
INVESTIGATING THE EFFECT OF THE BLADE SWEEP ANGLE IN A CENTRIFUGAL PUMP WITH A LOW SUCTION SPECIFIC SPEED ON ITS HYDRAULIC EFFICIENCY

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Abstract

We investigate the effect the blade sweep angle has on the hydraulic efficiency of a centrifugal pump with a low suction specific speed. We use a numerical hydrodynamic simulation method to solve this problem. We describe the mathematical model we use. We presents the results of simulating fluid flow through three blading section designs and the velocity and pressure vector distribution in the blading cross-section for two runner options (the first and the last).

Keywords

Centrifugal pump, blade sweep angle, numerical hydrodynamic simulation

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