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(57) Abstract :

The present invention relates to a method of controlling heat generated during friction stir welding by modifying the geometry of the welding tool. The method includes measuring the temperature distribution along the joint line during the welding process using a temperature sensor and analysing the data to determine areas of high heat generation. The shape, size, and angle of the shoulder and pin of the welding tool are modified to distribute heat evenly along the joint line, based on the temperature data analysis. The temperature distribution is continuously monitored during the welding process, and the welding tool geometry is adjusted as needed to maintain an even temperature distribution.

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