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Nota di contenuto	Metal Cutting Operations and Terminology; The Essential Features of Metal Cutting; Forces in Metal Cutting; Heat in Metal Cutting; Cutting Tool Materials, Steel; Cutting Tool Materials, Carbides; Cutting Tool Materials, Ceramic and Ultrahard; Machinability; Coolants and Lubricants; Bibliography; and Index
Sommario/riassunto	Metal cutting is an essential process throughout engineering design and manufacturing industries. To increase efficiency and reduce costs, it is necessary to improve understanding of the metal cutting process. This book presents a comprehensive treatment of the subject that focuses on the features of the behavior of tool and work materials that influence the efficiency of metal cutting operations. The fourth edition of this acclaimed book has been expanded and revised to include significant changes and additions to metal cutting theory, and to cover developments in tool materials and industrial practice. In particular, improvements in the understanding of the generation of heat and distribution of temperature in the cutting tool are described; a discussion of the structure, properties, and performance of newly developed ceramic tool materials and tool coatings is presented; new information of the machinability of alloys is given; and the introduction of calcium deoxidized steels and their improved machinability are assessed. Additionally, a material selection and design-based approach

is expanded upon to improve industrial relevance. Metal Cutting provides invaluable information for those engaged in machining, toolmaking, and related engineering activities, and it serves as a useful introduction to the subject for students of metallurgy and engineering. Presents a comprehensive treatment of the subject Includes information on significant changes and additions to metal cutting theory Offers industrial relevance through a materials selection and and design-based approach