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[HUBER Rotary Drum Fine Screen / Perforated Plate Screen - ROTAMAT® Ro2 / RPPS / STAR](#)

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Reliable and well-proven inlet screen for municipal sewage treatment plants and industrial wastewater and process water screening

- fine screen with wedge wire (Ro2), perforated plate (RPPS) or folded perforated plate (STAR)
- with integrated screenings press and screenings washing
- more than 2,000 installations worldwide

The HUBER ROTAMAT® Rotary Drum Fine Screen / Perforated Plate Screen operation is based upon a unique system that allows combination of screening, washing, transport, compaction and dewatering in a single unit.

Model variations

- **Ro2: Wedge wire screen ≥ 0.5 mm**
Depending on the screen bar spacing (0.5 - 6 mm) and screen size (screen basket diameter of up to 3000 mm), the throughput can be individually adjusted to specific site requirements.
- **RPPS: Perforated plate screen basket $\geq 1,5$ mm**
Compared to one-dimensional wedge wire screens, the two-dimensional screening element of the Rotary Drum Fine Screen ROTAMAT® RPPS achieves a significantly higher separation efficiency.
- **STAR: Folded perforated plate screen basket $\geq 1,0$ mm**

The star-shaped screen basket with a zigzag folded surface of the Perforated Plate Screen ROTAMAT® STAR provides an increased free screen surface and an approximately 30% increase in throughput capacity with the same nominal diameter. RPPS-Star units are preferably used with fine perforations of 1 / 1.5 / 2 mm for installation on municipal and industrial wastewater treatment plants.

■ PRO-Series option

The special design of the RPPS-PRO series isolates the water level in the trough from the water levels upstream and downstream of the screen. This operation method permits continuous screen operation with a constant water level upstream of the machine and significantly increases throughput capacity.

ROTAMAT® Rotary Drum Fine Screens are completely made of stainless steel and are acid treated in a pickling bath. They are either installed directly into channels or are supplied as tank-mounted units, with an inclination of 35°.

Dependant on the bar spacing (0.5 - 6 mm) or plate perforation (1 - 6 mm) and the drum diameter (up to 3000 mm) any flow rate can be realised.

The wastewater flows into and through the open end of the inclined screen basket with the floating and suspended materials being retained by the screen basket. Blinding of the screen surface generates an additional filtering effect so that suspended materials can be retained that are smaller than the bar or perforation of the screen basket. The basket starts to rotate when a certain upstream water level is exceeded due to screen surface blinding.

The rotating screen drum lifts the screenings and drops them into the centrally arranged trough. Screenings removal is supported by a scraper brush and spray bar. A screw conveyor in the trough rotates and transports the screenings through an inclined pipe.

The conveying screw transports, dewateres and compacts the screenings, without odour nuisance, and discharges them into the customer's container or a subsequent conveying unit.

Integrated Screenings Washing System IRGA

To optimise the treatment process an integrated screenings washing system can be provided. It improves the carbon/nitrogen ratio of the pretreated wastewater. In addition, the IRGA reduces the costs of screenings disposal. The ROTAMAT® principle allows for integration of the screenings washing system directly in the trough and/or the lower end of the rising pipe. As the soluble matter is separated from the inert material, faeces are virtually completely washed out which leads to a significant weight reduction and improved operating and hygienic conditions.

Benefits

ADVANTAGES OF HUBER ROTAMAT® SCREENS

a) Low headloss – High separation efficiency

Due to the drum's shape and 35° installation the screen area is much larger than that of a vertical or steeply inclined screen, which results in a low headloss, high separation efficiency and maximum throughput.

b) Completely made of stainless steel

The machine is completely made of stainless steel and pickled in an acid bath which eliminates corrosion and thus reduces maintenance.

c) No by-passing

The entire flow enters the screen drum through its open front end and can only leave the drum through its screen area. This prevents plant overflow and guarantees that the screenings are always retained within the screen drum.

d) Several functions combined in one system

The ROTAMAT® Screens perform the functions of screenings removal, transport, washing, dewatering and compaction in a single spacesaving unit. An additional bagging unit guarantees operation of the entire system without odour nuisance.

e) Outdoor installation

For frost-proof outdoor installation, ROTAMAT® Screens can be supplied with a heating wire and thermal insulation.

f) Retrofitting

The design of the ROTAMAT® Screens allows for later modification so that the systems can be adapted to changing requirements. The heating and/or integrated screenings washing can be retrofitted. The bar spacing can also be reduced to meet more stringent requirements.

g) Low maintenance

No lubrication. Regular checking and visual inspection are sufficient.

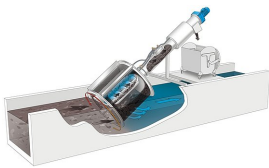
Downloads

 [Brochure: HUBER Rotary Drum Fine Screen ROTAMAT® Ro2 / RPPS / STAR](#) [pdf, 433 KB]

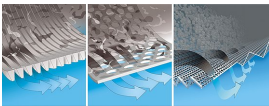
Case Studies

- HUBER's Perforated Plate Fine Screen Brings STAR Power to Star Water and Sewer District
- Reliable protection of membrane plants with HUBER Perforated Plate Screen ROTAMAT® STAR liquid
- Further development of the well-proven ROTAMAT® screen concept: new Pro line
- Further developed ROTAMAT® Rotary Drum Fine Screen with increased hydraulic capacity: ROTAMAT® Perforated Plate Screen RPPS-Star
- Mechanical wastewater pre-treatment for membrane bioreactors
- Two new HUBER Rotary Drum Fine Screens ROTAMAT® Ro2 2600 XL for Salzburg-Siggerwiesen WWTP
- The HUBER ROTAMAT® family – proven technology for large projects

Design Sketch



Principal sketch



The different Rotary Drum Fine Screen and Perforated Plate models: ROTAMAT® Ro2 / RPPS / STAR

Media





Video: HUBER Rotary Drum Fine Screen ROTAMAT® Ro2 for municipal inlet screening
https://www.youtube.com/watch?v=vylieOQUR_9o



Video: HUBER Rotary Drum Fine Screen ROTAMAT® Ro2 for preliminary wastewater treatment in meat processing industry
<https://www.youtube.com/watch?v=HvwV0BaLd68>



Video: HUBER Rotary Drum Fine Screen ROTAMAT® Ro2 in a grit treatment process for wash-out of organics
<https://www.youtube.com/watch?v=a2fl9eGOEsk>

More products of this group: ROTAMAT® Screens

- HUBER Fine Screen ROTAMAT® Ro1
- HUBER Micro Strainer ROTAMAT® Ro9
- HUBER Complete Plant ROTAMAT® Ro5
- HUBER Complete Plant Hydro Duct ROTAMAT® Ro5 HD
- HUBER Coanda Complete Plant ROTAMAT® Ro5 C
- HUBER Membrane Screen ROTAMAT® RoMem
- HUBER Pumping Stations Screen ROTAMAT® RoK4

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