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Technical University of Moldova

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Title

DEVICE FOR UNIFORM AIR DISTRIBUTION IN A TUNNEL DRYER

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Description

The invention relates to drying technology, in particular to devices for uniform air distribution in a tunnel dryer, and can be used in economic entities in the agricultural field for drying fruits, vegetables, etc. The device for uniform air distribution in a tunnel dryer consists of: two cranks A and B, and two connecting rods C and D. Crank A is equipped with the adjustment channel 1, and connecting rod C is equipped with adjustment holes 2. Crank A and connecting rod C transmit the oscillatory movements of the mobile metal frame 3 mounted in the body 4 for passing the air flow, in which the fluted blades 5 are installed, fixedly mounted with one end on a fixed metal frame 6, and with the other end moving synchronously vertically with the help of the mobile metal frame 3, coupled to it by means of cylindrical couplings 7. The fluted blades 5 are of identical shape and different sizes. The fluted blade 5 in the center of the body 4 for passing the air flow is shorter, and the fluted blades 5 at the ends are longer. On the perimeter of the large section of the body 4, a quadrangular metal plate 8 is mounted, in which flat blades 9 are movably articulated in a vertical position, the opposite end of which is movably articulated with the spacer plate 10, which is set in motion by the crank B and the connecting rod D. The cranks A and B and the connecting rods C and D are set in motion by the gear motor 11 and are mounted on the support 12.

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