INVESTIGATING DISCHARGE DROP CHARACTERISTICS OF A LOW-DISCHARGE CENTRIFUGAL PUMP USING NUMERICAL TECHNIQUES

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Abstract

The study deals with the problem of theoretical justification of discharge drop characteristic linearity in low-discharge centrifugal pumps. We use a 3D mathematical model of the blading section from our experimental centrifugal pump. We numerically calculated a number of points on the discharge drop characteristic of our pump by means of the STAR-CCM+ software package. We analysed the linearity of the discharge drop characteristic using the least-squares method. We derive an average linear fit and compute its maximum deviation

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