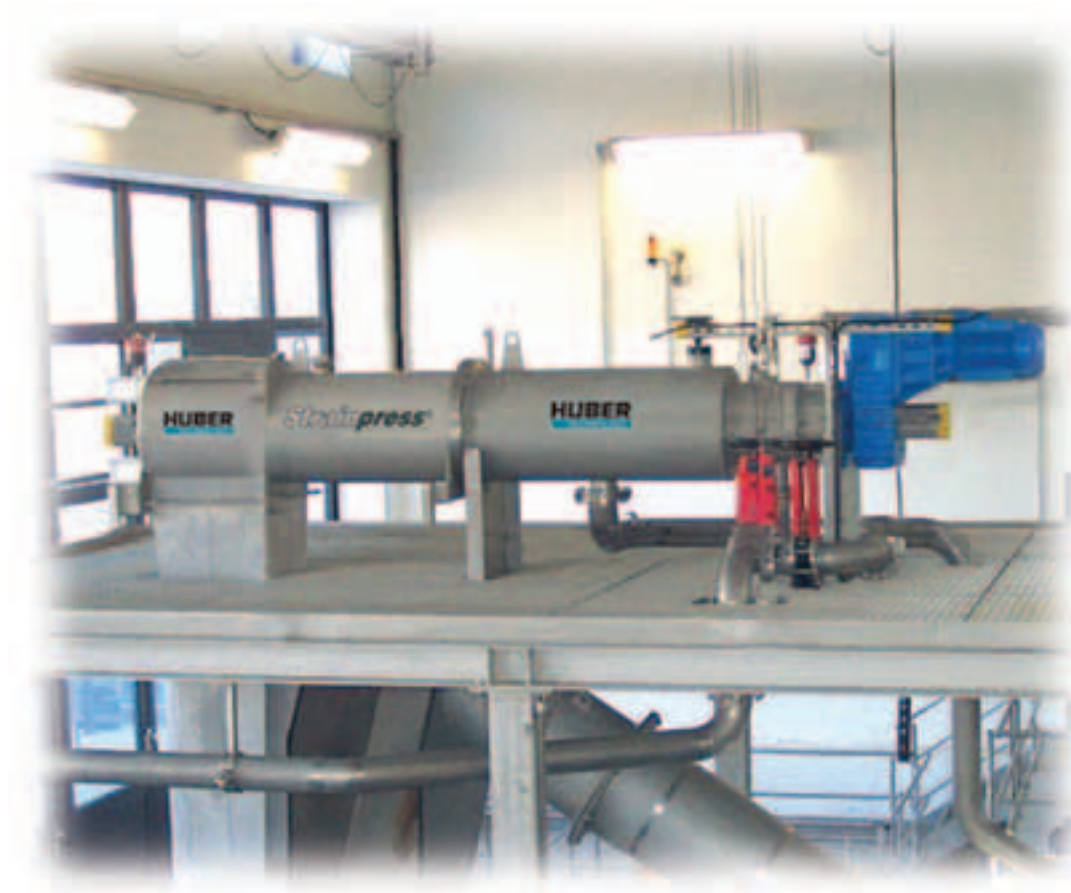


Strainpress[®]

Sludgecleaner SP



continuous screening, dewatering
and transport of coarse material in one operation

coarse material separator
for municipal and industrial sludges

►► The STRAINPRESS® System

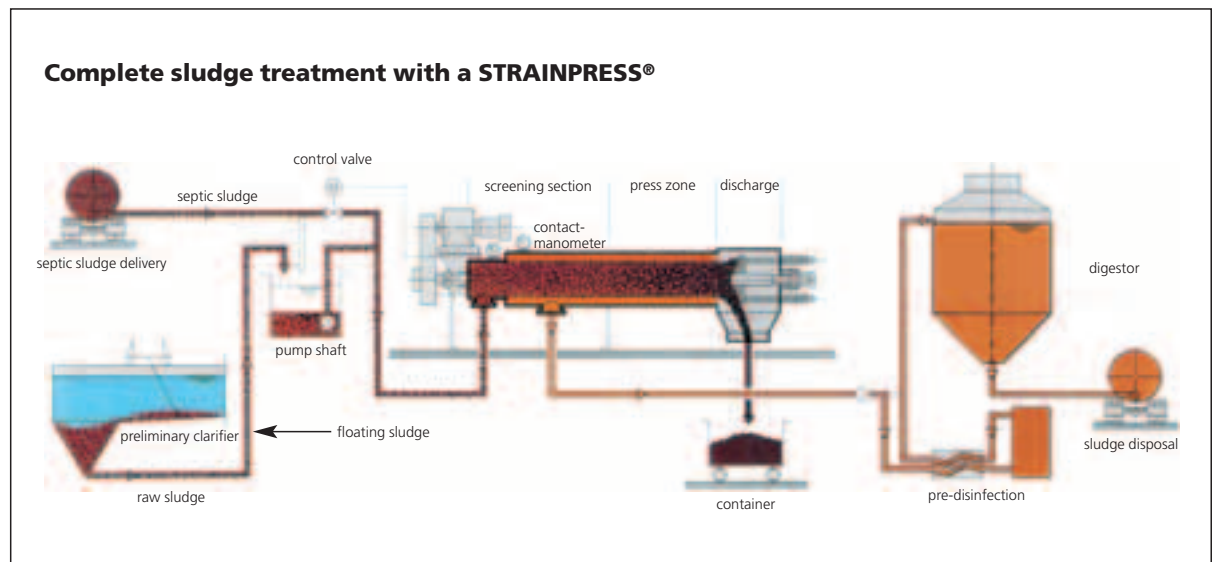
The STRAINPRESS® is a horizontal pipe-shaped coarse material separator which consists of inlet and driving zone, screening and press zone and finally a discharge section with a conical pressure-regulating device.

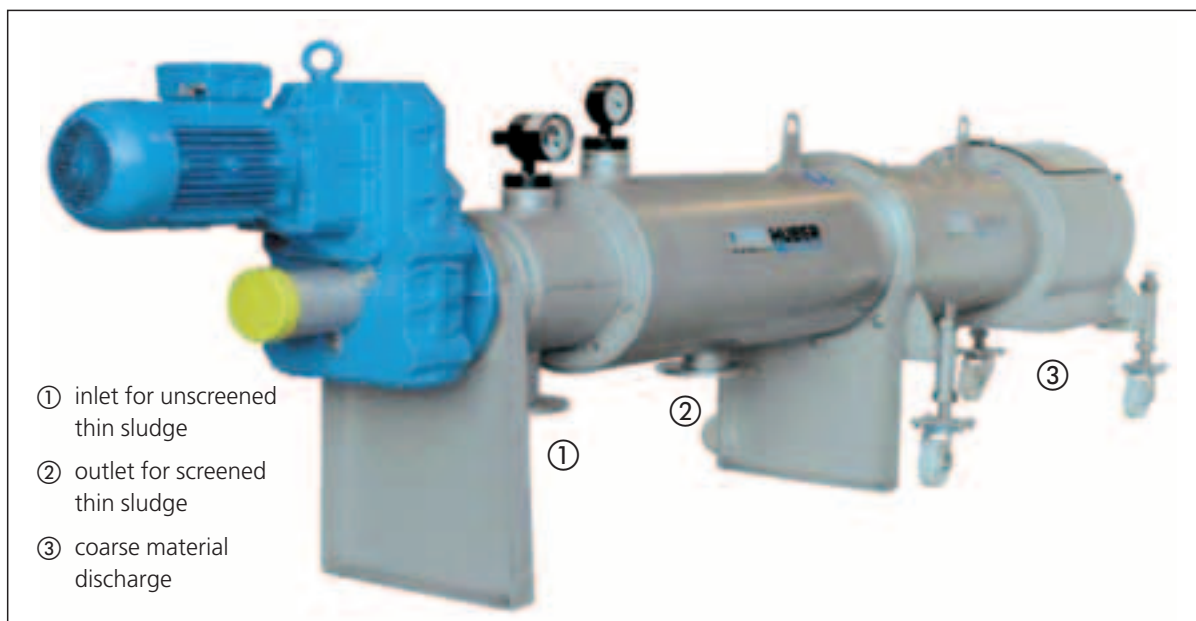
Feeding is by a pump which presses the medium through the screening zone and forwards it via the outlet pipe to further process steps. The coarse material which is retained on the screen surface is transported to the press zone by the screw which serves as a scraper unit. In the press zone, the material 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

- Operational problems on sewage treatment plants, such as clogging of pipelines, pumps, heat exchangers and centrifuges are avoided.
- No tressing on stirrers or in aeration plants.
- No floating sludge layers in sedimentation tanks and sludge tanks.
- Prevention of damage in drying plants. Fibres, which cause operating troubles especially with sludge drying, are removed.
- Increased operational reliability for sludge dewatering. Coarse material impairs sludge dewatering and may even destroy the filter cloths of belt presses and chamber filter presses.
- Screening makes sewage sludge more homogeneous and is therefore better and safer to handle in the subsequent disinfection and/or drying plant.
- Wet sludge which is free of any coarse material is suitable for agricultural use or composting.
- Screened, dewatered or dried sewage sludge which is free of foreign matter (plastics, metal foils) can be used for agriculture.
- Advantageous amortisation through cost-saving operation and maintenance.





►► Constructional features

The complete casing and perforated plate of the STRAINPRESS® are made of 1.4301 (AISI 304)* 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.

Many years of experience have shown that a perforation of 3-5 mm achieves excellent separation results.



►► Examples



Sludge screening on WWTP Barcelona, Spain



Screening of fermentation sludge (industry)

►► STRAINPRESS® applications

The STRAINPRESS® can be used for sludge screening or for fine screening of raw sewage 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
- digested sludge
- secondary sludge / excess sludge
- septic sludge
- industrial production waters



Discharge of the separated pressed material



Seperated material: pater, wood, plastic, tinfoil, rubber, textiles, etc.