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Abstract Details

Title: Experimental Analysis of Bonding Strength of Ultrasonic Welding Joint

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Abstract: In ultrasonic welding procedure, high frequency vibrations are shared with pressure to join two materials together speedily and firmly. Ultrasonic welding can join unlike metals in a split second, ultrasonic welding simplicities difficult assembly and this cost effective practice may be significant to mass producing fuel efficient. In this work outcome of various parameters on weld strength have been calculated. Welding of .5 mm aluminium plates were successfully welded by 20 kHz ultrasonic welding scheme. One dimensional vibration system for ultrasonic lap spot welding of metal plate of aluminium have calculated .The relations between weld strength and the variables of weld energy, period of weld cycle, have studied Experiment was carried out to determine the mechanism of aluminium- aluminium plate closeness. These experiment, including effect of amplitude and pat tern of bond formation. Experiment was carried to find out the optimal parameter for maximum strength.

Keywords: Welding, Ultrasonic Metals.