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Nota di contenuto	The Coatings in Manufacturing Engineering; Sponsors; Committee; Preface; Table of Contents; TOOLS SESSION; Keynote; Cutting Edge Preparation by Means of Abrasive Brushing; Comparison of Nitride and Noble Metal Coatings for Precision Glass Molding Tools; Pre PVD-Coating Processes and their Effect on Substrate Residual Stress in Carbide Cutting Tools; Qualification of Coatings to Predict Wear Behavior of Micro Blasted Cutting Tools; Diamond Cutting of FeN-Layers on Steel Substrates for Optical Mould Making; Coating Development for Gear Cutting Tools Nanostructured Bionic PVD-Coatings for Forming Tools Chip Length Effect on the Wear of Coated Cemented Carbide Inserts in Milling; PROPERTIES SESSION; Keynote; Impact Behaviour of PtIr-Based Coatings with Different Interlayers for Glass Lens Moulding; Diamond Machinable Sol-Gel Silica Based Hybrid Coatings for High Precision Optical Molds; Physico-Chemical Aspects of Surface Activation during Fluxless Brazing in Shielding-Gas Furnaces; Characterization of Heat Transfer Coefficients of Tool Materials and Tool Coatings for Hot Stamping of Boron-Manganese Steels

Determination of Mechanical and Corrosion Properties of Boride Coating on P91 Steel; Interlaboratory Comparison of Friction Conditions in Hot Stamping Operations; TEST / SIMULATION SESSION; Keynote; New Methods for Characterizing Coating Properties at Ambient and Elevated Temperatures; Grinding of Arc-Sprayed Tungsten Carbide Coatings on Machining Centers - Process Configuration and Simulation; Non-Contact Geometry Inspection of Workpieces with Optically Non-Cooperative Surfaces; Determination of the Effective Film Mechanical Properties in the Impact Test Imprint of Coated Specimens; COATINGS SESSION; Keynote; Suspension Plasma Spraying of Triboactive Coatings for High Temperature Applications; Surface Zone Modification by Atmospheric Plasma-Nitriding (APN) with the Aid of the Transmitted Plasma-Arc; Influence of Malonic Acid on the Corrosion and SCC Behaviour of Anodic Coated 1050 Al-Alloys; Self-Supporting Nanocrystalline Diamond Foils - A New Concept for Crystalline Diamond on any Technical Surface; TRIBOLOGY SESSION; Keynote; Simulation of Dynamic Lubricant Effects in Sheet Metal Forming Processes; Tribological Characterization of PVD-Coatings; Evaluation of PVD Coated Tools' Life in Milling Ti6Al4V, Based on Impact Tests at Ambient and Elevated Temperatures; Modified DLC-Coated Guide Pads for BTA Deep Hole Drilling Tools; Performance of Al₂O₃-Based Coatings and Environmentally Friendly Lubricants in Cutting Operations of Difficult-to-Machine Materials; Influence of Substrate Nitriding on Adhesion, Friction and Wear Resistance of DLC (Diamond-Like Carbon)-Coatings; Keywords Index; Authors Index

Sommario/riassunto

Coating technology has made great strides during recent years. The properties of surface layers determine the function and quality of entire components. Thus, it is essential to obtain information concerning the development and functionality of the topmost layers. The beneficial effect of coating technology can be observed in many manufacturing fields, where it solves problems such as wear, corrosion, erosion, electrical contact, etc. Even decoration falls under this heading. The 28 peer-reviewed papers are grouped into chapters: tools session, properties session, test / simulation session, co
