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Descrizione fisica	1 online resource (344 pages)
Collana	Engineering Series
Disciplina	670
Soggetti	Manufactures Production engineering Industrial engineering Engineering design Mathematical models Machines, Tools, Processes Mechanical Process Engineering Industrial and Production Engineering Engineering Design Mathematical Modeling and Industrial Mathematics
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di contenuto	Introduction -- Analysis of locating determination -- Analysis of workpiece stability -- Analysis of clamping reasonability -- Analysis of attachment and detachment -- Analysis of locating accuracy -- Selection algorithm of locating datum -- Planning algorithm of locating point layout -- Determination method of clamping point layout for a rigid workpiece -- Fixturing layout optimization of thin-walled workpieces -- Matching method of fixture elements.
Sommario/riassunto	This book uses kinematics, mechanics, mathematics, and so on, to systematically propose the fixturing performance evaluation and fixturing layout planning method. The proposed method is a novel method, including the analysis method of locating determination, the analysis method of workpiece stability, the analysis method of clamping reasonability, the analysis method of workpiece attachment/detachment, the analysis method of locating accuracy, and

the planning algorithm of locating point layout, the planning algorithm of clamping force, and so forth. It can enrich and develop the basic theory of computer aided fixture design, change the empirical method of fixture design. The combination of theoretical analysis and mathematical modeling technology can resolve the key problems in the process of fixture design, which will play a certain role in promoting the progress of manufacturing technology, improving the precision and level of product manufacturing, and meeting the higher and higher requirements of mechanical manufacturing industry. .
