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a stamping; 4.4 Three-dimensional stamping model; 4.5 Exercises; Chapter 5. Load instability and tearing; 5.1 Introduction; 5.2 Uniaxial tension of a perfect strip
 5.3 Tension of an imperfect strip 5.4 Tensile instability in stretching continuous sheet; 5.5 Factors affecting the forming limit curve; 5.6 The forming window; 5.7 Exercises; Chapter 6. Bending of sheet; 6.1 Introduction; 6.2 Variables in bending a continuous sheet; 6.3 Equilibrium conditions; 6.4 Choice of material model; 6.5 Bending without tension; 6.6 Elastic unloading and springback; 6.7 Small radius bends; 6.8 The bending line; 6.9 Bending a sheet in a vee-die; 6.10 Exercises; Chapter 7. Simplified analysis of circular shells; 7.1 Introduction; 7.2 The shell element
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 Appendix A2: Large strains: an alternative definition

Sommario/riassunto

The basic theory of sheet metal forming in the automotive, appliance and aircraft industries is given. This fills a gap between the descriptive treatments in most manufacturing texts and the advanced numerical methods used in computer-aided-design systems. The book may be used by lecturers in undergraduate courses in manufacturing; plentiful exercises and worked examples provide quantitative tutorial problems for students. A separate, but related simulation software package advertised on this page enables students to explore the limits of processes and understand the influence of dif