

178f Experimental Power Number Data for Pitched Blade Impellers

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The required power was measured using a 50 liter pilot mixing unit and a set of 120 degree pitched blade impellers with D/T, W/D and paddle angle variables. The pilot unit was equipped with a frequency inverter and data acquisition software MD_SCOPE that displayed shaft torque and motor power. These data were compared with data from a high precision torquemeter, installed at the mixer shaft. An error analysis based on both the frequency inverter and the high precision torquemeter power curves was done to determine the power number for any geometric configuration.