
Gpsa Engineering Data Book Compression Technology Sourcing

A Complete How-to Manual
 Rules of Thumb for Mechanical Engineers
 Reservoir Engineering Handbook
 The John Zink Hamworthy Combustion Handbook
 Selection and Sizing
 Contributions in Petroleum Geology and Engineering: Volume 4
 Proceedings, Annual Convention
 Design, Modeling and Reliability in Rotating Machinery
 The Complete Industrial Picture
 The Slipcover for The John Zink Hamworthy Combustion Handbook
 Energy Progress
 Cleaning of Process Equipment and Piping
 Surface Production Operations, Volume 2:
 Compression Machinery for Oil and Gas
 Design of Gas-Handling Systems and Facilities
 Principles, Technologies, and Equipment
 Natural Gas Processing
 Advanced Natural Gas Engineering
 Handbook of Natural Gas Transmission and Processing
 Principles and Practices
 Rules of Thumb, Process Planning, Scheduling, and Flowsheet Design, Process Piping Design, Pumps, Compressors, and Process Safety Incidents
 Physique industrielle des fluides
 Fluid Mechanics, Heat Transfer, and Mass Transfer
 Meeting Papers - Gas Processors Association
 Pipeline Design & Construction
 ASME Technical Papers
 Sustainable Energy Conversion for Electricity and Coproducts
 Three-Volume Set
 notions fondamentales et applications numériques
 Rules of Thumb for Chemical Engineers
 Proceedings
 A Practical Approach
 Rules of Thumb for Chemical Engineers
 Paper
 Pipeline Transport, Pumping and Metering
 Gas Well Deliquification
 Compressors
 Chemical Engineering Progress
 Chemical Engineering Practice

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 Compression Technology Sourcing*

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JAYCE MELANY

Elsevier

Despite the length of time it has been around, its importance, and vast amounts of research, combustion is still far from being completely understood. Issues regarding the environment, cost, and fuel consumption add further complexity, particularly in the process and power generation industries. Dedicated to advancing the art and science of industr

A Complete How-to Manual Gulf Professional Publishing

Natural gas is playing an increasing role in meeting world energy demands because of its abundance, versatility, and its clean burning nature. As a result, lots of new gas exploration, field development and production activities are under way, especially in places where natural gas until recently was labeled as "stranded". Because a significant portion of natural gas reserves worldwide are located across bodies of water, gas transportation

in the form of LNG or CNG becomes an issue as well. Finally natural gas is viewed in comparison to the recently touted alternatives. Therefore, there is a need to have a book covering all the unique aspects and challenges related to natural gas from the upstream to midstream and downstream. All these new issues have not been addressed in depth in any existing book. To bridge the gap, Xiuli Wang and Michael Economides have written a new book called Advanced Natural Gas Engineering. This book will serve as a reference for all engineers and professionals in the energy business. It can also be a textbook for students in petroleum and chemical engineering curricula and in training departments for a large group of companies.

Rules of Thumb for Mechanical Engineers CRC Press

Acquire the tools and techniques that will help meet the world's growing natural gas demand. Handbook of Natural Gas Transmission and Processing, 2nd Edition gives engineers and managers complete coverage of natural gas transmission and processing in the most rapidly growing sector to the petroleum

industry. Emphasizing the practical aspects of natural gas production over the theoretical, the authors provide a unique discussion of new technologies that are energy efficient and environmentally appealing at the same time. This 2nd edition examines ways to select the best processing route for optimal design of gas-processing plants and includes three new chapters on dynamics of process controls, process modeling and simulation and optimal design of gas processing plants. Both Chapter 7 (Acid Gas Treating) and Chapter 9 (Natural Gas Dehydration) are heavily revised. The objective of this work is to provide plant designers and owners/operators methods to decrease construction costs and total cost of ownership while addressing reliability and availability.

Reservoir Engineering Handbook CRC Press

The job of any reservoir engineer is to maximize production from a field to obtain the best economic return. To do this, the engineer must study the behavior and characteristics of a petroleum reservoir to determine the course of future development and production that will maximize the profit. Fluid flow, rock properties, water and gas coning, and relative permeability are only a few of the concepts that a reservoir engineer must understand to do the job right, and some of the tools of the trade are water influx calculations, lab tests of reservoir fluids, and oil and gas performance calculations. Two new chapters have been added to the first edition to make this book a complete resource for students and professionals in the petroleum industry: Principles of Waterflooding, Vapor-Liquid Phase Equilibria.

The John Zink Hamworthy Combustion Handbook Amer Society of Mechanical

Gas compressors tend to be the largest, most costly, and most critical machines employed in chemical and gas transfer processes. Since they tend to have the greatest effect on the reliability of processes they power, compressors typically receive the most scrutiny of all the machinery among the general population of processing equipment. To prevent unwanted compressor failures from occurring, operators must be taught how their equipment should operate and how each installation is different from one another. The ultimate purpose of this book is to teach those who work in process settings more about gas compressors, so they can start up and operate them correctly and monitor their condition with more confidence. Some may regard compressor technology as too broad and complex a topic for operating personnel to fully understand, but the author has distilled this vast body of knowledge into some key, easy to understand lessons for the reader to study at his or her own pace. The main goals of this book are to: Explain important theories and concepts about gases and compression processes with a minimum of mathematics Identify key compressor components and explain how they affect reliability Explain how centrifugal compressors, reciprocating compressors, and screw compressors function. Explain key operating factors that affect reliability Introduce the reader to basic troubleshooting methodologies Introduce operators to proven field inspection techniques

Selection and Sizing John Wiley & Sons

Despite the length of time it has been around, its importance, and vast amounts of research, combustion is still far from being completely understood. Issues regarding the environment, cost, and fuel consumption add further complexity, particularly in the process and power generation industries. Dedicated to advancing the art and science of industr

Contributions in Petroleum Geology and Engineering: Volume 4 CRC Press

Annotation This book presents the fundamentals of multiphase

production with regard to flow simulations in multiphase pipelines, multiphase pumping and multiphase metering. It gives a large range of information on approaches and technologies which can be used today. It is designed for engineers involved in field development, but also for petroleum engineering students.

Proceedings, Annual Convention John Wiley & Sons

Written by an internationally-recognized team of natural gas industry experts, the fourth edition of Handbook of Natural Gas Transmission and Processing is a unique, well-researched, and comprehensive work on the design and operation aspects of natural gas transmission and processing. Six new chapters have been added to include detailed discussion of the thermodynamic and energy efficiency of relevant processes, and recent developments in treating super-rich gas, high CO₂ content gas, and high nitrogen content gas with other contaminants. The new material describes technologies for processing today's unconventional gases, providing a fresh approach in solving today's gas processing challenges including greenhouse gas emissions. The updated edition is an excellent platform for gas processors and educators to understand the basic principles and innovative designs necessary to meet today's environmental and sustainability requirement while delivering acceptable project economics. Covers all technical and operational aspects of natural gas transmission and processing. Provides pivotal updates on the latest technologies, applications, and solutions. Helps to understand today's natural gas resources, and the best gas processing technologies. Offers design optimization and advice on the design and operation of gas plants.

Design, Modeling and Reliability in Rotating Machinery Cryogenic Engineering, Revised and Expanded

This broad-based book covers the three major areas of Chemical Engineering. Most of the books in the market involve one of the individual areas, namely, Fluid Mechanics, Heat Transfer or Mass Transfer, rather than all the three. This book presents this material in a single source. This avoids the user having to refer to a number of books to obtain information. Most published books covering all the three areas in a single source emphasize theory rather than practical issues. This book is written with emphasis on practice with brief theoretical concepts in the form of questions and answers, not adopting stereo-typed question-answer approach practiced in certain books in the market, bridging the two areas of theory and practice with respect to the core areas of chemical engineering. Most parts of the book are easily understandable by those who are not experts in the field. Fluid Mechanics chapters include basics on non-Newtonian systems which, for instance find importance in polymer and food processing, flow through piping, flow measurement, pumps, mixing technology and fluidization and two phase flow. For example it covers types of pumps and valves, membranes and areas of their use, different equipment commonly used in chemical industry and their merits and drawbacks. Heat Transfer chapters cover the basics involved in conduction, convection and radiation, with emphasis on insulation, heat exchangers, evaporators, condensers, reboilers and fired heaters. Design methods, performance, operational issues and maintenance problems are highlighted. Topics such as heat pipes, heat pumps, heat tracing, steam traps, refrigeration, cooling of electronic devices, NO_x control find place in the book. Mass transfer chapters cover basics such as diffusion, theories, analogies, mass transfer coefficients and mass transfer with chemical reaction, equipment such as tray and packed columns, column internals including structural packings, design, operational and installation issues, drums and separators are discussed in good detail. Absorption, distillation, extraction and leaching with applications and design methods, including emerging practices involving

Divided Wall and Petluk column arrangements, multicomponent separations, supercritical solvent extraction find place in the book.

The Complete Industrial Picture Gulf Professional Publishing

There is a renaissance that is occurring in chemical and process engineering, and it is crucial for today's scientists, engineers, technicians, and operators to stay current. With so many changes over the last few decades in equipment and processes, petroleum refining is almost a living document, constantly needing updating. With no new refineries being built, companies are spending their capital re-tooling and adding on to existing plants. Refineries are like small cities, today, as they grow bigger and bigger and more and more complex. A huge percentage of a refinery can be changed, literally, from year to year, to account for the type of crude being refined or to integrate new equipment or processes. This book is the most up-to-date and comprehensive coverage of the most significant and recent changes to petroleum refining, presenting the state-of-the-art to the engineer, scientist, or student. Useful as a textbook, this is also an excellent, handy go-to reference for the veteran engineer, a volume no chemical or process engineering library should be without. Written by one of the world's foremost authorities, this book sets the standard for the industry and is an integral part of the petroleum refining renaissance. It is truly a must-have for any practicing engineer or student in this area.

The Slipcover for The John Zink Hamworthy Combustion Handbook Gulf Professional Publishing

Fluids -- Heat transfer -- Thermodynamics -- Mechanical seals -- Pumps and compressors -- Drivers -- Gears -- Bearings -- Piping and pressure vessels -- Tribology -- Vibration -- Materials -- Stress and strain -- Fatigue -- Instrumentation -- Engineering economics.

Energy Progress Gulf Professional Publishing

The book provides the whole horizon of process engineering and plant design from concept phase through the execution to commissioning of the plant in the real practice. Providing a complete industrial perspective, the book • Covers the guidelines and standards followed in the industry and how engineering documents are generated using these standards • Describes Hazardous Area Classification, Relief System Design, Revamp Engineering, Interaction with Other Disciplines, and Pre-commissioning and Commissioning • Contains several illustrated practical examples, which clarify the fundamentals to a raw chemical engineer • Includes description of a complete chemical project from concept to commissioning Treating the topic from the perspective of an industrial employee with extensive experience in process engineering and plant design, it aims to aid chemical and plant engineers to deal with decision making processes on strategic level, management tasks and leading functions beside the technical know-how.

Cleaning of Process Equipment and Piping Gulf Professional Publishing

From gas properties to processing to production and flow, this practical, well-illustrated text thoroughly describes proven techniques and practices. Worked examples appear throughout the text and almost every chapter is followed by study questions and problems.

Surface Production Operations, Volume 2: John Wiley & Sons

This third edition of this highly successful volume is fully updated and includes new information on buoyancy control, Trenchless Crossing methods, as well as on Compressor Fuel Calculations and Optimization, Hydrotesting and LPG Pipelining. This book offers straightforward, practical techniques for pipeline design and construction, making it an ideal professional reference, training tool, or comprehensive text. The authors present the various elements that make up a single-phase liquid and gas

pipeline system, including how to design, construct, commission, and assess pipelines and related facilities. They discuss gas and liquid transmission, compression, pumps, protection and integrity, procurement services, and the management of pipeline projects. More complex specialty fluids are also covered, including CO₂, H₂, slurry and multi-products. (Publisher).

Compression Machinery for Oil and Gas Elsevier

Compression Machinery for Oil and Gas is the go-to source for all oil and gas compressors across the industry spectrum. Covering multiple topics from start to finish, this reference gives a complete guide to technology developments and their applications and implementation, including research trends. Including information on relevant standards and developments in subsea and downhole compression, this book aids engineers with a handy, single resource that will help them stay up-to-date on the compressors needed for today's oil and gas applications. Provides an overview of the latest technology, along with a detailed discussion of engineering Delivers on the efficiency, range and limit estimations for machines Pulls together multiple contributors to balance content from both academics and corporate research

Design of Gas-Handling Systems and Facilities John Wiley & Sons

Gas Well Deliquification, Third Edition, expands upon previous experiences and applies today's more applicable options and technology. Updated to include more information on automation, nodal analysis, and horizontal gas well operations, this new edition provides engineers with key information in one central location. Multiple contributors from today's operators offer their own learned experiences, critical equipment, and rules of thumb for practicality. Covering the entire lifecycle of the well, this book will be an ideal reference for engineers who need to know the right solutions regarding a well's decline curve in their work to continuously optimize assets. Teaches users how to understand the latest methods of deliquifying gas wells, from nodal analysis, to various forms of artificial lift Provides an up-to-date reference on automation techniques for today's operations, including horizontal wells Presents various perspectives contributed from multiple sources, allowing readers to select the best method for a well's lifecycle

Principles, Technologies, and Equipment Butterworth-Heinemann

For over thirty years, the Surface Production Operations Series has taken the guess work out of the design, selection, installation, operation, testing, and troubleshooting of surface production equipment. The fourth volume in this series, Pumps and Compressors is directed to both entry-level personnel and practicing professionals looking for an up-to-date reference book on managing, evaluating, sizing, selecting, installing, operating and maintaining pump and compressor systems. Packed with examples drawn from years of design and field experience, this reference features many charts, tables, equations, diagrams, and photographs to illustrate the basic applications including pump hydraulics, centrifugal and reciprocating compressor applications, compressor performance maps, pump performance curves, pump and compressor testing and installation, and many more critical topics. Packed with practical solutions Surface Production Operations: Pumps and Compressors delivers an essential design and specification reference for today's engineers. Covers application and performance considerations for all types of pumps and compressors Delivers hands-on manual for applying mechanical and physical principles to select and design pump and compressor systems, supported by many tables and diagrams Gives expert advice on how to apply design codes and standards such as API 610, API 674, ANSI B78.1, API 617, API 11P, API RP 14C and the Hydraulic Institute

Natural Gas Processing Gulf Professional Publishing

This practical reference provides in-depth information required to understand and properly estimate compressor capabilities and to select the proper designs. Engineers and students will gain a thorough understanding of compression principles, equipment, applications, selection, sizing, installation, and maintenance. The many examples clearly illustrate key aspects to help readers understand the "real world" of compressor technology.

Compressors: Selection and Sizing, third edition is completely updated with new API standards. Additions requested by readers include a new section on diaphragm compressors in the reciprocating compressors chapter, and a new section on rotor dynamics stability in the chapter on diaphragm compressors. The latest technology is presented in the areas of efficiency, 3-D geometry, electronics, CAD, and the use of plant computers. The critical chapter on negotiating the purchase of a compressor now reflects current industry practices for preparing detailed specifications, bid evaluations, engineering reviews, and installation. A key chapter compares the reliability of various types of compressors. * Everything you need to select the right compressor for your specific application. * Practical information on compression principles, equipment, applications, selection, sizing, installation, and maintenance. * New sections on diaphragm compressors and an introduction to rotor dynamics stability.

Advanced Natural Gas Engineering CRC Press

Process equipment and piping in chemical and petrochemical plants and petroleum refineries have to be cleaned periodically as part of normal maintenance operations to remove fouling that interferes with process flow, heat transfer, or other operations. Cleaning is also necessary to allow safe personnel entry prior to equipment inspection, repairs, or modifications. Most cleaning operations are expensive and time-consuming and need to be planned, budgeted, and carried out in a timely fashion to ensure minimum interference with normal process or maintenance operations. Certain process equipment and piping may also have to be cleaned prior to being put into service for the first time. Such pre-commission cleaning removes rust, dirt, and other debris that formed or entered during fabrication, shipment, or erection, and that are likely to cause damage after start-up. process equipment and piping in chemical plants, petrochemical plants and petroleum refineries. Practical information and guidance is provided for plant engineers and operators who, from

time to time, are charged with planning various cleaning operations that will be carried out either by in-house maintenance personnel or outside cleaning contractors. Sufficient information is given to enable the nonspecialist to either propose cleaning procedures or evaluate cleaning procedures proposed by others. The manual enumerates a multitude of factors that need to be considered before a cleaning operation is started, including timing, alternative methods, costs, manpower requirements, safety concerns, and waste disposal issues.

Handbook of Natural Gas Transmission and Processing Gulf Professional Publishing

Cet ouvrage présente, sous la forme la plus didactique possible, toutes les notions de physique des fluides indispensables à la résolution des problèmes pratiques ou industriels classiques et des applications numériques à des exemples industriels facilitant la maîtrise de ces notions. Ces applications, présentées sous la forme d'exercices ou de problèmes, permettent d'étudier aussi bien des machines (compresseurs, turbines à gaz, soufflantes) que des installations (circuits frigorifiques, circuits de réfrigération d'eau, centrales thermiques, chaudières, climatiseurs). Elles montrent que les notions fondamentales présentées intéressent des secteurs aussi différents que le génie chimique, le génie pétrolier, la production d'énergie, la production de frigorifiques ou la climatisation. Cet ouvrage est destiné aux étudiants en classes préparatoires aux Ecoles d'ingénieurs, aux techniciens supérieurs, aux diplômés d'Instituts universitaires de technologie et aux ingénieurs qui utilisent la physique des fluides. Contents : I. Rappel des définitions de termes et de grandeurs de base utilisés en physique industrielle des fluides. 1. Mécanique classique. 2. Hydrostatique. 3. Thermique. II. Caractéristiques et comportement des fluides. 4. Notions élémentaires sur la constitution de la matière. 5. Constituants des gaz naturels et des pétroles bruts. 6. Changements d'état des corps. 7. Propriétés principales des fluides. III. Propriétés énergétiques des fluides. 8. Propriétés des énergies considérées en physique industrielle des fluides. 9. Applications des lois de la thermodynamique aux fluides en mouvement. 10. Expressions des fonctions thermodynamiques. Applications au gaz parfait. 11. Expressions de la puissance de compression des gaz. 12. Applications à des cas particuliers des lois de la mécanique et des propriétés énergétiques des fluides. 13. Evolution de la température d'un fluide au cours de son transport dans une conduite. Index.