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Titolo	Problems of mechanics in pump and compressor engineering : selected, peer reviewed papers from the XIV International Scientific and Engineering Conference on Hermetic Sealing, Vibration Reliability and Ecological Safety of Pump and Compressor Machinery (HERVICON+PUMPS 2014), September 9-12, 2014, Sumy, Ukraine // edited by Volodymyr Martsynkovskyy and Andriy Zahorulko
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Nota di bibliografia	Includes bibliographical references at the end of each chapters and index.
Nota di contenuto	Problems of Mechanics in Pump and Compressor Engineering; Preface; Table of Contents; Chapter 1: Flowing Parts Hydromechanics, New Designs, Energy and Resource Saving of Pumps and Compressors; Study of Flow Pattern in Components of Intermediate Stage Vanes Diffuser of Centrifugal Pump; Determination of Static and Dynamic Component of Axial Force in Double Suction Centrifugal Pump; Modeling of Centrifugal Pumps Operating Modes; Investigation of Energy Losses in the Flow Section of the Small-Sized Axial-Flow Pump; Interaction between Impeller and Axial Diffuser of Mixed Flow Pump Numerical Approach for Simulation of Fluid Flow in Torque Flow PumpsThe Application of CFD Methods to Analyse the Flow Structures in the Radial Labyrinth Pump; Jet Thermal Compression of the Ammonia-Water Mixture for Heat Pumps and Refrigerating Systems; Jet-Reactive Turbine: Experimental Researches and Calculations by Means of Softwares; Cavitation its Use and Mathematical Modelling; Methods Development for Determining the Aerodynamic Characteristics

of Vertical Exist of Wind Turbine; Evaluation of Oil Viscosity Influence on Hydraulic Shock in Long Pipe
 Existing Perspectives of Rotodynamic Pumps Rotation Speed Increase
 Mining Submersible Pump - Design, Characteristics and Protections; Investigation of Liquid-Steam Stream Compressor; Modeling and Design of Inertial - Filtering Gas Separators-Condensers for Compressor Units of Oil and Gas Industry; Development of Mathematical Model of Working Process of Multi-Functional Heat-Generating Aggregate-Hydromill; Selection of Pumping Equipment for Oil Pipeline Transport; Creating a Standard Size Range as One of the Factors Reducing Production Time of Modern Pumping Equipment
 Replaceable Hydraulic Parts in Spiral Volute Pumps
 Influence of Operation Mode on Efficiency and Life Cycle Cost of Double Suction Pump; The Design Features of BB4 and BB5 API 610 Pumps for Water Injection Systems; Monitoring of Pumping Unit Operation in Indicators of Energy Efficiency of its Work; Chapter 2: Bearings and Seals; Axial Flow Seal/Bearing Efficient Pressure Formulation for a Reynolds Equation Solution; A Review on Active Bearings and Perspectives of Using Them in Rotating Machinery
 Reliability Improvement of Rotor Supports by Combining Rolling-Element Bearings and Fluid-Film Bearings
 Effect of Lubrication of Fluid Friction Bearings with Media of Complex Rheology; Solutions for Increasing the Bearing Capacity of Thrust Bearings; Studying the Interaction of Liquid and Solid in the Flow of Liquid in Annulus by CFD Analysis; Simulation of the Working Fluid Stream in the Pumps and Turbines Flow Path Seals; Flow Simulation in a Labyrinth Seal; Analysis of a Nonlinear Elastic Force in a Relatively Long Annular Seal and its Impact on the Dynamics of the Rotor
 Static and Dynamic Analysis of the Closing Rotor Balancing Device of the Multistage Centrifugal Pump

Sommario/riassunto

Collection of selected, peer reviewed papers from the V International Scientific and Engineering Conference on Hermetic Sealing, Vibration Reliability and Ecological Safety of Pump and Compressor Machinery (HERVICON+PUMPS 2014), September 9-12, 2014, Sumy, Ukraine. The 52 papers are grouped as follows: Chapter 1: Flowing Parts
 Hydromechanics, New Designs, Energy and Resource Saving of Pumps and Compressors, Chapter 2: Bearings and Seals, Chapter 3: Strength, Mechanical Vibrations and Reliability, Materials and Technology
