

Article


Computational Fluid Dynamics: Flow Field of an Impeller

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Abstract

This paper aims to develop a centrifugal pump with variable speed controlled by inverter to adjust the flow and the head by the operator and to observe the velocity profile and pressure distribution by using computational fluid dynamic simulation program using Pheonics software. According to the simulation results, the researchers concluded that the pressure increases gradually from impeller inlet to impeller outlet and centrifugal pumps have reasonable price and maintenance as well as high efficiency comparing to the price and been more advanced by coating the inner surfaces with anti-corrosion and smooth material to reduce the friction and raise the efficiency.

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