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HERBOLD MECKESHEIM GMBH

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HERBOLD MECKESHEIM: new pulverizing concept with vertical pulverizer

There are mainly two fields in the plastics industry where pulverizing is required most: when recycling rigid PVC waste, pulverizing into powder creates a high-quality regenerated material that can directly be introduced into the heating mixer. In the field of rotational molding and fluidized bed coating, the virgin material is pulverized to a fineness of 500 μ m (35 mesh) or 300 μ m (60 mesh) before its treatment.

The new generation of pulverizers has two new characteristic features at the same time: due to the vertical configuration of the rotor shaft and the directly flanged drive, the machine has an unorthodox design.

Pulverizers for plastics are due to design-inherent reasons machines with a very high circumferential speed. Their bearings are particularly robust and have long service times if there is mass balancing and no influence of transverse forces as is the case with a V-belt drive due to design inherent reasons: its vertical configuration is an optimal constructional advantage for that.

The horizontal configuration of the grinding discs has a positive influence on the dwell time of the material in the grinding chamber, thus achieving a greater fineness with a high throughput.

This functional principle is well-known, nevertheless HERBOLD MECKESHEIM succeeded in optimizing this principle: two grooved grinding discs work opposite to each other and the shape of the grooves is responsible for the fineness and the throughput of the end product. With the new disc design, a greater fineness and a higher throughput can be achieved; therefore refeeding of coarse material becomes superfluous or can be achieved in a much easier way than with conventional pulverizers.

The discs of this new pulverizer generation are no longer screwed in but clamped; so due to the fact that there are no holes, the risk that a disc will break, is reduced to a minimum.

The first machine with this new design that is available at HERBOLD MECKESHEIM is the model

PU 650 with a disc diameter of 650 mm (26"), equipped with a 75 kW (100 HP) or 90 kW (125 HP) drive motor. With PE, throughput performances of up to 800 kg/h (1700 lbs/hr) and with rigid PVC, throughput performances of up to 1200 kg/h (2800 lbs/hr) are achieved.

The particularly compact and space-saving design is a further advantage of the vertical rotor configuration.

A full-scale machine is available for tests with customer's original material in the HERBOLD technical laboratory.

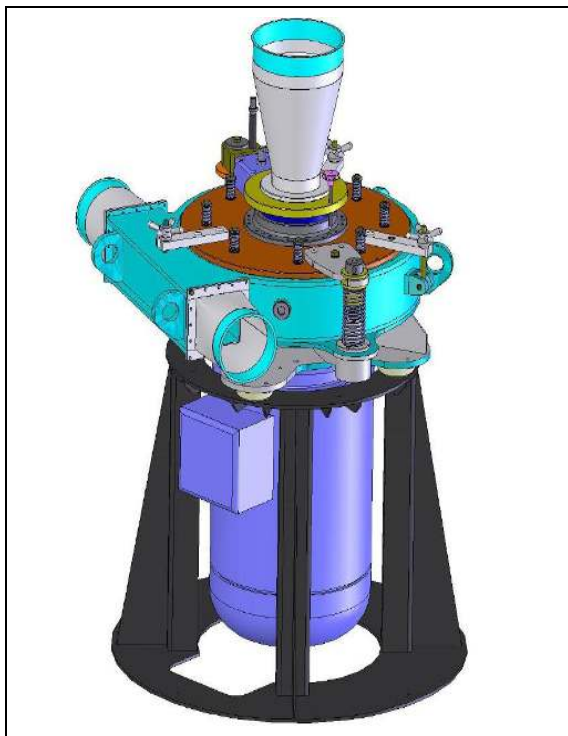


Fig. 1: three-dimensional view type PU 650



Fig. 2: Herbold pulverizer type PU 650

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