

Development of cutting forces in high-speed machining on turning centre

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The article deals with the investigation of high-speed machining. The influence of cutting speed on the development of individual cutting forces components in turning was determined. Cutting tests were carried out on turning centre during the machining of C45 medium carbon steel material. The cutting tool material was cubic nitride boron. Cutting speed was selected with respect to the high-speed machining. In the experiment, time monitoring of cutting forces was recorded. From the results, a decreasing trend in the cutting forces values was observed from the cutting speed higher than 1100 m/min.

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