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Forming; 5.6 Blow Moulding; 5.7 Rotational Moulding; 5.8 Contact Moulding; 5.9 Pultrusion; 5.10 Continuous Extrusion (Plastics); Chapter 6 - Machining Processes; 6.1 Turning and Boring; 6.2 Milling; 6.3 Planing and Shaping; 6.4 Drilling; 6.5 Broaching; 6.6 Reaming; 6.7 Grinding; 6.8 Honing; 6.9 Lapping; Chapter 7 - Non-traditional Machining Processes; 7.1 Electrical Discharge Machining (EDM); 7.2 Electrochemical Machining (ECM); 7.3 Electron Beam Machining (EBM) 7.4 Laser Beam Machining (LBM) 7.5 Chemical Machining (CM); 7.6 Ultrasonic Machining (USM); 7.7 Abrasive Jet Machining (AJM); Chapter 8 - Rapid Prototyping Processes; 8.1 Stereolithography (SLA); 8.2 3D Printing (3DP); 8.3 Selective Laser Sintering (SLS); 8.4 Laminated Object Manufacturing (LOM); 8.5 Fused Deposition Modelling (FDM); Chapter 9 - Surface Engineering Processes; 9.1 Carburising; 9.2 Nitriding; 9.3 Ion Implantation; 9.4 Anodising; 9.5 Thermal Hardening; 9.6 Shot Peening; 9.7 Chromating; 9.8 Chemical Vapour Deposition (CVD); 9.9 Physical Vapour Deposition (PVD) 9.10 Electroless Nickel 9.11 Electroplating; 9.12 Hot Dip Coating; 9.13 Thermal Spraying; Chapter 10 - Assembly Systems; 10.1 Manual Assembly; 10.2 Flexible Assembly; 10.3 Dedicated Assembly; Chapter 11 - Joining Processes; 11.1 Tungsten Inert-gas Welding (TIG); 11.2 Metal Inert-gas Welding (MIG); 11.3 Manual Metal Arc Welding (MMA); 11.4 Submerged Arc Welding (SAW); 11.5 Electron Beam Welding (EBW); 11.6 Laser Beam Welding (LBW); 11.7 Plasma Arc Welding (PAW); 11.8 Resistance Welding; 11.9 Solid-state Welding; 11.10 Thermit Welding (TW); 11.11 Gas Welding (GW); 11.12 Brazing; 11.13 Soldering 11.14 Thermoplastic Welding

Sommario/riassunto

Manufacturing Process Selection Handbook provides engineers and designers with process knowledge and the essential technological and cost data to guide the selection of manufacturing processes early in the product development cycle. Building on content from the authors' earlier introductory Process Selection guide, this expanded handbook begins with the challenges and benefits of identifying manufacturing processes in the design phase and appropriate strategies for process selection. The bulk of the book is then dedicated to concise coverage of different manufacturing
