

STRAINPRESS® APPLICATIONS – TO PROTECT DOWNSTREAM PROCESSES

The STRAINPRESS® is used for liquid sludge screening.

Examples for coarse material separation from:

- ▶ primary sludge
- ▶ secondary sludge
- ▶ mixed sludge
- ▶ septic sludge
- ▶ floating sludge
- ▶ grease sludge
- ▶ digested sludge
- ▶ production wastewater and industrial sludges
- ▶ circulation and process water

The STRAINPRESS® is used extensively to protect sensitive, advanced processes such as CAMBI.



Discharge of the separated dewatered material



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

Fine Screening of Municipal and Industrial Sludge

- ▶ Continuous screening, dewatering of coarse material in one operation
- ▶ Robust
- ▶ Easy to operate
- ▶ 400+ UK installations



DESIGN & FUNCTION

The STRAINPRESS® is a horizontal cylindrical coarse material separator which consists of inlet and screening zone, press zone, and a discharge section.

A pump presses the unscreened liquid through the screening zone under pressure. The coarse material is retained on the cylindrical screen and is stripped off by a coaxial screw and pushed through the press zone where the material is extensively compacted and dewatered. The screw operates only when the pressure sensors detect a differential pressure caused by screen surface blinding. The compacted material is pressed through a gap around a hydraulically operated pressure cone which closes part of the pipe end and builds up counter-pressure. The counter-pressure of the cone is automatically regulated to ensure optimal dewatering efficiency and throughput.

The system does not need any wash water as backwashing of the screen is unnecessary.

The perforation and design of the screw shaft are individually adjusted to optimally suit specific requirements.

FEATURES & BENEFITS

- Pressure-fed (inline) system for process water and any type of sludge including highly viscous and grease containing sludge
 - For various applications, perforations of 2 to 10 mm, different screw geometries and different material qualities are available
- Often used with sludge acceptance Ro3 coarse sludge screen to provide robust 2 stage sludge screening and dewatering
- Reliable cleaning of the screen without any wash water
- Pressure-dependent control of the screw shaft combined with the pressure cone regulation system allows for unattended automatic operation even with varying flow rates
 - Dewatering of separated coarse material to approx. 45% DR
 - 2 sizes available up to 200m³/h sludge
 - More than 400 successful UK installations.

EASY MAINTENANCE

The complete casing, perforated plate and screw shaft of the HUBER Sludgecleaner STRAINPRESS® are made of corrosion-resistant 304L stainless steel. The screw flights are reinforced with tungsten carbide for wear protection.

The machine can be split in the middle and one half of the machine moved for maintenance. This allows for example to replace the perforated plate and install a screen insert with a new perforation size. Figure 1.



Figure 1 Splittable casing

EXAMPLES



4 Units in Cardiff



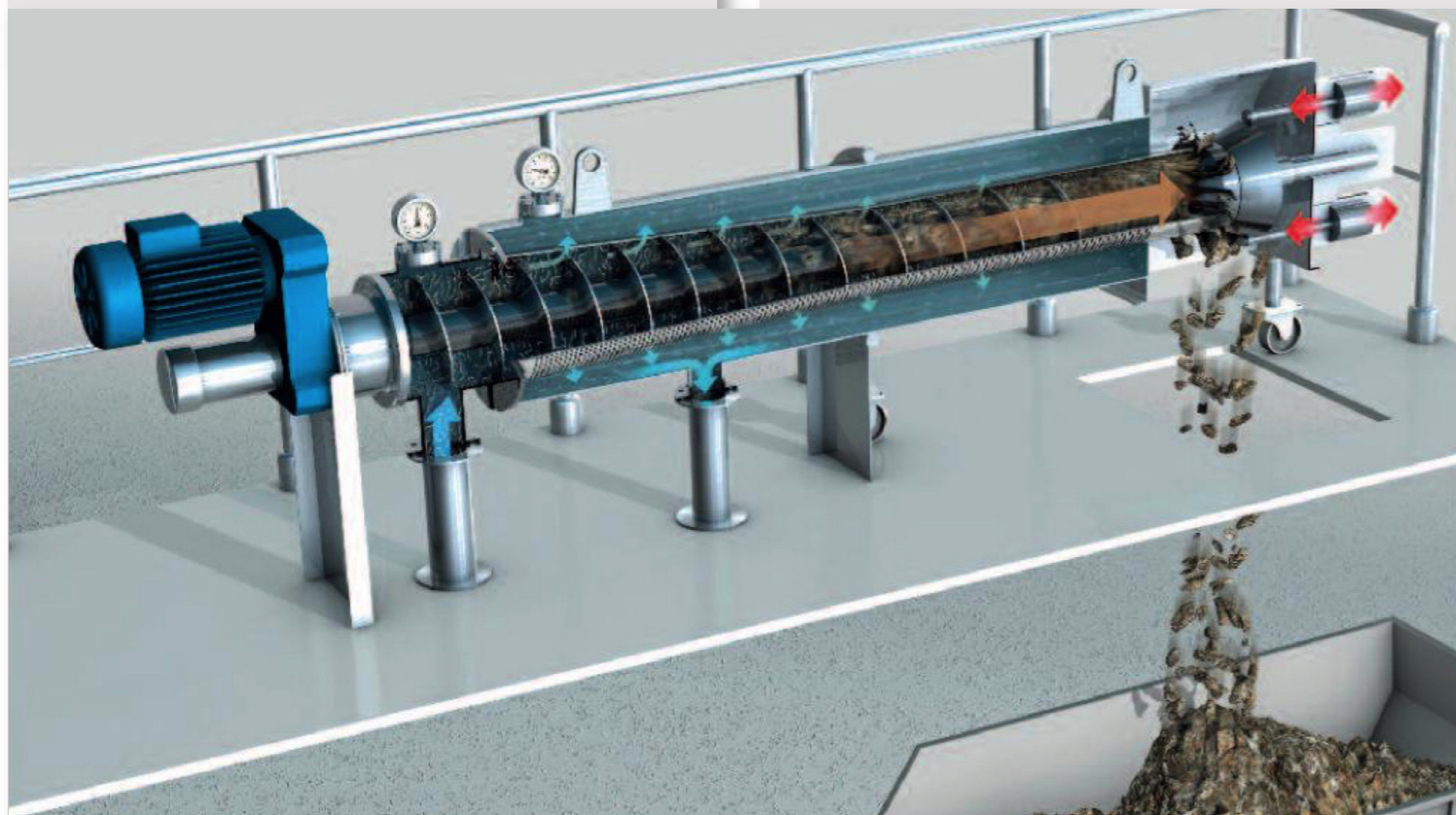
Outdoor installation of a HUBER Sludgecleaner STRAINPRESS®



STRAINPRESS® with heatable casing pipe



Screen for the removal of fermentation residues



THROUGHPUTS

Screen size	Throughput capacity [m ³ /h] with 5 mm screen perforation and 3% DS	Screenings volume [l/h] with 35 - 45% DS	Drive [kW]	Dimensions [m] L x W x H
290	<=75	<=1000	2.2	3.6 x 0.7 x 1.0
430	<=150	<=2000	3	4.6 x 0.8 x 1.4