

OPTIMIZATION OF PROCESS PARAMETERS IN DEEP DRAWING OF MONEL-400 CONICAL CUP

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ABSTRACT

In this present work, a statistical approach was adopted based on taguchi techniques and finite element analysis to determine the influence of process parameters on the formability of conical cups of Monel-400 alloy using the cold deep drawing process. The process parameters considered for the present work were punch velocity, coefficient of friction, blank thickness and displacement per step. It was found that the sheet thickness and coefficient of friction were influencing the quality of the cup. With increase in blank thickness damage was decreasing. Higher the coefficient of friction higher was the surface expansion ratio.

KEYWORDS: Deep Drawing, Monel-400 Conical Cup

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