

In this paper was presented 3D scanning application of dimensional inspection of parts obtained by cutting process. The dimensional and geometric deviations of cylindrical shoots of aluminum alloy parts, machined by applying different milling parameters, were measured using the coordinate measuring machine (CMM), PC DMIS software, three different optical scanners and GOM Inspect software. Results obtained using CMM were selected for reference and their comparison with the results obtained with scanners was conducted. It was noted that the differences between measured deviations exist and that further research should be focused on more precise defining and monitoring of conditions in measurement environment as well as the selection of the method of approximation and surface processing in order to increase the accuracy of the inspection with the 3D scanning device. A brief overview of the inspection procedure, inspection devices, scanning and surface reconstruction was also provided as well as the existing software applications for inspection.