



# WEDGE WIRE SCREEN

**ELEMENTS & FILTRATION EQUIPMENTS** 

INDIA'S LEADING **WEDGE WIRE SCREEN MANUFACTURER AND SUPPLIER** 



/ DEWATERING

SEPARATION

FILTRATION /



In, 30 Years
Jagtap Engineering Works
has successfully imprinted
its name globally by supplying
its wedge wire Screens &
Filtration equipment to more
than 20 countries as well as the
domestic India market.

Jagtap engineering Works, (JEW) established in 1980 by our visionary founder Shri. G. G. Jagtap, specializing in designing and developing precise Die Tools for various engineering sector including Defence, Medical implants, bearing manufacturing industry. In the year 1990 Mr. Jagtap received an opportunity to design and develop the product called "WEDGE WIRE SCREENS" indigenously, as the same was imported from USA & Europe.

Today Jagtap Engineering is one of the **leading and largest manufacturer of welded wedge wire screens in India.** Jagtap Wedge Wire Screens & filtration equipments are known for its proven Quality, Durability and Reliability, which makes Jagtap a reliable filtration partner of valued clients from various process industries. In, 30 Years we have successfully imprinted our name globally by supplying our Wedge Wire Screens & Filtration equipment to more than **20 countries as well as the domestic India market.** 

Jagtap team has continuously strived to enhance their engineering technique and quality by using and integrating latest technology to manufacture wedge wire screen and establishing well defined quality check procedure to give our valued clients the best quality screens.



SHRI GANGADHAR G. JAGTAP FOUNDER





#### **VISION**

To continuously strive to achieve highest standards of Quality & Technology in providing the Welded Wedge Wire filtration products in the concurrence with client's expectations.



#### MISSION

To be the world-class provider of high performance Welded Wedge Wire filtration products in an effective manner, in the area of Engineering Technology we aim to build up a highly satisfied customer base.

#### **ACHIEVEMENT**

Jagtap Engineering has built an unmatched reputation as a manufacturer of Welded Wedge Wire filtration and Separation Products having outstanding Reliability, Quality and Durability have bagged us the "Bhartiya Udhyog Ratna Award - 2003" from Indian Economic Development & Research Association "IEDRA"



Our Honorable Founder Shri Gangadhar G. Jagtap Receiving The "Bhartiya Udhyog Ratna Award-2003"

#### STATE OF THE ART TECHNOLOGY



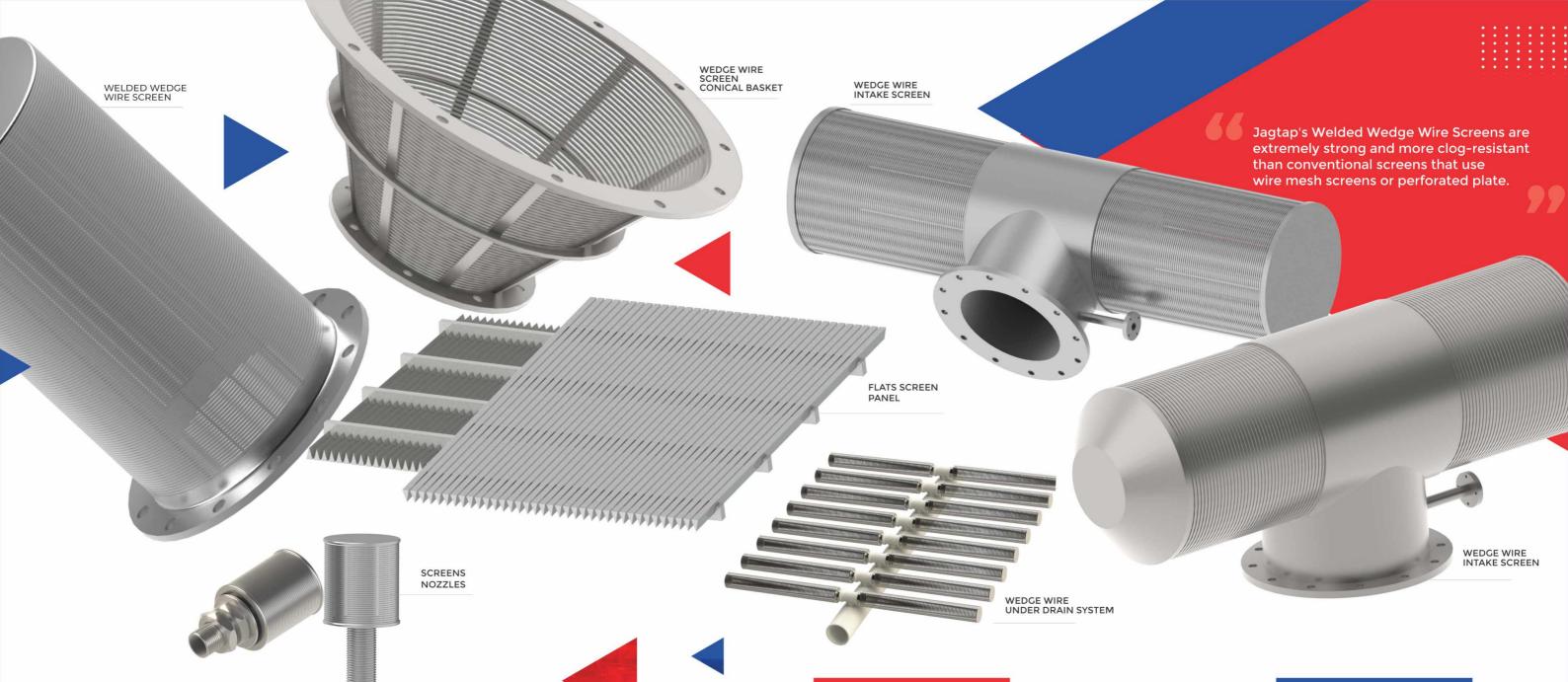
We design & Manufacture a comprehensive range of Screens & Filtration Equipments to best suite your application

#### **OUR TEAMS**









#### WEDGE WIRE SCREEN

**ELEMENTS & FILTRATION EQUIPMENTS** 

WEDGE WIRE

CYLINDRICAL SCREEN

WEDGE WIRE

**SIEVE BEND SCREEN** 

WEDGE WIRE

SUPPORT GRID SCREEN

WEDGE WIRE

**SCREEN LATERALS** 

WEDGE WIRE

**CONICAL SCREEN** 

WEDGE WIRE

**DRUM SCREENS** 

WEDGE WIRE

**SCREEN PIPE** 

WEDGE WIRE

**INTAKE SCREEN** 

WEDGE WIRE

**FLATS SCREEN PANEL** 

WEDGE WIRE

**SCREENS NOZZLES** 

WEDGE WIRE

**SCREEN BASKET** 

#### **ADVANTAGES**

ADAPTABLE TO **EXISTING EQUIPMENT** FREE FALL **OPENING** 

**CONTINUOUS** SLOTS LONGEST **OPERATIONAL** LIFE

MAXIMUM FLOW AREA HIGH EFFICIENCY IN SCREENING OPERATION

**GREATER STRENGTH** INCREASED WEAR LIFE

#### **APPLICATIONS**

Filtration Collection

**Media Retention** Distribution

Screening Separation

Dewatering **Product Recovery** 





STANDARD CONSTRUCTIONS

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Your reliable filtration-separation-dewatering partner

P/05



## WEDGE WIRE CYLINDRICAL SCREEN

Jagtap Screens, design and manufacture cylindrical screen having 20 micron slots and onwards with IN - To-Out and Out-To-In construction as per the process and application requirement.

IN-to-Out construction for Pusher Centrifuge, Basket Strainer, Inline auto clean filters etc

#### Ranging from

Size: 200 Dia to 1500mm Dia **Slot:** 50 microns onwards

Cylindrical screens can be made with circumferential I slot and axial slot,



## WEDGE WIRE DRUM SCREENS

Jagtap Screens design and manufacture drum screen of size ranging from 500mm to 3000mm diameter having slot size from 50 microns onwards.

Drum Screen's are made in two major construction IN-TO-OUT and OUT-TO-IN having circumfertrial or axial slot as per the application requirement.

Drum Screens are majorly used in Rotary drum screen for filtration and dewatering application and solid liquid separation in various process industries.

#### **PROCESS APPLICATION** & INDUSTRIES

- Sugarcane Raw Juice Filtration
- Effluent water filtration
- Solid waste separation
- Agua culture water recirculation
- Municipal Waste Water Filtration
- Sand & minerals Screening
- Sludge thickener

Rotary Drum Screen are also known as Trommel Screen, Drum filter, **Rotating Screen filter** 

#### STANDARD CONSTRUCTIONS













**STANDARD AXIAL WIRE** 



**INTERNAL** CIRCUMFERENCIAL WIRE



**EXTERNAL** CIRCUMFERENCIAL WIRE





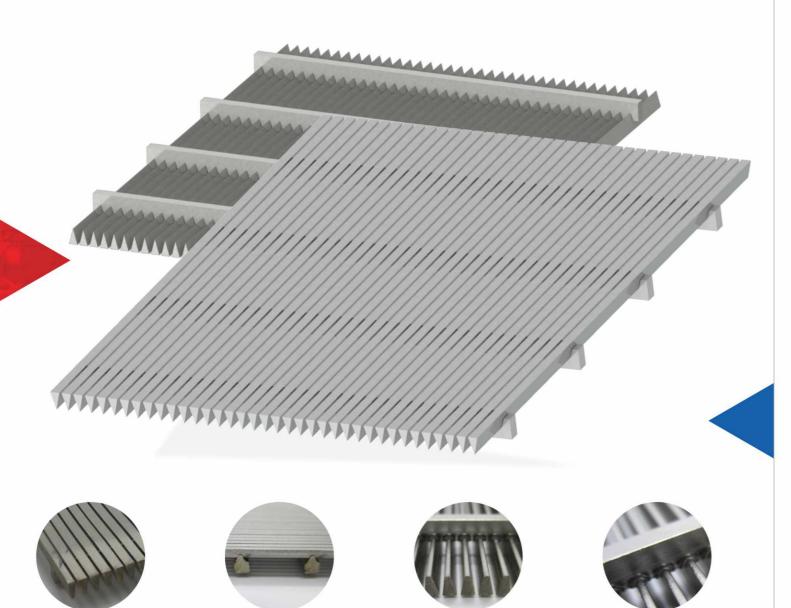




## WEDGE WIRE FLATS SCREEN PANEL

Jagtap Screen design and manufactures flat screen panel of customized size in rectangular, circular and square shape as per the application requirement. Flat Panels are majorly used in vibratory screen deck machines for dewatering and sizing of product in various process industries such as coal, iron ore, cement, food processing etc.

Flat panels are also used as support grid for media retentions in various process vessels used in industries like, Petrochemical, Oil & Gas, Breweries, Distillates,



**WEDGE WIRE** 

## WEDGE WIRE

## **SIEVE BEND SCREEN**

Jagtap Screen design & manufacture customized as well as standard size of sieve bend screen, which are also known as DSM Screen or Parabolic screens majorly used for dewatering in various process industries. Sieve bend screens are available with 50 micron slot onwards.

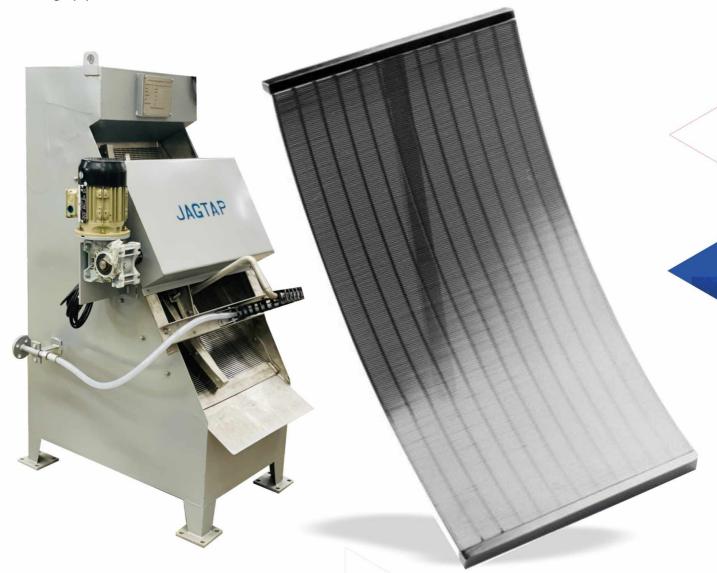
Jagtap screens also design and manufacture complete sieve bend screen with enclosure having inlet and outlet connection as per the requirement. Enclosures are made in SS 304, SS 316, Mild steel with epoxy coating or FRP coating.

Jagtap's Sieve bend screen units are also available is auto washing and scraping system.

Sieve bend screens are also know as DSM screen run done Hill Screen and Parabolic Screen. This screen in our of the most simplest dewatering / separation screen unit having no mechanical part which makes it maintenance free and most cost effective screening equipment.

## PROCESS APPLICATION & INDUSTRIES

- Food processing
- Effluent water Filtration
- Solid waste separation
- Aqua culture water recirculation
- Municipal Waste Water Filtration
- · Sand & minerals Screening
- · Sludge thickener



**SLOT** 

SUPPORT ROD

WELD

### WEDGE WIRE

## **SCREEN LATERALS**



Jagtap Screen's design and manufactures customized wedge wire screen laterals ranging from Ø 30mm diameter onwards having slot size of 50 micron and onwards

These laterals are available with standard as well as customized end connection such as flange end, NPT threaded, self locking etc.

Jagtap Screen wedge wire screen laterals are majorly used as vessel internals for distribution and media retention.

## PROCESS APPLICATION & INDUSTRIES

- Cation exchanger.
- Mixed bed exchanger.
- Ion exchanger.
- Hydrocarbon Vessels
- Chemical
- Pharma
- Water Treatment
- Oil and Gas
- Petrochemical

#### **FEATURES**

- · High open area.
- High filtering and screening performance.
- Various end connections
- Temperature resistance.
- Corrosion and rust resistance.
- Non-clogging.
- Easy to install and replace.
- Low maintenance cost.
- Durable and long service life.





Jagtap Screens design & manufactures standard size and customized stainless steel wedge wire screens nozzles.

The nozzles are majorly used for media retention in major lon exchange resign bed filter, sand filter, active carbon filter and various other media filter vessels.

Screen nozzle are available with standard threaded nipple with suitable Nut, lock nuts, washer and gasket.

- + Screen nozzles are available in **slot size of 100 microns onwards.**
- + These screen nozzles are manufactured using SS 304, SS 316/L, Hastelloy, Duplex steel, Inconel etc as per the application requirement.

Nozzle screens are also used for uniform liquid distribution in media filter vessels

+ Jagtap screen also design & manufacture complete media filter vessel as per ASME standard to meet our application, requirement.











## WEDGE WIRE

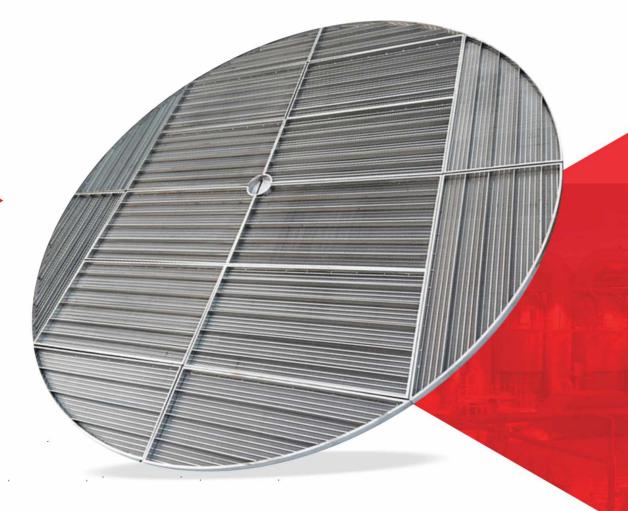
## SUPPORT GRID SCREEN

Jagtap Screen design & manufacture customized wedge wire support grid screens suitable to your vessel, these screens are available in square, Rectangular as well as circular shape with complete frame and support structure considering the total weight load of the media to retained on the screen.

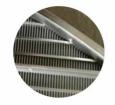
Grid screens are majorly used in various Process vessels, Reactors vessels, Gas absorber and media bed filter, hydro carbon vessels etc. Grid screen are made from SS 304/SS 316/Hastelloy/Monel/Inconel/Duplex/copper nickle.

#### **APPLICATIONS**

- Petrochemical
- Hydrocarbon
- Chemical
- Pharma
- Power















Jagtap Screen also has well established fabrication work shop and experienced design and engineering team to provide you complete design & fabrication of customized process vessels / reactor columns/ pressure vessels in accordance with ASME IV, VII

## WEDGE WIRE

### **SCREEN PIPE**

Jagtap screen is one of the leading manufacture of welded wedge wire screen pipes ranging from 30mm to 1200mm diameter pipes for water wells, oil wells, MBR media retention, Rain water harvesting, Under drain systems etc.

These screen pipes are manufactured in standard nominal bore size with standard length of 3 mtr & 6 mtr long having customized coupling / rings on both the end of the screen pipe as per the requirement.

These screen pipes are made from SS 304,316, SS202 and LCG (Low carbon steel galvanized)

#### Wedge wire screen filter cartridges

#### **FEATURES AND BENEFITS**

#### **Anti Corrosives Material:**

Made from Stainless Steel and Suitable for acid treatment to remove incrustation, chocking of gravels which ENSURES LONG LIFE of bore well

#### V Shaped Slot:

Produces jetting effect to inject recharge water into the aquifer. Continue Slots Gives Large % Open Area

Easy Installation: Save Money, Time and Energy Customized for very small or large roof top area.

#### **TECHNICAL DETAILS:**

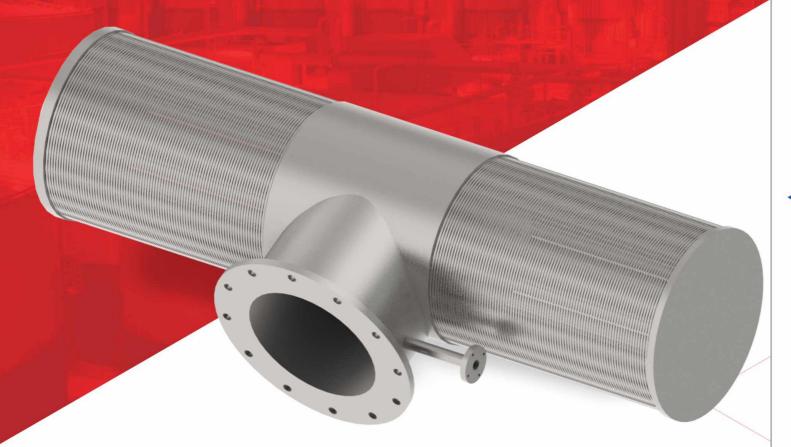
Slot size 0.15 mm to 10 mm Length 0.2 mtr - 6 mtr.

Material - SS 304/316/316 L or LCG or as per Customer Requirement End fittings - as per customer requirement.



Jagtap Screen's as over 20 year of expertise and experience to design and manufacture customized wedge wire intake screens and have proven track record.

### WEDGE WIRE **INTAKE SCREEN**



Jagtap screen wedge wire intake screen are used to intake the water from sea, river, pond or the sumps by gravity or pumping.

Jagtap Screen's intake screen are designed to maintain the velocity through screen within the given limits and low pressure drop at discharge.

These intake screens are used to protect under water living bodies such as fish from getting sucked during the pumping as well protect pump from getting fouled by heavy particles in suction and increase the life of pump and lower the maintenance.

Jagtap's Intake screen are also available with auto cleaning system using air bursting / brush scrapping system.

Auto air busting system is supplied with complete air compressor air receiver, PLC based control panel etc.

#### **APPLICATIONS**

Intake screens provide continuous water extraction from rivers, lakes, dams and oceans.

#### They are widely used in the following industries:

- Municipal water supply
- Water treatment plants
- Desalination
- Power plants

#### Material:

Ss304, SS 316, Duplex Steel, Super Duplex Steel, CuNi as per the customers requirement

## WEDGE WIRE SCREEN CONICAL BASKET

At Jagtap we design and manufacture customised screen basket for various type of centrifuges, majorly Horizontal, vertical and pusher type centrifuges.

MOC : SS 304, 316, 316C, 316Ti

#### They are widely used in the following industries:

- Coal & Mining Petrol chemical Pharma
- Oil and gas Food processing Salt & Chemical

#### **Wedge Wire Screen Baskets**

- 01 Conical Basket for centrifuges
- 02 Cylindrical Basket for Pusher Centrifuges
- 03 Conical Basket for nutsche filter







## WEDGE WIRE UNDER DRAIN SYSTEM

Made in INDIA for World... Proven Filtration System for Water filtration plants, retrofits to existing old plants as well



Jagtap's welded wedge wire screen provides uniform water collection during the filtration process and uniform distribution of air and water during the backwash through internal PVC pipe connection, this makes this system unique compare to conventional system.

Jagtap Welded Wedge Wire Screen are made of precise fine slots which retains the filter media (sand) directly and helps eliminating the use of Gravel layers. Jagtap's Welded Wedge Wire Screen Under drain system enhance filter bed performance, ensuring years of nonstop service and helps eliminating problems such as Media loss, formation of Mud balls, uneven back washing, deformed sand beds. Jagtap's Welded Wedge Wire Screen Under drain system has its own commercial benefits compare to conventional system.

As the Coarse Medial (Gravels) are eliminated results increased capacity of filter beds and hence number of beds reduced, lowers the construction cost of plant, lowers the cost of Gravels as direct filter media is retained on the Jagtap's Welded Wedge Wire Screen laterals, lowers the backwash water volume, lowers the power requirement, lowers the piping and instrumentation, these all resulting to a good cost saving

#### Jagtap's Welded Wedge Wire Screen Under drain system has its own benefits as follow

- Jagtap's Welded wedge wire screen laterals slots are as fine as 150 microns (0.15 mm) allows direct retention of filter media. (Slot size can be selected as per the requirement ranging from 100 microns onwards)
- Jagtap's Welded wedge wire screen laterals provides more open area and helps reduce the water velocity through the slots and also increases filter capacity resulting higher flow rate As the direct filter media (sand) retention is possible, coarse media (gravels) is eliminated

which results increased filter media depth and also reduces the head-loss of filter system enhancing treatment process.

- Jagtap's Welded wedge wire screen laterals provides uniform backwash throughout the filter as all the laterals has its own air / water backwash connection resulting proper backwashing making filter beds more clean.
- Jagtap's Welded wedge wire screen laterals are made from Stainless Steel with UPVC base pipe and back wash manifold and connection.

### **MECHANICALLY**

### CLEANED BAR SCREEN

The JEW bar screen is a mechanical fully automatic screen used for liquid/solid separation in the pre-treatment stage of wastewater treatment plants, pumping station. The Jagtap's Mechanical Bar Screen assures positive, efficient screening for any flow condition. Backed by decades of experience, our mechanical bar screen provide the efficiency, economy and dependability that means lowest overall cost.

Jagtap's Mechanical bar screens for channel installations are available in wide range of size to exactly suit any condition, e.g. flow rate, channel size, liquid depth, length of screen centers etc.

- + Jagtap's Multi Rake Mechanically cleaned Bar Screen Rake & Link chain driven screen
- + Mounting Position: 60 / 70 /90 degree All internal replaceable parts supplied in corrosion resistant material.
- + Efficient Proven design reduces maintenance requirements; requires fewer parts.
- + Low RPM backwash mechanism provides more efficient cleaning, less wear of internals.

#### MAIN AREAS OF USE AND FEATURES

- · High screening discharge capacity due to multiple rakes
- · Low hydraulic resistance, very low head loss
- · Heavy duty, extremely robust design
- Pivots out of channel as an option
- · Dip pickled SS guarantees a long life time



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## **ETERNALLY** -**FEED AUTOMATIC ROTARY** WEDGE WIRE **SCREEN**

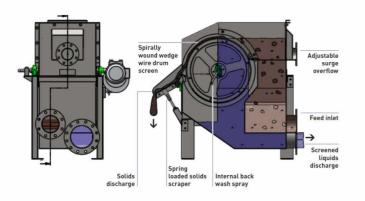
The Jagtap's RSE (Rotary Screen External Feeding) is a robust and compact drum filter. The screening is done by a wedge wire drum filter. The Most frequent screening size is from 0.5 mm to 2 mm.

This type of screen handles difficult solids, including scum, oily and greasy materials in municipal and industrial applications with heavily polluted and or fatty water as in slaughter houses The wastewater flows from the outside of the drum, the water falls through the slot drum and the dirt remains on the sieve surface and is scraped off.



The Jagtap filtration products are leading the industry in superior constructions, durability and quality. with a proven record it is a simple choice for reliable filtrations process.

jagtapengineering.com



Influent Enters

Effluent overflows to channel if drum blinds

Internal spray bar rinses drum

Effluent Discharge

Solids build on drum exterior

Solid pass over

Filtrate passes through drum

drum and removed

Your reliable filtration-separation-dewatering partner

**PARABOLIC SCREEN** STATIC NON-MECHANICAL **SCREENING EQUIPMENT** 

Jagtap parabolic screens used for solid/liquid separation, Has no moving parts, hence the operational maintenance is Minimum.

Parabolic screen is a static screening unit which consists of Curved wedge wire sieve bend screen with slots starting from So micron anwords.





We work with clients in various diverse industries to help develop, design and manufacture equipment to solve various screening problems. Various type of screens & filtration equipments are customise designed and engineered to suit specific process requirement and we pride ourselves on making sure customer, user and regulatory standards are met.

#### Used in many industries for typical applications such as:

General food processing effluent

Textile Effluent

Malting Effluent

Slaughter house waste

Laundry Effluent

Municipal Sewage

Dairy effluent



Your reliable filtration-separation-dewatering partner



### ROTARY DRUM SCREEN

A proven high-capacity screening technology for solid liquid separations used in wastewater treatment plants and various other process industries. In waste water treatment plants, the Rotary screen unit is renowned as a fine screen for pretreatment and primary treatment to replace the primary clarifiers. They are also used as sludge screens / sludge thickener.

Industrial users, such as meat processors, food processors, tanneries, textile mills, petrochemical plants, and recyclers, rely on it for product recovery and wastewater treatment. Pulp and paper mills use it for fiber recovery and rejects handling.

#### **JE-ROTARY IS AN INTERNALLY FED DRUM SCREEN**

for liquid / solid separation in the field of process and water of industries or WWTPs.







#### **BENEFITS**

Outstanding Capture rate of the hair and fiber **Enclosed Rotary** Easy access for Screen Unit All operation and **MOC Stainless** maintenance Steel Quick and

Few and easily replaceable wear installation

Complete removal Completely enclosed no odor nuisance

> All Structural parts can be made of stainless steel for long life.

Reliable, Self-cleansing operation

Rotary screen sizes are customised as per the flow rate and filtration rating required for particular application.







Provides high capacity and excellent solids capture in a fully enclosed system with simplified operation.

Our dewatering screw press, which serves to dewater the sludge to 25% dry-matter content, can provide efficient di-moisturizing of sludge. In terms of quality, this equipment surpasses traditional sedimentation sludge removal. This dewatering / thickening / compacting screw press has been designed to be used primarily in wastewater treatment plants, but can also be used for dewatering / thickening / compacting both industrial water and wastewater in food-processing operations.

If a dewatering press is already incorporated into the new WWTP design, costs related to the construction of sedimentation tanks are eliminated as this equipment can also be used for thickening secondary sludge directly from activation.

**DEWATERING / THICKENING / COMPACTING BOTH INDUSTRIAL WATER AND WASTEWATER IN FOOD- PROCESSING OPERATIONS** 



WINERY



DAIRY



MUNICIPAL WASTE WATER

#### **FEATURES**

Automatic operation

Innovative washing system

Quick and easy installation High quality and Reliability

Dewatering and discharge in one equipment

Welding pickled and passiviated

Continuous functioning

Manufactured in stainless steel AISI 304 and 316(L)

Easy removable covers for hygienic inspection

## **ROTARY DRUM SCREEN**

**REMOVAL OF HAIR, FIBER &** SUSPENDED SOLIDS

**REDUCTION OF COD & BOD** 

**SCUM SCREENING** 









## **PARABOLIC SCREEN**





## **CUSTOMISE FABRICATION**















#### **OUR DESIGN CAPABILITIES**

Few companies in the fabrication industry have a dedicated design engineering function. Even fewer have the capability to design complex process equipment, skids and plant. Our customers benefit from our ability to anticipate challenges and deep knowledge of end-use. Design comes to life using our state-of-the-art-software.

Our 35 people strong in-house design team is dedicated to each of our customer's specific requirement. Our qualified engineers accomplish complex design calculation by strictly compiling to the requisite international Codes & Standers including ASME/TEMA/PED/DIN/EEUA Handbook/EJMA. Our software also generate fabrication drawing to scale and 3-D images of the screen thereby giving us warning of any foul-up/ miss-match in screen.

#### Some f the design software we used include:

SolidEdge Codecalc

**ANSYS** 





















































ISO 9001:2015 / ISO 14001:2015 / OHSAS ISO 45001:2018 / CE

UNIT - 1 -679-680 GIDC Makarpura Industrial state, Vadodara – 390010 (GUJ) INDIA

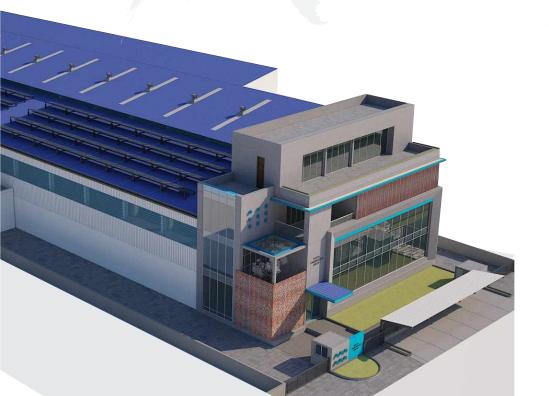
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info@jagtapengineering.com www.jagtapengineering.com **0** +91 265 2645415

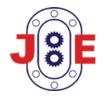
+91 99 79 88 1993

**0** +91 99 79 88 1999 **0** 

+91 90 99 32 2211







Jagtap Engineering works