STRAINPRESS®
Sludgecleaner SP

- continuous filtering or screening, dewatering and transport of coarse material in one operation
- coarse material separator for municipal and industrial sludges and process water
The STRAINPRESS® System

The STRAINPRESS® system is a horizontal pipe-shaped coarse material separator which consists of an inlet and driving zone, screening and press zone and finally a discharge section with a conical pressure-regulating device. Feeding is by a pump which presses the medium through the screening zone and forwards it via the outlet pipe to further process steps. The coarse material which is retained on the screen surface is transported to the press zone by the screw which serves as a scraper unit. In the press zone, the material is dewatered to spadable condition and discharged afterwards. The motor speed, screen perforation and geometry of the discharge section can be adjusted to all different media. The coarse material is separated continuously under pressure and periodical cleaning of the screening zone by backwashing is thereby not required.

The below diagram shows the installation of the STRAINPRESS® within the wastewater treatment plant. It is easily possible to integrate the STRAINPRESS® into the existing pipeline and automatic system.

Main features

- Coarse material filtering or screening and dewatering to approx. 45 % DS content
- Pressure-fed system (inline) for process water and any type of sludge including viscous and grease containing sludge
- Reduces maintenance costs and increases the operating reliability of downstream sludge treatment systems, such as thickening, digestion, dewatering, hygienisation, drying, etc.
- Perforations of 0.15 to 10 mm for solids/liquid separation also in industrial applications
- Cost savings and reuse with filtration in a circulation water process
- Throughput capacity of up to 110 m³/h sludge and up to 150 m³/h process water
- Reliable perforated plate cleaning without the need for any external water
- Automatic pressure cone system for maximum dewatering efficiency
- Nearly 1000 installations worldwide
Easy to handle

The complete casing and perforated plate of the STRAINPRESS® are made of 1.4307 (AISI 304L) stainless steel. The opposite picture shows an open STRAINPRESS®, the press zone can be seen on the left, the screening zone on the right. The quick-opening and closure device makes control and inspection easy. The screen section is fixed, the press zone has castor swivel wheels and is therefore easy to shift.

Examples

Sludge screening on WWTP Barcelona, Spain
Screening of fermentation sludge (industry)
STRAINPRESS® applications

The STRAINPRESS® can be used for sludge screening or process water filtering as well as for all processes where solids are separated from liquids and/or compacted under pressure.

Examples for coarse material separation from:

➤ primary sludge / raw sludge
➤ mixed sludge
➤ floating sludge
➤ grease sludge
➤ digested sludge
➤ secondary sludge / excess sludge
➤ septic sludge
➤ industrial production waters
➤ circulation and process water

Discharge of the separated pressed material

Separated material: paper, wood, plastic, tinfoil, rubber, textiles, etc.