



HUBER Sludgecleaner STRAINPRESS®

- ▶ Continuous screening, dewatering and transport of coarse material in one operation
- ▶ Removal of coarse material from municipal sludge and industrial process water

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Design and function

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

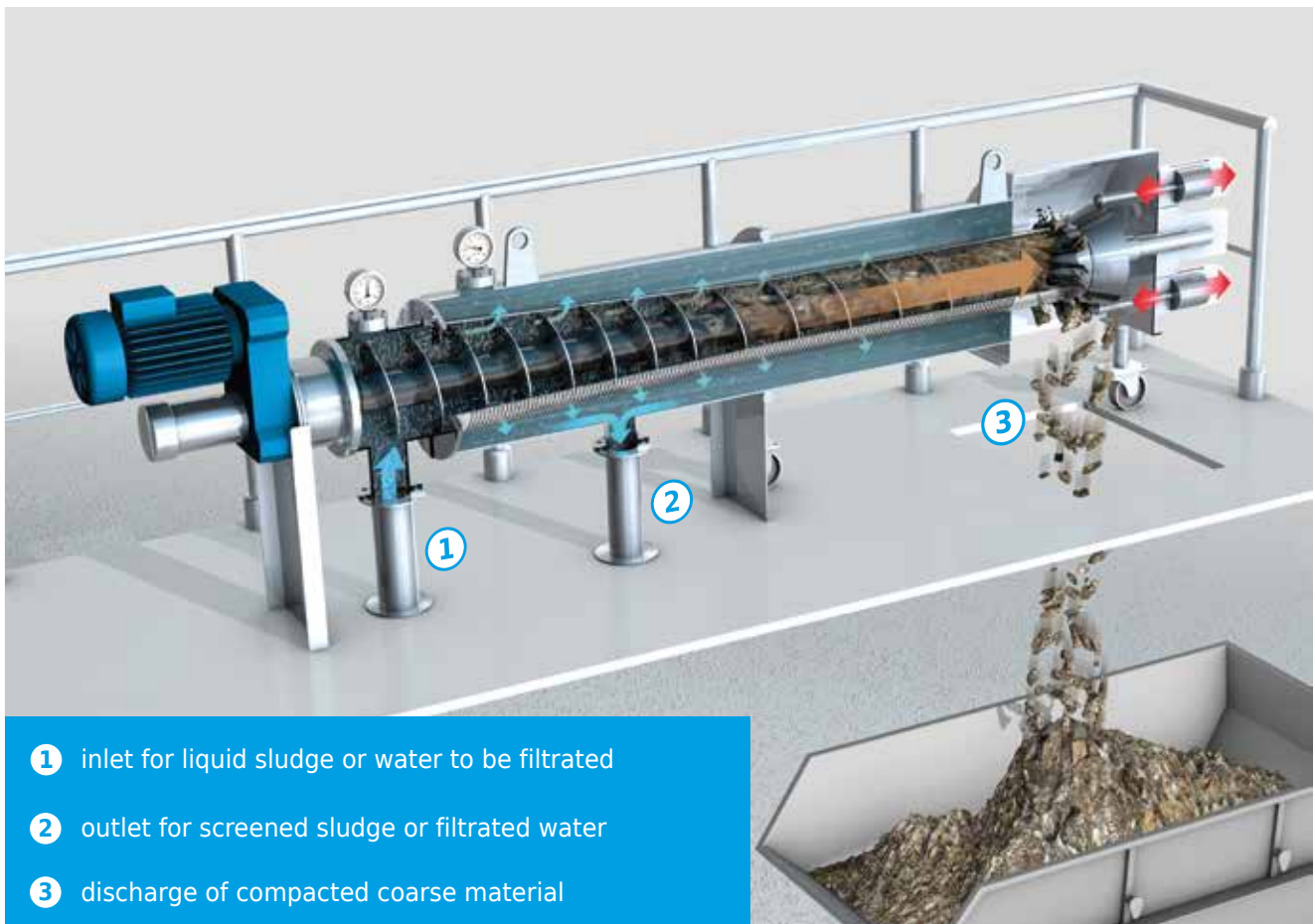
A pump presses the unscreened liquid through the screening zone and delivers the screened liquid to further process steps. The coarse material which is retained on the cylindrical screen is stripped off by a coaxial screw and pushed through the press zone where the material is extensively compacted and 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 counterpressure. The counterpressure of the cone is automatically regulated inversely proportional to the screw motor load.

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 and benefits

- ▶ Pressure-fed (inline) system for process water and any type of sludge including highly viscous and grease containing sludge
- ▶ Increases the operating reliability of downstream sludge treatment systems, such as thickening, disinfection, stabilisation, dewatering, drying, and reduces maintenance requirements
- ▶ For various applications perforations of 2 to 10 mm, different screw geometries and different material qualities are available
- ▶ 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. 40% DR
- ▶ 2 sizes for throughput capacities up to 200 m³/h
- ▶ More than 1000 successful installations worldwide



Easy maintenance

The complete casing, perforated plate and screw shaft of the HUBER Sludgecleaner STRAINPRESS® are made of corrosion-resistant 1.4307 (AISI 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.



Splittable casing.

Examples



Sludge screening on a large sewage treatment plant.



Outdoor installation of a HUBER Sludgecleaner STRAINPRESS® 290.



STRAINPRESS® with heatable casing pipe.



HUBER Sludgecleaner STRAINPRESS® applied for fermentation residue screening.

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 | <=160 | <=2000 | 3 | 4.5 x 0.8 x 1.4 |

STRAINPRESS® – Applications

The STRAINPRESS® is used for liquid sludge screening or filtration of service or process water under pressure.

Examples for coarse material separation from:

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



Discharge of the separated dewatered material.



Separated material: wet wipes, leaves, plastics, foils, packaging residues, textiles, etc.

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