

Optimization of Process Parameters in Electric Discharge Machining Wire-Cut of Magnesium Alloys Using the Taguchi's Approach(Book Chapter)

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Abstract:

Electric discharge machining wire-cut is an accurate and cost-effective manufacturing route in numerous applications. Taguchi method was used for the analysis of the effect of EDM wire-cut process parameters on material removal rate, surface roughness and machining time of magnesium alloys. Different parameters like pulse off time, pulse on time, current and voltage are used to optimize the material removal rate, surface roughness and machining time by Minitab 19. Taguchi orthogonal array L9 is used for optimizing three different parameters so that maximum material removal rate and minimum surface roughness and machining time is obtained.

ISSN: 18698433

DOI: 10.1007/978-3-030-93250-3_11

PUBLISHER: SCOPUS