

流体机械

FLUID MACHINERY

2019/10

第 47 卷

□制冷空调 □压缩机 □风机 □泵 □分离机械 □阀门与管道 □喷射设备 □流体密封 □磁悬浮 □



维护简便、产品寿命长



联轴器

技术参数： 最大公称扭矩20万N·m

最大许用转速20000r/min

最大许用补偿值角向1°

最大轴向补偿±5mm

应用行业： 炼油行业、化工行业、
煤化工行业、电力行业、造纸行业



DC型



DML系列

ISSN 1005-0329



9 771005 032198

万方数据

“中国邮政”微信订阅



丹东克隆集团有限责任公司

地址：辽宁省丹东市黄海大街18号 邮编：118008
电话：+86 0415-6225882 传真：+86 0415-6225536
邮箱：kljt@colossusgroup.com
网址：www.colossusgroup.com

目次

2019年第10期(总第47卷·第568期)

2019年10月30日出版



试验研究

- ① 基于CFD的自激振动空化射流喷嘴结构参数影响研究 孙鹏飞, 周正权, 陈祎, 等
- ⑧ 变频运行离心引风机轴向共振问题诊断及治理研究 郑金, 李钢, 张华东, 等
- ⑯ 旋风分离器进气管结构改进的数值模拟研究 乐敏

设计计算

- ⑩ 蒸汽压缩机密封保障系统研制 丁思云, 杨博峰, 郑国运, 等
- ⑫ 低比转速泵反转透平性能换算修正方法 王晓晖, 夏正廷, 敏政, 等
- ⑯ 船用离心风机流动诱发振动噪声数值研究 张建华, 楚武利, 杨晓彤, 等
- ⑯ 量热器法压缩机性能测试实验台的性能评估 李卓玛, 黄剑川, 李永珍, 等

万方数据

④ 大口径三偏心蝶阀关闭过程内部流场动态仿真

..... 刘惺, 何庆中, 赵献丹, 等

应用技术

⑦ 氢气压缩机一级活塞杆轴肩断裂失效原因分析

..... 刘祥春

⑪ 核主泵轴承重载惰转停机承载性能研究

..... 刘小军, 陶邵佳, 张亚宾, 等

制冷空调

⑤ 辐射诱导一体化末端冬季性能特性实验研究

..... 陈新, 张小松, 徐国英

⑩ 微通道换热器结露工况下换热特性及其影响的

试验研究 赵松田, 陈华, 李玉婷

⑯ 与工质互溶性较差的润滑油对制冷系统影响的

研究综述 陈锐, 雷博雯, 陈振华, 等

⑪ 一种新型房间空调器室内温度分布的CFD研究

..... 操瑞兵, 岑健, 肖蕾, 等

⑯ 新风风量对间接蒸发冷却器冷凝区域和性能

的影响 李晗, 吕建, 李勇刚, 等

⑫ 基于冷却数的逆流湿式冷却塔性能分析与导风板

选型优化 金琦凡, 王宏光

荣誉榜

《流体机械》杂志协办单位 / 名誉编委 前插 10



Initially Published in 1972
Monthly

Sponsor: The Chinese Mechanical Engineering Society

Editor: Editorial Office of Fluid Machinery
Chief Editor: Song Donglan

Publisher: Fluid Machinery Journal Association
Director: Song Donglan
Deputy Director: Yue Yang

Address: No.888 West Changjiang Road, Hefei,
Anhui P. R. China

Postal Code: 230031

Telephone: (0551)65335505

Fax: (0551)65313592

E-mail: ltjxzzs@163.com

http: //ltjx.cbpt.cnki.net

Printer: Hefei Ruida Printing Co.,Ltd.

Absent Post: China International Book
Trading Corporation (P. O. Box 399, Beijing,
P. R. China)

CONTENTS

- 1 Parametric Study on Self-excited Vibration Cavitation Jet Nozzles based on the CFD Method Sun Pengfei, et al
- 8 Study on Resonance Diagnosis and Control of VFD Centrifugal Induced Draft Fan Zheng Jin, et al
- 14 Numerical Simulation Study on the Improvement of Intake Pipe Structure of Cyclone Separator Yue Min
- 20 Development of Mechanical Seal Support System for Steam Compressor Ding Siyun, et al
- 24 Low Specific Speed Pump as Turbine Performance Conversion Correction Method Wang Xiaohui, et al
- 30 Numerical Study of Fluid-Induced Vibrational Noise of a Marine Centrifugal Fan Zhang Jianhua, et al
- 38 Performance Evaluation of Compressor Performance Test Bench by Calorimeter Method Li Zhuoma, et al
- 42 Dynamic Simulation of Internal Flow Field in Closing Process of Large Diameter Tri-eccentric Butterfly Valve Liu Xing, et al
- 47 Analysis on Cause of Fracture Failure of the First-stage Piston Rod Shoulder of a Hydrogen Compressor Liu Xiangchun
- 51 Study on Bearing Performance of Nuclear Main Pump Bearing Upon Stop of Heavy-duty Idler Liu Xiaojun, et al
- 55 Performance Evaluation and Experimental Study of The Induction Radiant Air-Conditioning System in Winter Chen Xin, et al
- 60 Experimental Study on Heat Transfer Characteristics and its Influence on Microchannel Heat Exchanger under Condensation Condition Zhao Songtian, et al
- 64 Review of the Influence of Immiscible Lubricants on Refrigeration System Chen Rui, et al
- 71 CFD Study on Indoor Temperature Distribution of a New Type of Room Air Conditioner Cao Ruibing, et al
- 75 The Effect of Primary Air Volume Flow on Condensation Area and Performance of Indirect Evaporative Cooler Li Han, et al
- 82 Performance Analysis of Counterflow Wet Cooling Tower and Optimization of Air Deflector Selection Based on Cooling Number Jin Qifan, et al