ABSTRACT

The master's dissertation executed on 106 pages and contains 54 figures, 22 tables and 6 posters A4.

The purpose of the master's thesis is to substantiate the possibility of creating and conducting researches of the automated electric drive of a mosaic machine using linear stepping motors, introducing new technology, deepening knowledge in the field of the theory of automated electromechanical systems, independence in making the appropriate technical solutions and analyzing the results.

In order to achieve this goal, the following main tasks were solved: an analytical review was carried out in the field of electric drives, the design of the robotic complex and the electric power calculation of the electric drive were developed, a step-by-step electric drive control system was developed, the automation of the process of laying mosaic materials was made, the dynamic modes of the stepping electric drive were investigated, the electric motor, the start-up project of the introduction of innovative science and technology was developed nightly decision.

The calculation and implementation of this master's dissertation were provided using the following programs: MATLAB, Microsoft Office Word, Microsoft Office Visio, KOMPAS v17.

LINEAR STEPPER MOTOR, PICK AND PLACE, COMPLEX, DEVELOPMENT, SIMULATION, AUTOMATION

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