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INVESTIGATING THE EFFECT OF MACHINING PARAMETERS ON SURFACE ROUGHNESS OF 6061 ALUMINIUM ALLOY IN END MILLING

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Abstract

Design of experiments is performed to analyse the effect of spindle speed, feed rate and depth of cut on the surface roughness of 6061 Aluminium alloy. The results of the machining experiments were used to characterise the main factors affecting surface roughness by the Analysis of Variance (ANOVA) method. The feed rate was found to be the most significant parameter influencing the surface roughness in the end milling process.

Author Keywords

Surface roughness, DOE, ANOVA, 6061 Aluminium alloy

Index Keywords

Manufacturing, product appearance, function, material

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