HUBER Screw Press Q-PRESS®

Cost-effective sludge dewatering for independence in sludge disposal

The Q-PRESS® is a screw press with a conical screw shaft and cylindrical sieves consisting of three treatment zones: inlet and drive zone, three-part thickening and dewatering zone, and press zone with pneumatic counter-pressure cone.

In the first part of the thickening and dewatering zone the supernatant is quickly removed by the feed pump via a large free filter surface at a low primary pressure. A pressure probe in the feed area controls the primary pressure thus ensuring a constantly high filtrate quality.

In the second part of the screen the volume of material between the screw flights is reduced by the conical screw and the sludge pressed against the inner screen surface so that the sludge is dewatered, with a continuous reduction of the filter cake thickness. The screen apertures are much smaller in this screen section.

In the third part of the screen the residual water is pressed out of the sludge, at a minimum filter cake thickness, by the pneumatic counterpressure cone at the press discharge. The dewatered sludge is pushed by the conveying screw past the pressure cone into the discharge chamber. The sludge residence time in the screw press and thus the filtration time can be adjusted to individual requirements by adjusting the rotational speed of the screw shaft.

Special applications of the Q-PRESS®

Dewatering of thin sludges

Due to pump feeding, large volumes of sludge water are removed already in the pre-dewatering zone. This permits cost-efficient dewatering of thin sludges with a solids concentration < 1%. This application allows typical dewatering results of 18 – 25% DS and achieves a sludge volume reduction up to > 97% in a single step!

Variable sludge characteristics

Dewatering performance is usually impaired and operator attention increased by frequently varying sludge quality. Our HUBER Screw Press Q-PRESS® automatically selfadjusts to over- and underloading. A control loop makes sure that optimal operation is always maintained, with minimised operator attention.

Benefits

ADVANTAGES OF THE HUBER SCREW PRESS Q-PRESS®

- Insensitive to coarse material due to the wide gap between the screw conveyor and sieve
- No permanent sieve cleaning required, low wash water consumption
- Pneumatically controlled pressure cone system
- Defined sludge residence time
- Permanent movement of filter cake, minimized filter resistances
- Minimum wear due to the low speed of the compacting screw
- Minimized noise
- Low energy consumption
- High dewatering degrees with fibrous sludge

Downloads

- Brochure: HUBER Screw Press Q-PRESS® [pdf, 332 KB]
- Brochure: HUBER Inline Polymer Mixer IPM - for optimal admixture of flocculant [pdf, 162 KB]

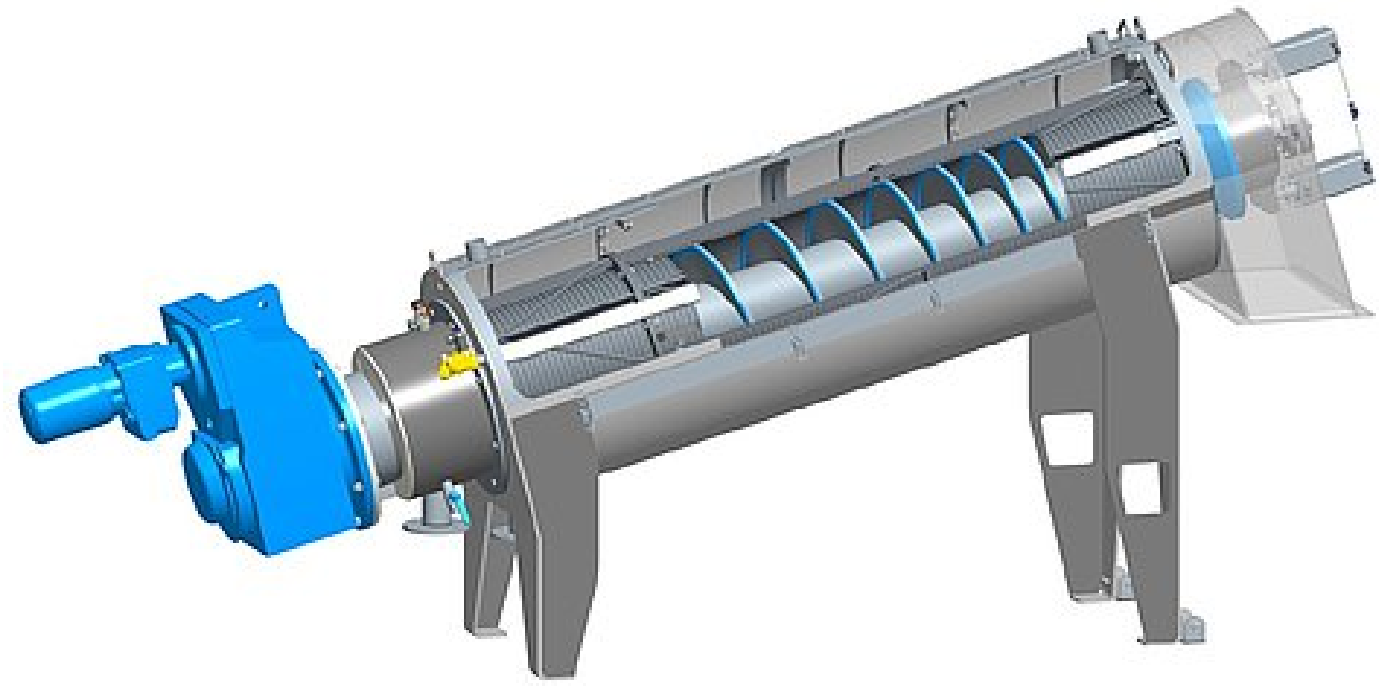
Case Studies

- Up to 80 percent savings: HUBER Screw Press Q-PRESS® minimises electricity costs for sludge dewatering
- Municipal Sludge Dewatering Trials save significant operating costs
- HUBER Screw Press Q-PRESS® with world premieres at STP Sargans
- HUBER Screw Press Q-PRESS® in operation at a disposal company
- Sludge Dewatering for Food Manufacturers
- Sludge dewatering in a confectionery at Mondelez, Marlbrook
- Sludge dewatering with the HUBER Screw Press Q-PRESS®
- New TOTEX solution for Sludge Dewatering at Plymouth
- Septic Sludge Management in Kota Bekasi (Indonesia)
- Dynamic inline mixer for optimized sludge dewatering
- HUBER's Screw Press Helps Cardston WWTP Make Positive Impact on Community
- From thin sludge to dry granulate – all from one source
- HUBER sludge dewatering solution for new wastewater treatment plant in a dairy industry
- New HUBER Screw Press Q-PRESS® 620.2 for sludge dewatering: operational experience on STP Bad Orb
- Case Study Dairy Crest Davidstowe Creamery, Cornwall
- Q-PRESS® – The new HUBER Screw Press
- HUBER flotation plant and screw press are a great help with the apple harvest in Serbia
- Cost-efficient, low wear: HUBER ROTAMAT® Screw Press RoS 3Q in Finland
- Efficient Sludge Treatment at Small Plants
- Romanos Hotel - Greece
- HUBER supplies machines for faecal sludge treatment on the Faroe Islands
- Further increase in performance for sludge dewatering: HUBER Screw Press Q-PRESS® with increased throughput capacity and new control mode
- HUBER complete solution: sludge treatment plant at Šumperk WWTP officially inaugurated
- Rent wastewater technology from HUBER instead of buying – the solution for temporary bottlenecks and fast implementation
- HUBER Plant Technology for rent – the smart solution for industry and municipalities

Downloads

Brochure (US version): HUBER Screw Press Q-PRESS® [pdf, 2.13 MB]

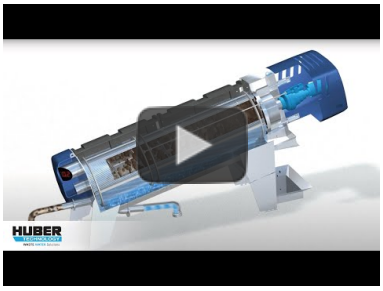
Design Sketch



Media

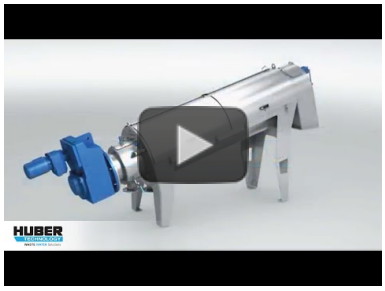
Animation: HUBER Sludge Dewatering

https://www.youtube.com/watch?v=2bE1Kb5FApc



Animation: Function and components of new HUBER Screw Press Q-PRESS® 620, 800

https://www.youtube.com/watch?v=t1dSGJYTtCk

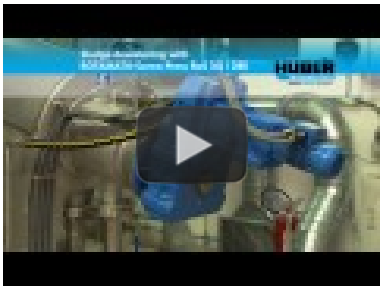


Animation: Function and components of HUBER Screw Press Q-PRESS® 440

https://www.youtube.com/watch?v=n_mnNdQsaCo

Video: HUBER Screw Press Q-PRESS® - here at a municipal WWTP

https://www.youtube.com/watch?v=5VsPNKbkJyA



Video HUBER Screw Press Q-PRESS® - here in beverage industry

https://www.youtube.com/watch?v=T5sOUqy-zxk

More products of this group: Sludge Dewatering

- HUBER Screw Press S-PRESS
- HUBER Bogenpress B-PRESS

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