G–Ratio in hardened steel grinding with different coolants

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This article deals with grinding of the hardened and tempered steel in different coolants. The G-ratio is one of the important parameters of grinding process and shows efficiency of this. The development of machining technologies is still moving forward, there are new materials and types of tool using in production and manufacturing. With a new materials usage we want better parameters of process, e. g. higher G-ratio, lower heat balance and better surface quality after machining. New types of abrasive grains that we used are based on Al_2O_3 – microcrystalline corundum and parameter of G-ratio and surface quality after grinding will be described in this article. For experiment were chosen three types of coolants and one of grinding wheel. We can see changes of G-ratio and surface quality during grinding at different coolants.

Keywords: Grinding, G-ratio, Microcrystalline corundum, Wear

Acknowledgement

Above mentioned results were created by means of national project GA CR No. 101/09/0504, project Postdoc in J. E. Purkyne University in Usti nad Labem.

CZ.1.07/2.3.00/30.0028

INVESTMENTS IN EDUCATION DEVELOPMENT

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Paper number: M201240

Manuscript of the paper received in 2012-09-24. The reviewers of this paper: *Karol Vasilko, Imrich Lukovics.*