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Sommario/riassunto

The definitive practical guide to choosing the optimum manufacturing process, written for students and engineers. Process Selection provides engineers with the essential technological and economic data to guide the selection of manufacturing processes. This fully revised second edition covers a wide range of important manufacturing processes and will ensure design decisions are made to achieve optimal cost and quality objectives. Expanded and updated to include contemporary manufacturing, fabrication and assembly technologies, the book puts process selection and costing into the context of modern product development and manufacturing, based on parameters such as materials requirements, design considerations, quality and economic factors. Key features of the book include: manufacturing process information maps (PRIMAs) provide detailed information on the characteristics and capabilities of 65 processes and their variants in a standard format; process capability charts detailing the processing tolerance ranges for key material types; strategies to facilitate process selection; detailed methods for estimating costs, both at the component and assemby level. The approach enables an engineer to understand the consequences of design decisions on the technological and economic aspects of component manufacturing, fabrication and assembly. This comprehensive book provides both a definitive guide to the subject for students and an invaluable source of reference for practising engineers. * manufacturing process information maps (PRIMAs) provide detailed information on the characteristics and capabilities of 65 processes in a standard format * process capability charts detail the processing tolerance ranges for key material types * detailed methods for estimating costs, both at the component and assembly level