

PSK

SAND SEPARATOR



- separating sand from pulp
- transporting sand with simultaneous sand compaction
- automatic operation that does not require constant supervision
- cyclic operation, long life
- made of high-grade stainless steel
- high efficiency of operation at low running costs
- insulated and heated housing (optional)



ENKO®

SAND SEPARATOR PSK

Technical description and operating principle of the sand separator:

Sand separator is used for draining and removing sand and other (heavy) mineral deposits from water-sand pulp supplied from devices in the sewage pre-treatment process. The PSK sand separator consists of a sand trap (working chamber) and a ribbon feeder. The device is made of high-grade stainless steel.

Principle of operation:

As a result of decrease in speed of wastewater flow from the sewage system to the separator, sand settles at the bottom of the working chamber. Excess wastewater with organic components flows through the baffle. The oblique ribbon feeder collects sand from the bottom of the working chamber. During this process a simultaneous gravity drainage and compaction of the transported sand takes place. Dewatered sand is discharged outside the separator into a container. The separator operates in an automatic cycle.

Modern and high quality construction of the device ensures its long life and reliable operation. Our experienced staff is willing to provide you advice and assistance in solving any design or operational problems.

VORTEX SAND TRAP PWE

- high efficiency of sand separation
- high productivity up to 600m³/h
- fast and simple installation
- low energy consumption
- gravity flow
- made of acid-proof steel
- low cost of operation
- compact design that requires little space



Use:

Vortex sand traps are designed for separating sand and other high density solids (heavier than wastewater). Vortex sand traps with their small overall dimensions provide relatively high efficiency of sand separation. They are used mostly in small and medium-sized wastewater treatment plants and modernized facilities, where there is no possibility of using multifunction devices that require more space.

Design:

PWE vortex sand traps by ENKO are made from high quality stainless steel. Basic elements of the vortex sand separator are:

- cylindrical tank with inlet and outlet pieces
- conical tank
- ribbon feeder or pumping system
- cover
- supports
- power supply and control box

PWE vortex sand trap can be installed in heated rooms of wastewater treatment plants or under non-heated shelters, as well as in open terrain. The device has thermal insulation and a heating system that protect the unit from freezing. The device is equipped with a control system capable of working in automatic or manual mode.

Principle of operation:

The wastewater flows through inlet pipe into internal jacket of the device. Rotational motion of liquid supports the sedimentation phenomenon, and sand grains sink to the bottom of the sand trap. After precipitation of heavy slurry (sand, solids) the wastewater passes into outer ring, from where it is discharged from the vortex sand trap and addressed for further processing. Effectiveness of the process can be intensified by an aeration system. Sand pulp settling at the bottom of the sand trap is thrown out by the ribbon feeder or sucked out by a pump. The device can be tailored to individual customer needs.



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