CALIPRI®
WHEEL

THE BEGINNING OF A NEW ERA.

The measurement of railway wheel sets. Accurate, non-contact and quicker than ever.

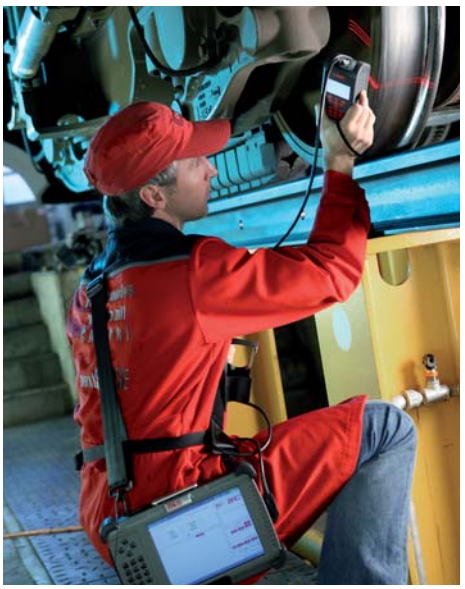
nextSENSE

WORLDWIDE UNIQUE.

CALIPRI Wheel by NextSense is the first patented handheld optoelectronic gauge in the world that collects geometrical data of well-nigh any body contour, completely contact-free and moved by one hand.

HOW DOES THE CALIPRI WHEEL WORK

For the measurement, the user moves the sensor by hand over the railroad wheel or the object to be measured. The intelligent image processing system continually records the segments of the wheel profile or object and combines them. The distance and angle of the sensor to the measured object do not have to be kept precisely the same throughout. Acoustic feedback signals support the user during the measurement process.



PRECISION MEASUREMENT OF RAILWAY WHEEL SETS

CALIPRI Wheel has been developed for the wear test of railway wheel sets. The following safety-relevant wear parameters are measured precisely:

- Flange height
- Flange slope
- Brake disc wear
- and others.

The contact-free mode of operation delivers values that are significantly better reproducible in comparison to conventional measurement methods using contact – even in the constrained space under the vehicle in a service workshop.

SHORT INSPECTION TIMES
CONTACT-FREE MEASUREMENT
FREE-HAND
MOBILE & COMPACT
HIGHEST PROCESS RELIABILITY
INTEGRATED DATA MANAGEMENT

LESS TIME, MORE PRODUCTIVITY

A complete measurement process takes approximately 5 seconds per wheel profile. This means far less expenditure of time and growth in productivity. As soon as the entire profile line of the wheel has been recorded, the data is evaluated, and the resulting measurement values are visible on the CALIPRI display. Any exceedance of given tolerances is displayed immediately.

ERROR-FREE MEASUREMENT RESULT

Typical measurement errors when measuring with gauges – for example, due to tilted scanning, undefined measuring force or loop-sided application of the device – are ruled out with CALIPRI Wheel. The measurement result is free of operator influences and reproducible.

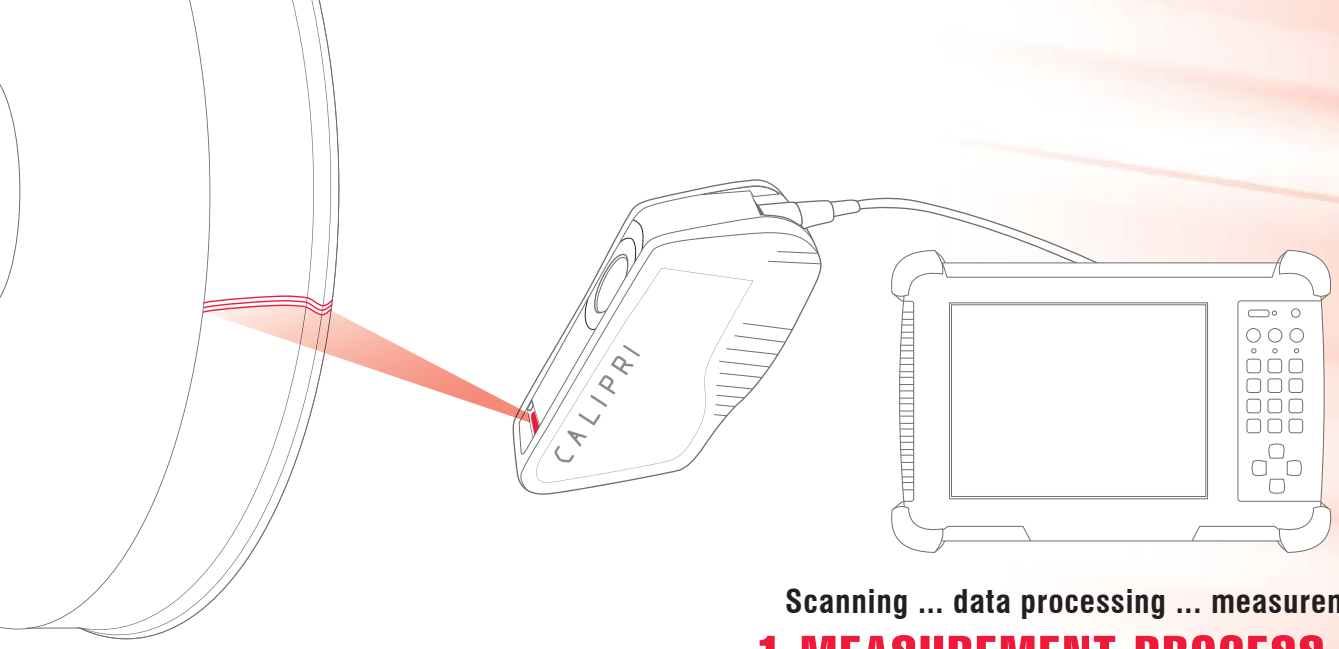
RAILWAY APPLICATIONS

The innovative measurement method facilitates the recording of a wide range of profile shapes with one and the same measurement device. This feature in turn makes possible a broad spectrum of applications.

Currently, the following measurement modules are available:

- **Wheel profile**
- **Brake disc**
- **Wheel clearance**
- **Wheel thickness**
- **Wheel diameter**
- **Wheel defects**
- **Runout**
- **Rails**
- **Switch**
- **Equivalent conicity**

Please read the separate product sheets for more detailed information on each measurement module!



Scanning ... data processing ... measurement results

1 MEASUREMENT PROCESS WITHIN 5 SECONDS

DATA INTERFACE

All measurement and profile data are made available for processing in the XML format or CSV format. All measurements can be visualized and analyzed (see separate product sheet) using the optional Calipri Explorer.
The creation of individual reports constitutes another feature. This entails sending measurement data in a clear presentation directly to a printer or else generating a pdf document.

INSTALLATION, SCOPE OF DELIVERY

The scope of delivery of the ready-to-use measurement system includes:

- **sensor**
- **connection cable**
- **portable computer unit (tablet PC)**
- **carrying strap**
- **self-test and calibration unit**
- **hard top case with foam insert for all components**
- **user manual**
- **pre-installed measurement module/SW of your choice**

TECHNICAL DATA

Dimensions (W x H x D):
Sensor: 86 x 72 x 188 mm
Computer unit: 288 x 195 x 39 mm
Measuring case: 490 x 140 x 470 mm

Weight:
Sensor: 530 g
Computer unit: 1,570 g
Measuring device, total: 2,480 g
Measuring case, total: 6,000 g

Displays:
Computer unit: 8.4" SVGA TFT LCD
Sensor: 2.3" FSTN LCD

Rechargeable battery:
Lithium ions, runtime approx. 3.0 h

Ambient conditions:
Temperature - operation: +5° C to +35° C
Temperature - storage: -20° C to +65° C
Humidity - operation: 20% to 80%
no condensation
Humidity - storage: 8% to 90%
no condensation
Impact resistance: 100 G
Protection class: IP 54

Laser:
Red, 660 nm, class 2M

Conformity:
CE

Order code:
CW40 – Calipri-Wheel

THE MEASURE OF ALL THINGS.

nextSENSE

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