

HERBOLD Pre-washing Unit VWE 600/2

The pre-washing unit VWE 600/2 combines the function of a heavy material separator with a pre-wash of the feeding material. The HERBOLD pre-washing unit separates foreign bodies such as stones, metals, glass, sand and paper using three different integrated process steps. The feeding material undergoes an intensive washing step and then, in a third step, makes further foreign materials sink.



Picture: VWE 600/2

In comparison to the dry processing, the wear and maintenance costs of all three processing steps of a washing line will considerably be reduced. The washing line itself is no longer strained by heavy contaminations, the components have a longer life time and also the final product quality will improve. The water treatment has to cope with less contamination thanks to the separate circuit that can be installed in the VWE unit.

Applications:

Extremely high contaminated films for example:

- Agricultural films
- Construction foils and pond liners
- Films contained in household waste
- Films from land fill sites

Operating mode:

Process step 1 / Separation chamber 1:

The shredded material is fed into the pre-washing unit by a conveyor belt or by a washing/conveying screw. In the first separation chamber, heavy materials are separated from the feeding material utilizing the swimsink procedure. The sediments are discharged via a double valve into a dewatering container provided by the customer or optionally, via a laterally placed conveying screw. Thanks to the constant up-current inside the separation chamber, sedimentation of the good material is prevented. At the same time, the material is continuously transported to the next separation chamber.

Process step 2 / Separation chamber 2:

Two conveying screws with a perforated bottom transport the good material into the third separation chamber. Above the conveying screws, at regular intervals, washing nozzles are mounted, ensuring an efficient washing and rinsing effect on the feeding material. Thus, remaining contaminations such as, e. g. sand, dirt, paper and organic dirt are removed. The fine-grained contaminations (sand in particular) are flushed through the screen together with the dirty water and collected in the lower part of the separation chamber and discharged via valves into the waste water channels or into a sand classifier.

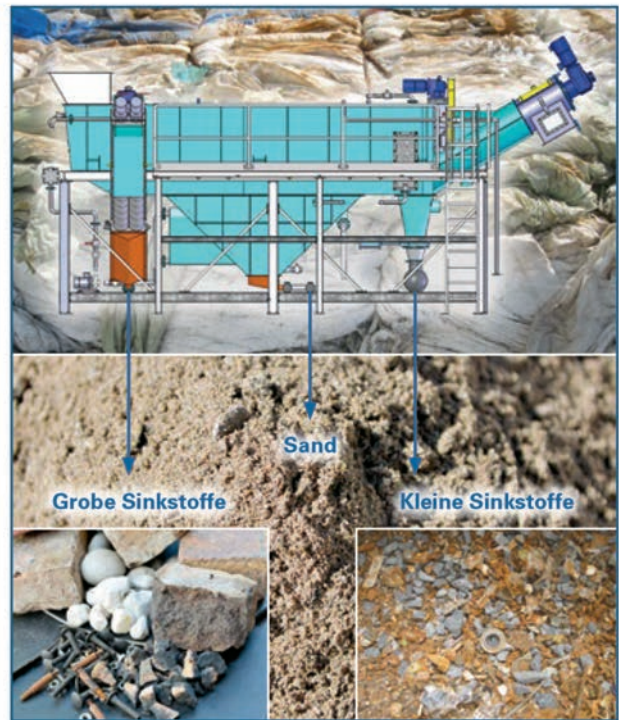
Process step 3 / Separation chamber 3:

During the third step, the good material fraction is separated from further foreign materials that have previously been diluted during the second step. Heavy materials will sediment and the good material is transported by a conveying screw from the separation chamber into the next-in-line washing unit which usually is a wet granulator. A double valve system discharges the sunken material into the waste water channels of the washing line.

Advantages:

- Low water consumption
- High-quality separation
- Pre-sorting of foreign materials
- Active material washing provided by washing nozzles
- Longer lifetime of downstream machines
- More efficient metal separation
- Two machines in one
- Considerably bigger separation chambers
- Release for the water treatment

According to the required capacities and to the feeding material, HERBOLD can also supply a smaller pre-washing unit (VWE 500/2) or a heavy material separator (SA 180/200).



Type
VWE 500
VWE 600
VWE 700

Our Product Range

Size Reduction

- › Shredder
- › Granulators
- › Pulverizing Systems

Washing / Separation Systems & Components

- › Pre-washing Units
- › Friction Washers
- › Separation Tanks and Hydrocyclones
- › Mechanical and Thermal Drying
- › Water Processing

Agglomeration

- › Plastcompactors

Service

- › Parts and Overhauls
- › Inspections and Trouble Shooting
- › Upgrades and Performance Service

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Specifications are not binding and subject to change without notice. 10 / 2019