

Special rotor G3 (guillotine rotor), model with double cross cutting action

HERBOLD granulators can be equipped with this special rotor for applications in which smearing or sticky material is to be reduced. Some typical applications: Bales of natural and synthetic rubber, atactic polypropylene, blocks of wax, types of thermoplastic rubber, polyurethane sheets, bales of bitumen, EPDM. A further application is found in the reduction of material where there is the risk of a standard rotor blocking due to excessive friction, e.g. with pressed bales, bundles of fibres, film, tape and other mono- and multi-filaments. This type of rotor can also be used for the hot melt granulation of molten plastics.



Fig. 1: The guillotine rotor without continuous rotor shaft and with scrapers between casing wall and external rotary disc.

Furthermore, this type of rotor can be used in slow-running units for special applications, e.g. the size reduction of spices, tobacco, tea, dry vegetables, and gelatine with a minimum amount of fines.

Construction

The cutters are mounted on supports which are attached to side plates positioned on each side of the cutter. The thin-line, low friction shape of the cutter ensures clean cutting of the material to be reduced with minimal rubbing or crushing.

The special type of rotor shaft, as opposed to a conventional shaft located in the grinding chamber, is fitted to the front side of the rotor plates. With this design the rotor shaft is kept outside of the side plate of the rotor and out of the cutting area of the grinding chamber. This reduces friction - otherwise caused by rubbing inside the cutting chamber.

Double cross cutting action

The cutters operate with a scissor-like cutting action because of the double cross cutting effect (the rotor and stator cutters are mounted at anangle opposed to each other).

The cutters only make contact with one another at one point at a time which will limit the noise and heat generation as well limiting the power consumption.

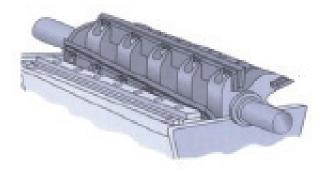
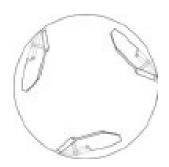


Fig. 2: Double cross cutting action

Special features of the HERBOLD design:

- Double cross cutting action
- Due to the out-board mounted rotor bearings, the front side of the rotor plates is easily accessible, if the machine is open
- The cutting gap can be checked even if the machine is open since the stator knives are mounted in the lower part of the casing.



- 1 Storage conveyor belt
- 2 Conveyor belt
- 3 Metal detector
- 4 Granulator with guillotine rotor
- 5 Adding a separating agent
- 6 Material discharge unit acting as material suction device
- 7 Fines separator HS to separate the separating agent



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