

Quality control device intended for contactless measurement of rims profile thickness offered for commercial or license agreement

A Czech innovation support centre, situated by the technical university, offers its new technology for license or commercial agreement. The technology is based on the device intended for contactless measurement of flow formed rims profile. Measurement and evaluation of rim profile is completely automatic. Measurement of profile is based on two laser scanners on movable frame.

A Czech innovation support centre from Moravian-silesian region has invented a new method for measuring rims profile. Modern method of rims production is flow forming. This device is intended for contactless measurement of rims profile thickness. Measurement and evaluation of rim profile is completely automatic. Measurement of profile is based on two laser scanners on movable frame. The final accuracy of measurement is up to 0,005 mm. The software included in package is used to evaluation of measured thickness data in selected areas. All you need is CAD file with rims design to draw a comparison. Export of measured data to CAD file is also available, Data visualisation is available for multiple users in same time. Other advantage of this device is fast adaptation for different types of rims diameter. The device intended for contactless measurement of flow formed rims profile. Device dimensions are approx.: w. 1400 mm, d. 1300 mm, h. 1800 mm. It is easy to implement this device into production line thanks to its compact size. It was designed as extension of existing production line for flow-formed car rims. Device is composed of rims gripping mechanism, precise moving beam with laser scanners and computing unit. Rims gripping mechanism and moving beam could be optionally mounted on active or passive vibration dumpers. Device could be also equipped with air conditioning unit in order of minimisation of ambient conditions influences. Other optional equipment is built-in calibre. This device setup allows more precise measurement in variable ambient temperature conditions. Another optional equipment is overpressure system. This system supports device with filtered air. Main advantage of device is automatic measurement and data analysis system. Computing unit compares measured data with CAD document. Operator could select points of interest in CAD file and system will evaluate it automatically. Laser based scanning of rims surface is fast and accurate. Device is scanning both sides of flow-formed surface in same time while rim is rotating in gripping mechanism. It is possible to measure materials to 20 mm of thickness. Device is very easy to use. First step is to select correct project file. Device automatically sets the parameters of grippers and measurement head. Second step is insertion of rim into gripper. The rim will be rotating by three cylinders of gripper while scanners are active. Third step is surface measurement. The precise moving beam with laser scanners will slide out of device and measurement will start. Last step is removal of rim from device. All measured data are stored in internal database. The whole technology is offered for license agreement. The technology is patented. Another type of cooperation possible is commercial agreement with technical assistance, where the assistance will be provided by the inventors.

Identificativo della Proposta: TOCZ20180412001

Tipo: Technology Offer

Paese: Czech Republic

Presentazione: 12/04/2018

Ultimo aggiornamento: 17/05/2018

Scadenza: 18/05/2019