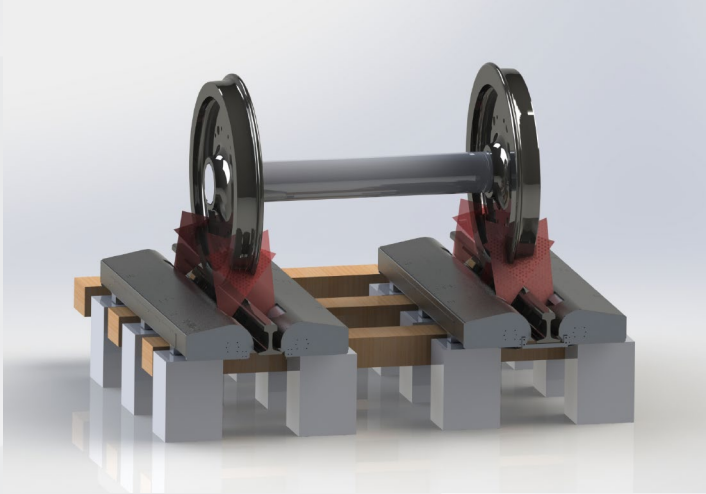
REAL TIME WHEELS GEOMETRY MEASUREMENT SYSTEM 3DWHEEL

The system is designed for contactless automatic measurement of geometrical parameters of railway wheels.



- Real-time measurement of moving train wheels
- Easy installing at any type of rail infrastructure
- Incorporating laser scanning technology with different laser wavelength
- Eliminates manual measurement error
- 24 hours operation
- Modular, user-configurable structure
- Double body with conditioning system for outdoor installation

OPERATION

The system uses a combination of ten (fourteen for tramways carriages) RIFTEK special 2D laser scanners, LDE25D Series mounted wayside in the track area (5 (7) pcs for every track side) and calibrated into one common coordinate system.

Measurement cycle starts when an inductive sensor detects a wheel.

While the wheel passes through the system of synchronized 2D laser scanners its profile is taken at many sections.

All measurement readings for all the wheels are sent through Ethernet to control computer for profiles reconstruction and dimensions calculations.

Finally, all the data are collected in the host depot computer in wheel sets wear database.

BASIC TECHNICAL DATA

Train speed – up to 15 km/hour.
High speed system (up to 150 km/h). Available soon

Name of parameter	Accuracy
Wheel profiles	+\- 0,1 mm
Flange height	+\- 0,1 mm
Flange width	+\- 0,1 mm
Flange angle	+\- 0,1 mm
Rim thickness	+\- 0,1 mm
Tread width	+\- 0,1 mm
Back to back gauge	+\- 0,05 mm
Wheel diameter	+\- 0,2 mm

SCOPE OF DELIVERY

- Frames with laser scanners,
- Inductive sensors of wheel presence,
- Industry computer,
- Software,
- Calibration frame,
- Vehicle (carriage) identification system (Video, RFID).

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