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New Screw Press size for high throughputs



Continuously operated Screw Press RoS 3Q

One more press size has been added to the successful HUBER Screw Press RoS 3Q series. As its name indicates, the new machine size RoS 3Q 620 has a screen diameter of 620 mm and is designed for throughputs up to 15 m³/h.

The new machine has been tested on a real wastewater treatment plant to prove its qualities under continuous operation conditions:

- Problem-free continuous operation even at the capacity limits
- Competitive dewatering efficiency
- Minimum energy consumption
- Easy to operate

The mobile RoS 3Q unit is continuously operated on a 70,000 PE wastewater treatment plant where the unit dewateres digested sludge with an organics content of approximately 65 %. The mobile screw press is fully integrated in the local system so that it can be operated 24 hours. After intensive briefing of the local operating staff they have operated the screw press on their own.

The results of the 8-week operation period :

The screw press has been operated both during the day and, without any operator attention, during the night. After optimisation of the press operation by the local staff the unit achieves the following results:

The continuously operating screw press needs a specific polymer dose of 14 to 15 kg/tDR to achieve dewatering degrees of 27 to 29 % with a throughput of 9.5 m³/h and a solids load of 260 kg/h. Operation with the same throughput but a significantly reduced polymer dose of 10 to 11 kg/tDR has resulted in a dewatering degree of 23 to 25 %.

The performance data of a mobile centrifuge unit are listed additionally for comparison. This centrifuge was tested for several weeks just before our RoS 3Q screw press.

	RoS 3Q 620	Centrifuge
Rotary speed of compacting screws / drum [rpm]	0.2 - 1.0	2500 - 3000
Throughput capacity [m ³ /h]	5 - 14	8
Solids load [kgDR/h]	220 - 320	360
Dewatering result [% DR]	23 - 29	23 - 25
Specific polymer consumption [kg/DA]	10 - 15	15
Installed capacity*) [kW]	2.2	approx. 20
Specific input power*) [kW/DA]	4	approx. 40
Specific output related to solids load [kWh/kgDR]	0.007 - 0.01	0.055

Comparison: performance data of a RoS 3Q and mobile centrifuge (* dewatering unit only)

The test results of the RoS 3Q 620 are a complete success:

- Problem-free continuous operation managed by the local operating staff on their own
- Significantly better dewatering results than a centrifuge with comparable polymer doses
- Comparable dewatering results with a significantly lower polymer demand of the RoS 3Q screw press
- The energy demand of the RoS 3Q screw press is by a factor of 10 lower

In addition to the above performance data the new screw press excels with virtually noiseless operation and minimum wear – the same qualities for which our well-proven basic RoS 3Q models have been known for years. The very simple maintenance concept of the RoS 3Q 620 shows that the focus of our development work has not been limited to just increasing throughput capacity.

Related Products:

- [HUBER Screw Press Q-PRESS®](#)

Related Solutions:

- [HUBER Solutions for Sludge Dewatering](#)

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