



YUBO SCREEN

Your solution, our innovation



Chemical Processing



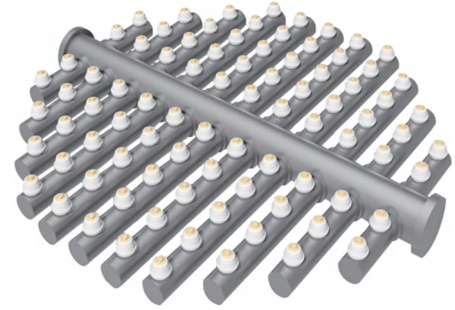
YUBO FILTRATION

YUBO SCREEN

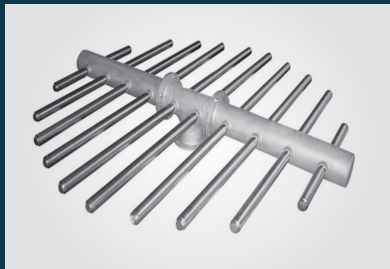
Header Lateral System / Filter Nozzle / Center Pipe / Scallop / Support Grid

Header Lateral System

Header lateral systems consist of a series of lateral screens that are connected to a central header or hub. These systems enable process engineers to design uniform flow through treatment media across a wide range of flow rates, vessel sizes, and shapes.



A typical configuration involves placing a header lateral assembly at the top of the vessel to evenly distribute the inlet flow across the bed surface. A second assembly at the bottom of the vessel collects the treated fluid, ensuring even distribution throughout the entire vessel length and cross-sectional area.



In counter-current flow systems, where the inlet is at the bottom, the configuration is reversed, with the distributor at the bottom and the collector at the top.



The header lateral system is highly versatile and can be tailored to meet various process conditions and requirements while ensuring efficient fluid distribution. Multiple design options are available to achieve optimal flow distribution and collection.



Design parameters, such as lateral spacing, length, diameter, and slot opening size, can be customized based on the specific system requirements. The number and spacing of the laterals can also be modified according to the system's needs.

Lateral screens are attached to headers or hubs using threaded fittings, couplings, or flanges. Additionally, perforated pipe bases can be used inside the screen laterals to provide enhanced collapse resistance and improved flow distribution.

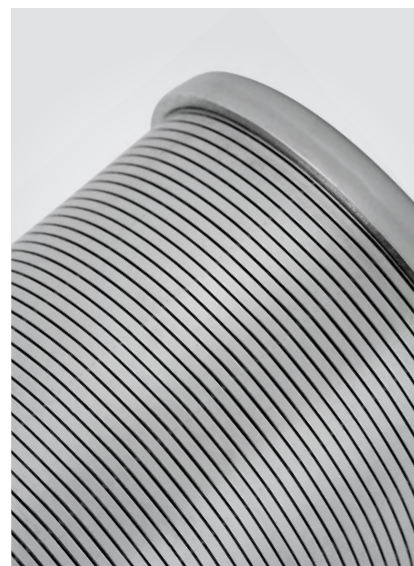
Features of YUBO header lateral system:

- Assemblies are typically made from AISI 304 stainless steel, but other stainless steel grades or exotic alloys are also available.
- Laterals can have a diameter starting from 12mm and larger.
- Minimum slot size can be 50 micron.
- Attachment to headers or hubs can be made via threaded fittings, couplings, or flanges.
- Lateral spacing, length, diameter, and slot size are customized to system requirements.
- Perforated pipe liners can enhance collapse resistance and improve flow distribution.
- Pre- and post-fabrication treatments such as passivation, pickling, stress relieving, polishing, and chrome plating can be provided.
- Quality documentation, including mill certificates, material certificates, and welding specs, is available.
- Custom solutions are available on request.

Filter Nozzle



Filter nozzles play a crucial role in the chemical industry and are widely used in various liquid filtration, distribution, and fluid processing applications. They are typically installed in filters, reactors, and other liquid treatment systems to ensure uniform fluid distribution and effective solid removal.





Features of YUBO filter nozzle



High quality Materials: [AISI304](#), [316L](#), [904L](#), [Duplex steel 2205](#), [Super duplex steel 2507](#), or other material specified by customers.



High Filtration Efficiency: By ensuring even fluid distribution, filter nozzles improve filtration efficiency and fluid flow, reducing pressure losses in the system.



Precision Design: Filter nozzles can be customized for specific needs, including slot sizes, hole diameters, and other parameters, to meet different process requirements.



Quality documentation, including mill certificates, material certificates, and welding specs, is available.

Center Pipe



The center pipe in a reactor plays a crucial role in optimizing the reaction process and improving the overall efficiency of the reactor. Below are the main functions of the center pipe in a reactor:

Fluid Distribution

One of the primary functions of the center pipe is to assist in the even distribution of fluids. In certain types of reactors, such as gas-liquid reactors, the gas is directed into the reactor through the center pipe, while the liquid flows from the top or other parts of the reactor.

Support for Packing or Catalysts

In many reactors, especially catalytic reactors, the center pipe is used to support the packing or catalyst bed inside the reactor. The packing and catalysts are often installed in different layers of the reactor, and the center pipe ensures their stable and uniform distribution.

Flow Path for Reactants and Products

The center pipe provides a passage for gases, liquids, or other reactants to flow through the reactor, ensuring that they can move and interact with other substances inside the reactor. In gas-liquid reactors, the gas enters the reaction zone through the center pipe, and the liquid interacts with the gas.



Pressure and Temperature Distribution

The center pipe helps in distributing pressure and temperature evenly within the reactor, especially in processes where controlling pressure and temperature gradients is critical. It ensures that the pressure and temperature are well-balanced in different areas of the reactor to meet specific reaction needs.

Enhancing Gas-Liquid Contact Efficiency

In gas-liquid reactors, the center pipe serves as a conduit for gas flow, helping to evenly distribute the gas throughout the liquid phase to enhance gas-liquid contact during the reaction.

Support and Structural Stability

The center pipe also serves as a structural support for other components within the reactor. It can support reactor internals such as screens, grids, or other components, ensuring that these parts remain stable during the operation.

Scallop

The scallop assembly constitutes the outer screen element in a radial flow system. Its design runs parallel to the inner vessel wall, leveraging the wall as a structural support. The inner surface defines the outer boundary of the catalyst bed. The primary function of this assembly is to efficiently distribute and collect the flow within the system.

YUBO designs and manufactures a variety of scallops for media radial flow applications.



Features:

- High open area
- Resistant to an increase in pressure drop
- Minimal generation of catalyst fines and resistance to blockages
- Reduced cleaning costs attributed to unplugged retention surfaces
- Increased vertical strength of the scallop while maintaining radial flexibility
- The mechanical strength of wedge wire scallops is designed to meet the specific needs of the unit

Support Grid

Support grids are essential components in various processes within the chemical industry, providing structural support, uniform distribution, and enhanced system efficiency. They are commonly used in filtration, separation, and reaction systems, where they help optimize performance and prevent mechanical failure.

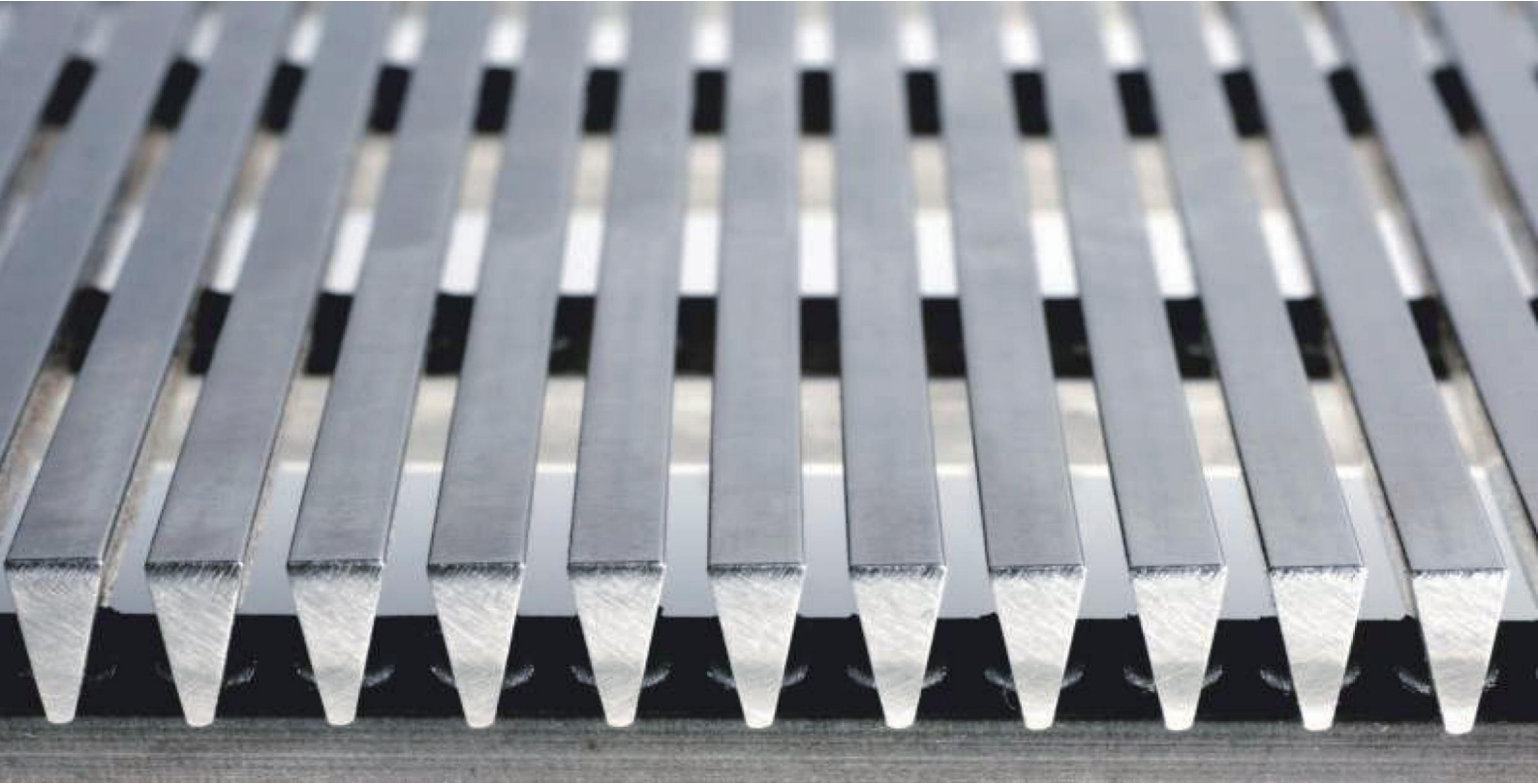
YUBO customize support grid into various shapes, including pie-shaped panels and chordal sections. A removable manway can be added for easy access to the underside of the grid.

YUBO manufactures the grid with slots as fine as 50 microns to retain exceptionally small catalysts, resins, or molecular sieves. Despite the slim dimensions of these individual slots, the screen features a notably larger total open area compared to grids utilizing wire mesh on grating. This heightened open area directly enhances overall process efficiency. Materials include stainless steel types (304, 316, 316L, 321, 347, and 410S) and cutting-edge exotic alloys

Dehydrator systems, which experience cyclic pressure and temperature changes, impose complex constraints on grid design. By working closely together, we can define the optimal vessel support ring size, grid metallurgy, and perimeter seals to ensure reliable, trouble-free operation.



Wedge Wire Screen



YUBO provides a diverse range of wedge wire screens for particle separation, dewatering, classification, and various mineral processing applications. The strong construction of each screen is ensured by welding at every intersection of surface wire and internal support rods.

YUBO provides screens customized with fine wires and rods for precise screening or with larger wires and rods for heavy-duty operations. Welded wire screens utilize a V-shaped surface wire profile, creating inward-enlarging slots that minimize particle contact points, reducing the likelihood of pegging.

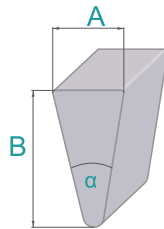
Technical Parameters

Working profiles

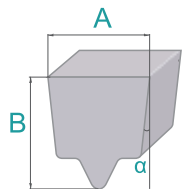
Type	A (mm)	B (mm)	α (°)	β (°)
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Type Sb

Sb 6	0,50	1,20	12	
Sb 8	0,60	1,20	22	
Sb 10	0,75	1,30	20	
Sb 12	1,00	2,00	20	
Sb 18	1,50	2,50	23	
Sb 22	1,80	3,70	23	
Sb 28	2,20	4,50	23	
Sb 34	2,80	5,00	23	
Sb 42	3,40	6,50	23	
Sb 60	4,00	9,00	20	
Sb 70	5,00	10,00	24	
SbA 50	5,00	6,00	40	



Sb 55*	5,00	5,50	6	
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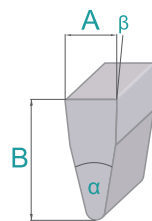


*Sb 55

Other dimensions available on a special request

Type Sbb

Sbb 34	2,20	5,00	23	4
Sbb 38	2,50	4,00	40	5
Sbb 42	2,80	6,50	23	4
Sbb 48	3,40	6,00	70	4
Sbb 50	3,50	8,00	23	4
Sbb 76	5,00	10,00	23	5
2,4 x 5	2,40	5,00	23	0
3 x 6,5	3,00	6,50	23	0



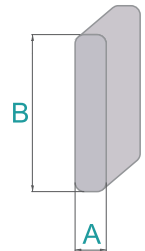
Special working wires separate highly abrasive materials. During their service the slot size does not increase considerably along with the abrasion of working surface. They are ideal for cylinder and conical sieves used in vibrating centrifuges. They increase the sieve's life span together with preventing clogging.

Support profiles

Type	A (mm)	B (mm)
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Type I

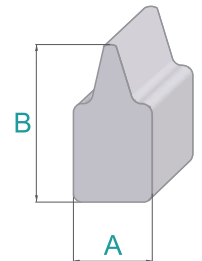
I 10 x 3	3,00	10,00
I 10 x 2	2,00	10,00
I 12 x 3	3,00	12,00
I 15 x 3	3,00	15,00
I 18 x 2	2,00	18,00
I 20 x 2	2,00	20,00
I 30 x 2	2,00	30,00
I 38 x 3	3,00	38,00



Other dimensions available on a special request

Type Q

Q 25	2,00	3,00
Q 35	3,00	5,00
Q 55	4,00	8,00

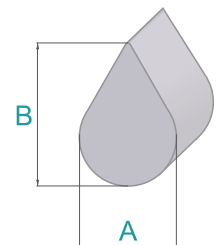


Other dimensions available on a special request

Type D

D 45	3,8	5,6
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Other dimensions available on a special request





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Hebei YUBO Filtration Equipment Co.,Ltd.

No. 106-1 Yuhua Road, Yuhua District, Shijiazhuang City, Hebei Province, China

+86 (0)311 8595 5658

Sales@uboscreen.com

www.uboscreen.com