

HUBER Multi-Rake Bar Screen RakeMax[®] CF



The innovative variant of the well-proven HUBER Multi-Rake Bar Screen RakeMax[®]

- High hydraulic throughput capacity even with small bar spacings and narrow channels due to a U-shaped bar rack
- Optimal hydraulic utilisation of existing channels
- Unsusceptible to grit, gravel and stones

►► Design and function

The HUBER Multi-Rake Bar Screen RakeMax® CF is perfectly suited to serve both municipal or industrial wastewater, and process water screening.

The HUBER RakeMax® CF consists of a U-shaped stationary bar rack installed between the two screen frames, parallel to the flow direction of the wastewater. Whilst the wastewater flows into the open front side of the screen and out through both the left and right bar rack, solids are retained on the inner surface of the U-shaped bar rack.

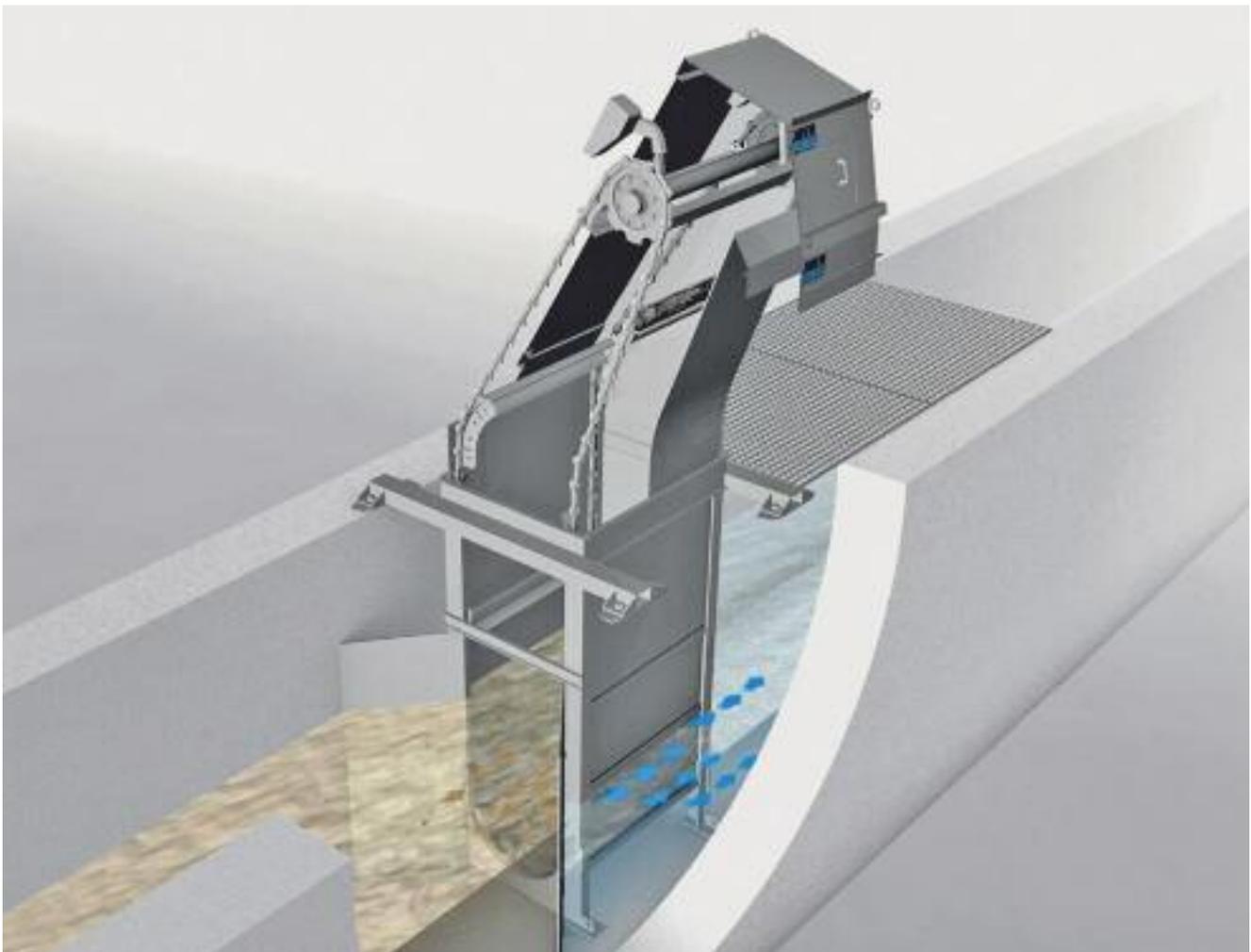
The solids retained on the bar rack lead to gradual blinding of the bar rack surface which has an impact on the level difference in the channel. Cleaning of the screen bars starts at a defined water level in the channel upstream of the screen. The RakeMax® CF achieves this with its cleaning elements attached to the chain system.

The discharge capacity can be adjusted to individual requirements as the number of screening elements attached to the chain system is variable.

Due to the specific design of the RakeMax® CF screen its height above floor is very low and, even in case of deep channels, only dependent on the installation height of the downstream screenings transport or washing system.

If the screen operation is blocked, an electric control reliably protects the screen against damage caused by overload.

At the end of the bar rack cleaning cycle the rake is positively cleaned by a pivoted comb which reliably discharges the removed screenings into a downstream transport or disposal unit. The easy to access and maintain drive unit is installed above the channel.



Schematic drawing of the HUBER Multi-Rake Bar Screen RakeMax® CF with its U-shaped bar rack for an increased hydraulic throughput capacity

►► Design features

Due to its different design options the RakeMax® CF covers a very wide range of applications, allowing us to respond to the individual needs of our customers and to specific constructional and hydraulic site conditions. The special features presented here are only a selection of the possibilities the RakeMax® CF provides.

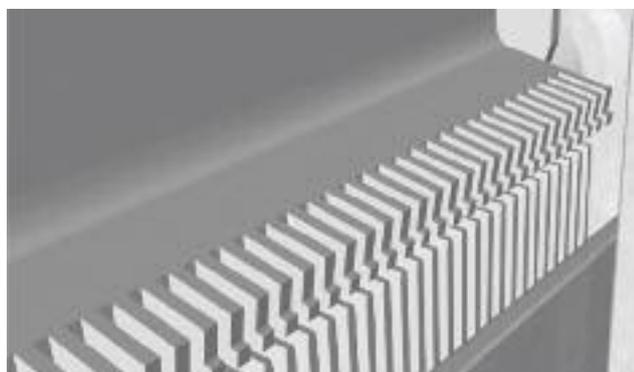
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The RakeMax® CF offers extra high hydraulic throughput capacity, in addition to all the well-known benefits of the proven RakeMax®, i.e. reliable solids separation and high screenings discharge capacity. These features of the RakeMax® CF permit for optimal and economical system dimensioning, it is space-saving and reduces civil costs.

Due to a rigid bottom chain return system no moving parts of the RakeMax® CF are submerged in the water.



The rake tines, fully engaging with the bar rack, prevent jamming of solids in the bar spacings.



Moreover, the screen proves its insensitivity to abrasive materials, such as grit and gravel, as the screen rake engages above the bar rack.



The deflection of the flow improves the filter effect of the bar rack and increases solids separation efficiency.

►► The benefits of the HUBER Multi-Rake Bar Screen RakeMax® CF at a glance

- High hydraulic throughput capacity even with small bar spacings and narrow channels due to a U-shaped bar rack
- Optimal hydraulic utilisation of existing channels
- Very low headloss – high separation efficiency
- Defined meshing of the cleaning rakes with the bar rack ensures a high operating reliability.
- Screen installation possible without a bottom step
- Compact design with a low installation height above ground level
- Completely odour-encased screen with easy to remove covers
- Easy-to-retrofit into existing channels, installation without channel recesses possible
- The screen is a sturdy self-supporting stainless steel construction and therefore can easily be lifted out of the channel.
- Not hindered by gravel or grit
- Simple and easy-to-access chain tensioning unit
- All machine components in contact with the medium are made of stainless steel and acid treated in a pickling bath (except chains, pinions, drives and bearings). The chains and chain wheels are optionally available in stainless steel.
- High screenings discharge capacity through a variable number of screen rakes
- Automatic scraper mechanism, no service water required
- Optional integrated emergency overflow

►► Installation examples



The HUBER Multi-Rake Bar Screen RakeMax® CF is an universally applicable screen for both new and existing structures.



The RakeMax® CF combines the benefits of maximum free screen surface and very high separation efficiency. Moreover, it is space-saving and reduces civil costs.

►► Screen sizes

Channel width: 1 - 3 m
Discharge height above channel floor up to 20 m

Bar spacings: 4 - 50 mm
Installation angle: screen section 90°/ discharge section 70°

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