

Air Cooled Mini Chiller

Vols. for 1970-71 includes manufacturers' catalogs.

* A broad range of disciplines--energy conservation and air quality issues, construction and design, and the manufacture of temperature-sensitive products and materials--is covered in this comprehensive handbook * Provide essential, up-to-date HVAC data, codes, standards, and guidelines, all conveniently located in one volume * A definitive reference source on the design, selection and operation of A/C and refrigeration systems

Popular and practical, COMMERCIAL REFRIGERATION FOR AIR CONDITIONING TECHNICIANS, 3rd Edition, helps you apply HVAC skills to concepts in commercial refrigeration. Focused on the food service industry, chapters address how HVAC technicians service medium- and low-temperature refrigeration equipment such as walk-ins, reach-ins, refrigerated cases, and ice machines. Readings also include special features, such as insider tips from seasoned pros on installing, servicing, and troubleshooting commercial equipment. Freshly updated to include the latest industry changes, the third edition adds six full sections of content, as well as 150 helpful illustrations, pictures, and diagrams—including a step-by-step flowchart for quickly diagnosing and addressing the nine most common refrigeration problems you will see on the job. A resource to keep handy, COMMERCIAL REFRIGERATION FOR AIR CONDITIONING TECHNICIANS, 3rd Edition, is ideal for any technician working with commercial refrigeration today. Important Notice: Media content referenced within the product description or the product text may not be available in the ebook version.

Significantly revised and updated since its first publication in 1996, Absorption Chillers and Heat Pumps, Second Edition discusses the fundamental physics and major applications of absorption chillers. While the popularity of absorption chillers began to dwindle in the United States in the late 1990's, a shift towards sustainability, green buildings and the use of renewable energy has brought about a renewed interest in absorption heat pump technology. In contrast, absorption chillers captured a large market share in Asia in the same time frame due to relative costs of gas and electricity. In addition to providing an in-depth discussion of fundamental concepts related to absorption refrigeration technology, this book provides detailed modeling of a broad range of simple and advanced cycles as well as a discussion of applications. New to the Second Edition: Offers details on the ground-breaking Vapor Surfactant theory of mass transfer enhancement Presents extensively revised computer examples based on the latest version of EES (Engineering Equation Solver) software, including enhanced consistency and internal documentation Contains new LiBr/H2O property routines covering a broad range of temperature and the full range of concentration Utilizes new NH3/H2O helper functions in EES which significantly enhance ease of use Adds a new chapter on absorption technology applications Offers updated absorption fluid transport property information Absorption Chillers and Heat Pumps, Second Edition provides an updated and thorough discussion of the physics and applications of absorption chillers and heat pumps. An in-depth guide to evaluating and simulating absorption systems, this revised edition provides significantly increased consistency and clarity in both the text and the worked examples. The introduction of the vapor surfactant theory is a major new component of the book. This definitive work serves as a resource for both the newcomer and seasoned professional in the field.

Handbook of Liquefied Natural Gas

After Cooling

Solar Cooling Technologies

Applications, Benefits, Savings

Finishing Industries

HVAC Water Chillers and Cooling Towers provides fundamental principles and practical techniques for the design, application, purchase, operation, and maintenance of water chillers and cooling towers. Written by a leading expert in the field, the book analyzes topics such as piping, water treatment, noise control, electrical service, and energy effi

The definitive text/reference for students, researchers and practicing engineers This book provides comprehensive coverage on refrigeration systems and applications, ranging from the fundamental principles of thermodynamics to food cooling applications for a wide range of sectoral utilizations. Energy and exergy analyses as well as performance assessments through energy and exergy efficiencies and energetic and exergetic coefficients of performance are explored, and numerous analysis techniques, models, correlations and procedures are introduced with examples and case studies. There are specific sections allocated to environmental impact assessment and sustainable development studies. Also featured are discussions of important recent developments in the field, including those stemming from the author's pioneering research. Refrigeration is a uniquely positioned multi-disciplinary field encompassing mechanical, chemical, industrial and food engineering, as well as chemistry. Its wide-ranging applications mean that the industry plays a key role in national and international economies. And it continues to be an area of active research, much of it focusing on making the technology as environmentally friendly and sustainable as possible without compromising cost efficiency and effectiveness. This substantially updated and revised edition of the classic text/reference now features two new chapters devoted to renewable-energy-based integrated refrigeration systems and environmental impact/sustainability assessment. All examples and chapter-end problems have been updated as have conversion factors and the thermophysical properties of an array of materials. Provides a solid foundation in the fundamental principles and the practical applications of refrigeration technologies Examines fundamental aspects of thermodynamics, refrigerants, as well as energy and exergy analyses and energy and exergy based performance assessment criteria and approaches Introduces environmental impact assessment methods and sustainability evaluation of refrigeration systems and applications Covers basic and advanced (and hence integrated) refrigeration cycles and systems, as well as a range of novel applications Discusses crucial industrial, technical and operational problems, as well as new performance improvement techniques and tools for better design and analysis Features clear explanations, numerous chapter-end problems and worked-out examples Refrigeration Systems and Applications, Third Edition is an indispensable working resource for researchers and practitioners in the areas of Refrigeration and Air Conditioning. It is also an ideal textbook for graduate and senior undergraduate students in mechanical, chemical, biochemical, industrial and food engineering disciplines.

Explore modern waste heat recovery technology across a variety of industries In Waste Heat Recovery in Process Industries, esteemed thermal engineer Hussam Jouhara delivers an organized and comprehensive exploration of waste heat recovery systems with a focus on industrial applications in different temperature ranges. The author describes various waste heat recovery systems, like heat exchangers, waste heat boilers, air preheaters, direct electrical conversion devices, and thermal storage. The book also offers discussions of the technologies and applications relevant to different temperature ranges present in industrial settings along with revealing case studies from various industries. Waste Heat Recovery in Process Industries examines a variety of industries, from steel to ceramics, chemicals, and food, and how plants operating in these sectors can use waste heat to improve their energy efficiency, reduce energy costs, and minimize their carbon footprint. The book also offers: A thorough introduction to waste heat recovery systems, including recuperative and regenerative burners, heat exchangers, waste heat boilers, air preheaters, and heat pumps Comprehensive explorations of low temperature applications, below 100°C, including advantages and drawbacks, as well as illustrative case studies Practical discussions of medium temperature applications, between 100°C and 400°C, including case studies In-depth examination of high temperature applications, above 400°C, including several case studies Perfect for chemical, mechanical, process, and power engineers, Waste Heat Recovery in Process Industries is also an ideal resource for professionals working in the chemical, metal processing, pharmaceutical, and food industries.

Introductory technical guidance for mechanical engineers interested in heating and cooling upgrades for energy efficiency. Here is what is discussed: 1. OVERVIEW 2. CENTRAL COOLING SYSTEMS 3. CENTRAL HEATING SYSTEMS 4. UNITARY SYSTEMS 5. ADDITIONAL STRATEGIES 6. SUMMARY 7. BIBLIOGRAPHY.

Fundamentals, Experiments and Applications

Handbook of Air Conditioning and Refrigeration

On Freon, Global Warming, and the Terrible Cost of Comfort

KEEN Engineering. volume one

Ergonomics

Energy Audit of Building Systems

David Chadderton's Air Conditioning is the complete introduction and reference guide for students and practitioners of air conditioning design, installation and maintenance. The scientific principles involved are introduced with the help of case studies and exercises, and downloadable spreadsheets help you work through important calculations. New chapters on peak summertime air temperature in buildings without cooling systems, air duct acoustic calculations and air conditioning system cost enhance the usefulness to design engineers. Case studies are created from real life data, including PROBE post-occupancy reports, relating all of the theoretical explanations to current practice. Trends and recent applications in lowering energy use by air conditioning are also addressed, keeping the reader informed of the latest sustainable air conditioning technologies. Over 75 multiple choice questions will help the reader check on their progress. Covering both tropical and temperate climates, this is the ideal book for those learning about the basic principles of air conditioning, seeking to understand the latest technological developments, or maintaining a successful HVAC practice anywhere in the world.

This thoroughly revised and updated, Guide to Energy Management, Fourth Edition is a manager's guide to the most important areas of energy cost cutting. Written by three of the most respected energy professionals in the industry, the book provides valuable insights into these areas and also builds the skills needed to succeed in the fast changing energy management field. The new edition features a new chapter on Distributed Generation, presenting the basic ideas and operational strategies, as well as covering the common technologies. This valuable reference book examines the objectives of energy management and the most effective techniques and tools for achieving results.

Solar Cooling Technologies presents a detailed study of the potential technologies for coupling solar energy and cooling systems. Unifies all the various power based solar techniques into one book, investigates tri-generation schemes for maximization of cooling efficiency, especially for small scale applications and offers direct comparison of all possible technologies of solar cooling Includes detailed numerical investigations for potential cooling applications

Heating and Cooling of Buildings: Principles and Practice of Energy Efficient Design, Third Edition is structured to provide a rigorous and comprehensive technical foundation and coverage to all the various elements inherent in the design of energy efficient and green buildings. Along with numerous new and revised examples, design case studies, and homework problems, the third edition includes the HCB software along with its extensive website material, which contains a wealth of data to support design analysis and planning. Based around current codes and standards, the Third Edition explores the latest technologies that are central to design and operation of today ' s buildings. It serves as an up-to-date technical resource for future designers, practitioners, and researchers wishing to acquire a firm scientific foundation for improving the design and performance of buildings and the comfort of their occupants. For engineering and architecture students in undergraduate/graduate classes, this comprehensive textbook:

An Introduction to Heating and Cooling Upgrades for Buildings for Energy Efficiency

Analysis and Design of Heating, Ventilating, and Air-Conditioning Systems, Second Edition

Absorption Chillers and Heat Pumps

An Engineering Approach, Third Edition

Heating and Cooling of Buildings

The Ecological Engineer

Written by three of the most respected energy professionals in the industry, this fifth edition of a bestseller is an energy manager's guide to the most important areas of energy cost cutting. It examines the core objectives of energy management and illustrates the latest and most effective strategies, techniques, and tools for improving lighting efficiency, combustion processes, steam generation/distribution, and industrial waste reutilization. The book thoroughly brings up to date such topics as energy system management, energy auditing, rate structures, economic evaluation, HVAC optimization, control systems and computers, process energy, renewable energy, and industrial water management.

A complete introduction to the field, Ergonomics: Foundational Principles, Applications and Technologies discusses scientific principles, research, applications, and emerging trends in technology. Covering the foundational principles and major topics in physical ergonomics, the book contains the necessary components of a quality ergonomics course, Originally published two decades ago, the Energy Management Handbook has become recognized as the definitive stand-alone energy manager's desk reference, used by thousands of energy management professionals throughout the industry. Known as the bible of energy management, it has helped more energy managers reach their potential than any other resource. Completely revised and updated, the fifth edition includes new chapters on building commissioning and green buildings. You'll find in-depth coverage of every component of effective energy management, including boiler and steam system optimization, lighting and electrical systems, HVAC system performance, waste heat recovery, cogeneration, thermal energy storage, energy management control systems, energy systems maintenance, building envelope, industrial insulation, indoor air quality, energy economic analysis, energy procurement decision making, energy security and reliability, and overall energy management program organization. You'll also get the latest facts on utility deregulation, energy project financing, and in-house vs. outsourcing of energy services. The energy industry has change radically since the initial publication of this reference over 20 years ago. Looking back on the energy arena, one thing becomes clear: energy is the key element that must be managed to ensure a company's profitability. The Energy Management Handbook, Fifth Edition is the definitive reference to guide energy managers through the maze of changes the industry has experienced.

In recent decades, the rapid expansion of trade and investment among developing countries has resulted in a scenario wherein firms from developing countries account for an increasing share of capital, goods, and wealth in the global economy. Industry leaders from developing countries have observed that firms in developing countries need to identify and develop key supply chain capabilities in order to succeed in emerging markets. It is argued that customers in emerging markets are likely to have different needs and supply chain expectations as compared to customers in developed economies. Reaching into these emerging markets, understanding the customer diversity, and translating it into effective segmentation schemes are critical for the efficient design of supply chain operations. Leadership Strategies for Global Supply Chain Management in Emerging Markets is a pivotal reference source that provides vital research on creating efficient supply chain operations in emerging markets. While highlighting topics such as consumer behavior, global operations, and information transparency, this publication investigates the needs of consumers in emerging markets as well as the methods of designing effective operations. This book is ideally designed for supply chain managers, logistics managers, operations and warehousing professionals, industry practitioners, academicians, students, and researchers.

Foundational Principles, Applications, and Technologies

Report of the TEAP, May 2006 Progress Report

Air Conditioning

Energy Management Handbook, Fifth Edition

A Practical Introduction

Thomas Register of American Manufacturers and Thomas Register Catalog File

The international version includes all material covered in the standard edition, but numerical data and calculations are expressed in Système International (SI) units. Bringing to the forefront the most critical areas of effective energy cost cutting, this fully revised edition of this best-selling energy manager's guide provides the very latest strategies for improving lighting, combustion processes, steam generation/distribution, and industrial waste re-utilization. This book examines the core objectives of effective energy management, and clearly illustrates the techniques and tools proven most effective in achieving results. Topics include distributed generation, energy auditing, rate structures, economic evaluation techniques, lighting efficiency improvement, HVAC optimization, combustion and use of industrial wastes, steam generation and distribution system performance, control systems and computers, energy systems maintenance, renewable energy, and industrial water management.

This new International Version includes all material covered in the standard eighth edition, but numerical data and calculations are expressed in Systeme International (SI) units. Completely revised, this latest edition includes new chapters on electrical systems; motors and drives; commissioning; and human behavior and facility energy management. Also updated are chapters on lighting, HVAC systems, web-based building automation, control systems, green buildings, and greenhouse gas management. Written by respected professionals, this book examines objectives of energy management and illustrates techniques proven effective for achieving results.

Solar Heating and Cooling Systems: Fundamentals, Experiments and Applications provides comprehensive coverage of this modern energy issue from both a scientific and technical level that is based on original research and the synthesis of consistent bibliographic material that meets the increasing need for modernization and greater energy efficiency to significantly reduce CO2 emissions. Ioan Sarbu and Calin Sebarchievici present a comprehensive overview of all major solar energy technologies, along with the fundamentals, experiments, and applications of solar heating and cooling systems. Technical, economic, and energy saving aspects related to design, modeling, and operation of these systems are also explored. This reference includes physical and mathematical concepts developed to make this publication a self-contained and up-to-date source of information for engineers, researchers, and professionals who are interested in the use of solar energy as an alternative energy source. Includes learning aims, chapter summaries, problems and solutions to support the theories presented Puts a specific emphasis on the practical application of the technologies in heating and cooling systems Contains calculating equations for the energy and economic index of solar systems

This "ambitious [and] delightful" (The New York Times) work of literary nonfiction interweaves the science and history of the powerful refrigerant (and dangerous greenhouse gas) Freon with a haunting meditation on how to live meaningfully and morally in a rapidly heating world. In After Cooling, Eric Dean Wilson braids together air-conditioning history, climate science, road trips, and philosophy to tell the story of the birth, life, and afterlife of Freon, the refrigerant that ripped a hole larger than the continental United States in the ozone layer. As he traces the refrigerant's life span from its invention in the 1920s—when it was hailed as a miracle of scientific progress—to efforts in the 1980s to ban the chemical (and the resulting political backlash), Wilson finds himself on a journey through the American heartland, trailing a man who buys up old tanks of Freon stockpiled in attics and basements to destroy what remains of the chemical before it can do further harm. Wilson is at heart an essayist, looking far and wide to tease out what particular forces in American culture—in capitalism, in systemic racism, in our values—combined to lead us into the Freon crisis and then out. "Meticulously researched and engagingly written" (Amitav Ghosh), this "knockout debut" (New York Journal of Books) offers a rare glimpse of environmental hope, suggesting that maybe the vast and terrifying problem of global warming is not beyond our grasp to face.

Principles and Practice of Energy Efficient Design, Third Edition

Plastics World

Fundamentals, Application, and Operation

Guide to Energy Management, Eighth Edition – International Version

Installing Seismic Restraints For Electrical Equipment

Guide to Energy Management, Fifth Edition

The new edition of a bestseller, this book is one of the leading educational resources for energy manager or energy professional as well as new people enter the field of energy management and energy engineering. It is the most widely used college and university textbook, as well as one of the most widely used books for professional development training. New topics include energy auditing, energy bills, life cycle costing, electrical distribution systems, boilers, steam distribution systems, control systems and computers, energy systems maintenance, insulation, compressed air, renewable energy sources and water management, distributed generation, and creating green buildings.

Liquefied natural gas (LNG) is a commercially attractive phase of the commodity that facilitates the efficient handling and transportation of natural gas around the world. The LNG industry, using technologies proven over decades of development, continues to expand its markets, diversify its supply chains and increase its share of the global natural gas trade. The Handbook of Liquefied Natural Gas is a timely book as the industry is currently developing new large sources of supply and the technologies have evolved in recent years to enable offshore infrastructure to develop and handle resources in more remote and harsher environments. It is the only book of its kind, covering the many aspects of the LNG supply chain from liquefaction to regasification by addressing the LNG industries' fundamentals and markets, as well as detailed engineering and design principles. A unique, well-documented, and forward-thinking work, this reference book provides an ideal platform for scientists, engineers, and other professionals involved in the LNG industry to gain a better understanding of the key basic and advanced topics relevant to LNG projects in operation and/or in planning and development. Highlights the developments in the natural gas liquefaction industries and the challenges in meeting environmental regulations Provides guidelines in utilizing the full potential of LNG assets Offers advices on LNG plant design and operation based on proven practices and design experience Emphasizes technology selection and innovation with focus on a "fit-for-purpose design Updates code and regulation, safety, and security requirements for LNG applications

High Performance Buildings: A Guide for Owners and Managers, is a template - a blueprint for action for those making decisions about how to improve the energy efficiency and performance of new or existing buildings. It is designed to have broad appeal, both for the seasoned veteran facility or energy manager and for the new manager alike, but can also be utilized as a practical desk reference by professionals such as architects, engineers, and construction managers. The full spectrum of topics relevant to achieving optimum building performance is addressed, including analysis of overall building energy use and performance, building commissioning, applicable codes, standards and rating systems, building envelope, onsite power generating options, optimizing performance of building mechanical and electrical equipment, and importance of effective building operation and maintenance practices. Fundamental principles are discussed and illustrated with case studies.

Data centers house a variety of compute, storage, network IT hardware where equipment reliability is of utmost importance. Heat generated by the IT equipment can substantially reduce its service life if Tj,max, maximum temperature that the microelectronic device tolerates to guarantee reliable operation, is exceeded. Hence, data center rooms are bound to maintain continuous conditioning of the cooling medium. This approach often results in over-provisioned cooling systems. In 2014, U.S. Data center electricity consumption is about 1.8% of the total electrical energy in the country. Hence, data center power and cooling have become significant issues facing the IT industry. The first part of the study focuses on air cooling of electronic equipment at room level. Data centers are predominantly cooled by perimeter computer air handling units that supply cold air to the raised floor plenum and the cold air helps in removing the heat generated by IT equipment. This method tends to be inadequate especially when the average power density per rack rises above 4 kW. As a solution to mitigate this problem, different rack and row based cooling solutions have been proposed and used. The primary focus of these cooling methods is to bring cooling closer to the heat source which is the IT rack thereby improving the heat dissipation process along with controlled air flow management in the data center room. Mostly known close-coupled cooling solutions include rear-door heat exchanger, in-row coolers, and over-head cooling. In this study, a new end-of-aisle close-coupled cooling solution for small data center cooling room has been proposed. As oppose to the existing designs, this design is distinctive in eliminating the risk of placing the liquid on top of IT racks along with achieving cooling energy efficiency. Three different configurations of the proposed designs are studied for its thermal performance using computational modeling. The second part of the study focuses on liquid cooling at rack level. Liquid cooling addresses the critical issues related to typical air cooling in servers because of its better heat transfer characteristics. Water-cooling at the device level can be an efficient solution since water has higher thermal capacitance when compared to traditional heat carrying medium i.e., air. The emerging practice in the data center industry is to maximize the use of economizer usage by reducing/eliminating the usage of chiller while taking advantage of outside ambient conditions to cool the data centers. Liquid cooled racks are generally designed with different configuration of pumping systems. Empirical study is conducted on a state-of-art liquid cooled electronic rack for high coolant inlet, commonly known as warm-water cooling in order to evaluate the cooling performance of distributed vs. centralized coolant pumping systems. Experimental set up is instrumented such that detailed analysis is employed to study component temperatures as well as cooling performance of the rack at elevated inlet conditions. The third part of the study focuses on the impact of high server inlet temperatures to static power at server level. In order to maximize the use of economizers, the IT hardware will be exposed to higher inlet temperatures which would lead to higher operating temperatures of the processors. The operating temperature of the CPU has direct influence on the static power due to subthreshold leakage which is known to reduce the performance of the processor. The current work serves as a firsthand investigation to study trade-off between IT performance and energy efficiency for elevated inlet temperature in air vs. liquid cooled servers. Air cooled IT along with the liquid cooled counter-parts are instrumented and extensively tested to simulate the high ambient conditions at the test bed data center.

Guide to Energy Management

High-Performance Buildings

Energy Management Principles

High Performance Buildings: A Guide for Owners & Managers

Leadership Strategies for Global Supply Chain Management in Emerging Markets

HVAC Water Chillers and Cooling Towers

This book is an introduction to the technology of ecological building in the sense of integrated planning: global prognoses and ecological cycles help to formulate guidelines for buildings in the future, standards that must be observed if we are to guard against environmental crises. The book presents the technology needed to integrate the supply of water, heat, cooling, electricity, natural ventilation and lighting into the building's structure and design from the start. In short, the book explains how to contribute now to the protection of natural resources by utilizing solar energy and rainwater, geothermal and other thermal systems, to name but a few.

High-Performance BuildingsA Guide for Owners & ManagersCRC Press

Energy Management Principles: Applications, Benefits, Savings, Second Edition is a comprehensive guide to the fundamental principles and systematic processes of maintaining and improving energy efficiency and reducing waste. Fully revised and updated with analysis of world energy utilization, incentives and utility rates, and new content highlighting how energy efficiency can be achieved through 1 of 16 outlined principles and programs, the book presents cost effective analysis, case studies, global examples, and guidance on building and site auditing. This fully revised edition provides a theoretical basis for conservation, as well as the avenues for its application, and by doing so, outlines the potential for cost reductions through an analysis of inefficiencies. Provides extensive coverage of all major fundamental energy management principles Applies general principles to all major components of energy use, such as HVAC, electrical end use and lighting, and transportation Describes how to initiate an energy management program for a building, a process, a farm or an industrial facility

Updated to include recent advances, this third edition presents strategies and analysis methods for conserving energy and reducing operating costs in residential and commercial buildings. The book explores the latest approaches to measuring and improving energy consumption levels, with calculation examples and Case Studies. It covers field testing, energy simulation, and retrofit analysis of existing buildings. It examines subsystems—such as lighting, heating, and cooling—and techniques needed for accurately evaluating them. Auditors, managers, and students of energy systems will find this book to be an invaluable resource for their work. Explores state-of-the-art techniques and technologies for reducing energy combustion in buildings. Presents the latest energy efficiency strategies and established methods for energy estimation. Provides calculation examples that outline the application of the methods described. Examines the major building subsystems: lighting, heating, and air-conditioning. Addresses large-scale retrofit analysis approaches for existing building stocks. Introduces the concept of energy productivity to account for the multiple benefits of energy efficiency for buildings. Includes Case Studies to give readers a realistic look at energy audits. Moncef Krarti has vast experience in designing, testing, and assessing innovative energy efficiency and renewable energy technologies applied to buildings. He graduated from the University of Colorado with both MS and PhD in Civil Engineering. Prof. Krarti directed several projects in designing energy-efficient buildings with integrated renewable energy systems. He has published over 3000 technical journals and handbook chapters in various fields related to energy efficiency, distribution generation, and demand-side management for the built environment. Moreover, he has published several books on building energy-efficient systems. Prof. Krarti is Fellow member to the American Society for Mechanical Engineers (ASME), the largest international professional society. He is the founding editor of the ASME Journal of Sustainable Buildings & Cities Equipment and Systems. Prof. Krarti has taught several different courses related to building energy systems for over 20 years in the United States and abroad. As a professor at the University of Colorado, Prof. Krarti has been managing the research activities of an energy management center at the school with an emphasis on testing and evaluating the performance of mechanical and electrical systems for residential and commercial buildings. He has also helped the development of similar energy efficiency centers in other countries, including Brazil, Mexico, and Tunisia. In addition, Prof. Krarti has extensive experience in promoting building energy technologies and policies overseas, including the establishment of energy research centers, the development of building energy codes, and the delivery of energy training programs in several countries.

Experimental and Computational Study of Multi-level Cooling Systems at Elevated Coolant Temperatures in Data Centers

The Technology of Ecological Building

A Guide for Owners & Managers

Waste Heat Recovery in Process Industries

Guide to Energy Management: Eighth Edition, International Version

Consulting-specifying Engineer

Analysis and Design of Heating, Ventilating, and Air-Conditioning Systems, Second Edition, provides a thorough and modern overview of HVAC for commercial and industrial buildings, emphasizing energy efficiency. This text combines coverage of heating and air conditioning systems design with detailed information on the latest controls technologies. It also addresses the art of HVAC design along with carefully explained scientific and technical content, reflecting the extensive experience of the authors. Modern HVAC topics are addressed, including sustainability, IAQ, water treatment and risk management, vibration and noise mitigation, and maintainability from a practical point of view.

Introductory technical guidance for professional engineers and others interested in energy efficient design of buildings. Here is what is discussed: 1. HVAC SYSTEM UPGRADES 2. HVAC CONTROLS 3. LIGHTING UPGRADES 4. AIR DISTRIBUTION UPGRADES 5. ENERGY EFFICIENCY FOR DATA CENTERS 6. SOLAR COLLECTORS 7. PASSIVE SOLAR HEATING 8. SOLAR WATER HEATING FUNDAMENTALS 9. SOLAR COOLING SYSTEMS

This book provides a blueprint for action for readers making decisions about how to improve the energy efficiency and performance of new or existing buildings. Suitable for both seasoned veterans and new managers, it takes an objective and orderly approach to what is often a complex, costly, and time-consuming process. The book presents fundamental principles illustrated with case studies. It thoroughly covers the topics in a concise, technically accurate way. The book is designed for architects, engineers, and construction managers.

Solar Heating and Cooling Systems

Refrigeration Systems and Applications

The Steam and Heating Engineer

Basic Principles and Measures, Examples and Ideas

Guide to Energy Management, Eighth Edition

Electronic Facilities Engineering