

ROTAMAT® Ro 9 Screw Screen



Fine screen for flows of up to 4 MGD

- with integrated screenings washing and compaction
- for channel installation or supplied in a tank
- with optional frost protection for outdoor installation

Applications

- Pre-treatment of municipal wastewater for small size plants
- ➤ Industrial wastewater treatment / product recovery
- ➤ Water treatment

Objectives

- > Reduce scum formation on clarifiers and other tanks
- Prevent clogging of aerators, mixers, pumps, pipes and other equipment
- ➤ Minimize cleaning and maintenance work
- > Improve plant operation and effluent quality
- Keep debris out of sludge and biosolids
- ➤ Minimize screenings mass, volume and disposal costs
- > Fully enclosed for odor control
- ➤ Return fecal matter into wastewater flow

>>> Function

Wastewater flows into an inclined semi-circular screen basket and through the screen. Controlled via the screens head loss, a helical screw rotates within the screen basket. The screw's flights are provided with a trailing brush for screen cleaning. The brush trails the flights to prevent it from being squeezed between the flights and the screen, thus reducing wear and maintenance.

The shafted screw conveys the screenings upward into and through an inclined auger tube. The screw flights have a conical shape to permit them to ride on the screenings and not on the brush. Both the screw and the

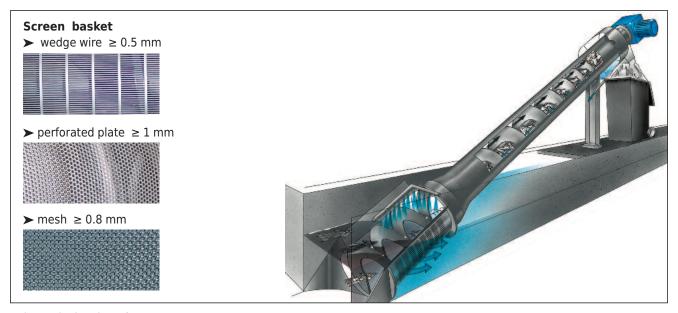
screen are made of stainless steel to prevent electrochemical contact corrosion.

Our Ro 9 screens are commonly supplied with integrated screenings washing (IRGA). Wash water is sprayed on the screenings in the semi-circular screen basket and also into the lower end of the auger tube. An alternative is our external screenings washing system (ERGA). Fecal matter remains in the wastewater flow, and its BOD is available for denitrification processes.

As the screenings are conveyed and pushed through the auger tube, they are dewatered and compacted. Solids concentration of about 40 %DS are achievable.

Benefits

- ➤ Great value
- > Quick and easy installation or retrofit
- ➤ Reliable, self-cleansing operation
- > Sturdy design with shafted stainless steel screw
- ➤ Long brush life, low maintenance
- ➤ Integrated screenings washing and compaction
- ➤ Low screenings disposal costs
- ➤ Fully enclosed for odor control
- ➤ Optional frost-protection for outdoor installation
- ➤ Full passivation by submergence in a pickling bath for perfect finishing and corrosion protection





Integrated screenings washing (IRGA) or external screenings washing (ERGA)

- ➤ Effective and efficient screenings washing
- > Quick and easy installation or retrofit
- ➤ Clean and virtually odorless screenings
- ➤ Fecal matter returns to the wastewater and its BOD remains available for denitrification processes
- ➤ Weight reduction by about 50 %
- ➤ Compaction to about 40 %DS
- No need for spray water (ERGA) where service water is not available



Integrated screenings washing system (IRGA): wash water is sprayed on the screenings in the semicylindrical screen and into the lower end of the auger tube



External screenings washing system (ERGA): An upstream propeller generates turbulence and agitates the screenings in the screen basket - this saves wash water

Extended Version Ro 9 XL

- ➤ Longer screen basket
- ➤ For higher or widely varying flows
- ➤ For deeper channels
- > Screw shafted to the bottom
- Maintenance-free ceramic bearing at the bottom
- ➤ No weight on brush
- > Extended brush life



ROTAMAT® Ro 9 XL Screw Screen with maintenance-free ceramic bearing at the bottom

>>> Economy version Ro 9 Ec

- ➤ Low cost
- ➤ Fair value
- ➤ No need for wash water
- ➤ Channel or tank installation
- ➤ Small footprint
- ➤ available in size 300 or 500



Tank-mounted ROTAMAT® Ro 9 Ec Screw Screen



>>> Examples from thousands of installations



Installation in the center of a traffic circle



Supplied in a tank and with a bagger



Outdoor installation with frost-protection



Indoor installation in a channel, with a bagger

>>> Technical Data

Screen basket diameter: 300, 400, 500, 700 mm

(12, 16, 20, 28 inch)

Inclination: up to 48° Wedge wire spacing: ≥ 0.5mm Perforation diameter: ≥ 1 mm Mesh size: ≥ 0.8 mm

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