

THE COMPUTER MODELING FOR THE ROTARY BURS WITH THE SPECTRAL EDGE DISTRIBUTION

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Abstract: For the ball ended or tipped rotary burs, the cutting edges must joint together at the tip, where the depth of the groove of cutting edge is zero in theory. In the vicinity of the tip, the grooves are very shadow, while the edges are very densely concentrated. So that the space is very limited, the cutting condition is very bed. In order to improve the cutting condition at the tip, the rotary burs with the spectral edge distribution is presented in this paper. This paper researched theory and modeling the rotary burs with special cutting edges, which is the newest lay out of such tools, and represents the international direction of development and advanced level. So that improved the cutting condition of the cutter. The forming theory of the rotary tools with helical teeth and complex surfaces is correct. To generate such a kind of tools, three coordinate's numerical control manufacturing system is needed. From computer simulation, we can testify the formulas of theoretic deduction and result of numerical calculation presented in this paper. We can examine if the interference and other problem. Which are often caused by incorrect parameter selection, would take place and the way to prevent it before hand.

Key words: rotary burs, modelling, cutting edge.