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Nota di bibliografia	Includes bibliographical references at the end of each chapters.
Nota di contenuto	Introduction to the technology of cutting and abrasive processes -- Chip formation -- Chip control -- Forces and powers in cutting and abrasive processes -- Energy conversion -- Modeling -- Wear -- Cutting materials -- High Speed Cutting -- Hard Cutting, Process Design -- Hard machining quality -- Broaching -- Grinding -- Gear grinding -- Process chain -- Surface -- Cooling lubrication.
Sommario/riassunto	Manufacturing is the basic industrial activity generating real value. Cutting and abrasive technologies are the backbone of precision production in machine, automotive and aircraft building as well as of production of consumer goods. We present the knowledge of modern manufacturing in these technologies on the basis of scientific research. The theory of cutting and abrasive processes and the knowledge about their application in industrial practice are a prerequisite for the studies of manufacturing science and an important part of the curriculum of the master study in German mechanical engineering. The basis of this book is our lecture “Basics of cutting and abrasive processes” (4 semester hours/3 credit hours) at the Leibniz University Hannover, which we offer to the diploma and master students specializing in manufacturing science.