

# ROTAMAT® Micro Strainer Ro 9



Wastewater screen for small to medium flows

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



## ►► The challenge – Our solution

Both municipal wastewater treatment plants and industrial applications require mechanical treatment as a first treatment step to remove as much as possible of the floating, settling and suspended material.

The aim is to achieve the maximum separation efficiency under the prevailing hydraulic conditions. Operating reliability, efficiency and hygienic operation are important factors for a mechanical separation plant.

The ROTAMAT® Micro Strainer Ro 9 operation is based upon a unique system that allows combination of screening, washing, transport, compaction and dewatering in a single unit.

Depending on the screen bar spacing or perforation and screen size (up to 700 mm screen basket diameter), the throughput can be individually adjusted to specific site requirements.

The ROTAMAT® Micro Strainer is completely made of stainless steel and acid treated in a pickling bath.

The screen can be installed either directly in the channel or in a separate tank.

### Design and function

The ROTAMAT® Micro Strainer is installed directly in the channel or in a separate tank. Whilst the wastewater flows in through the open front end of the screen basket and through the screen bars or perforations, solids are retained by the screen basket, whereby the separation of floating, settling and suspended solids is dependent upon the screen bar spacing or perforation size.

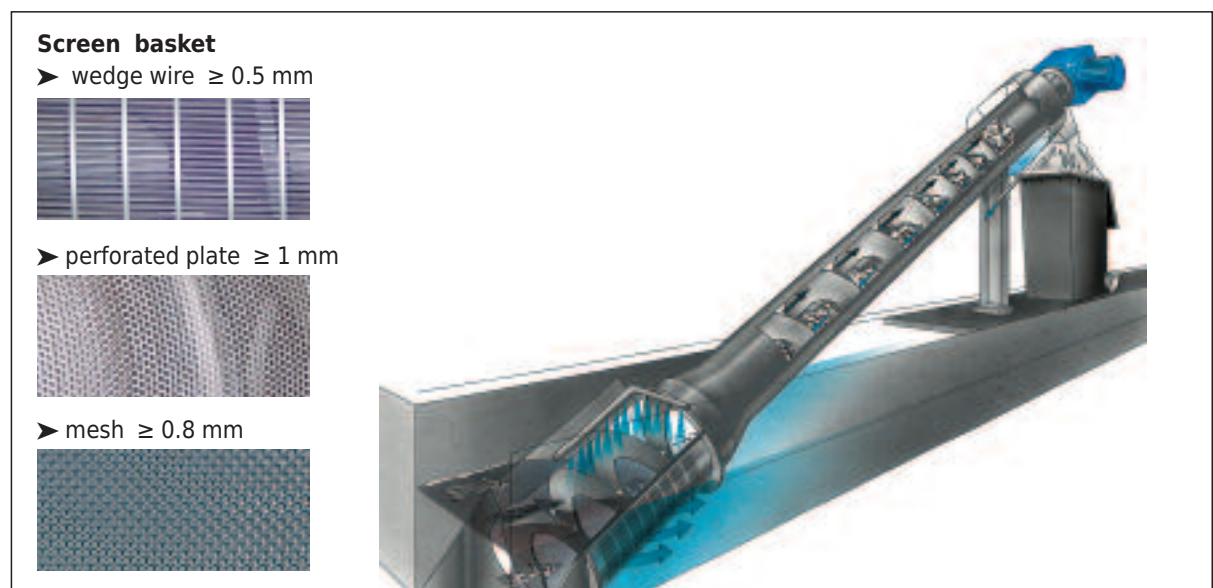
Blinding of the screen surface generates an additional filtering effect so that solids can be retained that are smaller than the bar spacing or perforation. The basket starts to rotate when a certain upstream water level is exceeded due to screen surface blinding.

A robust stainless steel screw removes the screenings from the screen basket surface. Additional cleaning is achieved by wear-resistant brushes fitted to the screw flights. The screw conveyor transports the screenings through a closed and inclined pipe.

Whilst the screenings are transported, the screw conveyor dewateres and compacts them without any odour annoyance prior to discharging them into the customer's container or a subsequent conveying unit.

### The user's benefits

- Low investment costs
- Quick and easy installation, even as a retrofit
- Reliable self-cleaning of the screening area by means of the stainless steel screw flights and wear-resistant brushes
- All stainless steel construction, therefore virtually unlimited life and no maintenance
- Encapsulated, odour-free plant
- Low disposal costs due to integrated screenings washing and compaction
- Optional frost-protected unit for outdoor installation – No building required



Schematic drawing of a ROTAMAT® Micro Strainer Ro 9

## ➤➤ Integrated screenings washing (IRGA) or external screenings washing (ERGA) system

When the clarification process is to be optimised, the integrated screenings washing system is a well-proven instrument to improve the nitrogen/carbon ratio and save costs. As the soluble matter is separated from the inert material, faeces are virtually completely washed out which leads to a significant weight reduction.

- Optimal cost/performance ratio
- Easy retrofit
- Minimised disposal costs
- Improved operating and hygienic conditions
- Virtually complete washout of faeces
- Weight reduction by approx. 50 %
- Dewatering performance of up to 40 % DS



*Integrated screenings washing system (IRGA). The ROTAMAT® principle allows for integration of the screenings washing system directly in the lower end of the rising pipe.*



*External screenings washing system (ERGA). A preceding washing system washes out the organic matter.*

## ➤➤ ROTAMAT® Micro Strainer Ro 9 XL version with an extended screen basket

The ROTAMAT® Micro Strainer Ro 9 XL version with an extended screen basket for a higher throughput is especially suited for narrow and deep channels. The long screen basket (400/500 mm diameter) is able to handle greatly varying dry weather and stormwater flows.

- Extended screen basket available in two lengths
- Size 400 and 500
- For greatly varying inflows
- Lower maintenance-free ceramic bearing



*ROTAMAT® Micro Strainer Ro 9 XL with lower maintenance-free ceramic bearing*

## ➤➤ ROTAMAT® Micro Strainer economy version Ro 9Ec

The ROTAMAT® Ro 9Ec is a low-cost version of the ROTAMAT® Micro Strainer Ro 9 with the following special features:

- Best cost/performance ratio
- No additional wash water required due to the reduced screenings compaction
- For installation directly in the channel or in a tank
- Size 300 and 500
- Wedge wire screen basket or perforated plate basket available



*Tank-mounted ROTAMAT® Micro Strainer Ro 9Ec*

►► Installation examples



*ROTAMAT® Micro Strainer installed in the middle of a roundabout*



*Tank installation of a ROTAMAT® Micro Strainer*



*Outdoor installation of a standard ROTAMAT® Micro Strainer*



*ROTAMAT® Micro Strainer size 700 installed in the channel*

►► Screen sizes

Screen basket diameter: 300, 400, 500, 700 mm  
Installation angle: variable up to 48°

Bar spacing:  $\geq 0.5\text{mm}$   
Perforation:  $\geq 1\text{ mm}$   
Mesh:  $\geq 0.8\text{ mm}$

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Subject to technical modification

**ROTAMAT®**  
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