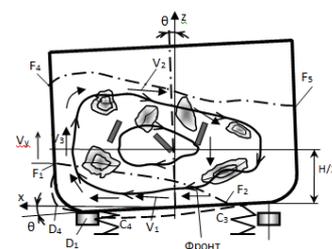
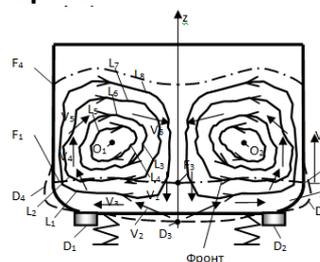




**Course:** Mashing-building and instrumentation

1. **Name of innovative development:** Vibrating plant for processing and mixing compounds of different materials.
2. **Purpose and scope:** Development is intended for mixing and for processing of abrasive bulk compounds with the use of liquid, and without it. Material of machined parts – steel, polymer, organic, etc.
3. **The main characteristics, the essence of development:** The vibrating unit contains a working chamber, installed on connected with the base of supports, the end of each are equipped with springs, and the bottom of the working chamber equipped with vibro-agents executed in the form of electromagnets. The number of holders and electromagnets equals at least three. Depending on the sequence of inclusion of electromagnets the necessary circulating movement of the working environment is formed. The sustained circulating movement is a spiral, which corresponds to the cyclic inclusion of two or three electromagnets sequentially along the perimeter of the vibro-bunker. Vortex loop motion is formed at the steam inclusion of opposite placed electromagnets. At the next non-simultaneous inclusion of three electromagnets there is a circulating movement in which granules abrasive move on the trajectory in the form of figure 8.
4. **Comparison with the world analogues, the main advantages of development:** The most close to the technical nature of this installation is a device for vibrating processing of parts, which includes a working chamber, articulated with a rotating frame, installed on the base of hinged supports, and vibro-agent. The axis of hinges of the working chamber is oriented at an angle to the axis of hinges rotary frame, in addition, the working chamber and the rotating frame are equipped with individual vibro-agents, which consist of permanent magnets and electromagnets.
5. **The State of Intellectual property protection:** 5 patents of Ukraine were received for useful model and 1 patent of Ukraine.
6. **Demand on the market:** Development can be applied in machine-and instrument-making, food industry, construction, processing of recycled raw materials, manufacture of fuel briquettes for solving problems of improvement of the roughness machined parts, strengthen the surface layer, mixing various compounds, etc.
7. **Condition of development readiness:** produced a laboratory model, research-industrial tests, confirmed the expected characteristics.
8. **Color illustrations, photo development:**



9. **Coordinators for communication:**

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