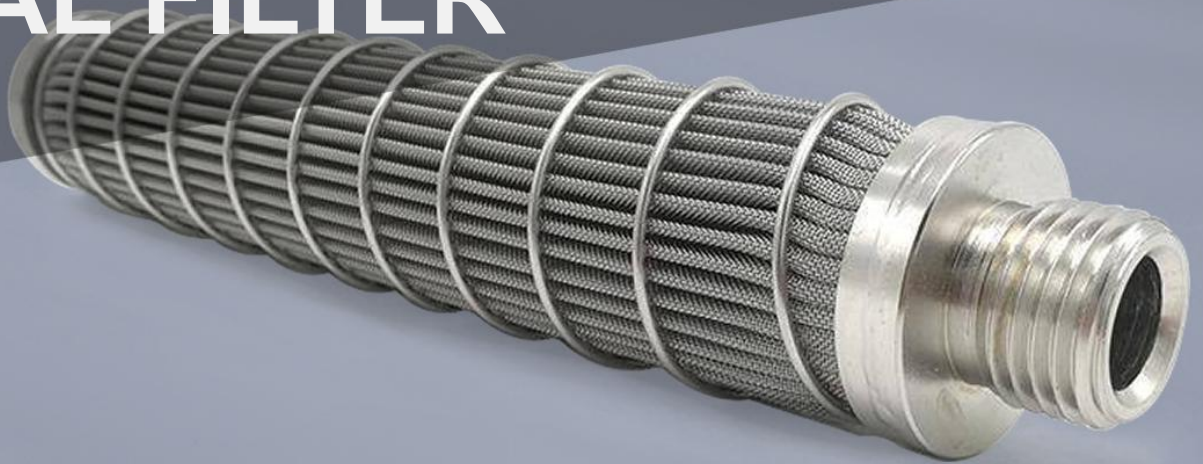


Flow Rae Table



Application: Agitated nutsche filter/dryer (ANF or ANFD) for chemical, pharmaceutical powder

PLEATED METAL FILTER



The pleated layer is constructed with some layers of metal woven mesh or metal woven mesh together with metal fiber.

Features:

- ✓ High filter area, high flow rate
- ✓ High dirt holding capacity
- ✓ Robust construction to resist high pressure drop
- ✓ Cleanable: backwash or ultrasound
- ✓ Stainless steel sintering technology

MATERIAL	SS304, 316
FILTRATION	0.5-200um
LENGTH	16" - 60" (406.4mm-1524mm)
DIFFERENTIAL PRESSURE	Max. 10bar (145PSI)
TEMPRESURE	Max. 400°C





Pleated Metal Filter for Aerospace Application



Pleated Metal Filter for Hydraulic Oil Filter



Pleated Metal Filter for Hydraulic Oil Filter



Customized Pleated Metal Filters



Flow Rate and Pressure Drop Formulas

Clean DP = Flow Rate x Viscosity x Flow Factor/(Length Factor)

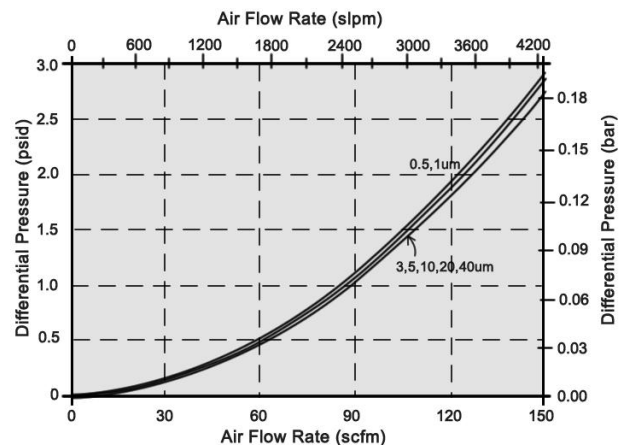
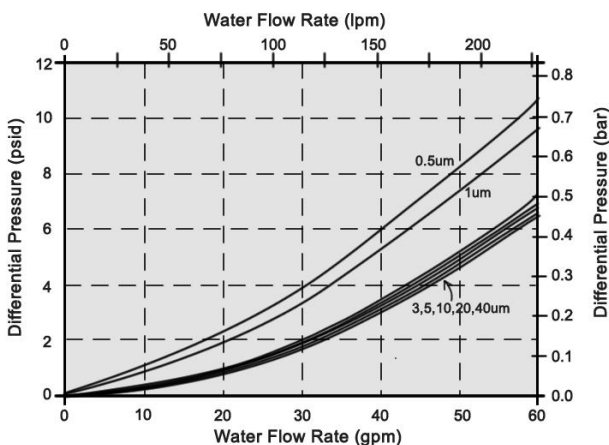
Flow Rate (gpm) = Clean DP x Length Factor/(Viscosity x Flow Factor)

Notes:

1. Clean DP is differential pressure initially, unit PSI.
2. Viscosity unit is centistokes (Cst) . If other units, pls convert to Cst.
3. Flow Factor is DP/GPM at 1 cks for 10 inch (or 250mm length tube).
4. Length Factors convert flow or DP from 10 inch (250mm length) to required cartridge length.

Length (inch)	Length (mm)	Flow Factor
10	254	0.00036
20	508	0.0076
30	762	0.0116

Flow Rate and Differential Pressure Relationship Drawing



Note: 1. Water temperature 75°F (24°C); 2. Air temperature 75°F (24°C), inlet prssure 1bar

ORDER INFORMATION

PSS - 2 - 4" - S4 - E - DOE - G

TABLE1 - TABLE2 - TABLE3 - TABLE4 - TABLE5 - TABLE6 - TABLE7

TABLE1

Cartridge Type
PSS=Pleated Stainless Steel
CSSC=Cylindrical SS Cartridge

TABLE2

Micron Rating (um)		
2	5	10
15	20	32
50	80	100
150	200	300
370	540	840

TABLE3

Cartridge Length
4"=102mm
9-3/4"=248mm
10"=254mm
20"=508mm
30"=762mm
40"=1016mm

TABLE4

Media Material
S4=Stainless Steel 304
S6=Stainless Steel 316

TABLE5

Seal Material
E=EPDM
F=PTFE
B=Buna N
V=Viton
S=Silicon
FV=FEP Encapsulated Viton
FS=FEP Encapsulated Silicon
X=No seal required

TABLE5

End Cap Configuration
DOE=Double open end
DOET=Double open end with extended tube
SNPT=Single open with 1" NPT male connector
SO =226 O ring flat
SR =222 O ring flat

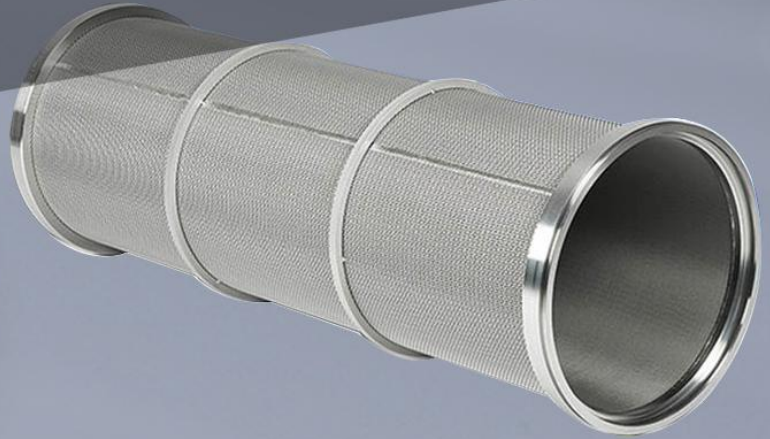
TABLE7

Guard/Support Option
G=Guard
N=No

Micron Rating (um) and Mesh Count Table					
Micron Rating(um)	Mesh count	Percent Open Area	Micron Rating(um)	Mesh count	Percent Open Area
2	325×2300	—	100	30×150	31
5	200×1400	—	150	30×150	33
10	165×1400	—	200	14×88	41
20	165×800	—	300	12×64	35
32	120×400	—	370	40×40	36
50	50×250	—	540	30×30	45
80	40×200	35	840	20×20	52

Note: 2-32um micron rating is twill dutch weave mesh
50-300um micron rating is plain dutch weave mesh
370-840um micron rating is plain weave mesh

SINTERED FIBER FELT



Sintered metal fiber felt is produced in a vacuum furnace, with metal fibers randomly laid. We select the fiber diameters and basis weight precisely, then control the pore diameter through thickness. It keeps a three-dimensional reticulated porous structure. The bigger particle could be captured at the outside surface, and small particles pass through the metallic fiber felt.

The metal fiber felt could be sintered together with metal wire mesh to enhance the strength and subsequent longer on-stream life.



Sintered Metal Fiber Felt



**Sintered Metal Fiber Felt
With Woven Mesh As Protection Layer**

MATERIAL	Stainless steel 304, 316, FeCrAl, Hastelloy, Inconel, etc.
FILTRATION	2-100um
WALL THICKNESS	0.3-1.2mm
POROSITY	75%-85%
WIDTH	Max. 48"
LENGTH	Max. 48"
OTHER DIMENSIONS COULD BE CUSTOMIZED	

Applications:

- ✓ Liquid and gaseous ammonia
- ✓ Steam filtration
- ✓ Electronic high-temperature gas dust removing
- ✓ Polymer filtration and polyester melt purifying
- ✓ Catalyst retention and recovery
- ✓ Gasification
- ✓ Pharmaceutical powder recovery
- ✓ Ultra filtration pre-filter, refining process
- ✓ Hydraulic filtering



Package of Sintered Metal Fiber Felt



Pleated Stainless Steel Cylinder for gas filter



Pleated Metal Filter

Application: Fluidization Bed Steam Drying



Pleated Metal Filter Cylinder

Application for ammonia filtration

Specification of Metallic Sintered Fiber Felt (Without Mesh)

Code	Efficiency (µm)	Thickness (mm)	Thickness (inch)	Porosity (%)	Bubble Point (Pa)	Bubble point (psi)	Permeability (L/dm ² .min)
SFF-F3	3	0.37	0.0146	67	13000	1.89	13
SFF-F5	5	0.3	0.0118	75	6800	0.99	47
SFF-F7	7	0.36	0.0142	74	5050	0.73	60
SFF-F10	10	0.34	0.0134	78	3700	0.54	85
SFF-F15	15	0.38	0.0150	80	2470	0.36	170
SFF-F20	20	0.51	0.0201	82	1850	0.27	265
SFF-F25	25	0.62	0.0244	79	1480	0.21	325
SFF-F30	30	0.62	0.0244	79	1235	0.18	450
SFF-F40	40	0.63	0.0248	76	900	0.13	620
SFF-F60	60	0.57	0.0224	83	600	0.09	1350
SFF-F86	86	1.00	0.0394	84	480	0.07	1470
SFF-F80	80	1.00	0.0394	85	450	0.07	1510
SFF-F90	90	1.20	0.0472	88	410	0.06	1740
SFF-F100	100	1.30	0.0512	89	360	0.05	2000

Note: Bubble Point Test Standard: ARP901

FILTER COMPARISON



Sintered Metal Wire Mesh Filter

It's combined with several layers of woven wire mesh, with the process of diffusion bonding. With self-supporting construction, it has robust strength to resist high pressure drop. And it's easy to clean or backwash.



Pleated Metal Filter

Multi layers of metal woven cloth are pleated together which increases filter area to capture more contaminants. If bigger pressure drop, we could add guard layer. It could be cleaned or back-flushed.



Sintered Metal Fiber Filter

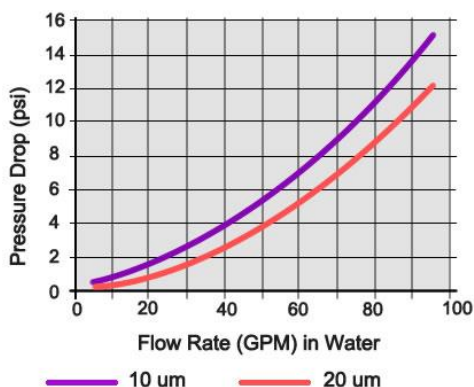
The metal fibers are random laid then sintered in vacuum furnace for diffusion bonding process. It has high dirt-holding capacity and permeability than pleated woven meshes.

The Performance Comparison of 3 Kind Metal Filters

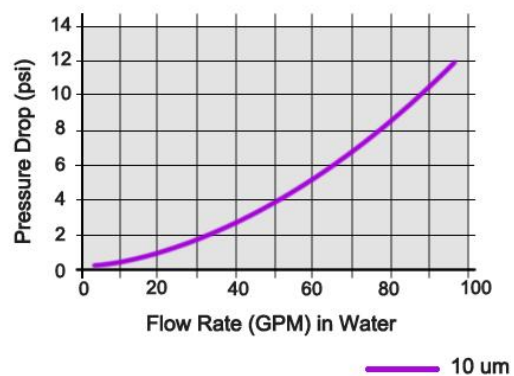
Filter Type	Sintered Metal Wire Mesh Filter	Pleated Metal Filter	Sintered Metal Fiber Filter
Max. Pressure Drop (bar)	8.62	17.24	17.24
Absolute Micron Rating (um)	9,20,40,70,400,150	9,20,40,70,100,150	3,5,10,20,40
Dirt Holding Capacity	Good	Very Good	Excellent
On-Stream Life	Good	Good	Excellent
Clean Ability	Excellent	Very Good	Good
Back-Flush Ability	Excellent	Very Good	Good

Take a example of 10micron rating of Sintered Metal Wire Mesh filter And Pleated Metal Filter:

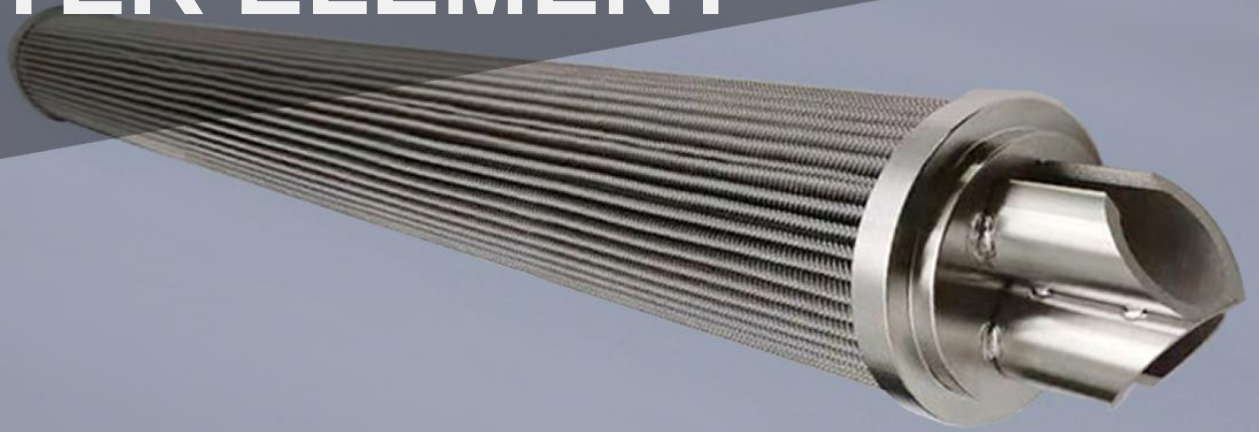
Sintered Metal Wire Mesh Filter



Pleated Metal Wire Mesh Filter



POLYMER FILTER ELEMENT



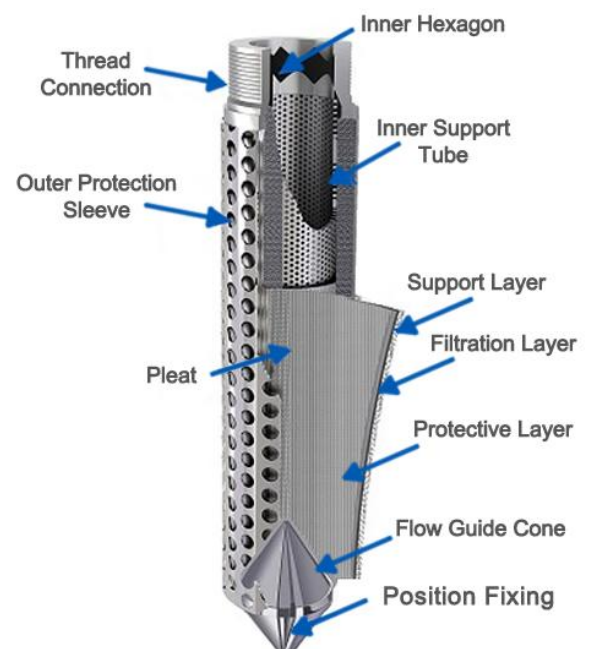
The polymer filter elements are constructed with supporting layers and filter layers that pleated together. With supporting layer, it could undertake the high pressure. With the pleated process, it increased the filtration area several times than usual candle filter. Because of this, it shorten the filter time and improve the filter effectiveness.

Applications:

Polymer filtration including PE, LDPE, PET, PP, PA, PBT, PC, PEEK, BOPET, BOPP, PMMA, EVA, carbon-fiber , fiber, resin, film, sheet, etc.

Advantages:

- ✓ **High flow rates.** With the pleated process, it increase the filter area and dirt holding capacity. That reduces the differential pressure and save the filter cost.
- ✓ **Long on-stream life time.** Our filter medium is suitable for different application environment, including stainless steel, Hastalloy, Inconel, Nickel..... These material makes the filter an excellent mechanical strength, good corrosion resistant and high temperature. These help extend the service life and save cost.
- ✓ **Easy to clean.** Through superheated steam, chemical cleaning, Ultrasonic cleaning and other method to clean the contamination. We have the skilled technical department to solve the critical cleaning problems to extend the filter on-stream lifetime.





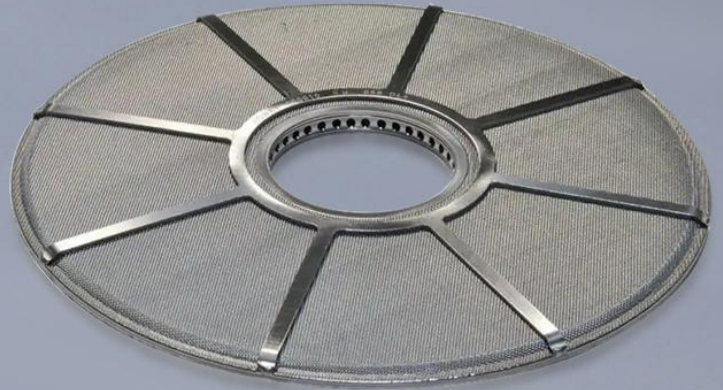
The Comparison of Polymer Filter Element With Different Filter Layer

Item	Woven Mesh as Filter Layer	Filter Fiber as Filter Layer
Filter media	Hard particulate	Hard particle and deformable gel
Filter micron	5-400micron	1-100micron
Dirt holding capacity	Low	High
Permeability	Good	Good
Work differential pressure	High	High
Work temperature	High	High
Repeat cleaning	Yes	Yes
Corrosion resistant	Good	Good

Conclusion:

The woven mesh for filter layer is suitable for filtering bigger hard particle with low dirt holding capacity. The filter fiber for filter layer is suitable for filtering finer hard particle and deformable gel with high dirt holding capacity.

POLYMER LEAF DISC

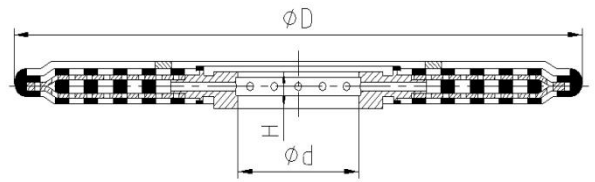


Polymer leaf disc filters are widely used for high viscosity filter. It effectively solve the problem of polymer stagnation, polymer degradation and gel creation.

Applications:

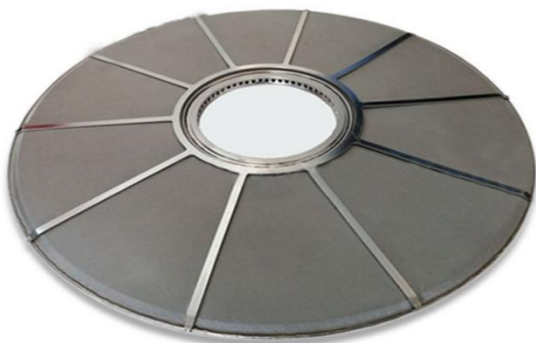
- ✓ Polymer biaxially oriented film (BOPET, BOPP, BOPA, BOPI)
- ✓ Battery separate film production

Structure:



MATERIAL	SS316, 316L or other alloy
FILTRATION	1-100 micron
OPERATURE PRESSURE DROP	Max. 10Mpa
OPERATION TEMPERATURE	Max. 300°C
FILTER MATERIAL VISCOSITY	Max.260 Pa.s
OPERATION PRESSURE	Max. 31.7Mpa

Dimensions of Polymer Leaf Disc Filter					
OD (Inch)	OD (mm)	ID (mm)			
4 inches	111	47.6	38.1		
5 inches	149	47.6	38.1		
6 inches	152.4	38.2			
7 inches	177.8	63.5	47.6		
8 inches	222	76.2	63.5	47.6	
10 inches	254	85	47.6		
12 inches	304.8	115.5	85.2	76.2	63.5
Remarks: Other dimensions could also be customized, such as OD 181mm/ OD 297mm.					



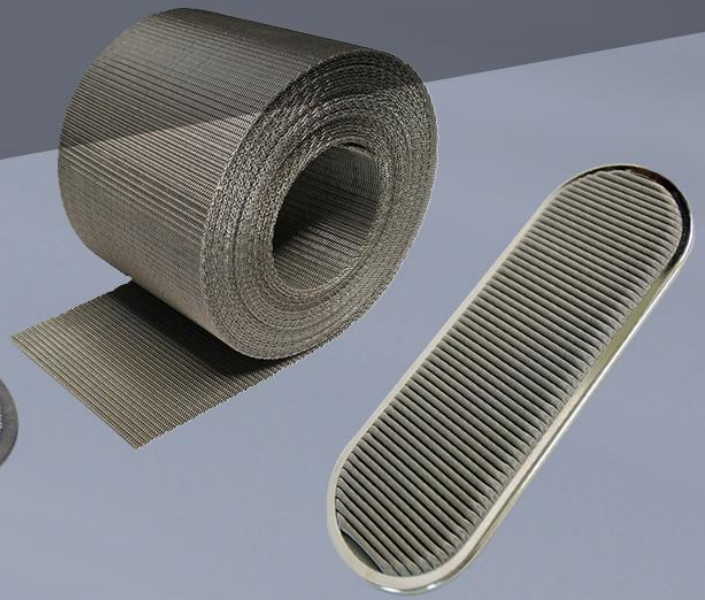


Specifications of Polymer Leaf Disc Filter

Item	OD (mm)	OD (inch)	ID (mm)	Thickness (mm)	Filtration Area (m ²)
ALY-PLDF-12065	304.8	12	85	6.5	0.12
ALY-PLDF-12070	304.8	12	85	7	0.12
ALY-PLDF-12063	304.8	12	63.5	6.5	0.13
ALY-PLDF-12080	304.8	12	85	8	0.12
ALY-PLDF-12075	304.8	12	85	7.5	0.12
ALY-PLDF-12070	304.8	12	63.5	7	0.13
ALY-PLDF-12063	304.8	12	63.5	6.5	0.13
ALY-PLDF-11075	297.18		85	7.8	0.11
ALY-PLDF-11078	297.18		85	7.5	0.11
ALY-PLDF-07072	254	10	47.6	7.2	0.082
ALY-PLDF-10065	254	10	85	6.5	0.08
ALY-PLDF-08065	222		63.5	6.5	0.064
ALY-PLDF-07080	181		85	8	0.036
ALY-PLDF-07065	177.8	7	47.6	6.5	0.04
ALY-PLDF-07085	177.8	7	85	6.5	0.029
ALY-PLDF-06065	152.4	6	38.2	6.5	0.032

Note:Other dimension could be customized.

EXTRUDER SCREEN



Extruder screen also named pack screen, is used for virgin plastic, recycled plastic and blown film. The plastic material is pellet form, then with the process of melting and filtration to go into next step. Our extruder screen mesh is used in this operation to assure the melt is clean and pure.

MATERIAL	Iron steel, stainless steel, nickle-alloy, galvanized steel, brass and so on
LAYERS	Single layer or multiple layers
SHAPE	Circular, oval, rectangular, kidney-shape, and other customized shape
DIMENSION	Round disc diameter 20-900mm , with or without rim binder
KIDNEY-SHAPED SCREENS	2.5" × 3" to 3.5" × 6.5"
RIM BINDER MATERIAL	Aluminum, stainless steel, iron steel or copper



Single layer of extruder screen



Screen packs with several layers point welded

Applications:

- ✓ Plastic yarn and fiber, such as polyester, polypropylene, Nylon, Acrylic, and so on
- ✓ Oil and fuel filtration
- ✓ Chemical industry
- ✓ Pharmaceutical industry
- ✓ BOPP film lamination industry
- ✓ Monofilament industry
- ✓ Blown film industry
- ✓ Recycled plastic industry

- ✓ Polypropylene Spun bonded Non-woven Fabrics



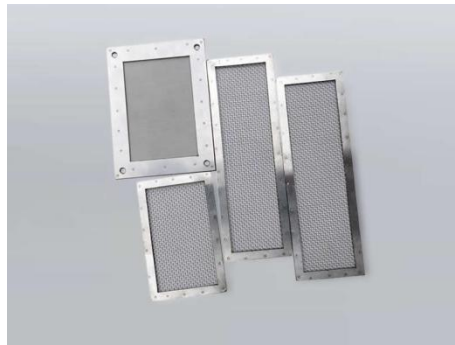
Screen pack spot welded with metal rings



Screen packs framed with metal binder



Screen packs with pleated mesh

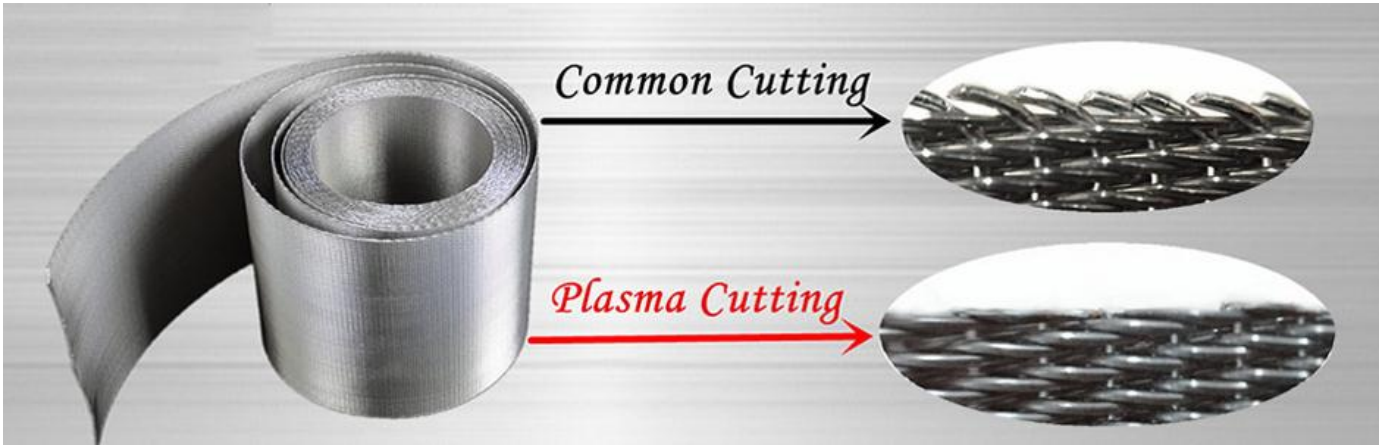


Customized screen packs with frame



STANDARD EXTRUDER SCREEN SPECIFICATION - WOVEN MESH LAYERS

Code	MESH	WIRE DIA. MM	WIRE DIA. INCH	APERTURE SIZE MM	APERTURE SIZE INCH	OPEN AREA %
EXS-PW010071	10 X 10	0.711	0.028	1.829	0.072	51.8
EXS-PW014046	14 X 14	0.457	0.018	1.357	0.053	55.9
EXS-PW016046	16 X 16	0.457	0.018	1.131	0.045	50.7
EXS-PW020056	20 X 20	0.559	0.022	0.711	0.028	31.4
EXS-PW020048	20 X 20	0.457	0.018	0.813	0.032	41
EXS-PW024038	24 X 24	0.376	0.015	0.682	0.027	41.4
EXS-PW030038	30 X 30	0.376	0.015	0.531	0.021	34.2
EXS-PW030031	30 X 30	0.31	0.012	0.536	0.021	40
EXS-PW040027	40 X 40	0.274	0.011	0.361	0.014	32.3
EXS-PW050019	50 X 50	0.193	0.008	0.335	0.013	43.6
EXS-PW060019	60 X 60	0.193	0.008	0.23	0.009	29.8
EXS-PW080012	80 X 80	0.122	0.005	0.196	0.008	37.9
EXS-PW100010	100 X 100	0.102	0.004	0.152	0.006	36
EXS-PW120009	120 X 120	0.091	0.004	0.12	0.005	31.8
EXS-PW150007	150 X 150	0.071	0.003	0.088	0.003	29.6
EXS-PW200005	200 X 200	0.05	0.002	380.077	0.003	36.76
EXS-PW250004	250 X 250	0.04	0.002	0.062	0.002	36.76
EXS-TW300040	300 X 300	0.04	0.002	0.045	0.002	27.83
EXS-TW325035	325 X 325	0.035	0.001	0.043	0.002	30.49
EXS-TW400028	400 X 400	0.028	0.001	0.036	0.001	31.25
EXS-TW500025	500 X 500	0.025	0.001	0.026	0.001	25.79

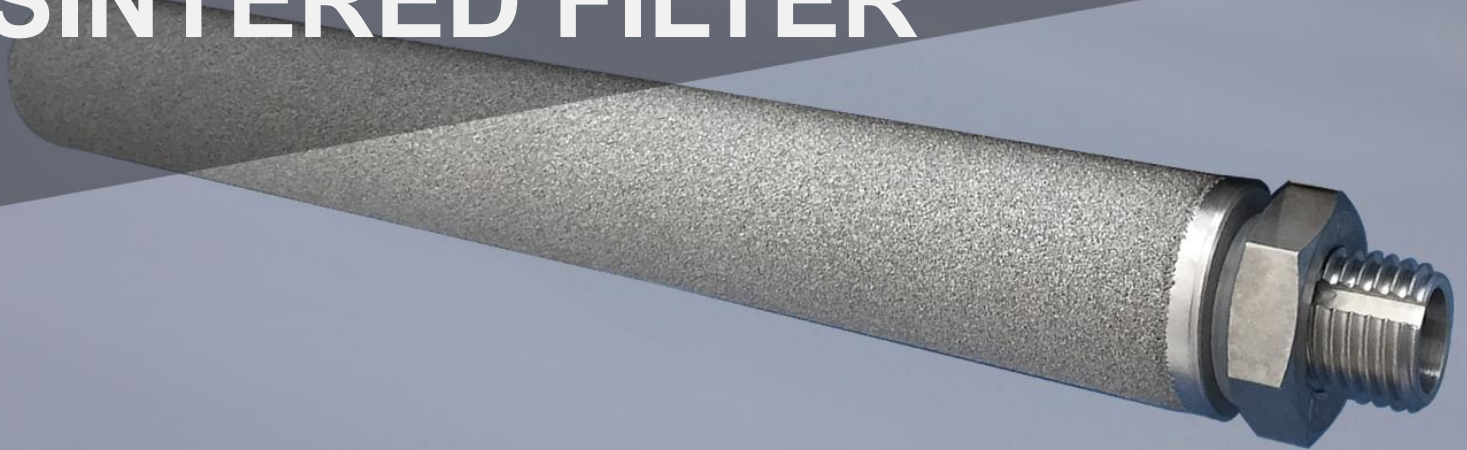


Specification of Filter Mesh Belt (Reversed dutch weave filter belts)

Code	Mesh Count/Inch		Wire Diameter		Filtration	Width	Length per Roll
	Warp	Weft	Warp(mm)	Weft(mm)	(um)	(mm)	(m)
EXS15-048010	48	10	0.5	0.05	400	97-400	10/20
EXS15-072015	72	15	0.45	0.55	250	97-400	10/20
EXS15-132014	132	14	0.355	0.45	250	97-400	10/20
EXS15-132018	132	18	0.355	0.45	200	97-400	10/20
EXS15-152024	152	24	0.27	0.4	130	97-400	10/20
EXS15-260040	260	40	0.150	0.25	75	97-400	10/20
EXS15-320040	320	40	0.15	0.3	55	97-400	10/20
EXS15-400120	400	120	0.06	0.1	60	97-400	10/20



POROUS SINTERED FILTER



The material is different from sintered wire cloth. Porous sintered filter elements had following features: Fine filtration; Uniform pore size; Seamless tube to resist high pressure drop

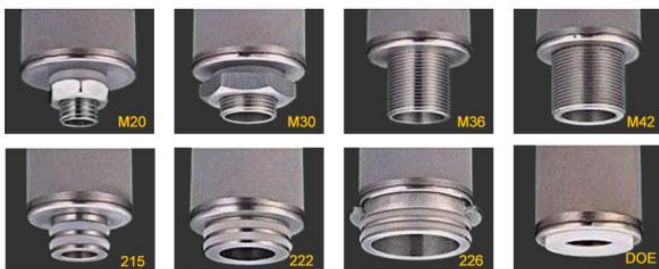
Applications:

Gas, steam, fine chemical, solid filtration, etc

MATERIAL	SS304, 316, 316L; Titanium; Brass, Nickle200; Monel400; Hastelloy C276, C22; Inconel600, 625, 690; Alloy 20, etc.
FILTRATION	Min. 0,1um
POROSITY	≥50%

Connectors of porous metal filter:

These connectors are usually type. Other kinds could be customized.



Porous Instrument Filters

Application: In-line filtration, detecting temperature and humidity, protect pump chromatography solvents



Brass Silencer

Application: Sound reduction for pneumatic devices



Sintered porous sparger



Stainless steel solvent inlet filters



Porous metal filter cartridges



Porous metal filter discs



Porous flame arrestor

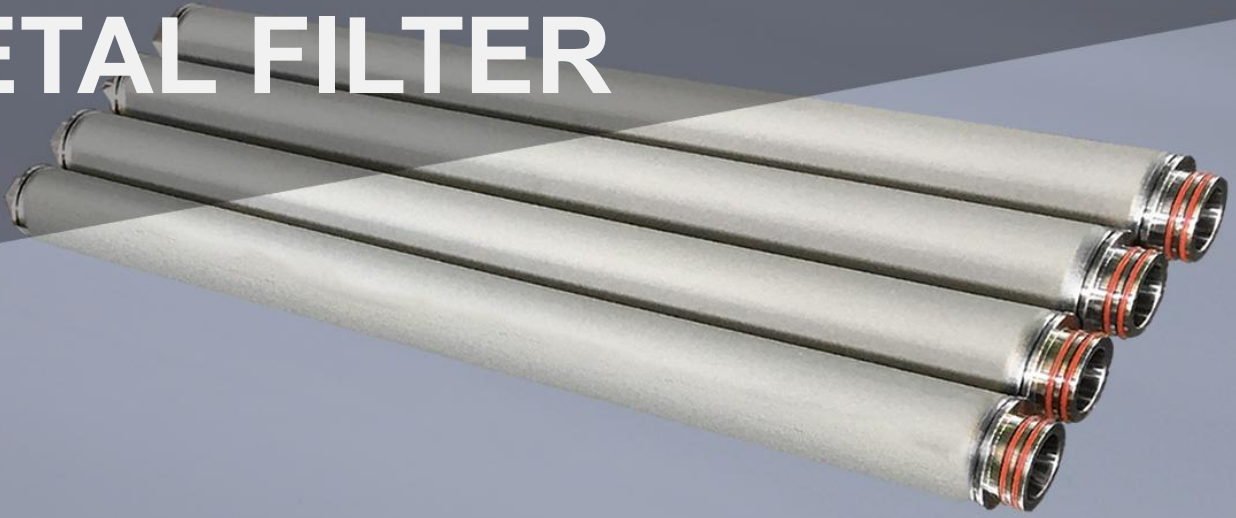


Titanium aeration

Liquid Particle Capture Efficiency					
Filter Media Grade	Wall thickness		Particle size(um)		
	inch	mm	Initial collection efficiency		
			90%	99%	99.90%
0.1	0.039	0.99	0.15	0.4	0.8
0.2	0.039	0.99	0.5	0.9	1.4
0.5	0.047	1.19	1	1.7	2.2
1	0.047	1.19	1.5	2.2	3.3
2	0.062	1.57	4	5.5	9
5	0.062	1.57	5	8	13
10	0.062	1.57	10	15	20
20	0.062	1.57	20	25	35
40	0.078	1.98	25	35	45
100	0.093	2.36	50	100	150
Note: 1. Test standard ASTM F795 2. Test at 1gpm/ft ² 3. ISO A2 or A3 test dust suspended in water					

Gas Particle Capture Efficiency					
Filter Media Grade	Wall thickness		Particle size(um)		
	inch	mm	Initial collection efficiency		
			90%	99%	99.90%
0.1	0.039	0.99	>99.9 %	>99.9 %	>99.9%
0.2	0.039	0.99	>90%	>99%	0.2
0.5	0.047	1.19	>90%	0.25	0.3
1	0.047	1.19	>90%	0.35	0.7
2	0.062	1.57	0.3	0.6	2
5	0.062	1.57	0.8	2	5
10	0.062	1.57	4.5	8	13
20	0.062	1.57	8	12	20
40	0.078	1.98	12	25	45
100	0.093	2.36	20	40	100
Note: Test at 6acfm/ft ²					

ASYMMETRIC SINTERED METAL FILTER



It is what Filtalloy company developed with micron rating reaches 0.1um. It's constructed by fine film and coarse film which both assure the filter rating and supply the robust strength.

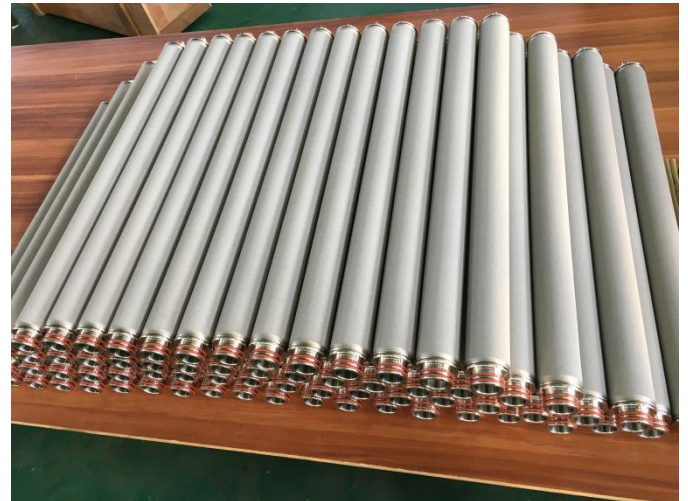
Features:

- ✓ Filtration accuracy and stable. Our asymmetric sintered meter filter membrane improve the retention rate to 99%, which is far more than usual material 95%.
- ✓ High permeability because of the asymmetric structure
- ✓ Surface filtration, easy to backwash
- ✓ Double membrane structure

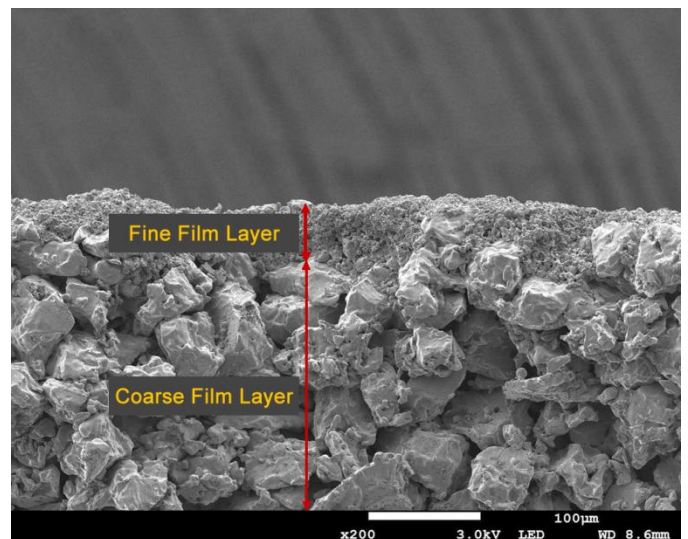
Applications:

- ✓ Filtering and recycling of diverse catalysts in Petroleum refineries and Petrochemical plants
- ✓ Gas and liquid filtration field, which has lower micron demand
- ✓ Renew energy, battery material filtration
- ✓ Other precise filtration industry

MATERIAL	SS304L and 316L, Nickel, Titanium, Monel, Inconel, Hastelloy and other
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Asymmetric Sintered Metal Filter



Detail Sight Under Microscope



Specification of Asymmetric Sintered Metal Filter

Grade	Filter rating (µm)	Porosity (%)	Thickness (µm)	Bubble Point Pressure (Pa)	Filter Efficiency	OD (mm)	Length (m)
FA-0.5AS	0.5	25	200	11960	>99%	Max 400mm	Max 1600mm
FA-1.0AS	1	30	200	8280	>99%		
FA-2.0AS	2	40	200	5230	>99%		
FA-5.0AS	5	40	200	4100	>99%		

HOT GAS FILTRATION ELEMENTS

Hot gas filtration elements is one kind of sintered metal filter, with Asymmetric metal film. It's to replace the filter bags for high temperature application in bag dust collector.

Advantages:

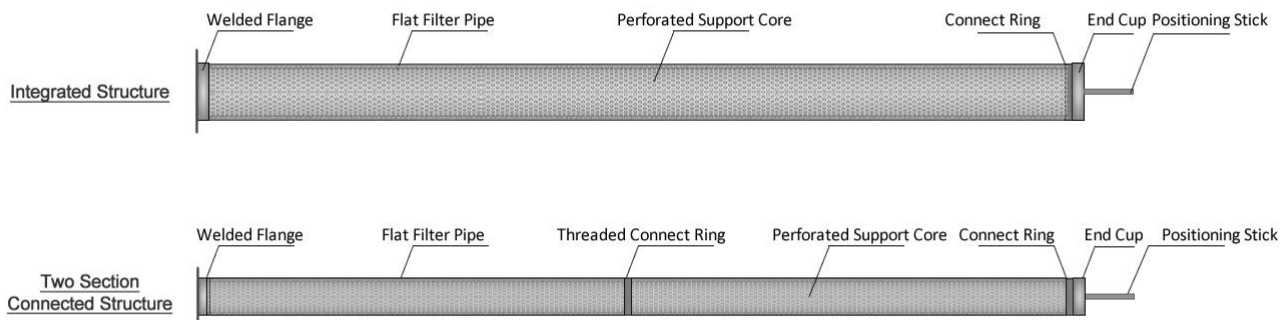
- ✓ Easy to install, panel holes don't need to change
- ✓ High strength to resist high-pressure drop
- ✓ Excellent material to resist high temperature
- ✓ Resist corrosion
- ✓ Filtration efficiency > 99.99%.
- ✓ Emission level reaches government requirement, 5mg/m³
- ✓ Filtration: less than 1um
- ✓ Resist to heat shock
- ✓ Fire-proof
- ✓ Cleanable, online clean and offline clean
- ✓ Longer lifespan

Applications:

- ✓ Cement industry
- ✓ Alumina Oxide
- ✓ Power generation
- ✓ Metallurgical industry
- ✓ Desulfurization denitration process
- ✓ Waste incineration furnace
- ✓ Catalyst recovery
- ✓ Glass industry



Parameter of Hot Gas Filtration Elements				
Material Capacity	Unit	SS316L	310S	0Cr21Al6
Material Density	g/cm ³ @20°C	7.98	7.98	7.16
Melt point temperature	°C	1400-1450	1400-1450	1500
Oxidation temperature	°C	400	600	800
Restoration temperature	°C	550	800	1000
Thickness	mm	0.65	0.65	0.65
Porosity	%	75	75	68
Air permeability	m ³ /m ² /min @0.2Kpa	21-27	21-27	21-27
Filtration efficiency	%	>99.99	>99.99	>99.99
Emission	Mg/m ³	<5	<5	<5
Tensile strength	N/mm ²	>=20	>=20	>=20
Test standard: BS 2782				
Application environment: Al₂O₃ dust, wind speed 1.75-3m/min, dust density 10g/m³				



Specification of Hot Gas Filtration Elements				
Product ID	OD (mm)	ID (mm)	Length (mm)	Filtration Area (m ²)
HGF-130/1500	130	128	1500	0.61
HGF-160/1500	160	158	1500	0.75
HGF-130/3000	130	128	3000	1.22
HGF-160/3000	160	158	3000	1.5
HGF-130/4000	130	128	4000	1.63
HGF-160/4000	160	158	4000	2.01
HGF-130/5000	130	128	5000	2.04
HGF-160/5000	160	158	5000	2.51
HGF-130/6000	130	128	6000	2.45
HGF-160/6000	160	158	6000	3.01
HGF-60/1500	60	56	1500	0.28
HGF-60/2000	60	56	2000	0.38
HGF-60/3000	60	56	3000	0.57

FILTER LEAF



Filter leaves are used for vertical and horizontal leaf filters.

Construction-5layers metal wire mesh:

- ✓ Outside layer (front and back): dutch woven mesh
- ✓ Inner 3 layer: coarse woven mesh
- ✓ 5layers are combined with a tubular frame and anti-leak riveting.

Advantages:

- ✓ Good sealing ability, without leakage
- ✓ High flow rate, high filter efficiency
- ✓ High filter area, double sides filtration
- ✓ High filtration accuracy
- ✓ Low pressure drop
- ✓ Robust structure with a reinforced frame and riveting
- ✓ Fast cleaning, online cleaning
- ✓ Wet and dry cake discharge



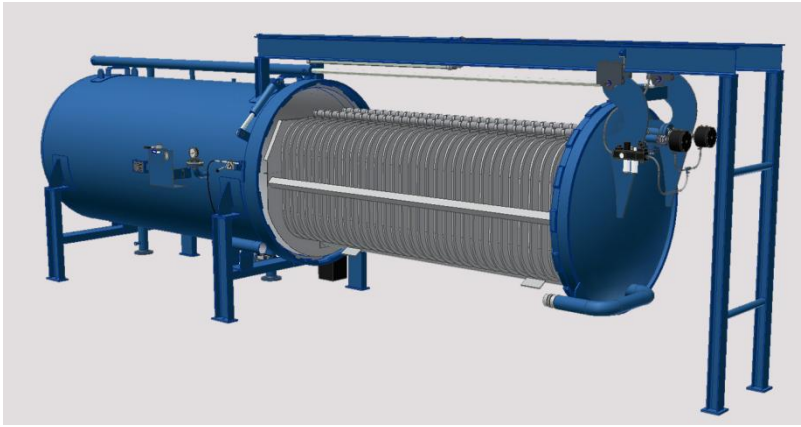
Applications:

- ✓ Edible oil industry, such as vegetable oil, Oleo oil and so on
- ✓ Beverage and food industry, such as juice, sugar, glucose, vinegar and so on
- ✓ Pharma industry, such as pharmaceutical intermediate, intravenous solutions and so on.
- ✓ Chemical industry, such organic salt, inorganic salt, dyes and so on.
- ✓ Petrochemical industry, such as lubrication oil, crude oil and so on
- ✓ Food industry
- ✓ Mining and metallurgy industry



Vertical Pressure Leaf Filter									
Item Number	Tank Diameter		Number of Leaves	Leaf Spacing		Filter Area		Cake Volume	
	in	mm		in	mm	ft ²	m ²	ft ³	m ³
VPLF-18	18	457	4	3 3/4	95	15	1.4	1.9	0.05
			5	2 3/8	60	21	2	1.42	0.04
			7	1 7/8	48	29	2.7	1.36	0.03
VPLF-24	24	610	5	3 3/4	95	30	2.8	3.9	0.11
			5	3 3/4	95	60	5.6	7.5	0.21
			8	2 3/8	60	45	4.2	3.04	0.08
			11	1 7/8	48	59	5.5	2.76	0.07
			8	2 3/8	60	93	8.6	6.29	0.17
			11	1 7/8	48	123	11.4	5.76	0.16
VPLF-30	30	762	6	4 1/2	114	83	7.7	12.1	0.34
			7	3 3/4	95	100	9.3	12.5	0.35
			11	2 3/8	60	159	14.8	10.76	0.3
			13	1 7/8	48	193	17.9	9.05	0.25
VPLF-36	36	914	7	4 1/2	114	123	11.4	18	0.51
			8	3 3/4	95	140	13.0	17.5	0.5
			13	2 3/8	60	232	21.6	15.7	0.44
			17	1 7/8	48	300	27.9	14.06	0.39
VPLF-42	42	1067	8	4 1/2	114	167	15.5	24.4	0.69
			10	3 3/4	95	209	19.4	26.2	0.74
			16	2 3/8	60	325	30.2	22	0.62
			20	1 7/8	48	413	38.4	19.36	0.54
VPLF-48	48	1219	10	4 1/2	114	231	21.5	33.7	0.95
			12	3 3/4	95	279	25.9	34.9	0.99
			18	2 3/8	60	430	39.9	29.11	0.82
			23	1 7/8	48	547	50.8	25.64	0.73
VPLF-54	54	1372	11	4 1/2	114	295	27.4	43	1.22
			13	3 3/4	95	350	32.5	43.8	1.24
			20	2 3/8	60	545	50.6	39.9	1.04
			25	1 7/8	48	683	63.5	32.01	0.96
VPLF-60	60	1524	12	4 1/2	114	365	33.9	53.2	1.51
			14	3 3/4	95	429	39.9	53.6	1.52
			22	2 3/8	60	675	62.7	45.7	1.29
			28	1 7/8	48	855	79.4	40.04	1.13

Note: Other sizes and leaf spacing could be customized.



Specification of Horizontal Pressure Leaf Filter									
Item Number	Tank Diameter		Number of Leaves	Leaf Spacing		Filter Area		Tank Volume	
	in	mm		in	mm	ft ²	m ²	Galon	m ³
HPLF-36	36	914	6	4	102	46.8	4.35	210	0.79
			8	3	76	62.4	5.79	210	0.79
			10	4	102	78	7.24	278	1.05
			13	3	76	101.4	9.42	278	1.05
			8	2.5	64	73.6	6.84	190	0.72
			12	2	51	110.4	10.25	210	0.79
HPLF-36	48	1219	8	4	102	120	11.14	461	1.74
			11	3	76	165	15.33	461	1.74
			13	4	102	195	18.11	584	2.21
			15	3	76	225	20.9	584	2.21
			12	2.5	64	207.6	19.28	450	1.7
			16	2.5	64	276.8	25.71	550	2.08
			20	2.5	64	346	32.14	640	6.42
			24	2.5	64	415.2	38.57	720	2.73
HPLF-60	60	1524	12	4	102	303.6	28.2	909	3.44
			14	3	76	354.2	32.9	909	3.44
			16	4	102	404.8	37.6	1100	4.16
			20	3	76	506	47	1100	4.16
			16	3	76	440	40.87	930	3.52
			20	3	76	550	51.09	1110	4.2
			24	3	76	660	61.31	1270	4.81
			28	3	76	770	71.53	1435	5.43
HPLF-72	72	1829	16	4	102	612.8	56.93	1500	5.68
			22	3	76	842.6	78.27	1550	5.87
			26	3	76	995.8	92.5	1700	6.43
			34	3	76	1302.2	120.97	2100	7.95
			20	4	100	826	76.73	5950	2699
			26	4	100	1073.8	99.75	6825	3097
			32	4	100	1321.6	122.77	7100	3221
			38	4	100	1569.4	145.79	7675	3482

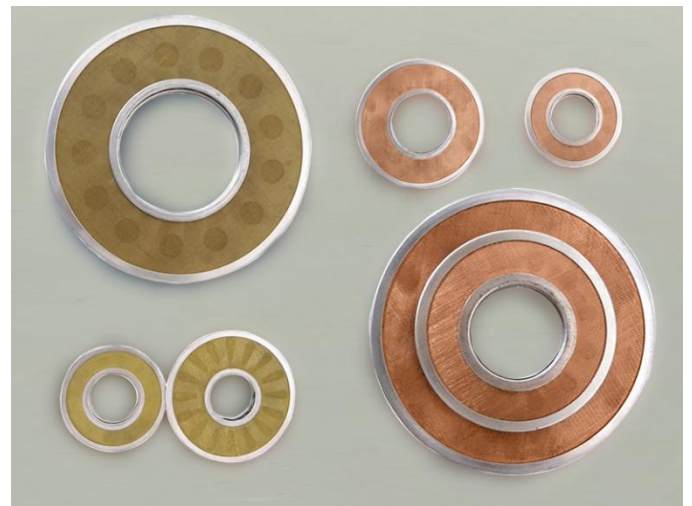
Note: Other sizes and leaf spacing could be customized.

SPL & DPL GREASE FILTER ELEMENTS



SPL&DPL oil grease filter element is used for hydraulic lubrication system of vessel diesel engine.

MATERIAL	stainless steel, brass, copper
CONSTRUCTION	4 layers of woven wire mesh and 1 layer of perforated plate
FRAME	Stainless steel or aluminum rings
FILTRATION	2 - 200um
MAX TEMPERATURE	Max.95°C
BACKWASH PRESSURE	0.15 Mpa



Specification of SPL & DPL Oil Grease Filter Element

SPL Modes	DPL Modes	Strainer DN (mm)	Rated Flow (L/min)	Filter precision (um)	Nominal Pressure (MPa)	Inner disc size (mm)	Outer disc size (mm)	Filter disc number
SPL-15	—	15	33.4	30 40 80 100 180 200 280	0.8	20	40	2-30
SPL-25	DPL-25	25	83.4			30	65	2-30
SPL-32	—	32	134			40	65	2-30
SPL-40	DPL-40	40	200			80	90	2-34
SPL-50	—	50	334			100	125	2-22
SPL-65	DPL-65	65	500			180	65	2-34
SPL-80	DPL-80	80	834			200	155	2-40
SPL-100	—	100	1334			280	70	4-40
SPL-125	—	125	2000				90	4-40
SPL-150	DPL-150	150	3000				90	6-40
SPL-200	DPL-200	200	5334				90	8-40

SPL = Double Cylinder Mesh Filter

DPL = Single Cylinder Mesh Filter



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