

KOPA compact system

complete mechanical purification of sewage in one machine

KUHN KOPA compact system

For the **KUHN KOPA** compact system, all of the procedural steps for the mechanical purification of sewage in a stainless steel tank are integrated.

The sewage is fed into the compact system either via a free inflow or by means of a pumping station. The sewage first flows through a step screen installed in the feed chamber or through a spiral screen. In this way, it gets cleaned of all swimming and floating material according to the gap or sieve width. The screenings are discharged with the step screen and deposited in a wash press, where they are washed and pressed. For the spiral screen, the washing and pressing of the siftings is integrated. The dewatered and pressed screenings or siftings, as appropriate, are deposited in a skip. The wash and pressure water is fed back into the sewage flow. Important contents for the treatment process thereby remain preserved. The screenings or siftings are reduced in volume by about 60% and in weight by about 50%, as a result of the pressing. This implies an enormous reduction in the disposal costs.

The capture of grit and grease (in chambers) follows immediately afterwards, in compliance with the DWA (German Association for Water Management, Wastewater and Waste) guidelines. Here suspended matter and grease are separated. The subsidence of organic matter is minimized by the flow roll created by the air inflow. The suspended matter is transported in the opposite direction to the grit chamber flow via the clearing screw. The suspended matter falls into a receiving hopper, located at the end of the clearing screw. The suspended matter is transported away from this receiving hopper by the grit discharge screw. The solid matter is thereby statically dewatered and finally deposited in a grit container. Alternatively this is possible with a special steel-plated pump, which pumps the grit/water-mixture in an additional grit washer.

Screenings and grit are disposed separately. To treat the grit according to the requirements for depositing or recycling.

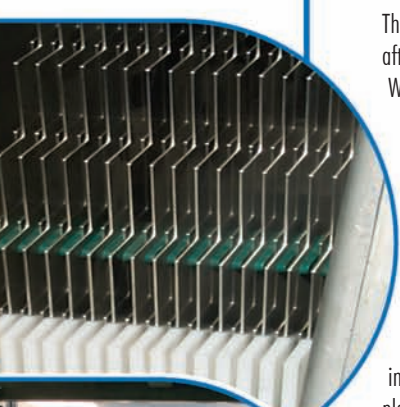
The machine can naturally also be operated without grit chamber aeration or without a grease chamber, if the demands on the quality of the separated matter are not so high or the grease chamber can be built separately.

The machine is automatically controlled. The control of the screen unit is dependent on the water level, whereas the control of the grit discharge is time-dependent. An emergency bypass in the event of power failure can be guaranteed either by installing a bypass circuit around the entire unit or integrating an internal emergency overflow into the screen chamber.

The entire structure has a very robust design and is notably constructed for the demanding conditions for operating the clarifying machines. In this regard, importance was particularly attached to low maintenance and purification requirements as well as high-quality processing. In addition, the many years of experience of the **KUHN** company in processing stainless steel comes into its own.

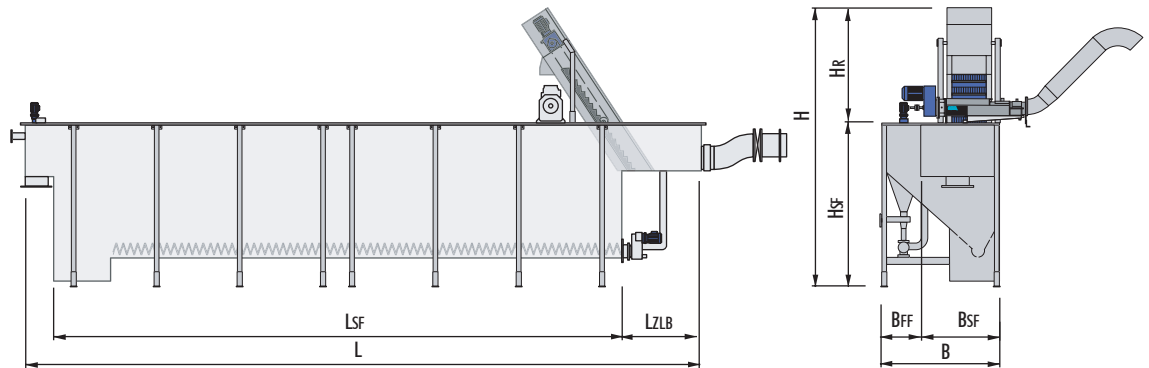
Advantages of the KUHN KOPA compact system:

- Complete mechanical purification of the sewage can be realised by a single machine (all in one).
- Low maintenance requirements, high degree of operating safety.
- Good purchase price and low operating costs.
- Washing of screenings and grit can be integrated without any problems. Due to the decrease in volume, the decrease in weight of the screenings and the increase in purity of the grit, the disposal costs are reduced.
- A complete enclosing of the machine is possible. Troublesome odours can thereby be avoided.
- The removal of the suspended and swimming matter takes place in a closed system.
- Low installation requirements, small timespan for installation.
- High resistance to corrosion of the machine due to the application of stainless steel.
- Compact, space-saving design. Consequently low building costs.
- High separation capacity of the **KUHN KSR** step screen and **KUHN KSS** spiral screen.
- Superior design of all machine parts due to the many years of experience of the **KUHN** company in processing stainless steel.
- Sophisticated machine components



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L	Machine length	BSF	Grit chamber width
LSF	Grit chamber length	H	Machine height
LZLB	Feed container length	HR	screen height
B	Machine width	HSF	Grit chamber height
BFF	Grease chamber width		

The dimensioning of the entire machine is adjusted for individual cases.
Please ask, we'll gladly assist you.

Materials

All container parts	AISI 304 stainless steel
Conveyor screws	special steel
Slide/Fittings	according to customer's wishes
Other materials on request.	

Drive

Index of protection	IP55 (explosion protection possible)
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Extra units

(e.g. paddle unit, pneumatic compression devices, grease pumps, etc.)
Well-known manufacturers or products according to customer's wishes.