

## Results of Machining by Tool of Self-Propelled Rotation Due to Wear

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**On the base of a well-known method of machining with disk-shaped rotating tool the self-propelled tool was designed. The principle is based on braking the tool rotation during machining, until the moment of determined wear criterion on the tool flank. As with the growth of tool wear the force of cutting resistance increases, it is possible to use it for automatic tool swinging into a new position by which a new part of cutting edge comes into engagement. The paper describes the tool design, theoretical analysis of  $R_z$  after machining and actual experimental machining results.**

**Keywords:** machining, disk-shaped tool, quality of machined surface, cutting edge

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