MODELLING AND SIMULATION OF POWER DISSIPATION ON GAS-LIQUID MIXING WHICH IS INDUCED BY DOUBLE IMPELLER

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ABSTRACT

Good mixer gives effective gas dispersion with small power consumption. The purpose of this research is to study power dissipation of gas-liquid mixing, double impeller system, by computation viewed from hydrodynamic especially power dissipation and the effect of the gas on power using FLUENT software of 6.1.18 and also compared it to the experiment which have been done. Impeller configuration studied are Concave Disc-6- Concave Disc-6-(CD-CD) and Pitched Blade Turbine Pumping Up- Concave Disc-6-(PBT-CD). Modeling by Control Volume and numerical analysis by Quick method.

This riset prove that there are related distance between impeller, radius of impeller, and gas volume to power of impeller.

Keyword: double impeller, control volume, quick, power dissipation.