

PRODUCT QUALITY OF METALLIC MINIATURE COMPONENT

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Abstract

Micro forming is an appropriate technology to produce miniature components because of high production rate and because it can create 3D complex features. A number of technological barriers must be overcome for micro forming to be applied in the production of metallic miniature components. One of these barriers is dimensional measurement for product quality inspection. In this study cold headed miniature part was produced by micro forging experiments. The experiments were aimed at considering the effects of forging load and annealing process on product quality of cold headed miniature part. The experimental results show that annealing process and forging load have a significant effect on roundness, dimensional accuracy, and surface roughness.

Keywords: Micro forming, product quality, forging load, annealing process

