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Producer of equipment for environmental protection industry

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Sand washer PPE

Sand separated at an earlier stage of waste water treatment is directed to the sand washer, where mineral matter is separated from organic solids and suspended solids. The washer tank with a mixer is filled with sand through a charge. During the operation of the mixer organic matter are washed out upwards during water flow. The water with organic matter flows out of the tank through an overflow. Sand washed out accumulates in the bottom part of the tank, from which it is removed by a feeding screw. The efficiency of sand washed out between 0.4 and 1.0m^3 /h. Organic matter content in sand washed out up to 3%. The device can be equipped with heating system.

Sand separator PSK

SThe separator is designed for final removal of sand from sand pulp delivered from a sand trap in the process of mechanical waste water treatment. During waste water flow succeeds the mineral particles sediment. The sand sedimented on the bottom is transported and filtered off by means of a screw feeder. Waste water is removed from the device through an overflow in its upper part. The efficiency of the separator from 15 to 50m^3 /h. The device can be equipped with heating system.

Sand separator with washing system WPP WashMem

The washer-separator enables simultaneous effective separation, flushing and dewatering of sand. In the bottom part of the sand trap there is a "settling chamber", where pulp accumulates. An appropriate shape of the inlet to the separator, which causes vortex et flow, enables sand separation. The separation of organic and mineral fraction is facilitated by an installed mixer. A screw feeder with a shaft transport sand pulp to a container. The efficiency of the device from 25 to 90 m^3/h. Organic matter content in sand washed out is up to 2.8%, the efficiency of sand separation 95% for graining > 0.2mm. The device can be equipped with heating system.

Screenings washing press PSW / Screenings ram press PRE

The screenings ram press and washing press are designed to reduce the volume of the screenings separated. The device is used for washing, size reduction, dewatering and pressing of solid waste (bottles, rags, corks, stones, plastic elements etc.) coming, for instance, from the sieve or screen. The screenings washing press is additionally equipped with a screenings washing system. Dry matter content in dewatered screenings is between 35 and 45%. The devices can be equipped with heating system.

Sand scraper ZGP

The scraper is designed to remove sand and to push down floating elements from the longitudinal desander's chamber. In the scraper equipped with pumps, the pump sucks in pulp from the bottom of the channel and forces it through to the next device in the technological line of the treatment plant (trough, separator etc.) In sand scrapers equipped with ploughs sand is scraped into a funnel located in the final part of the desander. The sand scraper moves on a concrete race or track. The feeder cable is suspended or unwinds automatically during the travel of the scraper. The scraper can be operated in an automatic mode, controlled by time relays or in a manual (local) mode from the scraper control box. The scraper can be equipped with a fat removal system, blowing system and heating system.

Vortex sand trap PWE

Waste water flows through an inlet pipe within the internal chamber of the device. As a result of rotational motion of liquid supporting sedimentation, sand grains settle on the bottom of the desander. Waste water after heavy suspended matter has precipitated (sand, solids) is removed from the desander through an outlet pipe to the outer ring of the device. This process can be facilitated by an aeration system. Sand pulp settling at the bottom of the sand trap is removed outside by a screw feeder or sucked out by a pump. Floating sediment accumulating in the internal ring can be sucked out by means of a funnel with adjustable position. Efficiency between 60 and 200 m^3/h.

Integrated system for mechanical waste water treatment ZSP

The ZSP integrated system for mechanical waste water treatment combines the functions of a screenings sieve or screen, sand trap, sand separator and degreaser, due to which the mechanical waste water treatment process is carried out in a relatively small area in one compact unit. Waste water is transported from the piping system into the pre-chamber. The first step is the removal of screenings on a channel sieve, rotating drum or step screen. The unit can be equipped with a washing system used for washing the sieve/screen, and a flushing and pressing (thickening) of separated screenings system. Filtered waste water flows into the sand trap's chamber, where sand is sedmiented. The sedimentation can be facilitated by an aeration system, which, in addition, enables the separation of some of fats from waste water. The sand settling in the bottom part is transported by a horizontal feeding screw to the settling chamber, from which it is removed outside the device by an angle feeding screw. During transport the sand is flushed, dewatered gravitationally and thickened. The sand prepared in such a manner is pushed into the dump segment from which it is thrown into a container. For systems equipped with a degreasing system, fat which has been released is pushed by means of a mechanical scraper to the fat chamber and pumped out to the screenings outlet. The efficiency of the installation from 10 to 200 l/s. It can be optionally equipped with heating.

Screens

The screens are designed to separate solid waste (screenings) from waste water. Waste water flows through a filtering system, where floating fractions are captured. The screenings are lifted above the channel edge to the height enabling their loading into transport equipment. The screens are equipped with different filtering element (system) designs.

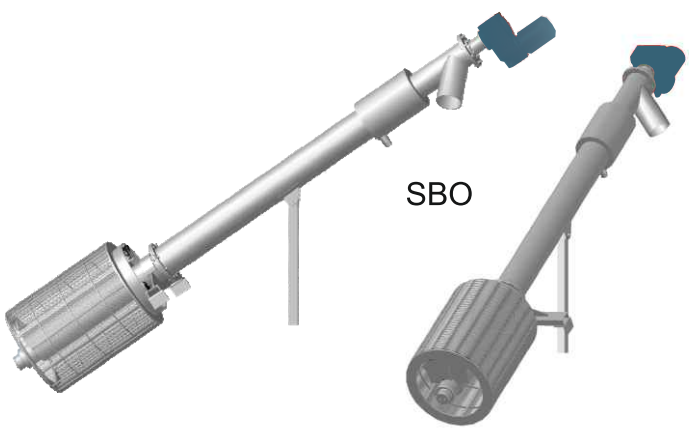
- KSE step screen– where a grating (movable or immovable) constitutes the filtering element, clearance 3-6 mm
- KHS hook screen– where an immovable rod grating constitutes the filtering element, and a hook-scraper system is the scraping element, clearance 6-20 mm
- KHZ scraper screen– where an immovable grating is the filtering element, and a scraper system is the scraping element, clearance 6-50 mm
- KHP panel screen– where a perforated panel tape is the filtering element. Openings 2-10 mm

Screenings sieves

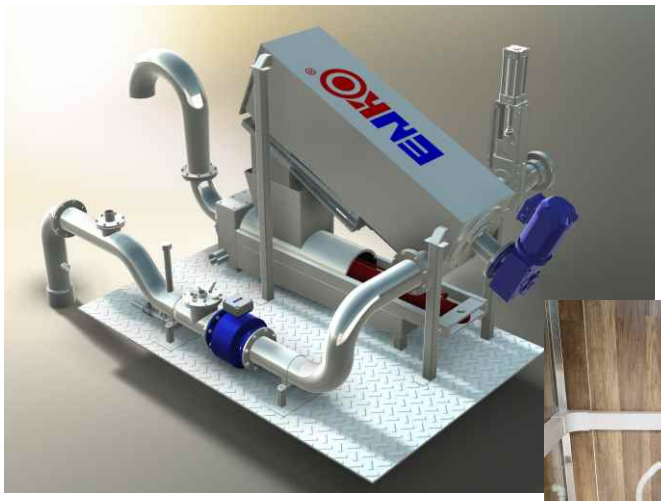
The sieves are designed to separate screenings from waste water with the possibility of screenings removal with their simultaneous dehydration and thickening. They can be used in different branches of industry and waste water treatment plants. The sieves can be installed both in a channel and container housing. Untreated waste water flowing through the section separating the sieves causes screenings to settle on its surface. The screenings settled are transported by means of a ribbon feeder through the dehydrating section, where the screenings are dehydrated and thickened to the dump zone and then removed outside.

Types of sieves offered:

- SBK Channel sieve DN 200-500
- SBO Rotating drum sieve with inside flow DN 600-1400
- SBW Drum sieve with inside flow DN 600-1400
- SBZ Drum sieve with outside flow DN 600-1400



Waste water disposal station STZ



Waste water disposal stations are designed to collect municipal and industrial waste water from waste removing cars and trailers. They enable the assessment of the amount of waste water delivered, temperature, pH and conductivity. They identify carriers and suppliers of waste water and enable programming the quota of delivered waste water.

The collection of waste water starts with the connection of waste removal car hose to the waste water reception system by means of a connector. A carrier equipped with a transponder identifier identifies himself, then the gate is opened and waste water let in. Waste water can be directed to a shredder or sieve with a screenings press depending on the equipment. Solid waste floating in waste water is shredded or it settle on the sieve. The ribbon feeder scrapes the screenings from the sieve and transports them to the charging hopper of the screenings press. The screenings are pressed and removed outside. Then the waste water flows through the flowmeter sensor and measuring module, in which pH, conductivity and temperature are measured. If the physico-chemical parameters of waste water supplied do not conform to the set range of values, the gate can be automatically closed and the waste water collection stopped. In such a case a sample of waste water can be collected by the automatic sampling system, and sent for laboratory testing. The total amount of waste water delivered is measured by an electromagnetic flowmeter. After the waste water has been collected from a given supplier the gate is automatically closed, and the valve in the washing collector opens, the system is washed with water and prepared for next waste water reception. All data is saved on a memory card. The entire waste water system is controlled by the control panel equipped with a printer and reader for quick identification of suppliers.

Visualization of waste water disposal station operation WizSTZ

The WizSTZ application enables presenting the operation of the waste water disposal station on a computer screen. The programme registers successive supplies in a data base, from which data can be transfered to the SODA programme and there it can be used for reporting. The operation of the programme requires a permanent communication connection with the station - normally by means of a RS-485 transmission cable and the Modbus protocol. It is also possible to use other available media such as GPRS, Ethernet, WiFi - to be agreed on. The programme can be operated in the Customer Server mode or as an independent application.



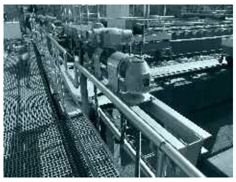



















Automatic liquid sampler system

Automatic liquid sampler systems fulfil to the international standards ISO 5667-2/3&10. It is enable to take samples in defined time functions, flow functions or by impulse generated manually. There is possible to take average sample from given period. Thanks to cooled cabinet and screw cap containers, samples are properly prepared to forward them to the analytical laboratories without the need to decant.

Systems can operate with co-operation with flow meters, level meters etc so the user has the possibility to adapt the system to suit his needs (eg. take sample when level cros xx, take sample after yy m^3, etc.).

Bottles capacity: 2x25 l, 4x13,5 l, 12x2 l, 24x1 l.

Main benefits

- high quality cooling system to maintain constant weathering + 4 ° C (condenser cooled by air, heat-insulating cover)
- enclosure resistant to bad weather (48 months warranty for enclosure)
- separation of control part and the sampling part of sampler
- circular distributor with 2x25 l, 4x13,5 l, 12x2 l, 24x1 l bottles
- possibility to co-operate with computer and to transfer data
- possibility to co-operate with any control- measuring devices - equipped with 4 / 20mA and / or potential-free output
- possibility to take samples by remote control
- samples taken according to ISO 5667-2/10
- samples taken up to depth 4 m (others for request)
- Polish language version
- easy service and maintenance
- very low exploitation cost
- possibility to take samples also from pressure pipelines
- possibility to receive SMS messages from the sampler, such as totalizer values, alarms, etc.

Aerating turbines TNE

The turbines are designed to aerate and set waste water and active sediment mixture in motion. The turbines can be used in both municipal and industrial waste water treatment plants, and in the SBR technology. The turbine is delivered with a supporting structure supported on three floats. The turbine diameters from 1600 mm for tanks with a capacity of up to 800m^3, 2000 mm for tanks with a capacity of up to 1000m^3, and 2300 mm for tanks with a capacity of up to 1600m^3. Aerating efficiency expressed in kgO_2/h up to 40, up to 85 and up to 120 respectively.

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