

Research of the processes of expiration gas from the enclosed volume through the pipe, in an environment with time-varying pressure

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This article describes the dependencies of subsonic laminar Poiseuille's flow in a pipe of circular cross, the equations of motion of quasi-stationary processes, that are taking place when the pressure in the gas volume flows, dependencies of change of pressure in the volume of the gas flow temperature changes. This task will be interesting for design engineers that are involved in the development of high-altitude aircraft and spacecraft, and electronic systems for high-altitude machines. The main problem for creating such devices is its pre-assembling in the earth's atmosphere and its subsequent injection to the orbit of strong vacuum. The solution of this problem is to create a methodology for calculating the drainage holes in the apparatus of the above listed types.

Presentation type

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