

SIMULATION OF THE CENTRIFUGAL AND THERMAL STRESSES IN CIRCULAR SAW BLADES

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Abstract: *The cutting process with circular saw blades is one of the most important wood cutting processes. In the cutting process stresses appear in the saw blades which have a negative influence on the blade stability. These stresses are generated by the centrifugal and the friction forces. Both forces generate stresses in radial and tangential direction. In this paper some aspects are presented regarding the centrifugal and thermal stresses in the saw blade and a simulation program which allows to display the size and the position of these stresses on the saw blade.*

Key words: *circular saw blades, centrifugal and thermal stresses, simulation.*

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