



GUJARAT WEDGE WIRE SCREENS LIMITED

**INDUSTRIAL LEADERS IN CUSTOM WEDGE WIRE ENGINEERING
AND MANUFACTURING.**

ABOUT US

Gujarat Wedge Wire Screens Ltd. (“GWWSL”) is a Public Limited Company with technological assistance by N Greenings Ltd. (UK) for supplies of equipment and technology at the time of incorporation.

We are one of the leading manufacturers for industrial wedge screen, wedge wire baskets, filtration wedge screen and V-Wire pipes etc.

Our manufacturing unit is located in the industrial park of Halol near Vadodra, Gujarat. Plant is equipped with modern machines and aided with latest technology for the manufacture of high precision looped & welded type Wedge Wire Screens in various shapes and sizes, our product V Wire Screen Pipes are used various filtration processes.

We follow the most stringent norms and precision

for our manufacturing process and deliver complete customized solution of our products as per the specification of our customers.

Since incorporation in 1987, we have been associated with various industries in multiple sectors owing to our products broad based industrial application.

The company’s management has more than 15 years of experience in this industry and the team of employees and technical staff are highly qualified in their respective areas of specialty.

We have successfully catered to the customized requirements of our clients operating in various industries, be it corporates, merchant exporters, OEM vendors and also to individual end users & contractors in India and abroad.

WHAT WE DO?

We manufacture variety of **custom built baskets, screens, laterals** and **wedge wire filtration elements** for leading manufacturers as per the shared or provide our inputs for their wedge wire screen internals and components requirements for well over two decade, during these years our steady growth and success has been directly related to our efforts in continually provide engineering innovative and cost-effective solutions for the industries looking for wedge wire solution.

INDUSTRY OVERVIEW



Water Treatment



Waste Water Treatment



OPM Screens



Oil Gas & Petrochemical



Power Generation



Food & Beverage



Mining



Pharmaceutical



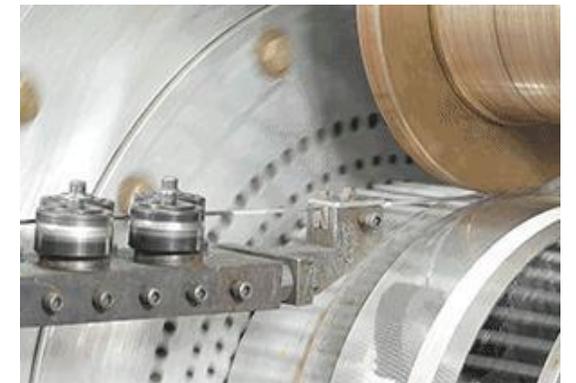
Pulp & Paper



Sugar

ABOUT WEDGE WIRES

- Wedge wire screens are manufactured either by loop or welded technology presently in India, in our endeavour for maintaining high standards of wedge wire screen the actual process begins with the highest quality raw wire then is made into screen that is cut, shaped, fabricated and cleaned.
- Wedge wire can be ordered as raw screen material or fabricated to a finished product to suite your application requirements. The pin point control over the specifications of the slot is what allows us to provide our customers with highly accurate flow distribution and effective media, debris and sediment filtration.



ABOUT WEDGE WIRES

- Support Rods are structured on the basis of flow direction to the wrap wire for strengthening and maintaining of the proper wedge configuration of the screen allowing it to handle intense pressure demands.
- Our wedge wire screen are designed with precision to enables control on various process conditions including volumetric flow rate, minimum dimensional media retention, minimum open area and fluid pressure capabilities.
- We deliver product in varieties of stainless steels and alloys as material of construction both in standard or customizable screen applications and allied products usage.



THE BENEFITS OF USING WEDGE WIRE

Our screen can be welded to nipples, couplings, pipe, or flanges. The fabricated and welded construction makes for durable quality vessel internals and media retention products. Wire mesh and perforated pipe may be less expensive initially, but wedge wire screens offer easier installation and long-term operating and cost benefits. Any process or vessel requirements can be accommodated, such as vertical or horizontal vessels.

Benefits of Wedge Wire

- Extended product life and increased efficiency
- Consistent slot size
- Capable of withstanding higher pressures than mesh or perforated plate
- Higher percentage of open area as compared to other materials
- Inherently clog resistant
- Ideal for self-cleaning applications in filters and strainers
- Very low pressure loss
- Durable in extreme conditions
- Low maintenance cost due to long lifespan
- Available in most high-nickel alloys for use in highly corrosive environments



PRODUCT OVERVIEW

PLAIN SCREEN



MEDIA RETENTION NOZZLES



VESSEL INTERNALS



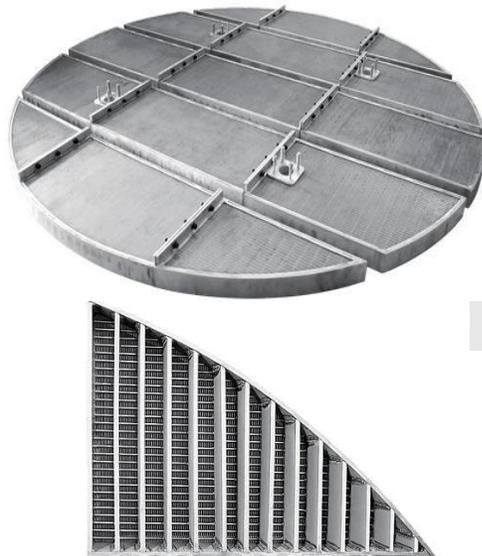
HEADER AND LATERS



STRAINERS



SUPPORT GRIDS



RESIN TRAPS



INTAKE SCREENS

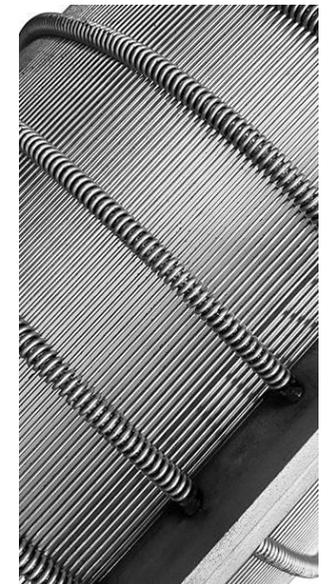


LOOPED TYPE WEDGE WIRE SCREENS

Looped wedge wire screens are a type wedge wire screen that works for separating materials such as solids from liquids, and smaller materials from bigger materials. Individual wires are put through a machine, looped at pitch of **70 mm** and held together with **cross rods of size 5 mm/ 8 mm/10 mm/12 mm**.

The individual wedge wires are built into panels by feeding cross rods through the loops of the wires the hole are then clamped together and made secure, usually by riveting over the cross rod ends.

Finished sieve grill made up of cross rods supporting profiled wires with loops, the usual materials of construction are stainless steel grade 304, 316, 430 and mild steel.



LOOPED TYPE WEDGE WIRE SCREENS

Advantages of looped wedge wire screens

- Stronger than welded wedge wire screens
- Deep arch looped wedge wire screens achieve a tilted effect for better water filtration
- Self cleaning
- Less heat used to manufacture screens
- Wear and corrosion resistant

Looped wedge wire screens are used in industries like:

- Coal mining
- Dewatering Screens
- Sand recovery/reclamation screens for foundries
- Glass recycling screens
- Sugar beet screens
- Paper and pulp screens
- Mineral and food processing
- Gold mining
- Petrochemical plants



The image shows various water treatment components. On the left, there is a photograph of water being filtered through a screen. On the right, there are several metal parts: a cylindrical mesh filter, a hub with multiple lateral pipes, and a collection of individual V-wire pipes.

WATER TREATMENT

About water treatment

- Water treatment screens and pipes are used for filtration of drinking, industrial water, irrigation water, river flow control and maintenance, recreation parks or many similar uses, aiding for environment balance. Filtration components aids in containment or reduces their concentration for desired end-use.

Cost-effective technology

- The treatment standards and its technology are continuously changing, it requires the application to be efficient, cost-effective and better life, hence these filter are at certain places more effective then conventional perforated or membrane filters, we recommend our customers to use our filter along with others filters as per the process requirements at various stages of filtration.

It's our primary market

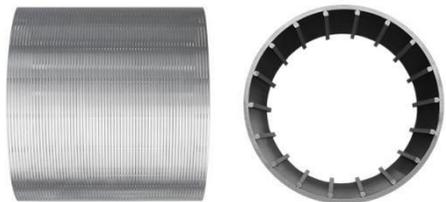
- We have ensure that the varieties of **internals**, **resin traps**, **v wire pipes** and **complete hub lateral systems** are design and made available for our customers.

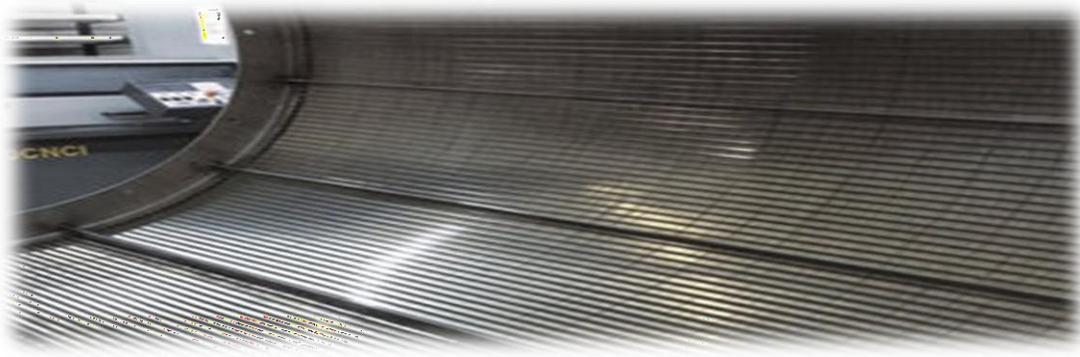


WASTE WATER TREATMENT

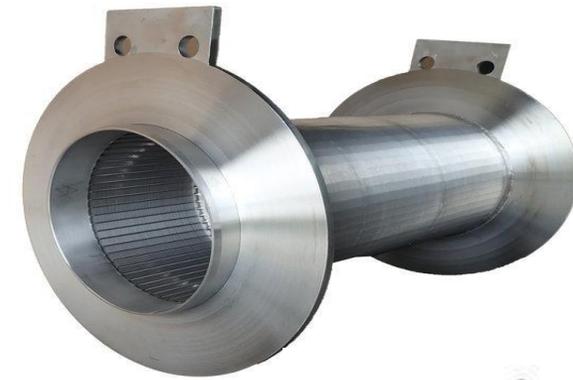
About wastewater treatment

- The process of removing the majority of **contaminants from wastewater/sewage**. To be effective, sewage must be conveyed to a treatment plant by pipes and substructure and the process itself must be subject to regulation and controls.
- Some wastewater processes require different and sometimes specialized treatment methods.
- At the simplest level, treatment of sewage is carried out through **separation of solids from liquids, usually by filtration screens**.
- We play significant part as manufacturer in wastewater and effluent treatment industry our screens and pipes are used in wastewater for **removing solids from water source**.
- Wastewater contains large solids foreign debris to avoid interfering with treatment processes or cause unwanted mechanical wear in equipment.





OPM SCREENS



About OPM Screens

- As OPM supplier to equipment manufacturers, we take pride in being customised design and engineering solution for wedge wire use in critical area of functioning suitable for original equipment manufacturer.

Superior wedge wire media retention

- We closely work alongside manufacturers that sell filters and strainers for creating an effective solution for screen usage. Our OPM screens are **non-clogging, offer a continuous slot formed by the V-shaped surface wires** (ensures a two-point contact between the particles and the slot), and high-precision slot sizes (which enables us to meet equipment manufacture's requirements).
- The V-shaped surface wires allow **easy cleaning by mechanical scraping or back flushing, low pressure-drop, strong construction** for most applications.





OIL & PETROCHEMICAL



Oil, Gas and Petrochemical

- The petroleum industry includes the processes of **exploration, extraction, refining, transporting of petroleum products**. Oil is also the raw material for many chemical products, including **pharmaceuticals, solvents, fertilizers, pesticides, synthetic fragrances, and plastics**. The industry is usually divided into three major components: **upstream, midstream and downstream**.
- Over the years our imputes has been to continuously improved and adapted to the standards required in industry for wedge wire products for reactor internals mainly used for media retention and solid-liquid separation processes.
- We try and ensure for optimal solution by understanding the end use requirement, our effort to deliver highly durable screens in the given specifications.
- We offer burst and collapse calculations, in-house inspections for slot control etc. to ensure we individually tailor our practices meeting quality plans set out by our customers.





POWER GENERATION

About power generation

- Electricity generation is the process of generating electric power from other sources of primary energy. For electric utilities, it is the first process in the delivery of electricity to consumers.
- Electricity is most often generated at a power station by electromechanical generators, primarily driven by heat engines fuelled by combustion or nuclear fission but also by other means such as the kinetic energy of flowing water and wind.
- Our wedge wire products are used in ion exchange tanks and water intake systems, filter elements of condensate treatment, de-mineralize filters device and Ion exchange columns for the power plant.

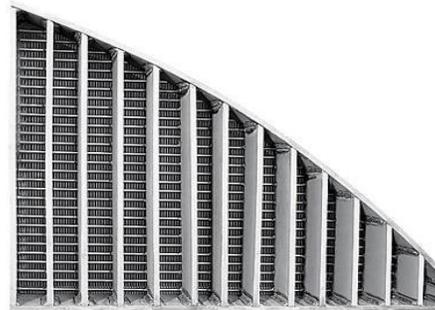




FOOD AND BEVERAGES

About food & beverage processing

- Food processing is the transformation of raw ingredients, by physical or chemical means into food. Processing combines raw food ingredients to produce marketable food products that can be easily prepared and served by the consumer.
- The food industry has a wide variety of applications which wedge wire has been used over many years. This includes flat [static panels](#), [vibrating deck panels](#), [sieve bend panels](#), [centrifuges](#) and [static or rotating cylinders](#).
- The main use of wedge wire in this industry varies from solid or water separation, grading and sifting to transporting, reclaiming and recycling. Some typical industries applications include: Fish, Vegetables, Oils and sugar just to name a few.





MINING



About mining

- Mining has is known as the extraction of valuable minerals from the earth usually in the form of orebody, lode, vein, seam, reef or placer deposits. These deposits that are recovered by mining include [metals](#), [coal](#), [oil shale](#), [gemstones](#), [limestone](#), [gold](#), [chalk](#), [dimension stone](#), [rock salt](#), [potash](#), [gravel](#), and [clay](#).
- As a manufacturer of stainless steel wedge wire, we offer the most comprehensive and innovative range of screens in the industry. Mineral processors throughout the world know the dramatic cost-per-ton reduction that can be achieved when using wedge wire solutions.
- The screens successes have been proven over more than two decades of progressive innovation and quality. Our team is committed to providing [technical support](#), [design suggestions](#), [provide information where necessary](#) with the objective in mind of helping our customer's improve or optimize their operations.



FREQUENTLY ASKED QUESTIONS (FAQ)

- **How do you figure out the open area of screen?**

The **open area ratio** (OA) of wedge wire screen is calculated using the following form.

- **How much does it cost?**

All our products are **custom manufactured**, since there are limitless possible combinations of **wire profile, slot size, material choice and length**. Depending on the application, the cost per unit varies and must be calculated on a **per-job basis**.

- **What is the standard slot size?**

There is **no actual standard size**. We handle a large range of applications on a day-to-day basis and each requires a very different slot size. Typically, for most applications, the slot size specified by the media supplier should be used.

- **Does wedge wire have low pressure loss?**

The high open area of wedge wire screen contributes to a **low pressure drop** through the screen surface.

- **How is wedge wire non-clogging?**

Wedge wire screens are fabricated **by cylindrically wrapping a continuous v-shaped wire around axial support rods**. The uninterrupted slot formed allows for only two points of contact with particles on the screen surface to minimize clogging, making sure maximum effective flow area and operation efficiency.

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

CONTACT US

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