

The invention relates to processes and devices for grinding of different materials and may be used in the feed mill, food, chemical and other branches of industry.

The grinding process includes feeding of the initial material into the milling zone of the grinding device with division thereof into inclined flows by means of cascadedly installed inclined partitions and stepwise grinding by applying series loads, predominantly of splitter action, mixing of flows and evacuation of the grinded material from the unloading zone. Novelty consists in that concomitantly with division into inclined flows of the initial material it is additionally carried out the stepwise separation and stepwise evacuation from the milling zone of the grinded material, the particle dimensions of which correspond to the predetermined dimension, and mixing of the flows at each stage of grinding of the unseparated material with the material advanced from the previous stage. Then, at the last stage of grinding in the unloading zone the advanced material flows are mixed, at the same time evacuation of the grinded material is carried out with the continuous agitation thereof.

The grinding device comprises a loading bin, a body (1), the inner cavity (2) of which includes milling and unloading (4) zones, vertically installed into the body (1) a rotor (5) with wavy working surface and decks (6) in the form of columns, placed round the circumference, coaxial to the rotor (5), as well as partitions (7) obliquely fixed between the adjacent decks (6). Novelty consists in that the grinding device additionally comprises gage sieves, the upper (10) of which is made cylindrical and is placed into the milling zone, embraces the decks (6) and abuts on the inclined partitions (7), and coupled thereto the lower sieve, including lateral walls (12) and bottom (13), placed in the unloading zone (4) with formation of a space between them, the outer surface of the decks (6) and the base of the rotor (5). Into the formed space between the base of the rotor (5) and the bottom (13) of the lower sieve it is mounted an agitator (14), the described diameter of which corresponds to the diameter of the bottom (13) of the lower sieve.

Claims: 2

Fig.: 3

