

FILTRATION / SEPARATION / DEWATERING

your reliable filtration partner

# EXTERNAL FEED ROTARY SCREEN

www.jagtapengineering.com



## ETERNALLY FEED AUTOMATIC ROTARY WEDGEWIRE 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.





Jagtap Engineering's business is primarily focused around the design and manufacturing of welded wedge wire screen and filtration products for various process industries.









Jagtap has more than 30 years experience in the engineering and design of screens, screening systems, and solids conveyance / compactor systems. With its own team of experienced machine operators/welders each screen is hand constructed to the clients exacting specifications.

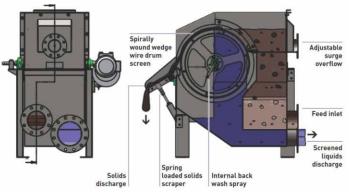




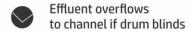








Influent Enters



Internal spray bar rinses drum

Effluent Discharge

Solids build on drum exterior

Solid pass over drum and removed

Filtrate passes through drum

This professional team allows for ease of construction of equipment that is unique in shape, size or other design considerations. Having experience on both the industrial and municipal markets, Our professionals have the knowledge that allow all pertinent design questions to be addressed assuring the final screen meets the design application.

All stainless steel constructions featuring a fully enclosed chassis and including legs, pans, pumps and other extraneous parts with no hidden add-on costs.

The wedge wire screen with variable slot opening provides solids removal based on client's specific particle size distribution. Each system is equipped with an integral sump which can be oversized and / or conformed to meet design and potentional upset conditions. Externally fed screens are equipped with high pressure, capable spray manifold systems which can be run automatically or with manual operation. Screening systems are offered with a wide range of electrical control panel options, from basic to sophisticated control circuitry.

#### **Operation Description**

- >> The Machine operation is controlled by a pause On timer.
- If the water level in the tank of the water to be treated should increase and exceed a preset threshold, a level measurer can start the machine, even during the pause phase.
- The water to be treated goes to the feed tank and is distributed all over the drum surface.
- $\gg$  The machine is operated by a geared motor which controls its rotation.
- The filtration process occurs from outside to inside the drum, so the filtered water comes out from inside the drum and keeps it continuously clean.
- The solid material which remains outside the drum is scraped by a cleaning scraper which can be helped by a motorized brush which can be provided as an optional accessory.
- The feeding is made by gravity or by means of a pump.

The whole design is very efficient. Because of the simple technique and good automation it is highly reliable and requires low maintenance. Screen features a heavy-duty corrosion resistant stainless steel chassis and wedge wire screening cylinder.

Incoming flow is directed under a baffle to dampen forward velocity and insure even loading over the length of the screen cylinder

The natrual action of wastewater cascading through the screen creates a powerful backwash which results in a continuously clean surface. Solids are caught on the outside of the screen surface and are removed by a tensioned doctor blade.

All Rotary units have an internal spray bar available. This spray bar is positioned within inches of the surface of the cylinder and benefits greasy applications or applications requiring small size screen openings.

The screen is the only rotary screen available with an automatic doctor blade cleaner assembly that wipes away solids, particularly sticky materials that build up on the primary doctor blade.

Externally Rotary Screens are individually designed to meet the client's needs with regard to head box configuration, inlets/outlets, height, width, pumped or gravity flow, etc.



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#### **FEATURES OF EXTERNAL ROTARY SCREEN**

Screen cylinder of helical-wound wedge wire

Screen slot opening 0.1 to 5 mm for a variety of application

All metal components of stainless steel construction.

feed complete with flow dampening weirs

Influent head box designs to handle pumped or gravity flow Screen assembly complete with internal supports, tie rods, end rings, hub and shafts

Chassis designs for open or enclosed filtrate discharge Internal CIP mainfold assembly with sprays designed for high pressure cleaning

Solids discharge bladed assmebly of K-monel or UHMW Construction

Shafts mounted, variable speed drives.

Influent overflow bypass piping

#### The automatic cleaning of this type of sieve consists of a few important elements:

The first scraping knife scrapes permanently the dirt of the exterior of the drum sieve

A second pneumatically operated scraper cleans on a regularly basis the accumulated dirt and fibers from the first scraping knife An internal spraying system additionally rinses automatically the drum with (hot) water, from inside to outside.

Additionally, this sieve is equipped with an overflow. At too high flow rates or too high contaminated water overflow steam flows back into the pump sump. This avoids the overload of water would end up in the screening container.

#### INDUSTRIES LIKE:

- General food processing effluent
- Malting Effluent
- >> Dairy effluent
- >> Textile Effluent

Municipal Sewage

- Slaughter house waste
- >> Laundry Effluent



**JEW** 





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