Effect of Newly Developed Ball Burnishing Tool on Surface Roughness of AA6351

Abstract

Ball burnishing is a technique of surface enhancement that can provide residual compressive stresses on the surface to improve surface roughness, hardness and wear resistance of the material. The ball burnishing tool developed can be used on conventional lathe machine. It is observed that tool is giving satisfactory results to improve surface finish of AA6351. By using the designed tool Surface finish of 0.069 micrometer is achieved. Depth of penetration proved to be the predominant parameter among the parameters used.
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Index Terms

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