The Influence of Shift on Machined Surface Microgeometry and Its Use

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Beside cutting speed, shift is another important parameter of machining. Its considerable influence is shown mainly in the workpiece machined surface microgeometry. In practice, mainly its combination with the radius of cutting tool tip rounding is used. Options to further increase machining productivity and machined surface quality are hidden in this approach. The paper presents variations of the design of productive cutting tools for lathe work and milling on the base of the use of the laws of the relationship among the highest reached uneveness of machined surface, tool tip radius and shift.

Keywords: machining, cutting speed, surface roughness

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