Abstract

A system of automated eddy current control (AVK) of the thickness of the aluminum layer during the production of mirrors has been developed. The eddy current method uses a non-contact method of measurement, which makes it possible to ensure the necessary reliability and effectiveness of the control process. The AVK system consists of a matrix eddy current converter, a coordinate scanning device, a signal processing system, and a personal computer with software. It provides reliable and automated monitoring of the thickness of the aluminum layer in the technological process of its application to the surface of the mirror. The measurement results are processed by the system, which allows the operator to receive real-time information about the quality of the reflective layer and to make timely decisions regarding the adjustment of the technological process of manufacturing mirrors. Application of the AVK system allows you to improve the quality of mirror production, reduce deviations from specified parameters and improve the efficiency of the production process. This system can be useful for mirror manufacturers, where the exact thickness of the aluminum layer is critical to the quality and functionality of the products.