

Inertial super-flapping centrifugal separator for separation of polydisperse liquid systems contains the frame, driving mechanism in the form of a high-frequency engine of alternating current, flapping drum with a set of plates and reception-removal equipment. The drum weighing 60 kg is suspended in the vacuum chamber in the separator frame on a combined ring-shaped magnetic suspension bracket of permanent barium oxide magnets with axial magnetization. Motionless magnets are fixed in the frame, and mobile magnets – on external wall of the drum basis. The vacuum space between drum neck and top part of the frame is filled up with ring-shaped ferromagnetic liquid. The stator of high-frequency electric motor of alternating current is rigidly fixed on motionless part of the drum basis and is made in the form of a winding with active iron.