Annotation

In the course of the graduation project the eddy-current controlling device, which is used to detect surface and near surface defects in aluminum sheets was considered.

Eddy-current control methods are based on the excitation of eddy currents, and therefore used mainly for controlling the quality of conductive objects: metals, alloys, graphite, semiconductors. They are characterized by low depth control zone, which is defined by the penetration of the electromagnetic field in a controlled environment. In this project eddy current penetration depth - 1.5mm.

Currently, aluminum products used in automotive, production of engines, aircraft, shipbuilding and space industry.

In this thesis project the converter parameters was calculated, hardware was selected, structural, functional and electrical circuit and assembly drawing of the device were developed.