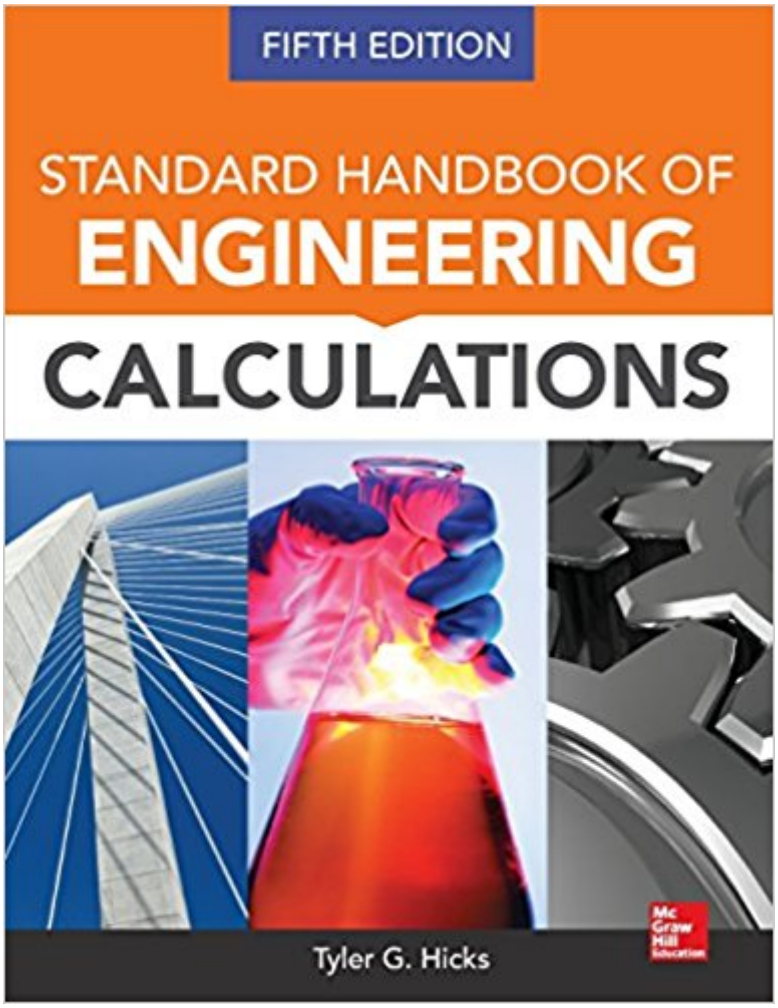
Standard Handbook Of Engineering Calculations, Fifth Edition



Synopsis

MORE THAN 5000 ESSENTIAL, UP-TO-DATE CALCULATIONS FOR ENGINEERS Thoroughly revised with the latest data, methods, and code, the new edition of this practical resource contains more than 5000 specific, step-by-step calculation procedures for solving both common and uncommon engineering problems quickly and easily. The calculations presented provide safe, usable results for the majority of situations faced by practicing engineers worldwide. The book fully describes each problem, includes numbered calculation procedures, provides workedout problems, and offers related calculations in most instances. This is an essential on-the-job manual as well as a handy reference for engineering licensing exam preparation. Includes NEW calculation procedures for: Load and resistance factor design (LRFD) Solar heating loads Geothermal energy engineering Transformer efficiency Thermodynamic analysis of a Linde system Design of a chlorination system for wastewater disinfection Determination of ground-level pollutant concentration And many more Standard Handbook of Engineering Calculations, Fifth Edition, features detailed, time-saving calculations for: Civil and structural engineering Architectural engineering Mechanical engineering Electrical engineering Chemical and process plant engineering Water and wastewater engineering Environmental engineering

Book Information

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Customer Reviews

Tyler G. Hicks, PE, is a consulting engineer and a successful engineering book author. He has worked in plant design and operation in a variety of industries, taught at several engineering

schools, and lectured both in the United States and abroad. Mr. Hicks holds a bachelorâ ™s degree in Mechanical Engineering from Cooper Union School of Engineering in New York. He is the author or coauthor of more than 20 books in engineering and related fields, including Civil Engineering Formulas, Handbook of Mechanical Engineering Calculations, Handbook of Energy Engineering Calculations, and Structural Engineering Formulas.

This is a necessary text for all engineers. Such textbooks are highly useful in establishing standards for mundane calculations performed in many branches of engineering. I just recently replaced my first edition of this book with the newest so that I would have access to the new enviromental engineer calculations added.The book is now divided into civil, mechanical, architectural, and chemical engineering. If you can’t find what you need, the safest bet is to check out the mechanical section next. In my opinion, the mechanical section is far too large and it is time to abandon the division of this book by degrees. I would divide it up by task; this would require simplifying the table of contents and an expansion of the index but then who really uses a TOC with a handbook?Why do I use the word mundane? You won’t find complicated calculation procedures here, nor will you find a lot of selection criteria information. What I mean is a table ranking technology. A good example of this is the series of books by Coulson and Richardson on chemical engineering. In that series, under drying, for example, all the technology is ranked according to product dryness, particle sizes, etc.. None of this is presented here. What makes this book useful is that is presents a procedure understandable to junior engineers and clients for solving a particular problem such as calculating a slab thickness or the size of a ventilation duct.This book is a must-have if you are a consultant, contractor, or just want an understanding of a basic engineering calculation.If this review was helpful, please add your vote.

spine was creased a bit more than id like in a second hand bookhowever, great content, very clean and well loved, was great value

Good

An essential reference and work tool for any engineer, student or technician, this handbook contains more than 5000 calculation procedures that will show, anybody and anyone working with engineering applications, quick and easy calculations formulas and procedures to solve most engineering problems encountered in the industries and in class.Using a "cookbook" format, this

book presents detailed "recipes" that describe the problem to be solved; step-by-step procedures to be followed; a worked out example of the typical problem; and (in most cases) presents cross-referenced related calculations.Truly a most have. I am an Electronics Engineer, but I work as an Instrumentation, Automation and Process Safety and Control Engineer for the Process Industries. As a result I have been involved with Chemical and Mechanical Engineering issues in a day to day basic. This handy reference has proven most useful and time saving when in need of an specific formula, or shortcut.

Mr. Hicks has done a wonderful job in compling equations, however, he has missed the practical applications in compressed air and vacuum systems. I initially used his theoritcal position on calculating pressure drop in pipe for compressed air. His position seems reasonable and logical until you compare the results with practical applications. Ingresoll-Rand, the air compressor manufacturer, published tables of pressure drop verses pipe sizes, delivery pressures and ACFM. Futher ASPE has published a data book which leads the engineer into an empirical equation for calculating pressure loss in compressed air piping. The results with both Ingresoll-Rand and ASPE agree. Using Mr. Hicks' therotical approach drives the pipe size much larger than needed and therefore the cost of the project. My suggestion is that Mr. Hicks contact I-R and ASPE to incorporate their empirical approach to sizing pipe for compressed air and vacuum systems.

To: Lost in AirI respectfully submit, that you need to appreciate Mr. Hicks' position. He has provided a conservative approach that will work in almost every situation. The empirical approach that you advocate may well work in most situations but I'll bet there is little margin built in for contingencies. True, your solution may cost less, which is important. But will the low-margin, low cost solution still work 1 or 2 years from now or will the pipe size be too small to allow for degradation/changes? Customer repeat business must be a consideration, too.I'm not trying to be confrontational, and I understand what you're saying. But you have to appreciate the position that Mr. Hicks must take in such a handbook, and he takes the only logical one, which is to be on the conservative side. People doing more than a couple of these calculations in a year in fact should consult more in-depth material, as you did.Regards,David R. Debo, P.E.

Dosing (McPherson, Demystifying Opioid Conversion Calculations) Basic Principles and Calculations in Chemical Engineering (8th Edition) (Prentice Hall International Series in the Physical and Chemical Engineering Sciences) 2016 ICD-10-CM Standard Edition, 2016 HCPCS Standard Edition and AMA 2016 CPT Standard Edition Package, 1e Spellman's Standard Handbook for Wastewater Operators: Fundamentals, Volume I (Spellman's Standard Handbook for Wastewater Operators Series) (Volume 1) Aircraft Structures for Engineering Students, Fifth Edition (Elsevier Aerospace Engineering) Lighting Engineering: Applied Calculations Cold Regions Engineering: Proceedings of the Fifth International Conference Sponsored by the Technical Council on Cold Regions Engineering of the Am Handbook of Electric Power Calculations, Fourth Edition (Electronics) Lab Math: A Handbook of Measurements, Calculations, and Other Quantitative Skills for Use at the Bench, Second edition Handbook of Nanoscience, Engineering, and Technology (Electrical Engineering Handbook) Standard Handbook of Petroleum and Natural Gas Engineering, Third Edition Standard Handbook of Petroleum and Natural Gas Engineering, Second Edition G.Dieter's Li.Schmidt's Engineering 4th (Fourth) edition(Engineering Design (Engineering Series) [Hardcover])(2008) The Handbook of Global Fixed Income Calculations Handbook on Material and Energy Balance Calculations in Material Processing, Includes CD-ROM Handbook of Physical Calculations Pilot's Pocket Handbook: Flight Calculations, Weather Decoder, Aviation Acronyms, Charts and Checklists, Pilot Memory Aids Handbook of Electric Power Calculations