

OPTIMIZATION OF PROCESS PARAMETERS BY WARM DEEP DRAWING OF CYLINDRICAL CUP OF NICKEL 201

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ABSTRACT

In this present work, a statistical approach based on Taguchi techniques and finite element analysis were adopted to determine degree of each parameter that is punch velocity, coefficient of friction, temperature and blank thickness on the formability of cups from Nickel 201 using warm deep drawing process. The results obtained from finite element software namely DEFORM were validated experimentally. The blank thickness, temperature and coefficient of friction have been found influencing the quality of the cup drawn from Nickel201.

KEYWORDS: *Deep Drawing, Ni 201, Cylindrical Cups, Sheet Thickness, Coefficient of Friction, Punch Velocity, Damage.*

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