

RESEARCH PAPERS

高速诱导轮离心旋涡泵的研究

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摘要 The study on high-speed centrifugal-regenerative pumps with an inducer (HCRP) is carried out. The combined structure of inducer, centrifugal impeller, and regenerative impeller is presented, and a theoretical parallel combinatorial hydraulic design method is investigated. The comparative experimental results show that efficiency in smaller capacity region, head coefficient and efficiency in larger capacity region of HCRPs is few lower, much higher and lower than those of high-speed centrifugal pumps, respectively, and that the suction performance of HCRPs is determined only by inducer. HCRPs can be more suitably applied to deliver small-capacity high-head liquids in chemical and petrochemical industries.

关键词 [fluid delivery](#) [centrifugal pump](#) [regenerative pump](#)

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Study on High-Speed Centrifugal-Regenerative Pump with an Inducer

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Abstract The study on high-speed centrifugal-regenerative pumps with an inducer (HCRP) is carried out. The combined structure of inducer, centrifugal impeller, and regenerative impeller is presented, and a theoretical parallel combinatorial hydraulic design method is investigated. The comparative experimental results show that efficiency in smaller capacity region, head coefficient and efficiency in larger capacity region of HCRPs is few lower, much higher and lower than those of high-speed centrifugal pumps, respectively, and that the suction performance of HCRPs is determined only by inducer. HCRPs can be more suitably applied to deliver small-capacity high-head liquids in chemical and petrochemical industries.

Key words [fluid delivery](#); [centrifugal pump](#); [regenerative pump](#)

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