

KSW-T dry-loaded grit washer

KUHN KSW-T dry-loaded grit washer

Sediment, composed of a mixture of organic sludge, solid matter of various types and mineral grit, builds up in sewer systems and grit chambers.

Organic and mineral solids contained in waste water can be separated screw by classifiers (e.g. **KUHN-KSK**) and subsequently fed to a KSW-T dry-loaded grit washer.

The special procedure results in a continuous, systematic separation of the material flow into heavy mineral components and lighter, predominantly organic matter. This enables the separate disposal of these components. The mineral grit is washed during this to meet the quality standards of regulations for waste removal.

Application and function

The **KUHN KSW-T** dry-loaded grit washer is used primarily for washing grit in communal sewage treatment plants.

Charging can be realised via screw classifiers (e.g. **KUHN-KSK**), conveyors (e.g. **KUHN-KSF**) or from a silo or compact system (e.g. **KUHN-KOPA**) as bulk material. The KSW-T is therefore ideally suitable for retrofitting in existing plants. In addition to communal applications, industrial tasks can also be realised efficiently.

The solid matter being charged is fed directly into the washing zone in the KSW-T. There, the washing out of organic matter from the solid mixture takes place in the washing zone. A grit vortex bed, that is ideally mixed, is produced by an optimal process for feeding industrial water, supported by the insertion of air, and this results in a rapid separation of the organic and mineral solid matter. The grit bed is in continuous motion, and organic components are transported away as a result by the wash water and fed into the treatment process again.

Due to its higher density, the mineral matter sinks faster than the organic matter and directly reaches the extraction area of the grit discharge screw, whose level is monitored.

The grit, that has been cleaned of organic matter, is discharged automatically by the grit discharge screw, and thereby statically dewatered and discharged into a skip or else a unit for extended transport. The discharge screw is shaftless and therefore has no lower bearing.

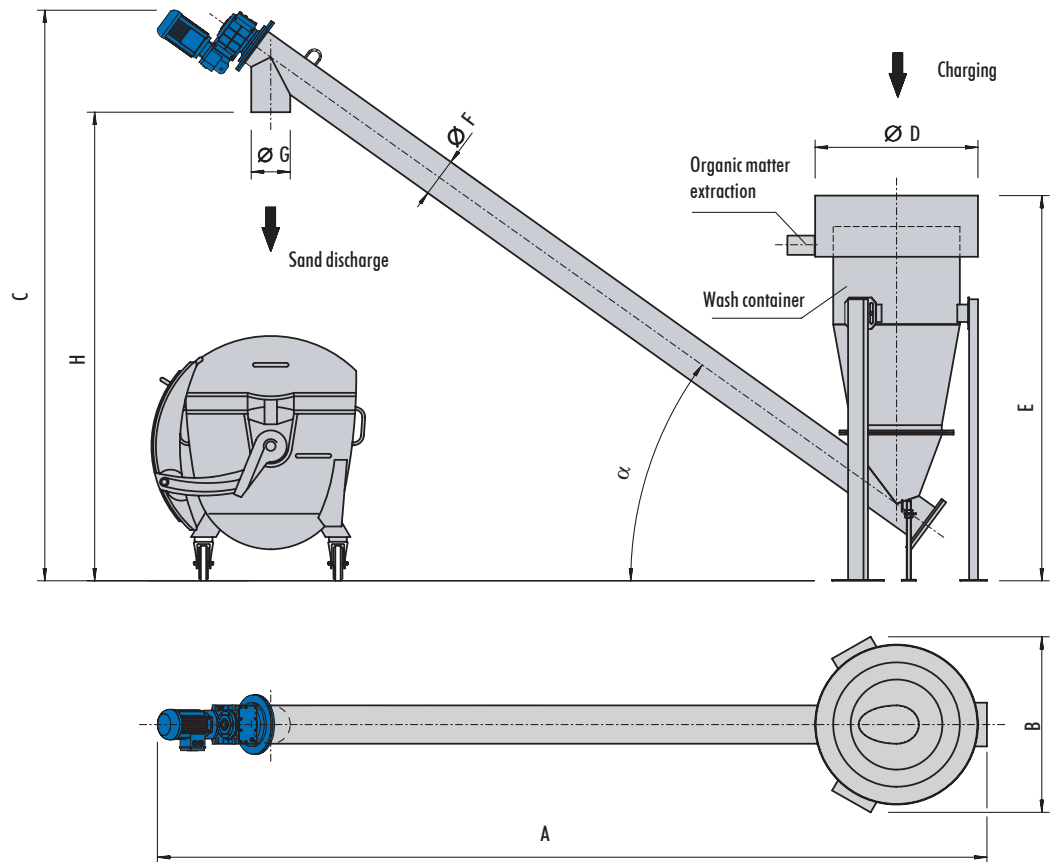
Design (Technical features)

The superior design of our **KUHN KSW-T** dry-loaded grit washer ensures optimally ecological and economical operation and secures your investment in the long-term. Reasons include the following:

- Compact design
- Simple adaptation to plant structure
- Suitability for retrofitting
- Organic content reduction $\leq 3\%$ loss
- Achievable concentration of dry substance for the discharge grit $> 90\%$
- Low operating costs
- High separation capacity of fine and super-fine grit
- High extraction rate
- No rotating components and units in washing area, with therefore low maintenance requirement and wear-resistant
- No lower bearing for the grit discharge screw
- Replaceable wear protection
- Variable gradient angle
- Variable transporting length



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A	Depending on H and α
B	1000
C	H + 580
Ø D	915
E	2200
Ø F	DN 200 / 219,1 (variable)
Ø G	DIN 200 / 219,1 (variable)
H	on customer request
α	Selectable within technical limits

Dimensions in mm.
We reserve the right to make technical alterations.

Wash water

Connection	DN50-R2" max.
Max. requirement	approx. 4,5 l/s (short term)
Min. pressure	4,0 bar
Quality	industrial water

Drive

Index of protection	IP55 (explosion protection possible)
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Materials

Motors/Fittings	commercial materials
Container/Conveyor trough	AISI 304 stainless steel
Conveyor screw	special steel
Other materials on request.	