

عنوان مقاله:

Proposing a New Edge Finishing Index, So-Called Burr Edge Occupancy

محل انتشار:

اولین کنگره ملی کاربرد مواد و ساخت پیشرفته در صنایع (سال: 1396)

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نویسندگان:

Seyed Ali Niknam - *Sustainable Manufacturing Systems Research Laboratory, School of Mechanical Engineering, Iran University of Science and Technology, Tehran, Iran*

;Alireza Asgari - *Mechanical Engineering Department, École de Technologie Supérieure*

.Victor Songmen - *Mechanical Engineering Department, École de Technologie Supérieure, Montréal, Canada*

خلاصه مقاله:

Machining operations are widely used in almost all manufacturing sectors such as automotive and aerospace industries. One of the main concerns in machining and machinability of materials is the burr formation. In fact, machining burrs are formed wherever there is an edge. It is generally intended to avoid or at least minimize the incidence of burr formation in machining operations. The shape, morphology and the size of burrs depend on several elements such as machining operation, work material and cutting conditions. Generated burrs on the work part edges must be removed by advanced edge finishing and deburring methods. Therefore, further investigations are recommended to discover useful solutions to improve deburring time and efficiency. To this end, this article proposes a new index, so-called burr edge occupancy η_s which can be considered as an index to evaluate the deburring difficulty. The main governing factors on this index were investigated when slot milling two types of highly used aluminium alloys in automotive and aerospace industries. The cutting parameters that led to edges with minimum burr edge occupancy η_s were presented.

کلمات کلیدی:

Burr, Deburring, Edge finishing, Machining

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