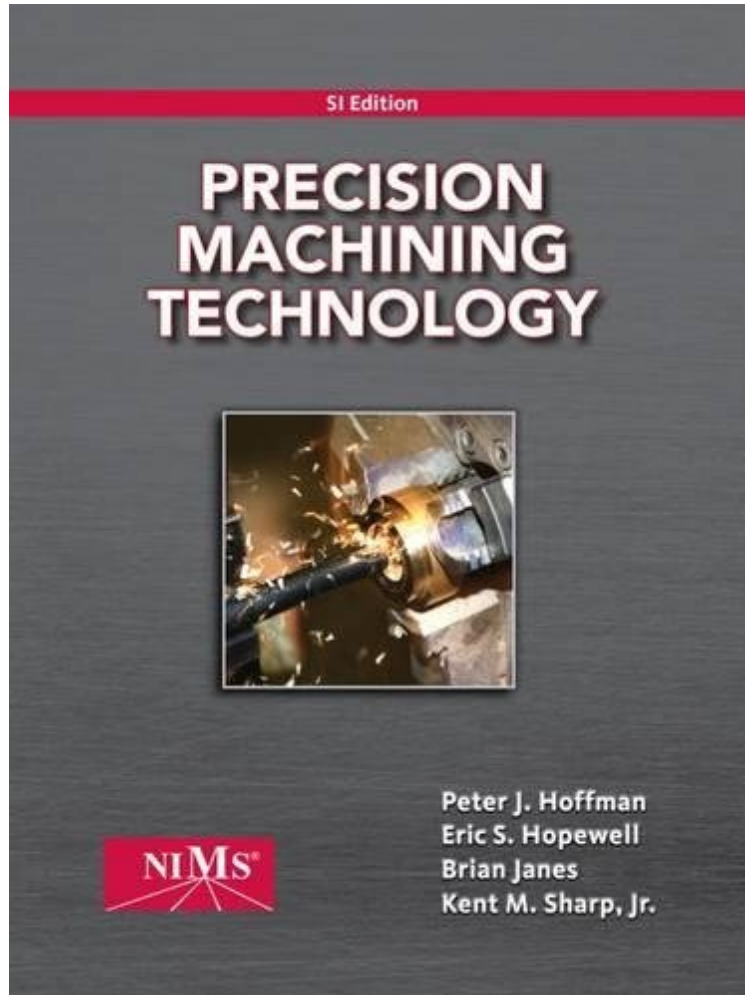


(Library ebook) Precision Machining Technology, SI Edition

## Precision Machining Technology, SI Edition

*Peter J. Hoffman, Eric S. Hopewell, Brian Janes, Jr. Kent M. Sharp*  
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**Peter J. Hoffman, Eric S. Hopewell, Brian Janes, Jr. Kent M. Sharp : Precision Machining Technology, SI Edition** before purchasing it in order to gauge whether or not it would be worth my time, and all praised Precision Machining Technology, SI Edition:

0 of 0 people found the following review helpful. Clear, concise, well illustrated, easy to read By Thurston Thatcher Hedgewick 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. 1 of 1 people found the following review helpful. This is a great resource for those starting out. By mike irwin This is a great resource for those starting out, and a great reference book for those who think they know everything. 0 of 0 people found the following review helpful. Five Stars By Customer Great book for someone new to machining.

Carefully written to align with the Machining Level I Standard and to support achievement of the National Institute of Metalworking Skills (NIMS) credentials, *PRECISION MACHINING TECHNOLOGY*, SI Edition carries the exclusive endorsement of the National Institute for Metalworking Skills (NIMS) which recommends this book for use in NIMS-accredited Machining Level I Programs. It is the ideal book to introduce readers to the excitement of today's machine tool industry and provides a good understanding of fundamental and intermediate machining skills needed for successful twenty first century careers. With an emphasis on safety with many caution boxes throughout the book to remind readers about necessary precautions, it offers a fresh view of the role of modern machining in today's economic environments and covers such topics as the basics of hand tools, job planning, benchwork, layout operations, drill press, milling and grinding processes. The book concludes with a section on Computer Numerical Control (CNC), which presents the world of high-tech automated processes and provides many examples of CNC programming for machining and turning centers, as well as use of tooling.

**SECTION 1: INTRODUCTION TO MACHINING.** 1. Introduction to Machining. 2. Careers in Machining. 3. Workplace Skills. **SECTION 2: MEASUREMENT, MATERIALS, AND SAFETY.** 1. Introduction to Safety. 2. Measurement Systems and Machine Tool Math Overview. 3. Semi-Precision Measurement. 4. Precision Measurement. 5. Quality Assurance, Process Planning, Quality Control. 6. Metal Composition and Classification. 7. Heat Treatment of Metals. 8. Maintenance, Lubrication, and Cutting Fluid Overview. **SECTION 3: JOB PLANNING, BENCHWORK, AND LAYOUT.** 1. Understanding Drawings. 2. Layout. 3. Hand Tools (Safety Integration). 4. Saws and Cut-Off Machine. 5. Offhand Grinding. 6. Drilling, Treading, Tapping and Reaming. **SECTION 4: DRILL PRESS.** 1. Introduction to the Drill Press 2. Tools, Toolholding, and Workholding for the Drill Press 3. Drill Press Operation. **SECTION 5: TURNING.** 1. Introduction to the Lathe. 2. Workholding and Toolholding Devices for the Lathe. 3. Machining Operations on the Lathe. 4. Manual Lathe Threading. 5. Taper Turning. **SECTION 6: MILLING.** 1. Introduction to the Vertical Milling Machine. 2. Tools, Toolholding, and Workholding for the Vertical Milling Machine. 3. Vertical Milling Machine Operations. 4. Indexing and Rotary Table Operations. **SECTION 7: GRINDING.** 1. Introduction to Precision Grinding Machines. 2. Grinding Wheels for Precision Grinding. 3. Surface Grinding Operations. **SECTION 8: COMPUTER NUMERICAL CONTROL.** 1. CNC Basics. 2. Introduction to CNC Turning. 3. CNC Turning: Programming. 4. CNC Turning: Set-up and Operation. 5. Introduction to CNC Milling. 6. CNC Milling: Programming. 7. CNC Milling: Set-up and Operation. 8. Computer Aided Design and Computer Aided Machining.

About the Author Peter J. Hoffman teaches at Berks Career and Technology Center West in Leesport, Pennsylvania. He has an Associate in Applied Sciences Degree in Machine Tool Technology from the Pennsylvania College of Technology, Vocational Education Level II certification from Temple University, and National Institute for Metalworking Skills (NIMS) Level II certifications. Eric S. Hopewill teaches at Berks Career and Technology Center West in Leesport, Pennsylvania. He has an Associate in Applied Sciences Degree in Tool Technology from the Pennsylvania College of Technology and a Bachelor of Science Degree in Business Administration from Albright College. Mr. Hopewell also has National Institute for Metalworking Skills (NIMS) Machining Level I certifications. Brian Janes teaches at Bowling Green Technical College in Bowling Green, Kentucky. He has an Associate in Science Degree from Vincennes University, a Bachelor of Science Degree from Western Kentucky University, and a Master of Science Degree from Murray State University. Mr. Janes also has National Institute for Metalworking Skills (NIMS) Machining Level I certifications. Kent M. Sharp, Jr. teaches at Radford High School in Radford, Virginia. He has an Associate Degree in Science from New River Community College and a Bachelor of Science Degree and a Master of Science Degree from Radford University. Mr. Sharp also has National Institute for Metalworking Skills (NIMS) Level I certifications.