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# Investigation of flow structure with bounded artificial gas cavity using research and training hydrodynamic stand

© P.M. Shkapov, I.G. Blagoveshchensky, E.B. Gartig, S.A. Doroshenko

Bauman Moscow State Technical University, Moscow, 105005, Russia

*Flows with developed gas cavity in the flow of the liquid component in many cases are non-stationary and are characterized by wave formation at the interface in case of fluctuations changing the size of the cavitation formation and the pressure in the cavity and in the surrounding flow. All this is accompanied by a batch entrainment of the gas component of the cavity. The mechanism of which may vary depending on the expenditure of the flow parameters of the phases and other factors. The most intense pulsations occur in the hydraulic lines when the artificial cavity closes on the downstream local hydraulic resistance. This limited gas cavity is self-excited power perturbations in the related oscillatory system «cavity — pipeline». To clarify the characteristics inherent in the process a hydrodynamic stand was developed. Split-wave development on the cavity with fluctuations in the system in case of horizontal and vertical location of the work area is presented.*

**Keywords:** hydrodynamics, artificial cavitation, surface waves, oscillations, experiment.

**Shkapov P.M.** (b. 1954) graduated from Bauman Moscow Higher Technical School in 1977. Dr. Sci. (Eng.), Head of the Department of Theoretical Mechanics named after Professor N.E. Zhukovsky at Bauman Moscow State Technical University, a member of the Presidium of the Scientific and Methodological Council on theoretical mechanics at the Ministry of Education and Science of the Russian Federation. Author of more than 100 publications on the dynamics of mechanical and hydro-mechanical systems, mathematical modeling and calculation of cavitation and two-phase flow in piping systems, the optimization and diagnosis of dynamic systems. e-mail: [spm@bmstu.ru](mailto:spm@bmstu.ru)

**Blagoveshchenskiy I.G.** (b. 1945) graduated from the Moscow Technological Institute of Food Industry in 1967. Dr. Sci. (Eng.), Professor of the Department of Theoretical Mechanics at Bauman Moscow State Technical University, member of the International Informatization Academy, member of the Presidium of the Scientific and Methodological Council on theoretical mechanics at the Ministry of Education and Science of the Russian Federation. Author of more than 90 publications on the dynamics, mathematical modeling and systems analysis of processes of machining solid and bulk materials. e-mail: [spm@bmstu.ru](mailto:spm@bmstu.ru)

**Gartig E.B.** graduated from Bauman Moscow Higher Technical School in 1983. Senior Lecturer of the Department of Theoretical Mechanics at Bauman Moscow State Technical University. Author of seven scientific papers on hydrodynamics. e-mail: [spm@bmstu.ru](mailto:spm@bmstu.ru)

**Doroshenko S.A.** (b. 1992), a student of the Department of Theoretical Mechanics named after Professor N.E. Zhukovsky at Bauman Moscow State Technical University. Research interests: hydrodynamics. e-mail: [spm@bmstu.ru](mailto:spm@bmstu.ru)

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