

ROTAMAT® Storm Screen for stormwater discharges RoK 2



- Automatically cleaned screen for solids retention in stormwater tanks and overflows
- Efficient solids separation
 - Continuous automatic screen cleaning
 - Maximum adaptability
 - Ideal for combination with water retention elements
 - Sturdy, low-maintenance stainless steel design

►► The situation

During and after storm events large amounts of debris are discharged to streams, rivers and lakes through storm water overflows of combined and sanitary sewer systems. Frequently, even the installation of scum boards is insufficient to prevent such pollution. The polluting items, such as sanitary products, toilet paper, faeces, plastic foils, etc. are not only unsightly but also responsible for considerable cleaning and/or disposal costs. On the basis of the DWA sheet A 128 (an instruction issued by an association dealing with wastewater treatment) efforts to fundamentally improve the protection of waters in this sector have been increased. Particularly endangered receiving water courses and nature preservation areas require more extensive measures concerning the treatment of stormwater.



Unsightly matter discharged during storm events, typical for stormwater discharges without coarse material retention

►► The solution

The inverted upward flow storm screen ROTAMAT® RoK 2 is the ideal solution for this task, whether for new structures or refurbishment. The screen belongs to a group of fine screens designed for high flow rates at an extremely low hydraulic resistance. Two-dimensional screening guarantees a very high solids retention combined with automatic, gentle cleaning of the perforated plate.

►► The function

RoK 1 screens are horizontally installed at the upstream side of overflow weirs. A screw flight is mounted on a half cylinder of perforated plate. As the stormwater flows through the horizontal perforated half-pipe of the screen through the solids are retained. A screw, with a brush attached on its flights, rotates within the semi-circular screen trough. It cleans the screen and pushes the separated solids gently towards the lateral discharge. The screenings remain on the polluted water side of the screen from where they are taken along with the wastewater flow. During storm conditions the screen is automatically started and then works fully automatically.



ROTAMAT® Storm Screen RoK 2 installed at a stormwater discharge

►► The installation conditions

The HUBER ROTAMAT® Storm Screen RoK 2 can be flexibly installed on the left or right side of the weir overflow to optimally meet different local hydraulic conditions. Even if the flow rate is low, the oncoming flow approaches the full screen basket length and the screenings are removed gently without blockage so that a high separation performance is achieved and the headloss minimized mechanically.

►► The applications

HUBER ROTAMAT® Storm Screens RoK 2 can be used for a variety of applications in the combined sewage sector.

To avoid another point of maintenance it is generally not intended to remove screenings from the structure. Instead, the screenings remain within the sewer or tank and are introduced into the wastewater treatment plant after the storm event.

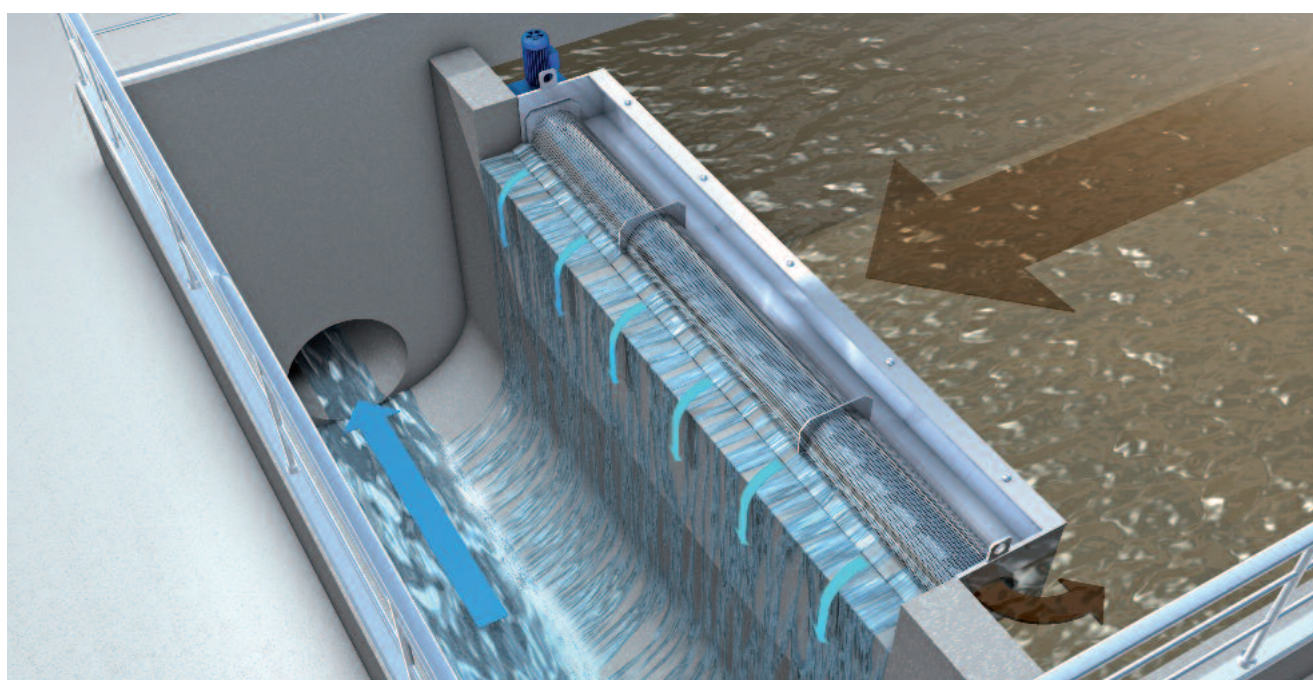


ROTAMAT® Storm Screen RoK 2 after completed installation

►► The user's benefits

The screen is installed in front of the weir overflow. This design results in the following favourable benefits:

- Optimal solids retention by means of two-dimensional screening (perforated plate)
- Screenings remain on the polluted water side
- No downstream impact on the screen efficiency
- For problem-free retrofitting into existing structures
- The perfect solution for discharges with limited upstream head possibilities
- Possibility of completely submerging the screen



Flow diagram of a ROTAMAT® Storm Screen RoK 2 installed at a weir overflow

►► Installation examples

A selection of installation examples
will convince you of the HUBER ROTAMAT® Storm Screen RoK 2



HUBER ROTAMAT® Storm Screen RoK 2
before overflow



ROTAMAT® Storm Screen RoK 2 with an integrated
gauging weir for overflow measurement



View of the downstream side of a ROTAMAT® Storm
Screen RoK 2



View of the upstream side and lateral screenings
discharge opening

►► Screen sizes

Screen selection and sizing depends on specific hydraulic
requirements and structural conditions.

Trough diameter:
300, 500, 700, 1000 mm

Perforation:
6 mm standard,
other perforations available on request

Trough length:
up to 10 m

Capacity:
up to 10 m³/sec

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Subject to technical modification
1.0 / 4 – 8.2010 – 9.2004

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