



Optimization of Parameters for Friction stir welded joint on AA6070

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Taschenbuch. Book Condition: Neu. 220x150x6 mm. This item is printed on demand - Print on Demand Neuware - Friction stir welding is the process in which metal does not melt before making a joint. It is a solid state joining process which is widely used for joining for aluminium alloys in ship manufacturing, aerospace, and automobile industry. This is an eco-friendly welding technique because of no welding consumables used, and no harmful emission to the surroundings. In this study friction stir welding was performed on vertical milling machine with AA6070. Tool was prepared on lathe with different pin length. Manageable process parameter that affect the quality of weld joint are rotational speed (RPM), traverse speed (mm/min), pin depth (mm). and these parameters should be optimized to obtain a sound weld joint. In this study optimization process parameter was done for getting mechanically sound weld joint. It is observed that, during the friction stir welding, deformation takes place at the nugget zone only and the evolved microstructure which strongly affects the mechanical properties of the joint. The aim of present study is to understand the effect of process parameters on mechanical properties of the friction stir welded joints. 104...



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