

# Multi-Rake Bar Screen RakeMax®



# Sturdy bar screen with traveling rakes:

- for coarse to fine screening
- for combined or separate sewer systems
- for deep and very deep channels
- for high screenings loads

#### >>> Features

The RakeMax® is a bar screen with a spacing from  $^{1}/_{4}$ " to 6" (6 to 150 mm). Its bars have either a streamlined tear drop profile (spacing  $\leq$  12 mm) or a rectangular shape (spacing > 12 mm).

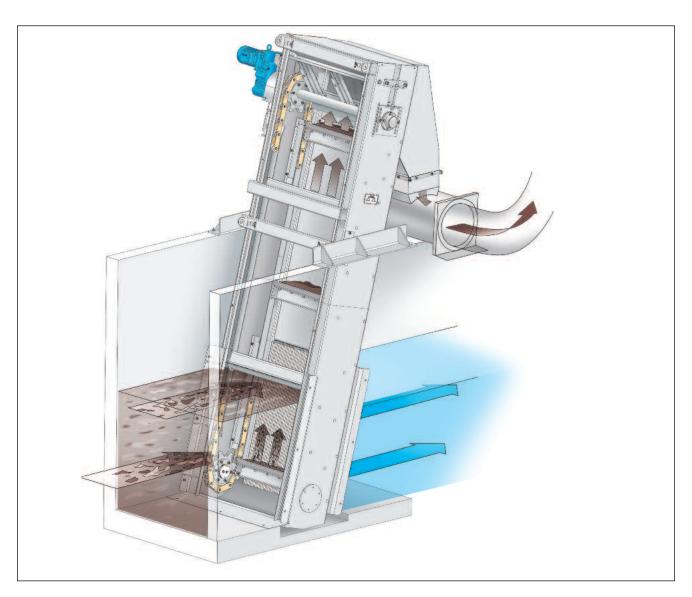
The bar rack is an integral part of the sturdy frame, which ensures perfect meshing of the rake teeth with the bar spaces. Positive and reliable cleaning is thus guaranteed.

A multitude of rake bars are bolted at selectable distances to a pair of drive chains. With short distances between its rakes, the RakeMax® is able to remove extremely high screenings loads. The rake blades are made of sections that are bolted to the rake bars, thus facilitating easy replacement of a segment in case that its teeth should become damaged or worn.

Chain rollers, made of wear-resistant polyamide, guide the chains exactly within the frame. The chains are driven by a pair of cogwheels. The plastic rollers also prevent wear between the chains and the cogwheels. The drive is connected with the frame through a spring; if the torque exceeds a certain value, due to any obstruction in the bar rack, a switch is pushed and the movement is reversed back and forth until the obstruction is loosened. Should the obstruction persist several reversals, an alarm is triggered. Self-destruction of the screen is thus prevented.

Chains and cogwheels are made of hardened, zinc galvanized and chromated steel to combine great wear-resistance with excellent corrosion-protection. They are also available in stainless steel. The maintenance-free ceramic bearings of the lower cogwheels are well-proven in thousands of ROTAMAT® installations.

The RakeMax® has a small height above the operating floor. In spite of its outstanding discharge height of up to 65 ft (20 m) above the channel floor, the RakeMax® fits into virtually any building.





#### >>> Benefits

- ➤ Fine to coarse screen with low head loss
- ➤ Removal of extremely high screenings loads
- ➤ Unimpaired by grit
- ➤ Low height above operating level
- ➤ Enclosure prevents odor nuisance
- ➤ Frame-mounted bar rack for exact rake engagement and reliable cleaning
- Mechanical overload-prevention and automatic reverse
- > Easily accessible chain tensioning system

- Independently replaceable rake bars and blade sections
- Well-proven, maintenance-free lower ceramic bearings
- Sturdy design, excellent manufacturing with small tolerances
- ➤ Made of stainless steel, pickled in an acid bath for perfect finishing and corrosion protection

### Details



Traveling rakes are bolted to the drive chains; individual sections of the rake blades can be exchanged in case that teeth should become damaged or worn; the ceramic bearings are maintenance-free (no lubrication)



Cog wheel and chain are made of hardened, wearresistant steel that is zinc -galvanized and chromated for long-term corrosion protection; alternatively, wheels and chains can be made of stainless steel



Bar rack with a spacing of 1/4 inch (6 mm); the bars have a streamlined tear drop profile resulting in low head loss and avoiding jamming; RakeMax screens are unimpaired by grit and gravel



A torque restrictor reliably protects the screen against damage. The screen's controls combine reliability with adjustability.



# >>> Installation Examples



60 ft long and 6 ft wide RakeMax after successful factory testing



Complete enclosure for odor control; the chain tensioning system at the side of the frame is easily accessible

# >>> Applications

The RakeMax® is the ideal screen for the following applications:

- ➤ Combined sewer systems
- ➤ Deep to very deep channels
- ➤ High screenings loads
- > Combined sewer overflows (CSO) and sanitary sewer overflows (SSO)



#### Dimensions

Bar spacing:  $\geq 1/4$ " ( $\geq 6$  mm) Channel width: Up to 13.1 ft (4 m)

Discharge height

above channel floor: Up to 65 ft (20 m)

Inclination: 70° to 85°



1/4 inch (6 mm) RakeMax feeding into a Super-Launder Washpress WAP/SL for perfect screenings washing and compaction

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Subject to technical modification 0,0/7 - 3.2011 - 8.2004

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