INFLUENCE OF PULSED GAS METAL ARC WELDING PARAMETERS ON THE ELECTRIC ARC AND DROPLET GEOMETRY

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ABSTRACT

The paper focuses on the experimental research of the metal transfer, results analysis and assessment when pulsed gas metal arc welding process (GMAW-P) is applied. Data correlation has been performed between pulsed gas metal arc welding parameters on one side and of the arc geometry and droplet diameter on the other side. The aim of this study is to establish the influence of the pulse parameters on the electric arc shape evolution during the welding process and, finally, to predict the weld bead geometry. The experiments were carried out using a modern power supply and a high speed film camera system in order to record and analyse the images of the metal transfer in the arc column.

KEY WORDS: GMAW-P process, high speed camera, arc geometry, pulse parameters.

REFERENCES