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The present invention relates to the technique for drying and separation of bulk materials and can be used in food, chemical and microbiological industries.

The dryer-separator with vibration-fluidized bed and the process for drying and separation include a body (2), mounted on a frame (1), with a tightly clamped lid (3), in which is located a telescopic wet product feeding branch pipe (5), equipped with a bellmouth (17). In the body (2) is placed a working body in the form of a conical sieve (6) with the top down, coupled with a vibrating mechanism (13), mounted on twelve elastic elements (10) and equipped with a device (11) for change of the sieve slope angle within 2…20°. Above the wet product feeding point is mounted a perforated plate (8). In the body (2) under the conical sieve (6) are located into each other an inner cone (15) with perforations and an outer (16) with nozzles (24, 25) for the removal of sifted and refused fractions, correspondingly. The dryer-separator also includes a convection system of the heat-transfer agent (4), consisting of an air pump, connected to a radiator and a pipe for heat-transfer agent injection under the conical sieve (6), coupled with the outer cone (16), a pipe for drainage and cleaning of used heat-transfer agent, mounted in the upper part of the lid (3), equipped with corrugated plates (7) and a damper (9) and connected to a cyclone for cleaning of the used heat-transfer agent from heavy and light particles, to the air pump and filter-cyclone for the removal of microscopic particles of dust. The diameter of the pipe for drainage and cleaning of the used heat-transfer agent is equal to 2/3 of the diameter of the conical sieve (6). On 1/3 of the central surface of the conical sieve (6) are made holes of smaller dimensions than the average dimensions of the product particles, and on 2/3 of the remaining surface of the conical sieve (6) are made holes of dimensions equal to or greater than the average dimensions of the product particles.

Claims: 3
Fig.: 2