KUHN – whirl wash

The extraction of detachable, organic compositions from screenings has presented a multitude of challenges for many years. Through the KUHN wash press nutrients are recycled into the inflow of the sewage plant, reducing the amount of screenings and limiting the build up of potentially harmful odours.

With the thousand-fold approved KUHN wash presses these demands are met and constantly exceeded in an incomparable way.

The application of flumes for the transportation of screenings has increasingly gained importance in today’s process market. Some of these benefits are summarised below;

- Flumes can be designed and manufactured with the smallest of radiiuses and diverted multiple times, opening up many locations in the plant that were historically not serviceable, particularly under crowded space conditions.
- Flumes are self-regulating systems, because with a rising water level the towing powers are ever increasing.
- Raw sewage from the inflow of the treatment plant can be used as floating medium without pre-filtration and that without noticeable erosion at the flumes.
- Flumes are extremely simple and cost effective systems. Particularly advantageous is the use of flumes combined with the powerful KUHN wash or screw presses. These machines stand out through their multifaceted designs and market leading dewatering performance.

Operating mode

With a suitable amount of wash water already in the treatment machines and solder filling system it would seem sensible to utilise this water for additional screenings treatment.

The KUHN wash or screw presses in batch mode is automatically controlled by level with the wash sequence initiated once the optimum level is reached. By incorporating the Whirl Wash System the screenings and water mix are turbulently whirled. High shearing forces and intensive contact with the washing water lead to exceptional washing results.

During the washing sequence the conveyor and pressing screw of the KUHN wash or screw press can be rotated in both directions, adding support and eliminating the potential for untreated screenings to be carried out of the treatment machines.

After the intensive washout the dewatering ability of the screenings is clearly improved. Dry solids contents of up to 50% - 60% can consistently be achieved, reducing the amount and costs of screenings disposal.

Construction (Technical characteristics)

- Intensive wash utilising raw sewage as washing medium (purified potable or industrial water is not required)
- Volume, weight and cost reduction of up to 80 %
- Return of the nutrients into the wastewater stream
- Visible cleaning result with optimal washed screenings
- Simplified washing water delivery
- Flumes are easily incorporated into the system for screenings transportation
- Through the intelligent arrangement of the Whirl Wash system, installation heights and footprints are reduced.
- The design flexibility and extensive model range allows the KUHN wash press or screw press system to be mounted directly under the discharge of the screen
- Intensive screenings washout in batch modus
- The design can be continuously operated to avoid overloading during peak load events.