



WATER & WASTEWATER Filters

A type of metal filter element known as a wedge wire screen, sometimes known as v-wire, is widely used in many different sectors to undertake screening, sizing, filtering, cleaning, dewatering, or drying processes. The V-shaped or wedge-shaped profile wire, which wraps the support rods along the length of the screen, produces a continuous slot opening. These filters are used extensively in water and wastewater applications, which include: water wells, desalination, irrigation, and ion exchangers.

As Your **Reliable Partner**

PANTAN has provided numerous process packages and equipment to different customers, tailored to meet their individual demands.

With many years of experience in the field of separation, our team possesses extensive expertise in designing and producing tailor-made wedge wire solutions aimed at water purification and clarification. These solutions are specially built for industrial purposes, providing exceptional suspended solids reduction capabilities.



WATER PURIFICATION TECHNIQUE

Types of wedge wire screen

- Sieve bend
- Coanda intake screen
- Resin trap
- Filter nozzle
- Cylindrical screen
- Lateral assemblies
- Screen panel

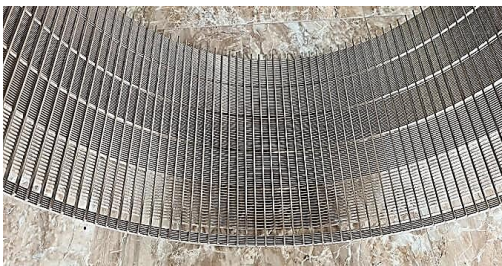
Wedge Wire Screen Used in Water & Wastewater Process

➤ Sieve Bend Screen

A sieve bend screen is made by joining wedge wire support rods and stainless steel V-shaped profile wires. The wedge wire panel screens are then sliced and curved into arcs of varied degrees, such as 45° and 60°.

Application:

Removes particles larger than 0.25mm from wastewater.



➤ Resin trap

Media escaping from the treatment vessel due to a faulty valve is one of the concerns connected to system failure. Loss of expensive media and potential damage to downstream pumping equipment are two effects of such a failure. Resin traps installed along the line provide dependable defense against this problem. A filter is necessary in the water softening procedure of ion exchangers in order to prevent media loss.



➤ Coanda Intake Screen

Coanda Intake Screen, also known as Coanda Screen, offers filtration using a unique wedge wire screen with a curve-like structure. The screen's curve design and tilt wires (angle 2°- 6°) provide precise capacity and filtration performance. Flat screens are also used in the design coanda screen.

Application:

Hydropower water intake, water filtration, dewatering, Wastewater treatment



➤ Filter nozzle

It has a wide range of applications in water treatment process, like ion exchanger in water softening process. The different sizes of the wedge wire and slot are able to accommodate any levels of filtration. Continuous slot design makes it high efficiency and long service life.

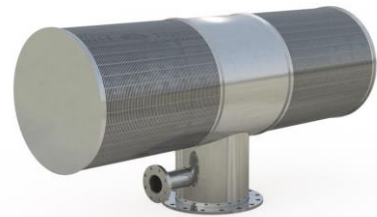


➤ Lateral assemblies

Large flow area, uniform water distribution, high mechanical strength, high temperature resistance, pressure resistance, anti-aging, and corrosion resistance are all features of wedge wire vessel lateral assembly. This is put into practice in an ion exchanger used for water treatment as a collector and distributor.

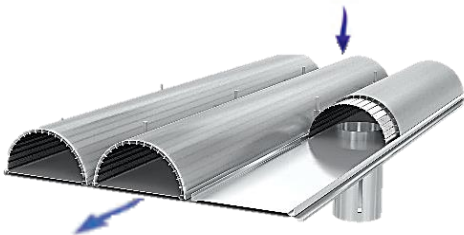


Passive water intake: Water can be continually drawn from lakes, rivers, and oceans with a consistently low speed using the passive intake screen. This mechanism is often used in a number of facilities, including those that treat sewage, provide drinking water, and treat industrial waste. Due to its gentle handling, the screen also enables wildlife to smoothly slip away from its surface.



➤ Cylindrical screen

Underdrain filters: Its primary function is to sustain the filtering media, including sand, activated carbon, and other materials. Additionally, when going through the backwash phases, they discharge filtered water while ensuring proper and uniform dispersion of air and water.

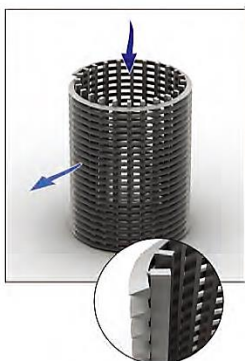


Water well screen: a component of a well's intake system made for aquifers that aren't fully or partially consolidated. It is utilized in shallow water.



Rotary drum filter: Wedge wire screen drums have extensive usage in treating wastewater and in all scenarios that deal with liquid and solid. Features of rotary drum working are:

1. Circumferential slot, flow from inside to outside



2. Circumferential slot, flow from outside to inside:



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