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Titolo	Manufacturing Integrated Design : Sheet Metal Product and Process Innovation // edited by Peter Groche, Enrico Bruder, Sebastian Gramlich
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ISBN	3-319-52377-5
Edizione	[1st ed. 2017.]
Descrizione fisica	1 online resource (XVIII, 336 p. 283 illus., 182 illus. in color.)
Disciplina	620.16
Soggetti	Metals Industrial engineering Production engineering Management information systems Industrial management Operations research Management science Metallic Materials Industrial and Production Engineering Business Process Management Operations Research, Management Science
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	Introduction: Production Technologies and Product Development -- The CRC666 Approach: Realizing Optimized Solutions Based on Production Technological Innovation -- New Technologies: From Basic Ideas to Mature Technologies -- Manufacturing-induced Properties: Determination, Understanding and Beneficial Use -- Finding the Best: Mathematical Optimization Based on Product and Process Requirements -- Computer Integrated Engineering and Design -- New Challenges: Technology Integrated Market-Pull -- Finding New Opportunities: Technology Push Approach -- The Result: A New Design Paradigm.
Sommario/riassunto	The book gives a systematic and detailed description of a new

integrated product and process development approach for sheet metal manufacturing. Special attention is given to manufacturing that unites multidisciplinary competences of product design, material science, and production engineering, as well as mathematical optimization and computer based information technology. The case study of integral sheet metal structures is used by the authors to introduce the results related to the recent manufacturing technologies of linear flow splitting, bend splitting, and corresponding integrated process chains for sheet metal structures. • Highlights applicability and benefits of an integrated development process through the use of case studies in the field of sheet metal structures; • Provides a perspective on an integrated development leading to products and processes; • Includes a detailed description of procedures, methodologies, and tools to integrate manufacturing, process, and materials engineering into optimized product design.
