HUBER TECHNOLOGY
WASTE WATER Solutions

HUBER RakeMax® HF (high flow) Multi-Rake Bar Screen

Reliable separation of solids from wastewater

- Low headloss due to the large effective bar rack surface
- High screenings discharge capacity
- Well-proven design based on the RakeMax® principle

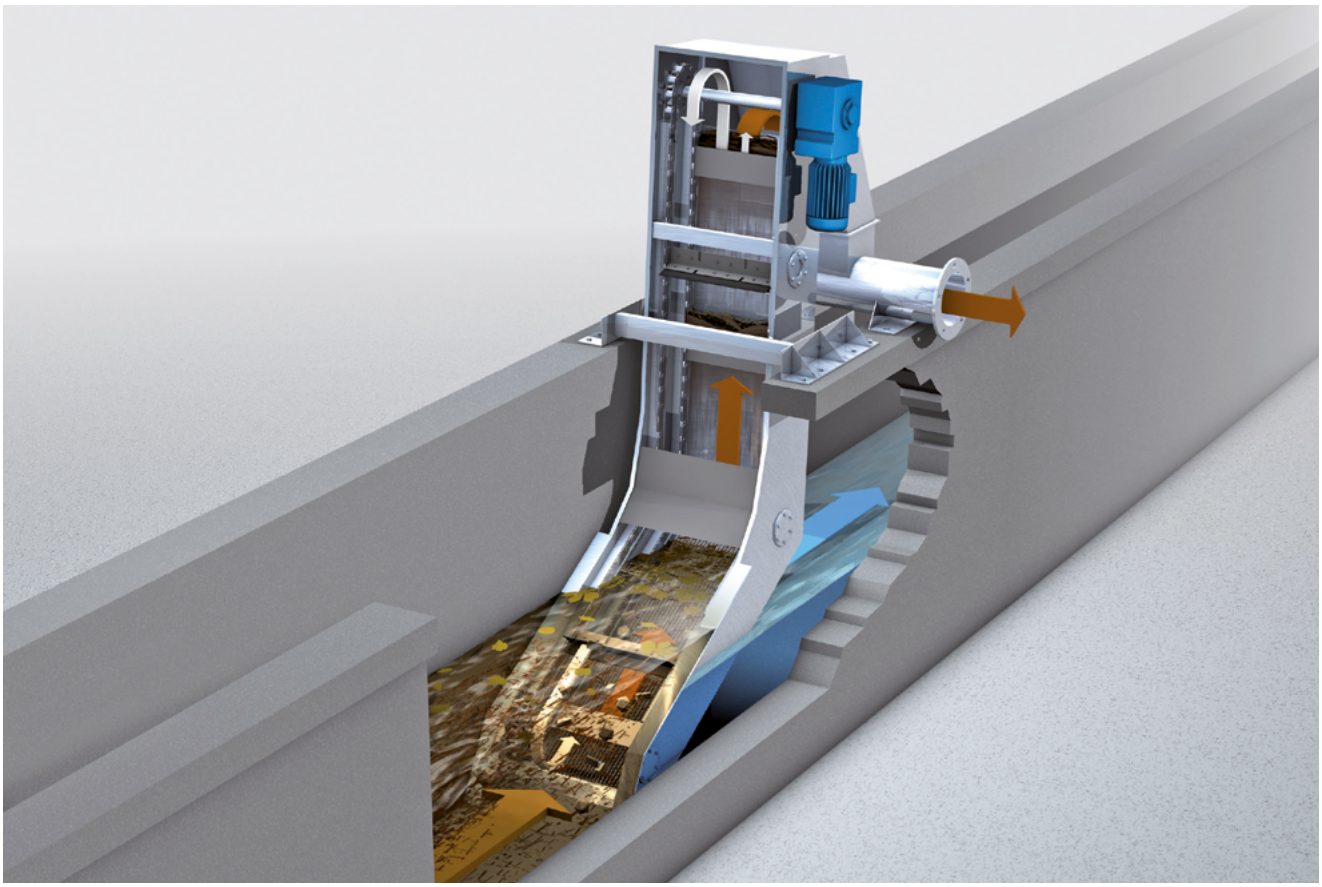
More information, downloads and current news

www.huber-technology.com

Design and function

The HUBER RakeMax® HF Multi-Rake Bar Screen is the ‘high flow’ version and further development of the successful HUBER RakeMax® Multi-Rake Bar Screen that is well-proven in hundreds of installation. The HUBER RakeMax HF® screen consists of two different sections: The flat bottom section provides a large screening surface and favourable hydraulic conditions, the steep conveying section ensures screening on a small footprint. Material removal starts virtually right at the bar rack mounted flat to the channel bottom so that any accumulation of disturbing material is eliminated. The optimal approaching flow conditions and large effective bar rack surface ensure a high hydraulic throughput capacity. The cleaning elements, attached to the chain system, can easily be adjusted to different requirements so that a highly variable screenings discharge capacity is achieved. This is especially favourable for high solids loads. Depending on the size of bar spacing, the bar rack design is either a flow-optimising bar or non-blocking wedge wire profile.

Both ends of the cleaning elements are connected to drive chains. Each chain is driven by a sprocket on a common shaft and a flange mounted gear motor.
At the end of the bar rack cleaning cycle the cleaning elements are cleaned by a pivoted comb that reliably discharges the removed screenings into a downstream transport, washing or disposal unit. The easy to access and maintain drive unit is installed above the channel. Due to the screen’s compact design its height above floor is very low.

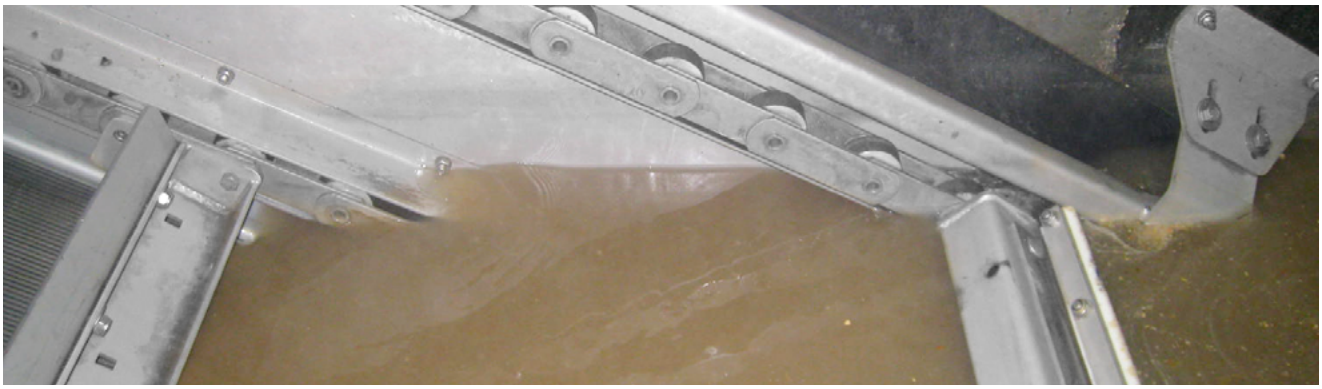


The schematic drawing of the RakeMax® HF screen shows the transition from the flat bar rack providing favourable hydraulic conditions to the steep bar rack section.

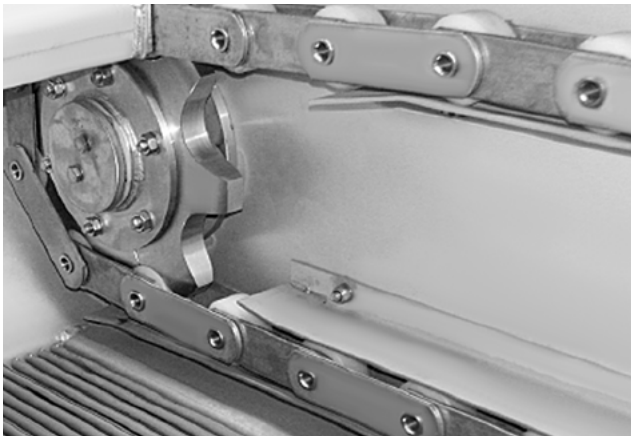
Benefits

- High hydraulic capacity due to the extremely flat installation angle of the bar rack
- High operating reliability due to defined meshing of the cleaning elements with the bar rack
- No accumulation of disturbing material due to material removal from the screen starting virtually right at the bar rack mounted flat to the channel bottom
- Compact design
- Easy-to-retrofit into existing channels
- Completely odour-encased screen with easy to remove covers
- Installation without channel recesses possible
- Not hindered by gravel or grit
- Simple and easy-to-access drive unit
- All parts in contact with medium (except the drive and bearings) are made of immersion pickled stainless steel.
- High screenings discharge capacity
- Uncomplicated later change of the bar spacing
- No additional consumables such as service water required for plant operation, except electric current

Design features

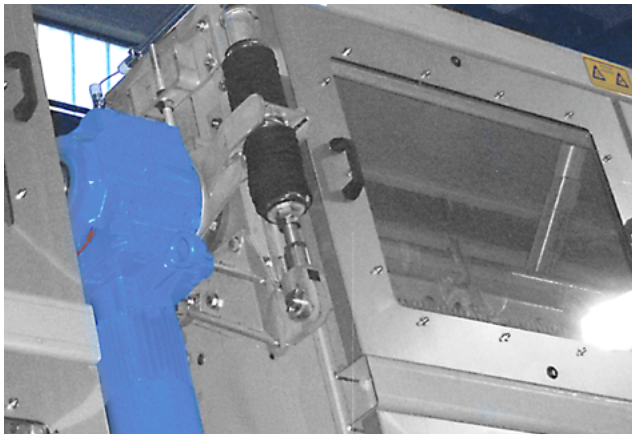


Due to the extremely small inclination of the bar rack, the screen section through which the flow passes is almost double the flow profile.



Drive chain made of hardened wear-resistant steel with plastic protection rollers. The chain and chain wheels are electro-galvanised and yellow chromated for durable corrosion protection.

Alternatively, wheels and chains can be made of different qualities of stainless steel as suitable for the specific requirements. Irrespective of the design, wear-resistant and maintenance-free ceramic bearings are used.



A torque compensator is installed for overload protection which reliably protects the screen against damage and sends an electric signal. The special construction ensures maximum adjustability and continuous control.

Application examples

HUBER Rake-Max® HF unit in our factory before delivery: The flat bottom section which provides favourable hydraulic conditions is clearly visible.

From the outside the HUBER Rake-Max® HF is not distinguishable from a RakeMax® unit, the well-proven basic machine design.

Screen sizes

- Channel width: up to 3,000 mm
- Discharge height above channel floor: up to 8 m
- Bar spacing: ≧ 1 mm
- Installation angle: 30° / 85°

Huber Technology Inc.
1009 Airlie Parkway. Denver, NC 28037 USA
Phone: 704-949-1010 | info@hhusa.net
www.huber-technology.com