

SCREW PUMPS

**SCREENS**

SCREENINGS HANDLING

COMBINATED SYSTEMS

GRIT HANDLING

CONVEYOR

ELECTRICAL- and AUTOMATION TECHNOLOGY

MEASUREMENT and CONTROL TECHNOLOGY

SERVICE SUPPORT

# MULTI RAKE SCREEN KHU-BOOMERANG XL

## Screening at Peak Hydraulic Thresholds

### KUHN KHU-Boomerang XL Multi Rake Screen

Is the latest generation KHU multi rake screen, improving on the standard configuration, and designed to suit a large range of applications.

The focus of the new development was to achieve the maximum flow rate with minimal headloss, and that with the usual reliable function. The new KHU-B XL multi rake screen pushes screening to the limit, and beyond! The design has the capability of handling large quantities of screenings making it extremely suitable for treatment plants that are subject to sudden or extreme loads. High grit loads do not affect the operation of the machine and even the largest stones and rocks can be lifted and cleared from the channel.

The key difference when comparing the **KUHN** KHU Boomerang XL to the KHU standard version is the new and unique frame construction. In the standard version, the side frames extend into the channel, which has been avoided in the new XL construction, enabling the screen area to extend to the channel walls whilst utilising the full width of the channel.

In the "boomerang" design the bars do not end straight at the ground as with the standard version, but are curved into a semi-circular profile. In this design the wastewater can flow through the screen without unnecessary restriction, again maximising the available screening area.

Head losses are further reduced by utilising profiled bars that have been optimized for the highest of flows. The "fish belly profile" achieves these standards whilst providing an extremely strong and rigid structure, similar to the low blockage wedge wire filter used in the proven KWP-Series Wash Press.



### Technical Features

The unique features of the KHU-B XL can be summarised as follow:

- Suitable for very large hydraulic heads and channel widths
- Designed for the largest possible wastewater capacities
- Optimized flow with approximately 30% higher throughput
- Total removal of screenings almost from the channel bottom, thanks to the Boomerang design
- Not affected by stones or gravel
- Space saving installation thanks to an almost upright position of 80°
- No side frame losses through a system frame that has been kept open
- Very low blockage thanks to selected forced engagement of the rake combs into the screen grate
- Utilises wedge wire bar profile to reduce blockage of the screen grate
- Highest cleaning speed available, expandable through additional clearing bars
- Drive chain in hardened high-grade steel (no steel or plastic tracks)
- Easily interchangeable segmented rake comb boards in hardened materials
- Solid system frames with well thought out maintenance openings
- Fully automated cleaning operation (no brushes, no spray wash systems)
- Temporary backward running for self-cleaning of the screen grate possible
- Available in separable construction for difficult installation conditions
- Electro-magnetic overload protection
- Optional inspection glass



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## Scraper, fully-automatic

Optimum cleaning of the rakes and transfer to the discharge hopper

## Drive with overload protection

Optimum design for every application case

## Hygienic covers, removable

Guarantee complete odour and hygienic encapsulation

## Space for optional Window

## Heavy-duty driving chains, stainless steel

## Rod profiles, optimised flow characteristics

- For maximum throughput capacity
- Freely-selectable gap width for every application

## Eco bearing mount

Continuous lubrication reliable and maintenance-free

## Lage-volume discharge hopper

Simple and safe transfer of screenings

## Service hatch

## System frame, stainless steel

- Solid system frames
- System frames separable for difficult applications
- No side frame losses through a system frame that has been kept open

## Rake

- segmented, rake comb boards in hardened materials
- Very low blockage thanks to selected forced engagement of the rake combs into screen grate

## Boomerang-bottom flume

Removal of screenings from the channel bottom, thanks to the Boomerang design

