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Sommario/riassunto

Microforming Technology: Theory, Simulation and Practice addresses all aspects of micromanufacturing technology, presenting detailed technical information and the latest research developments. The book covers fundamentals, theory, simulation models, equipment and tools design, practical micromanufacturing procedures, and micromanufacturing-related supporting systems, such as laser heating system, hydraulic system and quality evaluation systems. Newly developed technology, including micro wedge rolling, micro flexible rolling and micro hydromechanical deep drawing, as well as traditional methods, such as micro deep drawing, micro bending and micro ultrathin strip rolling, are discussed. This will be a highly valuable resource for those involved in the use, study and design of micro products and micromanufacturing technologies, including engineers, scientists, academics and graduate students. Provides an accessible introduction to the fundamental theories of microforming, size effects, and scaling laws Includes explanations of the procedures, equipment, and tools for all common microforming technologies Explains the numerical modeling procedures for 7 different types of microforming