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COMPUTER-AIDED DESIGN OF DRAWING MODES OF CORED WIRE IN A METAL SHEATH

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Purpose. Determination of the minimum number of passes while ensuring continuity of the shell and the required density of the powder core of cored wire in a metal sheath.

Methodology. The studies were carried out on the basis of a finite element modeling of the cored wire drawing process.

Findings. A finite element model of the cored wire drawing process is considered. On the basis of the model was considered computer-aided design of technological modes. As criteria, conditions were used to ensure the required core density, the required wire diameter, and maintain the continuity of the shell. The proposed algorithm for the computer-aided design of technological modes of drawing allows to determine the minimum number of passes while ensuring continuity of the shell and the required density of the powder core.

Keywords: drawing, flux-cored wire, shell, finite element model, technological settings

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