



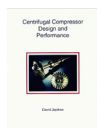
Advanced Experimental Techniques in Turbomachinery · David Japikse (Editor) · ISBN 0-933283-01-6 · \$60.00

The intent of this text is to make available the key material collected by recognized lecturers in the turbomachinery field for the general use of industry. Since the authors of the various chapters are key experts in their field, this text should serve as an appropriate starting point for thought by many readers. Each chapter in this book has been prepared in close collaboration with the original author.



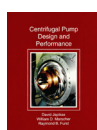
Axial and Radial Turbines · Hany Moustapha, Mark F. Zelesky, Nicholas C. Baines, David Japikse · ISBN 0-933283-12-1 · \$150.00

This is the first completely new book for more than a decade specifically devoted to axial and radial turbine design and technology. It starts with the fundamental principles of turbine design, but also incorporates the latest developments and understanding the essential role that computer-based analysis plays today. The coverage includes the aerodynamic and structural analysis of turbine blades, together with the important topics of life prediction, design for durability, blade cooling, and exhaust diffuser design.



Centrifugal Compressor Design and Performance · David Japikse · ISBN: 0-933283-03-2 · \$150.00

This book provides a state-of-the-art review of the technology base of compressors and is a practical guide for designers. The author has been a major contributor to the research and development of centrifugal compressors for many years and has been responsible for a number of significant technological advances, such as the two-zone model of impeller flow and the TEIS (two-elements-in-series) model of diffusion. Design examples from the author's vast experience are used extensively.



Centrifugal Pump Design and Performance · David Japikse, William D. Marscher, Raymond B. Furst · ISBN: 0-933283-09-1 · \$150.00

This is the most thorough, up-to-date, and comprehensive review of centrifugal pump design published in many years. The authors are practicing engineers with a wealth of experience in pump hydraulic and mechanical design, manufacture, installation, and troubleshooting. The book outlines significant contributions made to the pump technology industry and is a must for pump engineers.



Compressor Surge and Stall · Ronald C. Pampreen · ISBN: 0-933283-05-9 · \$150.00

A thorough survey and analysis of investigations into instabilities in axial and centrifugal compressors, this book provides a resource for engineers and scientists working in compressor design. It is suggested for compressor designers and users who appreciate the need for understandable surge lines for a wide range of stall-free, surge-free operation.



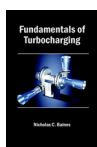
Design of Highly Loaded Axial-Flow Fans and Compressors · Arthur J. Wennerstrom · ISBN 0-933283-11-3 · \$100.00

In this monograph the author summarizes the most important points he has learned during his career devoted to advanced fan and compressor research and development. Although this work was originally aimed at military aircraft engine applications, much of it is relevant to commercial aircraft engines, to industrial and even consumer-oriented turbomachinery.



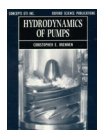
Diffuser Design Technology · David Japikse, Nicholas C. Baines · ISBN: 0-933283-08-3 · \$175.00

This is the most comprehensive review of diffuser technology ever published. Over 1,500 original research papers have been examined, and their results have been summarized and collated into a single reference volume with a critical commentary by the authors. This provides an overview which helps focus attention on the essential characteristics of diffusers and their applications, and a broad perspective by which new researchers and engineers can obtain an effective orientation to the basic characteristics of diffuser fluid dynamic problems.



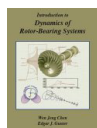
Fundamentals of Turbocharging · Nicholas C. Baines · ISBN 0-933283-14-8 · \$135.00

This book is the first comprehensive treatment of turbochargers and turbocharging to be made widely available in the last twenty years. It is intended to serve as both an introduction to the turbocharger itself, and to the problems of matching a turbocharger with an internal combustion engine. The turbocharger is a highly sophisticated device which has been described as aerospace gas turbine engineering allied to mass production techniques. Undoubtedly the key to commercial success lies in achieving the correct compromise between performance, life, and cost, as this runs a continuous thread through the book.



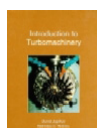
Hydrodynamics of Pumps · Christopher E. Brennen, California Institute of Technology · ISBN: 0-933283-07-5 · \$100.00

This unique text focuses on special problems and design issues associated with pumps: the potential for cavitation, the damage and vibration problems which result from cavitation, and the possibility of large unsteady flows and forces on the machine. The book provides a coherent, unified treatment of the hydrodynamics of pumps with emphasis on the underlying physical phenomena. An important reference text for engineers and scientists, it is also appropriate for graduate courses in turbomachinery.



Introduction to Dynamics of Rotor-Bearing Systems · Wen Jen Chen, Edgar J. Guntar · ISBN: 1-41205190-8 · \$125.00

This book is written as an introduction to rotor-bearing dynamics for practicing engineers and students who are involved in rotor dynamics and bearing designs. The goal of this book is to provide a step-by-step approach to the understanding of fundamentals of rotor-bearing dynamics. Therefore, the emphasis of this book is on the basic principles, phenomena, modeling, theory, and interpretations of the results. Numerous examples, from a single-degree-of-freedom system to complicated industrial rotating machinery, are employed throughout this book to illustrate these fundamental dynamic behaviors. The concepts in the text are reinforced by parametric studies and numerous illustrative examples and figures.



Introduction to Turbomachinery · David Japikse, Nicholas C. Baines · ISBN 0-933283-10-5 · \$150.00

The result of many years of teaching, research, and consulting within universities and the turbomachinery industry, this unique book presents comprehensive coverage of fundamental principles and industrial design, and covers turbomachinery application diversity. It focuses on basic physical understanding, but acknowledges advances in modern computing methods and experimental techniques.

