

**DESIGN AND CONSTRUCTION OF AN  
ERICHSEN CUPPING TEST TOOL**

by

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Project Report

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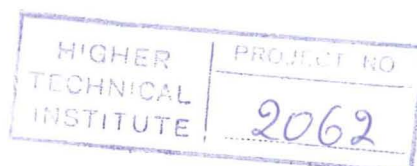
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## ABSTRACT

Deep drawing covers a large area in metal industry. Flat sheets are blanked and then drawn into cups by means of dies and punches. In order to determine whether a metal is suitable for deep drawing a test called ERICHSEN CUPPING TEST is employed. This test is basically a deep drawing operation which causes all specimens failure. The moment that failure exist the depth of penetration is the Erichsen number.

The object of this project is to "design" and construct the Erichsen cupping test. Due to the fact that this is a standard test the design is based on the international accepted standards DIN 50101 part 1 and BS 3855:1965.

First a study on the metal forming processes is presented with special reference on deep drawing. Then the design process follows with the construction of the test tool