

Quality evaluation of cold embossed hole based on profile measurement technique

ABSTRACT

The main objective of this study is to assess the quality of the cold forging hole by focusing the roundness of the hole. In this study, a cold forging process of blind hole of Aluminum Alloy AA6061 experimental rig was developed. In the experiment, two major design parameters i.e. the depth of embossing and diameter of the punch were studied and their influence to the roundness was measured based on the profile obtained from the surface measurement technique. The results will be validated using commercial roundtest machine.

Keyword: Cold forging; Profile measurement; Roundness