

KKA headworks unit

to separate screenings and grit from waste water

KUHN-KKA headworks unit

The **KUHN** KKA headworks unit is a combination of a screening and grit trap with a compact, space-saving design. It is used to separate screenings and grit out of communal or industrial waste water.

A further feed tank is mounted on a standardised type **KUHN** KSK screw classifier for this purpose, with a type **KUHN** KSS spiral screen integrated in the tank.

The spiral rake is designed for the mechanical separation of solid matter from waste water fed into the plant.

Adjustable aperture sizes enable the intensification of solid matter separation. Integrated screening material dewatering and compacting in the spiral screen enables the achievement of a considerable reduction in disposal costs.

The screw classifier primarily separates mineral components (grit) from the waste water through static dewatering and discharging these as sediment. The sediment is removed with a classifying screw and dumped in a collecting tank via a discharge outlet.

Function

The **KUHN** KKA headworks unit is charged with a solid matter-water mixture via a flange fitting at the front of the feed tank. The approaching flow is divided by a special baffle to achieve a uniform and calmed spiral screen rake inflow.

The feed tank is completely enclosed (hygienic encapsulation) and fitted with an inspection hatch and integrated hydraulic emergency overflow. The pipe fittings on the cover provide an optional mounting for a level measuring instrument to enable level-dependent actuation of the spiral screen.

The liquid to be cleaned of solid matter is fed through the separation screen. Larger solid matter particles are intercepted and held back by the separation screen.

The separation screen is cleared with a large-scale shaftless conveyor screw. The conveyor screw transports the solid matter inside the basic cylindrical structure to the spiral screen discharge.

The solid matter is compressed and dewatered in the compacting and dewatering zone. Screenings can also be optionally subject to intensive washing in a washing unit. The pressure water is brought back to the waste water flow in the feed tank.

A grit-water mixture remains after the solid matter is separated from the waste water by the spiral screen. This is transported to the screw classifier via the feed tank.

The tank and its fittings are designed to achieve an optimum separation capacity. The solid matter introduced (primarily mineral components) settles down in the screw classifier sedimentation chamber.

Static dewatering of the sediment and the separation capacity are supported through discontinuous operation. Grease and floating matter can be extracted via a drain connection using an optional slide.

The sediment settles in the U-shaped trough of the classifying screw on the base of the tank. The screw transports the separated sediment from the (water-filled) tank to the discharge.

The level of the separated grit can be optionally controlled. Level controlling enables reduction of the discharge screw running time to the required minimum, thus reducing power consumption and operational wear considerably.

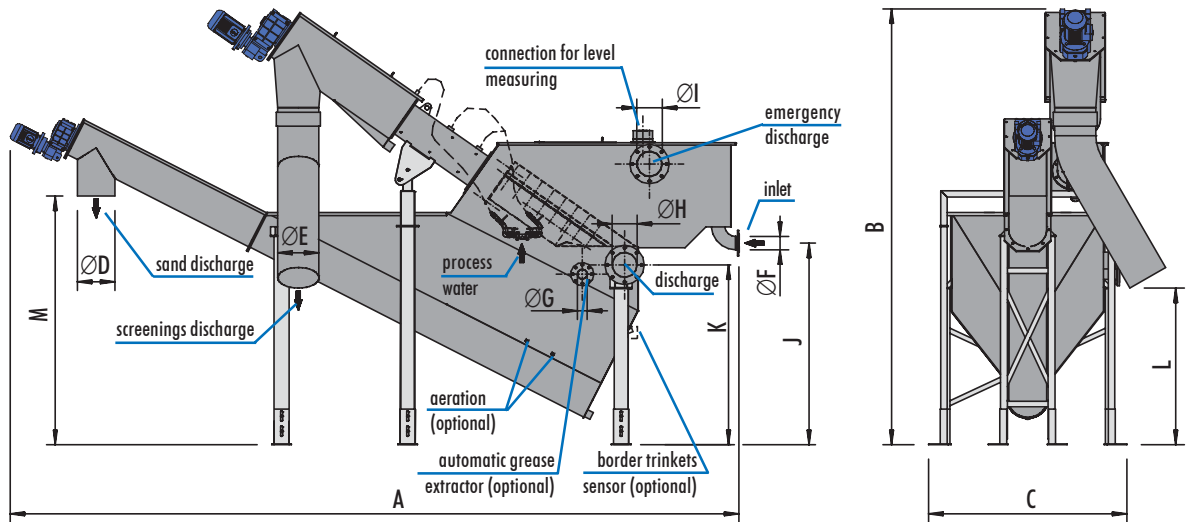
Design (Technical features)

The superior design of our **KUHN** KKA headworks unit ensures optimally ecological and economical operation and secures your investment in the long-term. Reasons include the following:

- Extremely compact design
- Durable and reliable
- Low power consumption
- User-friendly
- Low maintenance requirements
- High operational reliability, thanks to the robust design and high-quality materials
- Avoidance of turbulence which disturbs sedimentation
- High separation capacity, thanks to our special design principle

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	KKA 25
feed volume [l/s]	0 - 25
A	6260
B	3760
C	1710
Ø D	DN300 / 323,9
Ø E	DN350 / 355,6
Ø F	DN100 / 114,3
Ø G	DN80 / 88,9
Ø H	DN200 / 219,1
Ø I	DN200 / 219,1
J	1740
K	1550
L	1700
M	2145

All dimensions in mm.
We reserve the right to make technical alterations.

Drive unit

Index of protection IP55 (explosion protection possible)

Materials

motors/ armatures commercially materials
 container/ conveyor trough AISI 304 stainless steel
 conveyor screw special steel
 Other materials on request.

Options

- Limit threshold dependent depositon of sand by an additional vibration switch
- Aerated grit chamber installation incl. blower
- Fully automatic grease extractor installation incl. pump