CNC WOOD MACHINES ACCURACY AND REPEATABILITY

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ABSTRACT

Machine accuracy can be defined as a degree of coincidence between measured, calculated or specified, and supposedly correct, already known or given physical size value. Repeatability is a machine capability to achieve predetermined physical size value in numerous repetitions, at the same working conditions.

There are many factors which affect wood machine accuracy and repeatability, and consequently, the final product quality. Determining these factors and finding out their values is difficult and expensive. The main goal of this paper is to establish a possibility for implementation of a new, reliable enough method for product dimension and shape control, using the photography and suitable software (Digimizer for dimension and Meshroom for shape determination), in order to obtain satisfying results for wood processing. Namely, accuracy and repeatability must fit into given tolerances used for wood products, which are significantly less demanding than those in metal works.

Applying this particular measuring method, CNC wood machine users would be able to control working parameters on a regular basis, improving the product quality.

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