

ROTAMAT® Fine Screen Ro 1

THE ORIGINAL
ROTAMAT®!!!



The sturdy fine screen for wastewater and sludge

- for channel installation or tank-mounted
- with integrated screenings washing and pressing
- with optional frost-protection
- made of stainless steel, pickled in an acid bath



►► Applications

- Pretreatment at wastewater treatment plants
- Industrial wastewater treatment
- Sludge screening
- Scum and grease screening
- Water treatment plants

►► Objectives

- Reduced scum formation on clarifiers and tanks
- No clogging of aerators, pumps, pipes and other equipment
- Reduced cleaning and maintenance work
- Improved plant operation and effluent quality
- No coarse material in sludge and improved sludge treatment
- Reduced sludge production and sludge disposal costs
- Dewatered and compacted screenings
- Return of fecal matter to wastewater treatment (with IRGA)
- Prevention of odor nuisance (with basket cover and bagger)

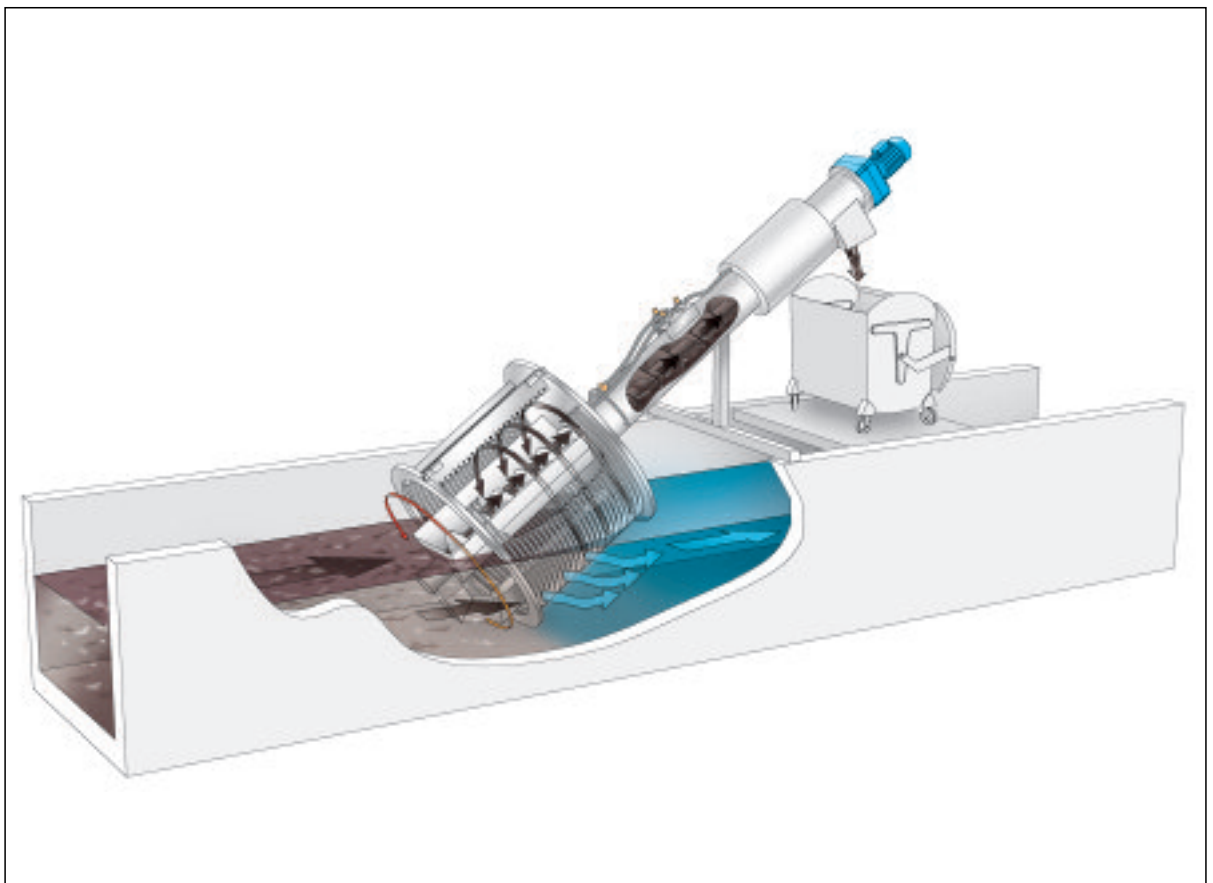
►► Features

ROTAMAT® Fine Screens are either installed directly into channels, or are supplied as tank-mounted units.

Wastewater flows into the open end of the inclined screen basket and then through the screen. Floating and suspended materials are retained by the bars of the screen basket. They form a screenings carpet thereby further improving the capture rate.

Controlled by the head loss, a rake arm starts rotating within the screen basket. The rake's tines fully penetrate the spaces between the screen bars thus guaranteeing positive cleaning of the screen. The rake is driven through its 12 o'clock position where a hinged comb is attached. The comb pushes the screenings off the rake. They drop into a perforated screenings hopper that is located at the screen's central axis.

A shafted screw is supported by a maintenance-free bearing. The screw rotates together with the rake and conveys the screenings from the hopper through an inclined auger tube. If the Ro 1 is provided with an IRGA, the screenings are washed and virtually all fecal matter removed and returned into the wastewater flow. The screenings are dewatered and compressed within the auger tube and then discharged at its upper end. They drop into a container or bagger.



►► Integrated Screenings Washing (IRGA)

Most ROTAMAT® Fine Screens are provided with integrated screenings washing IRGA. With this option, a spray bar is installed above the screenings hopper. In addition, three spray nozzles are installed around the auger tube. Water spraying is automatically controlled by solenoid valves.

- Fecal matter is washed out and returned
- Improved screenings compaction to about 40 % DS
- Further reduction of screenings weight and volume by up to 50 %
- Further reduction of disposal costs
- Virtually odorless screenings
- Low-cost screenings washing
- Quick and easy installation
- Easy to retrofit



ROTAMAT® Fine Screen Ro 1 installed in a channel; with integrated screenings washing (IRGA) and spray guard

►► Benefits

► **Good capture rate**

Retention of fibers and other thin objects is superior to conventional bar screens with the same spacing. The capture rate is further improved by a screenings carpet

► **Low head loss**

Due to the basket's shape and 35° inclination, the screen area is much larger than that of a vertical or steeply inclined conventional bar screen

► **High screenings capacity**

Due to the possibility of frequent rake rotation, the Ro 1 can remove more screenings than climber screens with their slow rake mechanism

► **Low disposal costs**

Volume, weight and disposal costs of the compacted screenings are minimized by integrated washing and compaction

► **Multi-functional and compact**

A single unit with a single drive provides many functions: Screening, raking, screenings conveying, washing (optional), dewatering, compaction and bagging (optional)

► **Reliable, self-cleansing operation**

No impairment by grit, sludge and grease. Positive cleaning is guaranteed due to full engagement of the rake's tines

► **Enclosed, no odor nuisance**

A fully enclosed unit, equipped with a bagger, is virtually odorless

► **Outdoor installation**

Optional frost-protection for outdoor installation

► **Low maintenance**

No lubrication. Regular checking of the controls and visual inspection are sufficient

► **Long life**

Made of stainless steel, pickled in an acid bath for best finishing and corrosion protection

► **Experience**

Thousands of installations

►► A few Examples from
Thousands of Installations



Outdoor Installation with frost-protection and bagger



Four ROAMAT® Fine Screens Ro 1 installed in parallel channels



ROTAMAT® Fine Screen Ro 1 in a tank



A pair of ROTAMAT® Fine Screens Ro1 with spray guards

►► Screen Sizes

Bar spacing: $\frac{1}{4}$ " or $\frac{3}{8}$ " (6 or 10 mm);
other spacing on request

Screen basket diameter: 2 to 10 ft (0.6 to 3 m)

Inclination: 35°

HUBER TECHNOLOGY, Inc.

9805 NorthCross Center Ct.
Suite H
Huntersville, NC 28078

Phone: (704) 949 - 1010

Fax: (704) 949 - 1020

huber@hhusa.net

<http://www.huber-technology.com>

Subject to technical modification

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