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Q-PRESS® – The new HUBER Screw Press

Over the past ten years HUBER Screw Press units have become the worldwide leading products among the screw presses on the market. Numerous experiences with screw presses on almost thousand installations in various fields of application and long-term trust-based contacts to many plant operators result now in an extensive improvement in screw press efficiency.



WEFTEC trade show in Chicago: presentation of the Q-PRESS® 800.2 screw press

The new Q-PRESS® excels for several features:

Axially dividable filter baskets are optionally available, they facilitate maintenance work significantly. Massive components, such as the screw shaft and some filter elements, can remain in the machine during inspections. Much less space and time is therefore required for maintenance.

Even if non-dividable filter baskets are used space requirements for maintenance on the installation place are now reduced to the minimum that is necessary for machine operation and inspection.

The outer surface of the cylindrical filter baskets has previously been cleaned by rotating the filter baskets along a stationary nozzle bar while the dewatering process has been interrupted.

The new screw press provides the option of continuous dewatering without interruptions through a rotating washing system that rotates around the filter baskets. Dewatering degree and machine throughput are no longer influenced by interruptions or starts/stops of the washing systems. In contrast to many competitive machines the rotating washing system allows for independent cleaning of the filter surfaces of the inlet and press zone. In addition, the upper and lower filter halves can be cleaned separately so that only the

contaminated filter surface sections are cleaned. Filter surface sections which have been cleaned cannot be contaminated again by wash water that runs down. This system significantly reduces the water demand for filter cleaning and additionally minimizes rewetting of the sludge cake through washing.

Reliable cleaning of the inner screen basket surfaces is just as important as cleaning of the outer surfaces. The inner surfaces are typically cleaned by a scraper that is mounted on the screw flights and wipes clear the inner filter surface as the screw shaft rotates. The efficiency of this scraping and wiping operation has direct influence on filter resistance and the water discharge velocity of the screw press. Both have an influence on dewatering degree, throughput, filtrate quality, polymer demand, and thus on the operating costs for dewatering.

After extensive development and test series HUBER screw presses are now equipped with a patented scraper material which cleans the inner filter surface much better and more reliably than customary brushes and lip seal systems. The scraper material is a product sold by metre which, contrary to competitive products, can easily be mounted on the screw shaft without time-consuming alignment.

Well-proven for many years, wear-resistance and insensitive to clogging, wedge wire baskets with different bar spacings remain the basis for the three filter baskets of the screw press. What is new is that the open filter surfaces in the filter baskets have been increased by up to 100%. The individual screen sizes are therefore able to process significantly higher hydraulic loads without placing higher loads on the filter surfaces and thus the filtrate, and without increasing polymer demand.

New drives exceed current energy efficiency standards. They save not only electricity costs, they also offer plant operators the possibility to operate their sludge dewatering unit much more flexibly due to significantly wider motor speed ranges.

For good reasons, the basic appearance of the press, the inclined installation, remains as it has always been. The inclined design ensures that screenings removal units can in most cases be connected without the need to place it on an additional elevation. Furthermore, the inclination of the filtrate chambers prevents sedimentation and eliminates the need for manual cleaning work. Another decisive advantage of the inclined installation is improved dewatering efficiency. The separated filtrate flows off from the screen basket by gravity, against the flow direction of the press sludge. Rewetting of hydrophilic sludges through filtrate is thus reduced and the dewatering degree improved. Moreover, inclined installation facilitates especially the start-up procedure of the screw press. During the starting phase a uniform press cake is automatically produced within a very short time whereas horizontal screw presses need additional polymer to prevent breakthrough of thin sludge.

The newest generation of HUBER screw presses excel especially for their variety of technical improvements which are also reflected by their appearance. The known rising silhouette has now much more distinctive lines and a colouring with a high recognition value. But, of course, design was not everything: The size of the maintenance openings which provide access to the filter surfaces and sludge discharge has been increased and even an additional access to the filter inside has been integrated. All supporting parts of the Q-PRESS® and parts in contact with medium are of course still made from stainless steel and manufactured exclusively in Germany.

Related Products:

- [HUBER Screw Press Q-PRESS®](#)

Related Solutions:

- [HUBER Solutions for Sludge Dewatering](#)

HYDROFLUX
WATER | SCIENCE | TECHNOLOGY

Hydroflux Pty Ltd
Level 26, 44 Market St
Sydney NSW 2000
Australia

Phone +61 2 9089 8833
Fax +61 2 9089 8830
Email info@hydroflux.com.au
WWW www.huber-technology.net.au

Representative of the HUBER group:
www.huber.de