



Numerical Analysis for Twin Screw Pump Internal Flow

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Condition: New. Publisher/Verlag: LAP Lambert Academic Publishing | Case Study at Yuejin Machinery Co. Ltd.(CYM), Chongqing, China | Screw pumps are a special type of rotary positive displacement pump in which the flow through the pumping elements is truly axial. The purpose of this book is to develop a numerical solution method for flow analysis of a twin screw pump by using a Single Reference Frame (SRF) method with various boundary conditions and rotational speeds of rotor on steady state condition. Flow variable contours and plots are obtained for fluid flow inside a pump subject to pressure inlet and pressure outlet conditions, by applying finite volume based CFD package.FLUENT is adopted to discretize governing equations of the flow computation, the SIMPLEC algorithm is applied for decoupling velocity and pressure solution, the second order upwind differencing scheme for the convective terms and k-e turbulence model to characterized the internal flow with in different magnitudes of outlet pressure and rotational speeds. | Format: Paperback | Language/Sprache: english | 72 pp.

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