

عنوان مقاله:

Design, Manufacturing and Surface quality Analysis of Machining by Self-Rotary Milling Tool

محل انتشار:

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نویسندگان:

Mostafa Rabi Yeganeh - *M.Sc Student of Mechanical Engineering, Amirkabir University of Technology*

Aminolah Mohammadi - *Ph.D Student of Mechanical Engineering, Isfahan University of Technology*

Hamed Ghafarirad - *M.Sc Student of Mechanical Engineering, Amirkabir University of Technology*

Mehdi Meskin - *B.Sc of Mechanical Engineering, Isfahan University of Technology*

خلاصه مقاله:

One of the disadvantages of conventional milling tools is to produce a large amount of heat in cutting zone and so making the tool warmer. As a result, the tool would be worn and its life time would be reduced. Therefore, in long time machining, it is essential to change inserts and tools, continuously. A milling tool with self rotary cutting inserts was designed and manufactured that enables inserts to turn around their axes (which is different from tool axis). This rotation causes the heat to disperse in whole cutting edge and increase tool life time. In this paper, the process of design and manufacturing of rotary milling tool is expressed. The surface finishing of machined Aluminium workpiece is performed with the 'Full Factorial' statistical experiment design. Milling Tool with Self-Propelled Cutting Inserts is manufactured for the first time in Iran and was docketed by the No. 51358.

کلمات کلیدی:

Self rotary milling tool, Self-propelled Insert, Surface Finishing, statistical analysis, Variance Analysis

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