

Cutting Tools in Finishing Operations for CNC Rapid Manufacturing Processes: Experimental Studies

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Abstract : This paper reports an advanced approach in the application of CNC machining for rapid manufacturing processes (CNC-RM). The aim of this study is to improve the quality of machined parts by introducing different cutting tools during finishing operations. As the cutting is performed in different directions, the surfaces presented on part can be classified into several categories. Therefore, suitable cutting tools are assigned to machine particular surfaces and to improve the quality. Experimental studies have been carried out by fabricating several parts based on the suggested approach. The results provide further support for implementing this approach in rapid machining processes.

Keywords : CNC machining, end mill tool, finishing operation, rapid manufacturing

Conference Title : ICMET 2014 : International Conference on Manufacturing Engineering and Technology

Conference Location : Istanbul, Türkiye

Conference Dates : June 19-20, 2014