



A brand of
Aqseptence Group

Noggerath® Rotary Drum Screen RSH-M / RSH-MG

The separation of very fine solid particles from water and wastewater using state-of-the-art micro screening technology.



Passavant-Geiger offers you versatile micro screening drum systems with proven results as being both effective and economical in a wide range of applications.

The heart of the Noggerath® Rotary Drum Screens RSH-M / RSH-MG is a rotary drum consisting of sieve baskets which are connected with each other.

The system can be installed either in a concrete chamber, a stainless steel or plastic tank. With our RSH-MG-D design we integrate additional key features as they relate to the growing demand for water and wastewater treatment and also the increasing application of membrane technology like screenings pressing and drum sealing to avoid solid.

The micro screening drum system offers an effective and very economical alternative to conventional screening technologies in municipal wastewater applications.

Benefits

- High flow rate and low headloss due to optimal hydraulic characteristics using curved screen panels
- Integrated emergency overflow
- Blades installed in the screen baskets prevent screenings from falling back into the raw water
- Direct drive by means of a gear wheel

Function

The raw water passes through the screen drum cage from the inside to the outside, leaving solid particles on the inner surface of the screen. The resulting buildup on the screen surface blinds the mesh openings causing a pressure loss across the screen. When a defined difference is detected between the upstream and downstream water the drum begins to rotate. During the rotating movement, the screen mesh is backwashed with an external spraying

device. This spraying device is located in the apex of the micro screening machine. The cleaning of the screen panels improves the filtration performance and reduces the water level differential, resulting in the drum stopping its rotation.

The cleaning water and screenings are directed out of the drum via the internal launder channel, a screenings press or a spiral conveyor.

Unique features

- Internal feed prevents an accumulation of solids in the recesses of a channel installation
- No accumulation of sludge within the drum as the screened solids are continuously and entirely removed

Applications & fields of operation

Surface water treatment

- Potable water treatment
- Pre-treatment stage for the removal of sediments and organic content upstream of a filter basin
- Reduced demands on downstream gravel filter, reverse osmosis or UV installations
- Treatment of storm water from overflow tanks
- Provision of service water in paper, chemical or pharmaceutical industries and in power stations
- Treatment of circulation water from cooling towers in the chemical or paper industry
- Removal of algae from running water
- Purification of fish farming water
- Protection against algae clogging of spraying installations in field irrigation
- Recovery of recyclable matter

Wastewater treatment

- Fine treatment of wastewater discharge from secondary clarification basins
- Reduction of solids content in wastewater
- Protection and purification of sensitive or low water receiving water courses in holiday or recreational regions
- Relief of strain on downstream gravel filter, reverse osmosis or UV installations
- Treatment of rainwater from rainwater overflow tanks
- Removal of hair and other particles from wastewater upstream of membrane systems to avoid pig tailing and rope like accumulations
- Retention of flocs from upstream phosphate precipitation
- Pre-treatment of wastewater to protect downstream processes

Materials

Our micro screening drum systems are manufactured exclusively in top quality durable materials:

Components in contact with medium	Stainless steel AISI 304 alternatively AISI 316L Others on request
Bearing segments, toothed segments of the pin rack	Nylon (Polyamide)
Bearing seals	NBR 60
Screen mesh	Stainless steel or polyester
Drive covers	Fiberglass



Rotary Drum
Screen in tank
RSH-MG



sieve baskets
and sprocket,
RSH-M

Product variants & design sizes

Noggerath® Rotary Drum Screen RSH-MG model

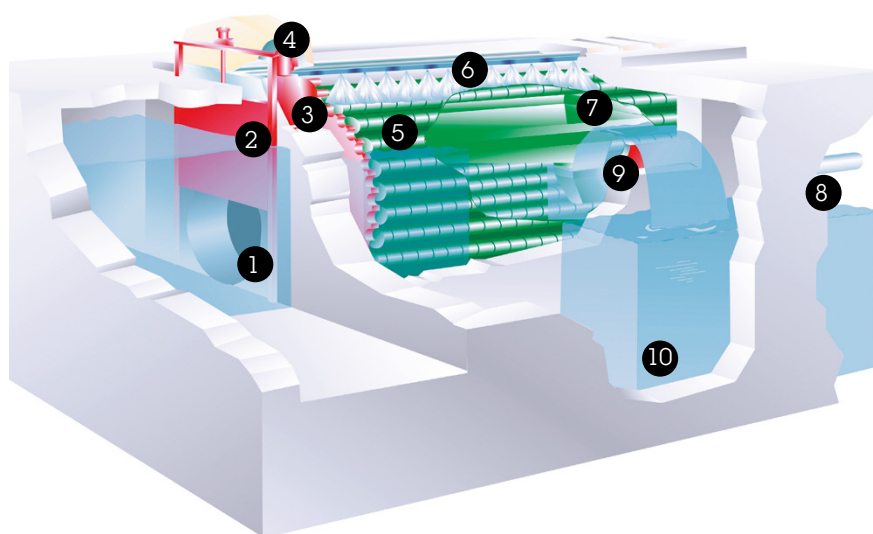
	Channel	Tank
Drum diameter [mm]	1,000 – 4,000	1,000 – 4,000
Drum length [mm]	1,000 – 4,500	1,000 – 2,500
Screen mesh width [μm]	200–1,000	200–1,000
Flow rate [m^3/h]	up to 7,500	up to 3,500

Noggerath® Rotary Drum Screen RSH-M model

	Channel	Tank
Drum diameter [mm]	1,000 – 4,000	1,000 – 4,000
Drum length [mm]	1,000 – 4,500	1,000 – 2,500
Screen mesh width [μm]	5–250	5–250
Flow rate [m^3/h]	up to 5,000	up to 2,500

Larger types on request.

- **Sieve panel shape:** curved or flat
- **Screenings discharge:** via a trough, spiral conveyor, or screenings press
- **Screenings backwash:** utilization of compressed air, flushing water or the combination of compressed air and flushing water



operating cycle for
micro screening
drum system RSH-M

- | | |
|-------------------|----------------------|
| ① raw water inlet | ⑥ washing device |
| ② inlet penstock | ⑦ wastewater launder |
| ③ drive unit | ⑧ wastewater outlet |
| ④ cover plate | ⑨ overflow weir |
| ⑤ sieve baskets | ⑩ clean water outlet |

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