

# Measurement instruments for wheelsets

## A laser wheel profilometer



### The laser profilometer is designed for:

- measuring geometrical parameters of the wheel flange of solid wheels and rimmed wheels (thickness, slope, height),
- taking full profile of the wheel roll surface,
- detecting wheel flats and out of round wheels,
- verification, registration and identification of measured wheel

### The measuring set includes:

- a measuring device,
- calibration and control set,
- software (a computer programme),
- device (tablet, PDA) to visualization and record the measurement results (wireless connection with profilometer),
- chargers set,
- cables for computer or printer connection,
- case.

### Basic technical parameters:

- flange height Ow(Sh) – measurement range: 20 - 45 mm; accuracy: 0,1mm; resolution: 0,01 mm,
- flange thickness Og(Sd) – measurement range: 20 - 40 mm; accuracy: 0,1mm; resolution: 0,01 mm,
- flange slope qR – measurement range: 1 - 15 mm; accuracy: 0,2mm; resolution: 0,01 mm,
- minimum memory capacity -1000 measurements,
- profilometer dimensions: 214 x 151 x 60 mm,
- profilometer weight: 0,6 kg,
- PDA dimensions: 117 x 81 x 33 mm,
- PDA weight: 0,4 mm,

### Basic characteristics:

- very fast and accurate measurements required parameters without wheelset roll-out,
- measurement and graphical visualization of the full wheel profile,
- compact size and weight,
- calibration possibility by the user,
- comparing the measured profile with a pattern immediately after the measurement.

We also offer profilometer version for tram wheels.



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# An electronic instrument for wheelsets

## wheels rolling diameter measurement



### The device is designed for:

- railway wheelsets rolling diameter measurements (reading from display),
- verification, registration and identification of measured wheels (optionally with tablet).

### The measuring set includes:

- a measuring device,
- a calibration set,
- software – optional,
- device (tablet, PDA) to visualization and record the measurement results (wireless connection with a measuring device),
- a charger set,
- cables for computer or printer connection – optional,
- case.

### Basic technical parameters:

- measurement range: 400 - 1400 mm,
- accuracy: 0,2 mm,
- resolution: 0,01 mm,
- dimensions: 27 0x 134 x 96 mm,
- weight: 0,5 kg.

### Basic characteristics:

- very fast and accurate diameter measurements without wheelset roll-out,
- compact size and weight,
- calibration possibility by the user,
- displaying an average of several measurements,
- constant force of pressure of contact tip,
- elimination of temperature error,
- very high accuracy of sensor.

We also offer version of device for tram wheels.

# A gauge for measurement of inner wheel faces distance A-Z



#### The device is designed for:

- measuring the distance of the inner wheel faces of the wheelsets, also at points of contact the loaded rail with wheel,
- specifying the differences between measured valued and characteristics defined by a manufacturer,
- calculating the average of the measurements,
- saving the measuring data to the memory.

#### The device is delivered with:

- software (a computer programme),
- a calibration device,
- rechargeable batteries with a charger,
- cables allowing for computer connection,
- case.

The computer software includes database and operating software that makes it possible to transfer the measurement data from the device's memory to a PC (data base) and process the acquired data.

#### Basic technical parameters:

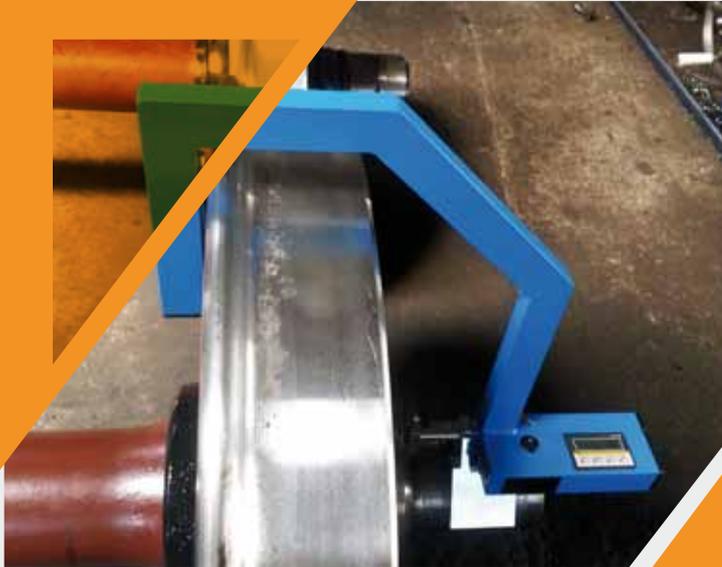
- measurement range:  $1360 \pm 15$  mm (or other at client's request),
- accuracy: 0,1 mm,
- internal memory capacity: up to 2000 measurements,
- weight: 1,92 kg.

#### Basic characteristics:

- handy,
- accurate,
- leight,
- easy to read, backlit display,
- the possibility of calibration by the user,
- temperature compensation,
- charging the device via USB.

An instrument for measuring the

## An instrument for measuring the distance between wheels inner surface and axle toe



### The instrument is designed for:

- determine the correct position of wheel on the axis,
- measuring the distance between wheels inner surface and axle toe,
- measuring the difference in this distance for both wheelset.

### The measuring set includes:

- a measuring device,
- a calibration set,
- case.

### Basic technical parameters:

- measurement range: 190 – 260 mm,
- wheel diameter range: 600 – 1200 mm,
- accuracy: 0,1 mm,
- the instrument is based on the axle journal,
- weight: approx. 4 kg,
- there is a possibility of the device with different measuring ranges.

### Basic characteristics:

- handy,
- accurate,
- the possibility of calibration by the user

Caliper for external

## outline measurement of wheelsets flange

Proven nonius measuring instrument made of stainless steel, used in the rail vehicles maintenance.

### The caliper is designed for:

- measuring the parameters of external profile of railway wheel: flange height  $O_w$  ( $Sh$ ); flange thickness  $O_g$  ( $Sd$ ); flange slope  $qR$ ; rim thickness  $O$  (optional)

### The measuring set includes:

- a caliper,
- case.

### Basic technical parameters:

- flange height  $O_w$  – measurement range: 20-36 mm, accuracy: 0,1mm,
- flange thickness  $O_g$  - measurement range: 15-36 mm, accuracy: 0,1mm,
- flange slope  $qR$  - measurement range: 0-13 mm, accuracy: 0,5mm,
- rim thickness  $O$  (optional) - measurement range: 25-80 mm, accuracy: 0,1 mm.

### Basic characteristics:

- handy,
- durable,
- accurate.

