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Nota di contenuto	WGP Congress 2014; Preface, Organisation and Acknowledgements; Table of Contents; Keynotes; Gear Hobbing - Research Activities and State of the Art; Chapter 1: Assembly; Analysis and Visualisation of the Positioning Accuracy and Underlying Effects of Industrial Robots; Worker Information Systems Including Dynamic Visualisation: A Perspective for Minimising the Conflict of Objectives between a Resource-Efficient Use of Inspection Equipment and the Cognitive Load of the Worker; An Ultrasonic Non-Contact Handling Device from Quartz Glass for Middle and High Temperature Applications Spatial Programming for Industrial Robots: Efficient, Effective and User-Optimised through Natural Communication and Augmented RealityStructural Mechanics Process Simulation of Linear Coil Winding; Chapter 2: Cutting and Grinding; A Simulation Model for Analysis of Roll Tensioning of Circular Saw Blade; Advanced Machining Processes for CFRP; Analogy Studies of the Effect of Finishing on the Tribological Running-In Behaviour of Engine Components Using the Example of the Cylinder Running Surface; Analysing Internal Material Loads in Manufacturing Processes

Analysis and Simulation of Surface Topographies in Grinding of Thermally Sprayed CoatingsAnalytical Model Approach for Tool Temperature Prediction in Broaching Nickel-Based Alloys; Binderless-cBN as Cutting Material for Ultra-Precision Machining of Stainless Steel; Dry and Residue-Free Cutting with High-Pressure CO2-Blasting; Dry Ice Blasting as a Pre-Treatment Process for Electroplating; Enzymatic Degradation of Epoxy Resins: An Approach for the Recycling of Carbon Fiber Reinforced Polymers; Force Requirements in Shear Cutting of Metal-Polymer-Metal Composites
Interaction of Load and Residual Stresses in Sintered 1.3344 High Speed SteelInvestigations on Cryogenic Turning to Achieve Surface Hardening of Metastable Austenitic Steel AISI 347; Material Behaviour of Armco-Iron and AISI 4140 at High Speed Deformation during Machining; Micromachining of Silicon - Study on the Material Removal Mechanism; Robot-Assisted Vibration Polishing of NiCo Retroreflector Moulds; Modelling of Tool Engagement and FEM-Simulation of Chip Formation for Drilling Processes; A New Approach for the Prediction of Surface and Subsurface Properties after Grinding
Chapter 3: FormingA New Method to Enhance the Accuracy of the Buckling Test Using Modified Yoshida Sample; Adjusting of Roller Levellers by Finite Element Simulations Including a Closed-Loop Control; An Improvement of the Time Dependent Method Based on the Coefficient of Correlation for the Determination of the Forming Limit Curve; Composite Hot Extrusion of Functional Elements; Considering Anisotropic Material Behaviour of Sheet Metals for Ductile Fracture Prediction; Design of an Electromagnetic System to Avoid Horizontal Ram Displacement
Development of a Pneumatic Bulge Test for High Temperatures and Controlled Strain Rates

Sommario/riassunto

Collection of Selected, Peer Reviewed Papers from the 2014 WGP Congress, , September 9-10, 2014, Erlangen, Germany. the 76 Papers are Grouped as Follows: Keynotes, Chapter 1: Assembly, Chapter 2: Cutting and Grinding, Chapter 3: Forming, Chapter 4: Machines, Chapter 5: Organisation