



Wedge Wire Screen

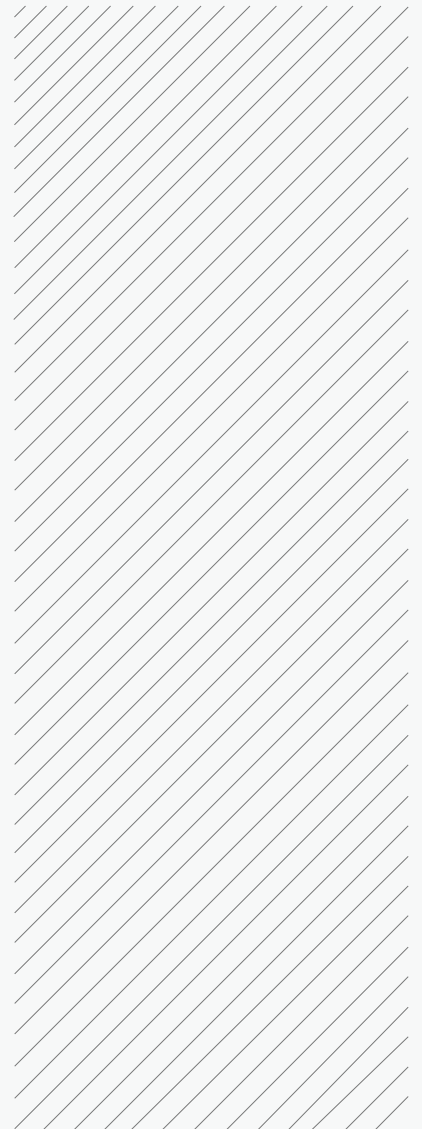
Weave Impossible to Possible



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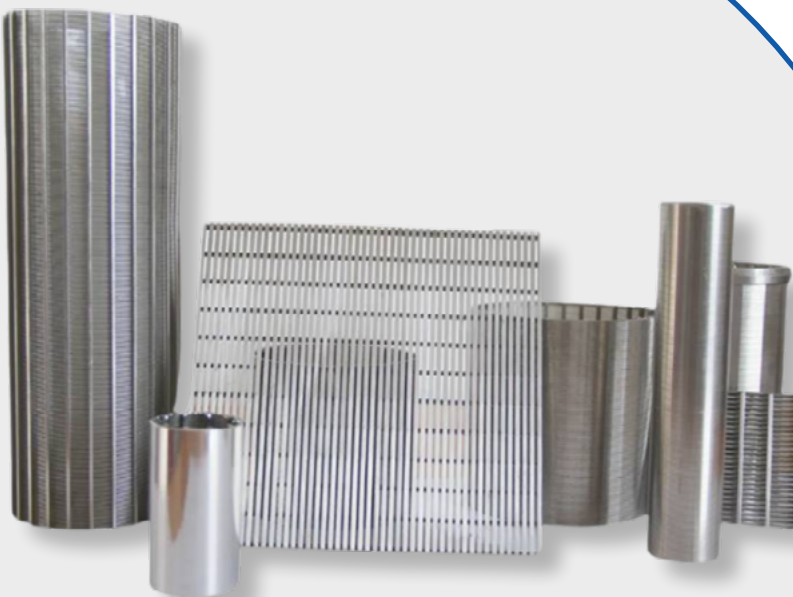
BOEDON Brochure



Wedge wire screen with triangular cross section has a large filtration area and a high open porosity, which can effectively prevent clogging and damage.

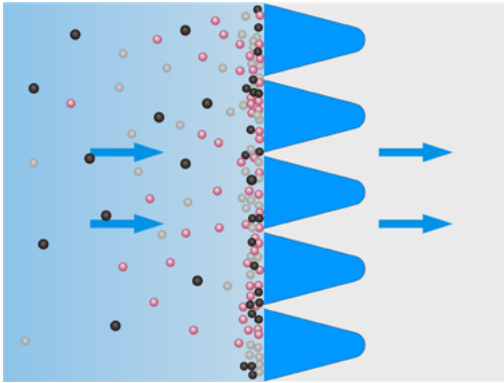
Wedge wire screens are composed of wedge wires and support profiles, which have a "V" shaped surface and a "groove" shaped interior, so they are also known as "V" shaped wire screen or groove wire screen. Wedge wire has a triangular cross-section, a large filtration area, and a high porosity, which can effectively prevent clogging and damage. Wedge wire screens feature high strength, high precision, excellent corrosion resistance performance, high temperature resistance performance, not easy to clog, etc. Therefore, it is widely used in the filtration and separation fields of water treatment, petrochemical, food processing, and other industries.

Wedge Wire Screen



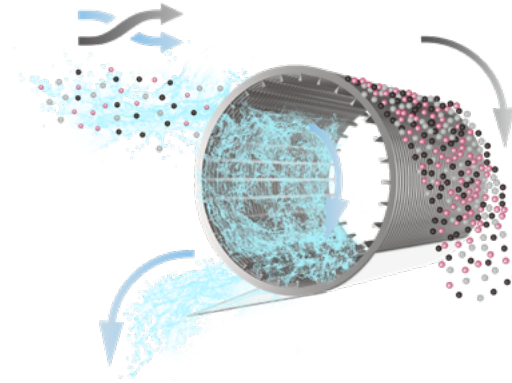
WEDGE WIRE SCREEN

Working Principle



Wedge wire flat screen filtering

When fluid or gas passes through the continuous slots created by the V-shaped wires, the larger particles are filtered out and separated from the desired material. This is because larger particles cannot pass through the narrow slot and become trapped on the screen surface.



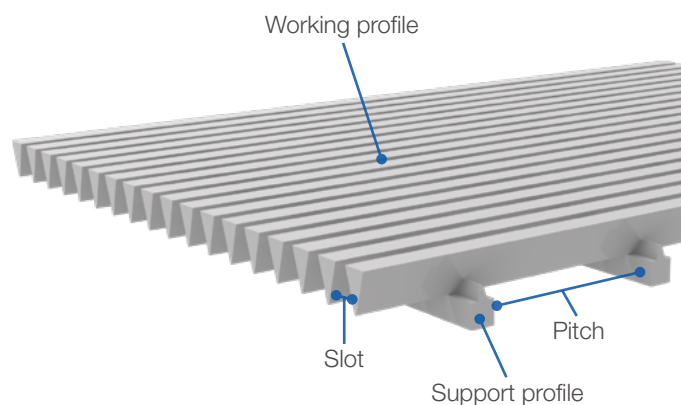
Wedge wire screen cylinder filtering

When fluid or gas passes through the continuous slots created by the V-shaped wires, the larger particles are filtered out and separated from the desired material. This is because larger particles cannot pass through the narrow slot and become trapped on the screen surface.

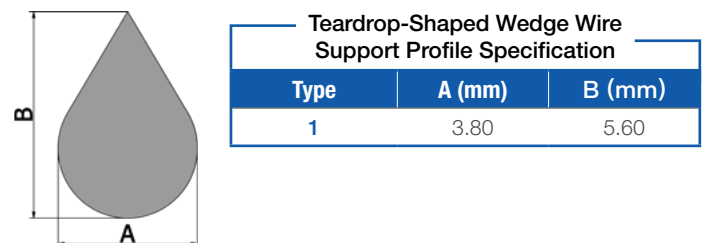
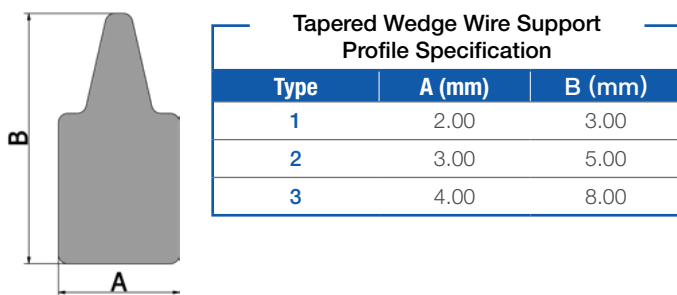
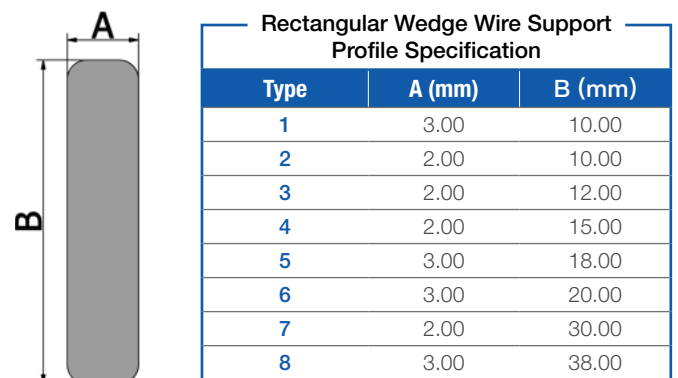
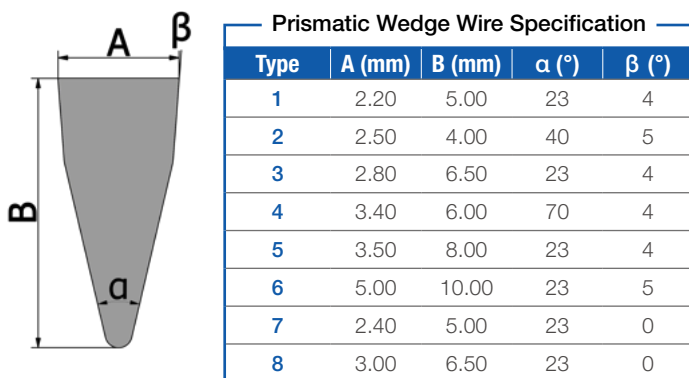
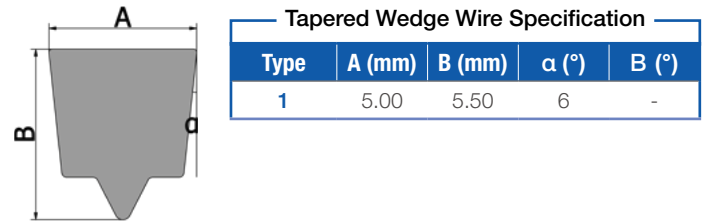
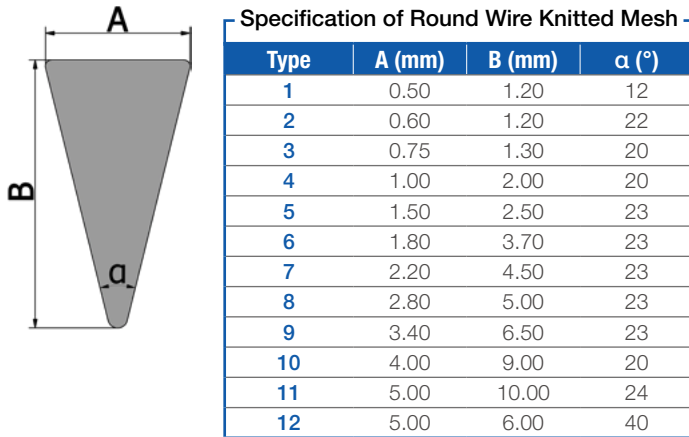
Specification

- **Material:** stainless steel 304, 316, 316L, Hastelloy, Monel alloy, etc.
- **Wedge wire shape:** triangular, tapered, and prismatic
- **Common specification of wedge wire:** 1.00 mm × 2.00 mm
- **Support profile shape:** rectangular, tapered, and teardrop-shaped
- **Common specifications of support profile:** 2.00 mm × 3.00 mm
- **Common specifications of support profile:**

$$\text{Open Area (\%)} = \frac{\text{Slot size} \times 100}{\text{Slot size} + \text{Wire width}}$$



Specification

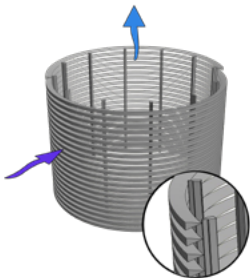


Features

- High mechanical strength
- High resistance to wear and tear
- Anti-shock
- Larger effective circulation area
- Easy to clean
- Self-supporting structure
- Anti-clogging
- High operating efficiency
- Low operating and maintenance costs

Water Flow Direction

Determining the direction of water flow through a wedge wire screen depends on the position of the wedge wire (surface profile) relative to the support profile. There are two flow directions for wedge wire screens, i.e. from the outside in or from the inside out.



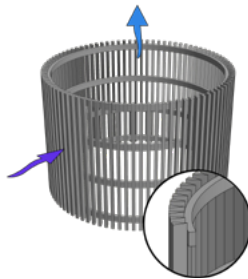
External circumferential wires and axial internal support profiles.

Benefits:

- Economical
- Suitable for most applications
- Precision openings

Products:

- Filter cartridges
- Diatom candle filters
- Header laterals
- Rotating drum screens
- Nozzles
- Resin traps



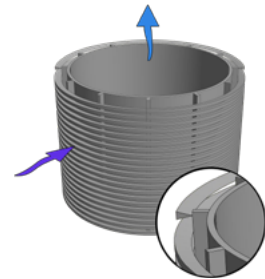
External axial wires with internal circumferential support profiles.

Benefits:

- Facilitates cleaning with an external axial-movement scraper

Products:

- Automatic filters



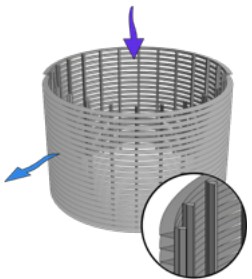
External axial wires with internal reinforced support profiles.

Benefits:

- Optimized collection and distribution
- Replaces perforated inner tube

Applications:

- Potable water treatment
- Ion exchange
- Oil refining processes



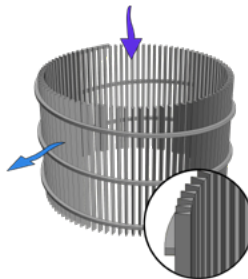
External circumferential inverted wires and axial internal support profiles.

Benefits:

- Economical

Applications:

- Inside-out flow



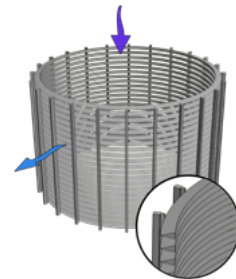
Internal axial wire with external circumferential support profiles.

Benefits:

- Smooth internal screen surface
- Facilitates cleaning with an internal axial-movement scraper
- The flow moves across the wire edges for effective dewatering

Products:

- Trommel screens with internal feed
- Systems with an internal rotor or screw
- Dewatering systems
- Baskets
- Automatic filters



Internal circumferential wire with external axial support profile.

Benefits:

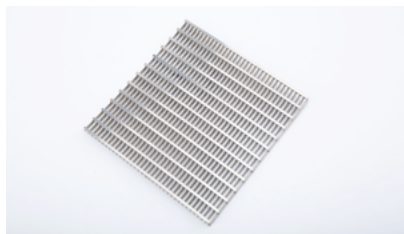
- Smooth internal filter surface
- Custom inner diameter

Applications:

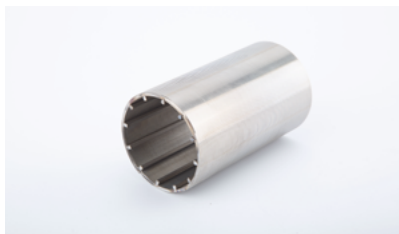
- Screw press

WEDGE WIRE SCREEN

Wedge Wire Products



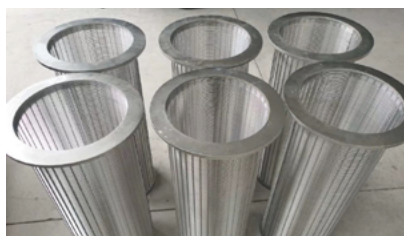
Wedge wire flat screen



Wedge wire screen cylinder



Wedge wire filter cartridge with reinforced support profiles



Wedge wire filter cartridges with flange



Wedge wire filter basket



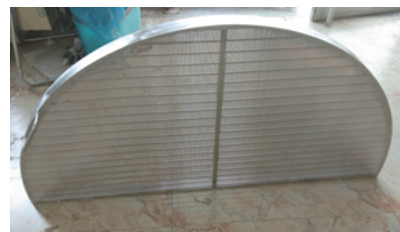
Wedge wire filter basket with connector



Wedge wire nozzle



Wedge wire sieve bend



Semicircular wedge wire screen

Application



Polymer filtration

- Filter layer
- Collection & distribution



Hot gas filtration

- Filter layer
- Support grille



Fluid filtration

- Filter layer
- Support grid
- Vibrating screen
- Floor grids



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