

Study of the Influence of Welding Parameters on the Microstructure and Mechanical Behavior of Steel-Steel Assemblies Obtained by Arc Welding.

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Abstract:

The study of the electric arc welding effect as well as the influence of the welding parameters on the welded joints are important to meet the needs of manufacturers and the requirements of users in order to be able to study their consequences on the chemical composition, microstructure and micro-hardness of the steel studied. Initially, it is based on experimental work to study the influence of welding parameters on the quality of pipeline welding. Then, the experimental results will be used to determine the optimal arc welding parameters. For the realization of our work, the use of different characterization techniques is recommended such as X-ray fluorescence spectrometry (FRX), atomic absorption spectrometry, optical microscopy (MO), scanning electron microscopy (SEM) associated with EDAX, micro-hardness (HV) and X-ray diffraction (XRD).

Keywords: *Welding, Electric Arc, Microstructure, Steel.*

