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Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	Chapter 1. Basic Principle -- Chapter 2. 3D CAD/CAM System -- Chapter 3. Pulsed Power Supply with Discharge Detection Circuit -- Chapter 4. Servo Control of Micro Discharge Gap -- Chapter 5. Precision Fabrication and Measurement of Micro Tool Electrode -- Chapter 6. Effect of Process Parameters -- Chapter 7. Vibration-Assisted SS-3D Micro EDM -- Chapter 8. SS-3D Micro EDM Based on Macro/Micro-Dual-Feed Spindle -- Chapter 9. Algorithms to Reduce Depth Errors -- Chapter 10. On-Machine Process of Rough-and-Finishing SS-3D micro EDM -- Chapter 11. Array SS-3D Micro EDM by Using Array Tool Electrodes -- Chapter 12. Hybrid Process of SS-3D Micro EDM and Scanning 3D Micro ECM -- Chapter 13. SS-3D Micro EDM Applied in Machining Pierced Micro Structures of TiNi alloy tube -- Chapter 14. Discussion and Prospect.
Sommario/riassunto	This book provides the systematic knowledge of a novel process of servo scanning 3D micro-electro-discharge machining (SS-3D micro-EDM), covering principles, methods, technologies, and optimization for machining 3D microstructures of conductive materials. The content

emphasizes the systematic knowledge as well as the frontier research progress of SS-3D micro-EDM, allowing it to be used as a reference handbook for planning the whole machining process of 3D microstructures, for designing machining systems or machine tools, and even for understanding the ideas of innovative processes. The processes and the machine tools of SS-3D micro-EDM have promising applications in multi-fields for machining micro-devices or microstructures made of melt and metal alloy materials. The included methods and technologies are verified by testing and machining experiments. Thus, this book presents many machining examples, including the experimental parameters, conditions, and systems. These help the readers understand the concepts, theories, and methods easily and provide practical operation guidance for engineering applications in industrial machining processes and machine tools.
