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**SHEET METAL FORMING:**  
Fundamentals and Applications  
Edited by

Taylan Altan, CPF (ERC/NSM), The Ohio State University, USA  
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### **Sheet Metal Forming: Fundamentals**

Edited by Taylan Altan and Erman Tekkaya • 2012 Approx. 350 pages



Sheet forming fundamentals are thoroughly addressed in this comprehensive reference for the practical and efficient use of sheet forming technologies. The principle variables of sheet forming—including the interactions between variables—are clearly explained, as a basic foundation for the most effective use of computer aided modeling in process and die design. Topics include stress analysis, formability criteria, tooling, and materials for sheet forming and the latest developments in sheet metal forming technology.

ISBN: 978-1-61503-842-8 • Product code: 05340G

### **Sheet Metal Forming: Processes and Applications**

Edited by Taylan Altan and Erman Tekkaya • 2012 Approx. 400 pages

This practical and comprehensive reference gives the latest developments on the design of sheet forming operations, equipment, tooling, and process modeling. Individual chapters cover all major sheet forming processes such as blanking, bending, deep drawing, and more. Process modeling using finite element analysis is described in one chapter and discussed in all appropriate chapters. Topics include warm forming of magnesium and aluminum alloys, forming of advanced high-strength steels (AHSS), hot stamping, sensors and die materials.

ISBN: 978-1-61503-844-2 • Product code: 05350G

The two volume book on “Sheet Metal Forming – Fundamentals and Applications”, published by ASM International, aims to provide practicing engineers, who design products and/or processes, with a working knowledge of the science and engineering of sheet metal forming technology.

Volume one, "SHEET METAL FORMING – FUNDAMENTALS" covers the principle variables of sheet forming – including the interactions between variables - as a basic foundation for the most effective use of computer aided modeling and simulation of sheet metal forming processes. Topics include definitions and analysis of strain and stress, formability, tool design, and materials. This volume also covers the forming equipment related issues, including hydraulic and mechanical presses, servo drive presses and advanced cushion systems. Volume two "SHEET METAL FORMING PROCESSES AND APPLICATIONS" gives the latest developments on the design of sheet forming operations, equipment, tooling and process modeling. Individual Chapters cover all major sheet forming processes such as blanking, bending, deep drawing, roll forming, hydroforming, spinning and more. The basics of process modeling using finite element analysis are described in one chapter and the applications are discussed in all other appropriate chapters. This volume also covers sensors, die materials and advanced technologies such as forming Advanced High Strength Steels (AHSS), hot stamping, and warm forming of Aluminum and Magnesium alloys.

The topics reviewed in this book are the results of world-wide R&D and applied technology conducted in the research laboratories of the editors and their associates.

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