

Metal Forming Practise

Processes - Machines - Tools

Economical and flexible, advanced metal-forming processes are at the core of modern industrial production. This professional sourcebook presents the most important metal-working and shearing processes - and their related machines and tooling - in a concise form supplemented by ample illustrations, tables and flow charts. Practical examples show how to calculate the forces and strain energy of the processes and the specific parameters of the machines, while exercises enable readers to gauge and improve their understanding. Because today's production units are automated as much as possible using modern Computer Numerical Control engineering to reduce time and costs, the book covers flexible manufacturing systems in metal forming and the handling systems required for automation. Carefully translated from the eighth revised German-language edition, Metal Forming Practise offers a uniquely valuable learning reference tool for students, engineers and technicians.

The book "Metal Forming", a translation of the eighth revised edition of "Umformtechnik" in German, describes the latest technology in the sector of metal forming. Part I covers metal forming and shearing processes. It describes the main features of these processes, the tooling required and fields of application. Practical examples show how to calculate the forces involved in forming and the strain energy. Part II describes forming machines and shows how to calculate their parameters. This section also introduces flexible manufacturing systems in metal forming and the handling systems required for automation (automatic tool changing and workpiece conveyor systems). Part III includes tables and flow diagrams with figures needed to calculate forming forces and strain energy. These production units are automated as much as possible using modern CNC engineering to reduce non-productive time and changeover time, and thus also manufacturing costs. Aside these economic advantages, however, another important reason for using metal working processes is their technical advantages, such as: material savings optimal grain direction work hardening with cold forming. This book runs through all the main metal forming and shearing processes and the tooling and machines they involve. Incremental sheet forming was recently added in Chapter 15.4. For engineers on the shop floor, this book is intended as an easily-navigable reference work. Students can use this book for reference, saving them time making notes in the lecture theatre so that they can pay better attention to the lecture.


192,59 €

179,99 € (zzgl. MwSt.)

*Lieferfrist: bis zu 10 Tage***Artikelnummer:** 9783540332169**Medium:** Buch**ISBN:** 978-3-540-33216-9**Verlag:** Springer**Erscheinungstermin:** 07.08.2006**Sprache(n):** Englisch**Auflage:** 1. Auflage 2006**Produktform:** Gebunden**Gewicht:** 2230 g**Seiten:** 406**Format (B x H):** 170 x 242 mm