

SCREW PUMPS

SCREENS

SCREENINGS HANDLING

COMBINATED SYSTEMS

GRIT HANDLING

CONVEYOR

ELECTRICAL- and AUTOMATION TECHNOLOGY

MEASUREMENT and CONTROL TECHNOLOGY

SERVICE SUPPORT

KNUCKLE SCREEN KGR

Low-Cost Option in Well-Known KUHN Quality

KUHN KGR Knuckle Sreen

The knuckle screen is particularly suitable for installation in channels, shafts or pumping stations without special hydraulic requirements. It can also be built into existing structures. Additional structural recesses or sole pockets are not required.

The drive link chain has a special longitudinally stable design that makes possible a loop-shaped hanging mode of operation. It is particularly stable, corrosion-resistant and made of cast stainless steel with little wear. Due to the special free-swinging design, the rake bars are centering themselves via the link chain, so that the teeth of the rake plates penetrate deeply between the rake bars. Thus, blockages of the bar rack are usually avoided, which is not accomplished by simple scraper systems wiping only the surface of the bar rack the surface. When encountering large objects such as timber beams, the link chain is flexing around the obstacle or completely lifts off the bar rack in order to transport the object to the point of discharge without overloading and shutting down the unit. Due to the special design of the machine, a lower chain sprocket is not required.

The bar rack consists of flow-optimized, parallel bar profiles. The gap between the bar profiles is constant over the entire width. The bar rack is built up of several segments, in which the bar profiles are combined to a form-fitting construction. The number of segments depends on the individual machine width. The teeth of the rake plates reach deeply between the bar profiles. In this way a reliable cleaning of the bar rack is guaranteed.

The construction itself prevents screenings from falling back into the channel. The screenings are dropped into the downstream machines or containers via a discharge chute.

Technical Features

The newly developed KGR hinged screen offers the following benefits:

- Can be lifted out of a flume as a single unit
- Highly robust, corrosion-resistant and hard-wearing cast stainless steel chain
- The chain and drive unit are able to avoid unwanted contaminants/impurities
- Gentle clearing speed: The machine can be operated without resource-intensive height measurement, also in continuous operation
- The clearing paddles are self-centering and clogging of the bar rack is largely avoided
- Installation in existing flumes is possible
- Streamlined stainless steel bar rack
- Reliable and thorough cleaning of the bar rack by rakes that extend deep into the bar sections – without doctor blades
- Space-saving installation with 70°–75°
- fully automated scraper
 - no brushes
 - no water consumption
- Easy replacement of individual components
- Easy maintenance



KNUCKLE SCREEN KGR

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Drive with overload protection

Optimum design for every application case

Scraper, fully-automatic

Discharge hopper

Simple and safe transfer of screenings

Self-centering clearing bars

The rake teeth extend deep into the bar sections and prevent clogging

Machine frame

It can be lifted from the flumes as a single unit together with all attachments and the bar rack

Bar rack

- Streamlined bar sections
- Self-cleaning

Steep installation angle

- Highly compact
- Can also be deployed in deep and narrow flumes

Drive link chain, wear-resistant

- Dimensionally stable cast stainless steel construction
- No bearings required in wastewater
- Loose-hanging chain can avoid contaminants
- Gentle chain speed

