

# THE INFLUENCE OF KAMPUH FORM AND WEAVING TECHNIQUES ON DISTORTION IN ELECTRIC ARC WELDING EXPOSURE OF CARBON STEEL PLATE

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## ABSTRACT

The final objective of this study is to determine whether there is an effect of seam dimensions on distortion at carbon steel end joints, and to determine whether there is an effect of weaving techniques on distortion at carbon steel end joints, and to determine how much distortion of weaving techniques. In this study the population studied was low carbon steel with type AISI 1025 in the form of a strip plate with a thickness of 1/2 inch. This steel is a material that is easy to weld and is assumed to be homogeneous and isotropic, so that only three samples are taken in each treatment, therefore the total sample size is 36 pieces. There are three variables in this study, namely: 1) weld seam shape, 2) swing technique, and 3) distortion. The shape of the seam and the swing technique are independent variables and the distortion is the dependent variable.

The results of this study show that the effect of seam dimensions on distortion at carbon steel tip joints, and there is an effect of weaving techniques on distortion at carbon steel end joints, and the amount of distortion in weaving techniques is for dimensions 55° of 0.68°, 60° of 0.78°, 65° for 0.98°, the unsorted Stringre bead is for dimensions 55° of 3.26°, 60° for 3.36°, 65° for 3.58°, and for sequential Stringre Bead is for dimensions of 55° are 3.81°, 60° are equal to 4.04°, and 65° are 4.34°.

Kata Kunci: *Distortion, Carbon Steel, Weaving Technique*