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Technological Parameters Influence on the Seam Geometry Under Pulsatory Current Tube Wire MAG - M Welding

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Abstract

For the study of technological parameter influence on laid bead geometry at MAG welding in pulsed current with tubular wire, the following materials have been used: low alloyed steel plates, fine structure, grade X 60, thickness 14,3 mm, tubular wire grade FLUXOFIL 14 HD Φ1,2 mm end shield gas mixture type M 21. For the present study, a part of welding parameters were kept constant and, the remainder modified one after the other for each weld seam separately. Lying of weld seams on steel plate has been performed in horizontal position. From each set of weld seams have been cut mechanically two transversal specimens each, having a width of 25 mm (for visual aspect) and 15 mm (for weld seam macro-structures), respectively. For each macro-structure of weld seam, geometrical elements of weld seam transversal section (width b, over-height h and penetration p) were measured. This work is finalized with the conclusions drawn by the authors from this study.

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