

# KSR-S step screen

for separating solid matter from liquids in the most confined flumes

## KUHN KSR-S step screen

The continuously progressive development in modern waste water treatment plants demands the highest degree of innovation. Even with regard to process and technical solutions, high demands are made.

In this respect the **KUHN KSR-S** step screens represent a new generation of fine sieve rakes, which lie at the forefront of technology, both in production and in the results of on-site operation.

Trouble-free operation, long service lives, low maintenance requirements and simple integration in existing plants are just some of the advantages we can guarantee for this device.

### Application

**KUHN KSR-S** step screens are predominantly used in the mechanical purification stage of municipal and industrial sewage treatment plants.

Their optimised design principle makes them ideal for use in particularly confined flumes. The screen frame is constructed to ensure that an excellent throughput and separation capacity is achieved in even the most confined flumes.

Further areas of application of the **KUHN KSR-S** step screens can be found for example in the pretreatment of processing liquids (slaughter houses, tanneries, fish processing facilities among others) as well as in treatment plants of the paper industry.

### Principles of operation

The fine rake stainless steel construction consists mainly of the screen frame, the separation screen with step-like fixed and moveable lamellas, and the drive unit with limit switch. The moveable lamellas perform a self-cleaning rotational movement over the entire screen surface using the countercurrent principle. As a consequence no brushes, scrapers or additional rinsing equipment are required.

The solid matter is trapped by the step-shaped separation screen. In intermediate operating mode a screenings mat forms and this is responsible for the main filtration. This also causes a considerable amount of smaller solid matter to become trapped, according to the chosen gap width for the lamellas.

Due to the moveable lamellas, the screenings mat is transported step by step up the fixed lamellas.

In the vicinity of the bottom step there is a directing plate. The machine is therefore resistant to grit and other deposits.

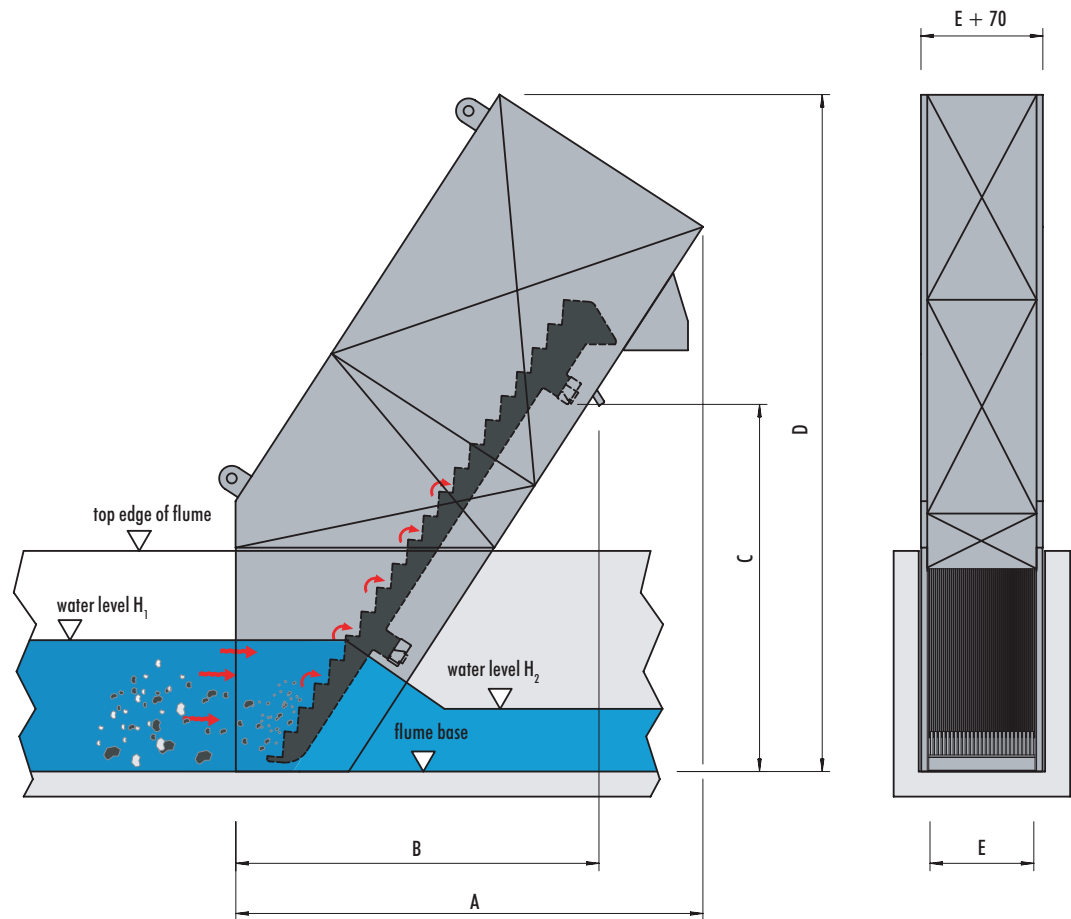
### Design (Technical features)

The superior design of our **KUHN KSR-S** step screen ensures optimum ecological and economical operation and secures your investment in the long-term. Reasons include the following advantages:

- Maximum throughput and separation capacity, low height loss
- Gap width 1-6 mm
- Low space requirement in the most confined flumes
- Self-cleaning screen surface
  - no brushes or scrapers
  - no washing water consumption
- Stable screen frame made of folded profiles with optimised strength characteristics
- Three-phase AC gear motor as drive unit encapsulated in separate housing (providing protection against aggressive and damp sewage vapours)
- Chain transmission with automatic chain tensioner
- Drive unit and bearings located above the waterline
- Removable covers for hygienic encapsulation above the flume
- Simple retrofitting in existing plants
- Simple maintenance
- Quiet running characteristics
- No attachments necessary at the channel floor
- Machine can be pivoted out of the flume

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Dimensional specifications in mm.  
We reserve the right to make technical modifications.

Type	A	B	C	D	E	P <sub>n</sub> [kW]
KSR-S17	1875	1450	1450	2700	310 - 800	0,55 - 0,75
KSR-S23	2550	1770	1940	3400	350 - 800	0,75 - 1,5

## Standard material

Screen zone lamellas	AISI 304 stainless steel
Transport zone lamellas	AISI 304 stainless steel (KSR-S17) synthetic (KSR-S23)
Frame parts, covers	AISI 304 stainless steel

## Optional material

Screen zone lamellas	AISI 316 Ti stainless steel
Transport zone lamellas	AISI 316 Ti stainless steel (KSR-S17) synthetic (KSR-S23)
Frame parts, covers	AISI 316 Ti stainless steel

## Drive

Index of protection	IP55 (explosion protection possible)
Motor	Bevel gear motor