

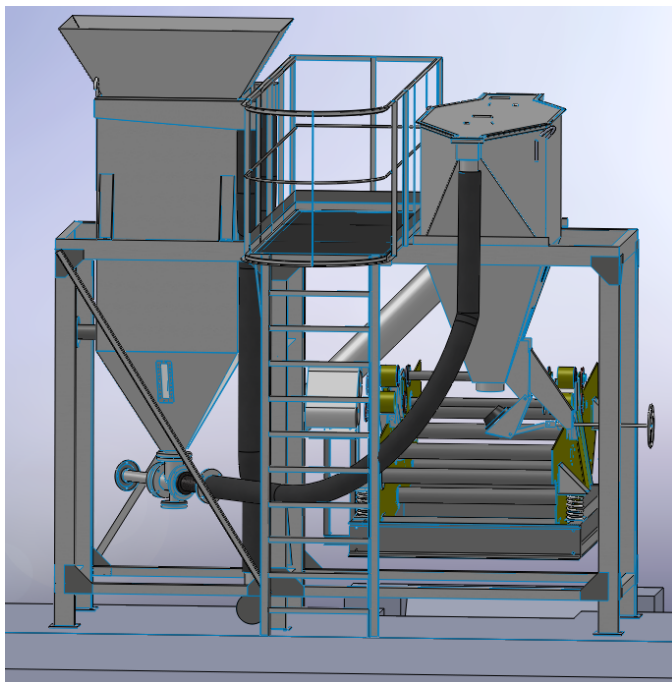
Complex for washing granular materials TURBO WASHING APPARATUS TM

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APPOINTMENT

Classification of granular materials (natural and artificial sand, sifting crushing of rock) in the flow of the pulp to produce commercial product specified size. Efficient removal of clay and fine particles. Dewatering and warehousing of commercial product.

THE ESSENCE OF TECHNOLOGY



Implementation of flushing process raw materials is to prepare pulp and the removal of her fine and clay impurities. The washing process is carried out in vertical and horizontal flow of pulp when gravitational deposition of heavy class. For making pulp and implementation of the classification, process recommended by the closed cycle of water supply with application of system of horizontal sedimentation tanks. General view of the installation (Fig. 1). Patents № 33731, 35923, 87591 Ukraine.

Fig. 1. Model of TM-20

INDUSTRIAL TESTS

In 2013-2016 on the industrial base «Silikatchik» (Dnepropetrovsk) was carry out experimental-industrial tests of the installation for washing granular materials TURBO WASHING TM-3 (Fig. 2). As a result of pilot tests found to that the specific water consumption by flushing sand was $4.4 \text{ m}^3 / \text{t}$ at a specific energy consumption of $1.5 \text{ kW} / \text{t}$.

ADVANTAGES AND DISADVANTAGES

As a result of pilot testing of innovative technologies for processing of granular materials with using the TM-3 revealed such advantages and disadvantages:
advantages:



- possibility of operation of the installation in open areas of the processing;
- high efficiency the cleaning process of granular material from clay, silt and fine impurities;
- the possibility of exploitation in the complex of water recycling;
- high reliability of the equipment due to lack of drive, including rotating and rubbing parts;
- easy to operate and maintain due to lack of lubrication nodes;
- low requirements to the qualification of the staff.

disadvantages:

- the need to control set parameters of water supply;
- the need to control size of original product;
- the dependence of commodity products quality from raw material quality.

Рис. 2. Pilot testing of installation TM-3

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