Precision Machining Technology
Synopsis

PRECISION MACHINING TECHNOLOGY has been carefully written to align with the National Institute of Metalworking Skills (NIMS) Machining Level I Standard and to support achievement of NIMS credentials. This new text carries NIMS' exclusive endorsement and recommendation for use in NIMS-accredited Machining Level I Programs. It’s the ideal way to introduce students to the excitement of today’s machine tool industry and provide a solid understanding of fundamental and intermediate machining skills needed for successful 21st Century careers. With an emphasis on safety throughout, PRECISION MACHINING TECHNOLOGY offers a fresh view of the role of modern machining in today’s economic environment. The text covers such topics as the basics of hand tools, job planning, benchwork, layout operations, drill press, milling and grinding processes, and CNC. The companion Workbook/Shop Manual contains helpful review material to ensure that readers have mastered key concepts and provides guided practice operations and projects on a wide range of machine tools that will enhance their NIMS credentialing success.

Book Information

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Average Customer Review: 4.6 out of 5 stars  (See all reviews) (18 customer reviews)
Best Sellers Rank: #398,954 in Books (See Top 100 in Books)  #38 in Books > Engineering & Transportation > Engineering > Energy Production & Extraction > Drilling Procedures  #220 in Books > Engineering & Transportation > Engineering > Industrial, Manufacturing & Operational Systems > Manufacturing  #578 in Books > Textbooks > Engineering > Mechanical Engineering

Customer Reviews

I've been searching for a good book that covers machine shop operations. They are very hard to find. Most books I've looked at are clearly written with the assumption that you'll be learning from a machinist, and the book doesn't need to stand on its own. This book is generally very complete, although definitely a beginner's text: it doesn't cover a variety of more advanced machine shop techniques. That said, it's the best beginners book I've found. Generally speaking, the various
sections of the text cover machine shop operations well enough that a bright student will have the information needed to actually work in a shop. In a few places, the detail is a little lacking, and a student will be well served by going out to youtube for a detailed instructional video. One example of this is tramming a milling machine. The book is technically correct, but it doesn’t explain that the front/back rotation axis of a vertical milling machine head is offset back from the table, and thus multiple iterations of zeroing in with a dial test indicator will usually be required to precisely tram the mill. Many of the youtube videos on tramming a mill explain this. That critique aside: unlike other books I’ve seen, this text covers all the basics in enough detail that the student will at least realize that a point is being made that isn’t clear, and they can seek more information. Most other books would leave a naive student either completely confused or actually dangerous in the machine shop. I’m tempted to award five stars, but I’m giving four to leave room for a future NIMS book to be yet better.

This book was required for my introductory precision machining class at community college. I liked it a lot! The course instructor structured his lectures to follow the text closely and it was a very effective learning experience. The book is pretty hefty and expensive, but it does an excellent job of introducing and explaining the key features of manual machining machines, tooling, and processes. It has lots of pictures and illustrations, and when it discusses a particular machine or tool, it is almost always pictured. While not quite a "coffee table book" this book is heavy on pictures and provides just the right amount of clear text to explain the essential concepts and facts. The book contains a good glossary and index, which were very helpful for "open book" exams. Experienced or advanced machinists might find this book to be lacking in technical detail or explanations of more sophisticated or exotic machining, but for the student, or self-educating beginner machinist, or hobbyist machinist, this is an excellent resource.

For anyone that’s either a manufacturing student or wanting to start out as a hobby machinist, I would strongly recommend this book. Contains a lot of really important fundamentals and explains them in a way that’s easy to understand.

I bought this as part of a community college basic machining class. The information in here was great. I feel like I could have tackled all the basics with just this book. Perfect for someone with no prior experience who buys a mini-mill or such for hobby work in their garage.
Needed it for my machining class, great price! I have to say I love textbooks that are hardcovers, they hold up much better and they last longer. I was impressed by the great shape this book was in for the price!

Our instructors have used this text for several years and feel it is useful to teach the principles of machining. The level of instruction is post-secondary, machining apprenticeship.

If you plan on taking a machining course this book is a good tool to have. It goes into every little detail in all areas of machining not leaving a single thing uncovered.

Exactly what we were needing for our Manufacturing Classes at our high school. This book will be the means for our students to get their information.

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