Dependence of Reynolds Number for Power Consumption Change

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The power number of turbulent mixing vessels with a paddle impeller changes with the impeller position, being minimal at the impeller position C/H=0.25 and maximal at C/H=0.4-0.7. In the present work, the de-pendence of the change in power number on the mixing Reynolds number was found. No difference in the power number was found from the laminar to the transition region, but the power number changed in the turbu-lent region with a mixing Reynolds number larger than 6,000 because the flow pattern changed.