عنوان مقاله:

Prediction of machining force in milling process by RSM Methodology

محل انتشار:

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خلاصه مقاله:

Stainless Steels have several uses in different industries and include an extensive area of steels, and because of many differences between mechanical and physical properties of different kinds of stainless steels, it is still necessary to study this type of steels.Cutting forces are important factor that describe machinability and other things. By study other papers milling parameters such as spindle speed, feed rate, axial and radial deep of cut that have a major impact on the cutting forces was chosen to represent the machining conditions. In this paper, the experimental reports about optimizing cutting force in milling stainless steel X22 Cr Mo V 12 1, has been carried out using multiple regression technique. The second order mathematical model has been attained from input parameters of process. Each of these inputs of the research has been studied in 3 levels and for this purpose totally 81 experiments have been performed. After measuring the cutting force, the obtained model has been used for scrutinizing the effects of different parameters, and also for predicting the optimal milling parameters in order to obtain ideal machining forces.

کلمات کلیدی:

Machining parameters, multiple regression, milling, Stainless steel

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