具有诱导轮的高速离心泵汽蚀特性试验 Research on Suction Performance of High-speed Centrifugal Pump with Inducer

崔宝玲 万忠 朱祖超 郑齐銮

浙江理工大学

关键词： 离心泵 高速 诱导轮 汽蚀特性 试验

摘 要： 采用闭式流体输送试验台，对具有前置诱导轮的高速离心泵进行了汽蚀特性试验研究，比较分析了无诱导轮、单个及串联诱导轮3种工况下诱导轮对离心泵性能及汽蚀性能的影响。发现前置单个或串联诱导轮对离心泵的性能影响并不显著，单个诱导轮的离心泵性能相对于无诱导轮的离心泵性能稍有下降，具有串联诱导轮的离心泵扬程和效率与无诱导轮离心泵相比稍有增加；但采用串联诱导轮可有效提高离心泵的汽蚀性能。 Experimental research on suction performance was carried out on high-speed centrifugal pump with inducer by using closed test. The effect on the characteristic and suction performance of the centrifugal pump was analyzed with no inducer, one and two-phase inducers. It was found that one or two-phase inducers had little influence on the characteristic performance of a centrifugal pump. Compared with no inducer, the head and efficiency decreased slightly by using one inducer, and they slightly increased by using a two-phase inducer. But suction performance of centrifugal pump was improved by using a two-phase inducer.

查看全文（请使用Adobe Acrobat 6.0版本浏览） 返回首页 引用本文