PREDICTION OF CUTTING FORCES IN THE DRY MACHINING OF LIGHTS ALLOYS

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Abstract: *This paper analyses the relationship between the cutting forces and length, according to experimental results obtained in lights alloys, in particular UNS A97050-T7, UNS A92024-T3, during the dry drilling. The tests have been performed with several cutting speed, 83 m/min, 60 m/min and 50 m/min. Box-Cox transformations have allowed finding a fitted model and determining a significant relationship between maximum cutting forces, for each hole, and cutting length. Thus, it is possible to establish prediction limits for new observations of cutting forces, at 95% confidence level.*

Key words: *Box-Cox transformations, cutting forces, machining*

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