

New equipment for pressure welding in magnetic forces field

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ABSTRACT

Pipes pressure welding process using an electric rotating arc (ROTARC) for the ends of the parts' heating (usually pipes) is known, but a brief presentation is first given. The paper is presenting an original ROTARC portable equipment, pneumatically operated. This one has small dimensions, is friendly-use and easy operated and is an easy-transportable one. The equipment is destined for maximum 30 mm diameter pipes welding. Original pneumatic operating devices were designed, especially for high speed up-set. The magnetizing systems represent an original contribution, as too. Two pneumatically operated devices are included, in order to ensure a quick starting (in already pressured equipment) and a force amplifier mechanical device is described. Each coil of the magnetizing longitudinal two-coil system was designed in two-piece clamping device variant. Technical designing details, technological parameters used and experimental results are presented, as too.

References

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