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Soggetti	Production engineering Fluid mechanics Mechanical Process Engineering Engineering Fluid Dynamics
Lingua di pubblicazione	Inglese
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Nota di bibliografia	Includes bibliographical references.
Nota di contenuto	Introduction -- Solid-liquid two-phase calculation model and method -- Wear characteristics of static walls -- Two-phase flow characteristics and transportation performance in centrifugal pump -- Wear characteristics of the wall surface in centrifugal pump -- Engineering calculation of solid-liquid two-phase pump.
Sommario/riassunto	This book conducts a systematic study on internal flow characteristics and performance of centrifugal pump for solid-liquid mixed transportation. First, the applicability of the computational model for two-phase flow is analyzed. Then the relationship between the two-phase flow characteristics and wall wear in the pipeline is revealed. And the flow characteristics in centrifugal pumps are analyzed in relation to conveying performance and wall wear. Finally, the engineering application calculation of the mixed transportation pump with different impeller structures is carried out. The target audience of this book is researchers who perform calculations and engineering applications of solid-liquid two-phase pumps. This book considers the influence of the particle size on the force magnitude of the particles and analyzes the applicability of different solid-liquid two-phase calculation models. Considering the different motion trajectories of particles colliding with

dry wall, wet wall, stationary wall, and moving wall, visual experiments are used to study the collision rebound model of different walls. The collision rebound model is applied to the numerical simulation of solid-liquid mixed transport.

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