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Nota di contenuto	front cover; copyright; table of contents; front matter; Preface; Acknowledgements; body; 1 Introduction to manufacturing; 1.1 Introduction; 1.2 Aims and objectives; 1.3 What is manufacturing?; 1.4 What is a manufacturing system?; 1.5 Inputs and outputs of a manufacturing system; 1.6 Common characteristics of a manufacturing system; 1.7 Developing a manufacturing strategy; 1.8 Manufacturing organizational structures; 1.9 Categories of manufacturing system; 1.10 Processing strategies; 1.11 Plant layout; 1.12 Manufacturing engineering; 1.13 Summary Case study 1.1: Re- organization at Edward Marks Ltd*Case study 1.2: Manufacturing at Stickley Furniture*; 2 What is process planning?; 2.1 Introduction; 2.2 Aims and objectives; 2.3 Design and manufacture cycle; 2.4 What is process planning?; 2.5 Process planning O the design/ manufacture interface; 2.6 Process planning activities; 2.7 Process planning and industrial engineering; 2.8 Process planning and quality assurance; 2.9 Process planning and production planning; 2.10 Process planning methods; 2.11 Basic process planning terminology; 2.12 Summary

Case study 2.1: Manufacturing at McCall Diesel Works*Case study 2.2: Planning at High Performance Pumps*; 3 Drawing interpretation; 3.1 Introduction; 3.2 Aims and objectives; 3.3 Engineering communication; 3.4 Identifying useful supplementary information; 3.5 Material and specification; 3.7 Equivalent parts (interchangeability and standardization); 3.6 Special material treatments; 3.9 Tool references; 3.8 Screw thread forms; 3.10 Dimensional tolerances; 3.11 Limits and fits; 3.12 Gauge references; 3.13 Geometrical tolerances; 3.14 Surface finish
3.15 Identifying the critical processing factors3.16 Summary; Case study 3.1: Standardization at JH Engineering*; Case study 3.2: Analysis and interpretation of adapter ring; Material evaluation and process selection; 4.1 Introduction; 4.2 Aims and objectives; 4.3 Basic classification of materials for manufacture; 4.4 Basic material properties; 4.5 Metals; 4.6 Ceramics; 4.7 Polymers; 4.8 Composites and semiconductors; 4.9 Material selection process and methods; 4.10 Material evaluation method; 4.11 Manufacturing processes; 4.12 Process selection; 4.13 Process and operations sequencing
4.14 SummaryCase study 4.1: Material evaluation for a car alternator*; Case study 4.2: Material and process selection for car bumpers*; 5 Production equipment and tooling selection; 5.1 Introduction; 5.2 Aims and objectives; 5.3 Production equipment for specific processes; 5.4 Factors in equipment selection; 5.5 Machine selection method; 5.6 Tooling for specific production equipment; 5.7 Factors in tooling selection; 5.8 Tooling selection method; 5.9 Summary; 6 Process parameters; 6.1 Introduction; 6.2 Aims and objectives; 6.3 Factors affecting speeds, feeds and depth of cut
6.4 Surface cutting speeds

Sommario/riassunto

Process Planning covers the selection of processes, equipment, tooling and the sequencing of operations required to transform a chosen raw material into a finished product. Initial chapters review materials and processes for manufacturing and are followed by chapters detailing the core activities involved in process planning, from drawing interpretation to preparing the final process plan. The concept of maximising or 'adding value' runs throughout the book and is supported with activities. Designed as a teaching and learning resource, each chapter begins with learning objectives
