

## **EXPERIMENTAL INVESTIGATION OF ANGULAR DISTORTION AND TRANSVERSE SHRINKAGE IN CO<sub>2</sub> ARC WELDING PROCESS**

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### **ABSTRACT**

Now a days there are numerous types of welding techniques are used according to the application in which the major part of industries employed CO<sub>2</sub> arc welding process is one among the several different types of welding process. CO<sub>2</sub> arc welding process overcomes the restriction of using small lengths of electrodes. The present work is planned to carry out by experimental work to analyze distortions like angular distortion and transverse shrinkage in the welded joints due to the heat input by varying welding speeds for different butt joints keeping other parameters like arc voltage, welding current and electrode extension constant, using CO<sub>2</sub> arc welding process. The different butt joints used in this process are Single V-groove butt joints, Bevel groove butt joints and double V-groove butt joints. Distortion in welding can be classified as (1) angular distortion, (2) transverse shrinkage. Distortion can often controlled by adapting a suitable sequence of welding. A correct welding sequence which reduces the distortion to minimum does not remove or lower the locked up stresses. Further reduced heat input results in less distortion.

**KEYWORDS:** Experimental Investigation of Angular Distortion