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Nota di contenuto	Audel Machine Shop Basics All New 5th Edition; Contents; Acknowledgments; About the Authors; Introduction; Chapter 1: Benchwork; The Bench and Bench Tools; Vises; Hammers; Chisels; Flat Chisel; Hacksaws; Files; Scrapers; Summary; Review Questions; Chapter 2: Precision Measurement and Gaging; Micrometer Calipers; Vernier Micrometer Calipers; Vernier Calipers; Bevel Protractors; Dial Indicators; Gages; Effects of Temperature and Weight on Precision Tools; Electronic Caliper Depth Gages; Electronic Digital Micrometer; Summary; Review Questions; Chapter 3: Materials; Properties; Metals; Nonmetals Tests of MaterialsSummary; Review Questions; Chapter 4: Abrasives; Structure of Abrasives; Composition of Abrasives; Use of Abrasives in Grinding Wheels; Summary; Review Questions; Chapter 5: Grinding; Manufacture of Grinding Wheels; Bond Types in Grinding Wheels; Grinding Wheel Markings; Factors Affecting Grinding Wheel Selection; Summary; Review Questions; Chapter 6: Cutting Fluids; Coolant; Lubricants; Application of Cutting Fluids; Types of Cutting Fluids; Solid Lubricants; Summary; Review Questions; Chapter 7: Cutting Tools; Action of Cutting Tools; Materials Shapes and Uses of Cutting ToolsTerms Related to Cutting Tools;

Cutting Tool Angles; High-Speed Steel Lathe Tools; Summary; Review Questions; Chapter 8: Cutter and Tool Grinders; Importance of Tool Sharpening; Cutter and Tool Sharpening; Summary; Review Questions; Chapter 9: Drills; Drill Standards; Twist Drill Terminology; Types of Drills; Drill-Bit Point Design; Special-Purpose Drills; Socket and Sleeve; Using the Twist Drill; Speeds and Feeds; Clearance Drills; Drill Problems and Causes; Summary; Review Questions; Chapter 10: Reamers; Types of Reamers; Use and Care of Reamers; Summary Review QuestionsChapter 11: Taps; Types of Taps; Tap Selection; Classes of Thread; Summary; Review Questions; Chapter 12: Threading Dies; Types of Dies; Use of Dies to Cut Threads; Summary; Review Questions; Chapter 13: Milling-Machine Cutters; Milling Operation; Classification of Milling Cutters; General Types of Milling Cutters; Care of Milling Cutters; Speeds and Feeds; Summary; Review Questions; Chapter 14: Milling-Machine Arbors, Collets, and Adapters; Arbors; Collets; Adapters; Summary; Review Questions; Chapter 15: Broaches and Broaching; Broaching Principle; Types of Broaches Shapes of BroachesInternal and External Broaches; Pull or Push Broaches; Care and Sharpening of Broaches; Broaching Machines; Broaching Operations; Summary; Review Questions; Chapter 16: Electrical Safety in the Machine Shop; Power Sources; Motor Problems; Drum Switches; Safety in the Shop; Fire Extinguishers; Summary; Review Questions; Appendix: Reference Materials; Miscellaneous Useful Facts; Metric Conversions; Water Factors; Weights of Steel and Brass Bars; Index

Sommario/riassunto

Use the right tool the right wayHere, fully updated to include new machines and electronic/digital controls, is the ultimate guide to basic machine shop equipment and how to use it. Whether you're a professional machinist, an apprentice, a trade student, or a handy homeowner, this fully illustrated volume helps you define tools and use them properly and safely. It's packed with review questions for students, and loaded with answers you need on the job.Mark Richard Miller is a Professor and Chairman of the Industrial Technology Department at Texas A&M University in Kingsville, T
