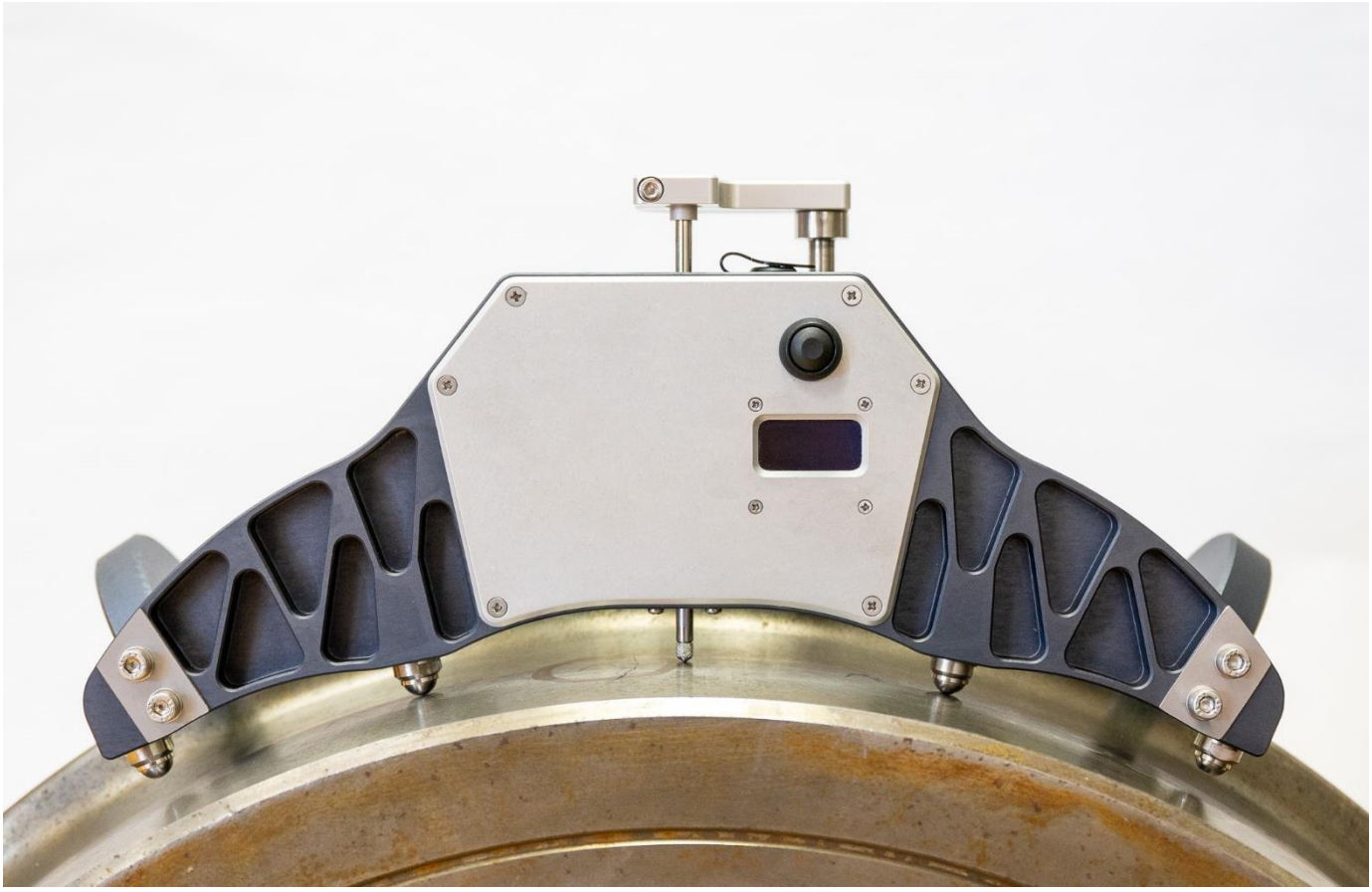
D-WHEEL

Digital wheel diameter measuring gauge

D-WHEEL is a digital, hand-operated gauge which can measure the diameter of the rail wheel in the range of 330-1400 mm – without the assistance of any other measuring device! D-Wheel has a special body therefore it is light-weighted and it provides ergonomic handling for its operators. Still from his appearance it can be seen that huge attention was put on its adequately rigid structure during the planning process of the gauge. D-WHEEL has a press button and a screen which displays the measuring results in real time. The unit of measure can be mm or inch.



D-WHEEL in operation

D-WHEEL measures the rail wheel diameter via 3-point chord measuring method by means of the sensor put on the midpoint between 2-2 fix points. Thanks to the prepared two measuring bases with different distances D-WHEEL has wide wheel diameter measuring range – with adequate accuracy. D-WHEEL can be placed on the plain surface of the back of the rail wheel by two arms where the magnets of the gauge provide the necessary pressing force. These arms give the measuring reference distance from the back of the rail wheel.

The measuring reference distance can be customized upon demand. The arms can be moved to the other side of the gauge as well. This way the use of the gauge can optimized regarding the read-out-ability of the screen in case the rail wheel is required to be measured from the back of the wheel (e.g. from inspection pit) or from front-wise.

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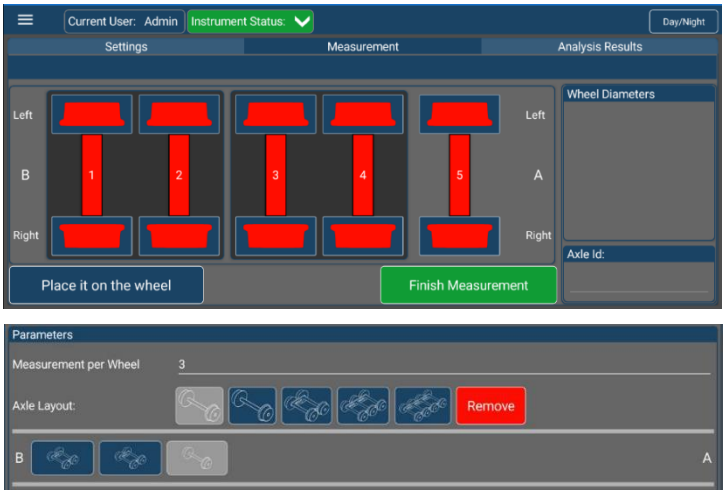
The gauge has a built-in battery that can be charged via USB-C connector.

The measuring results can be read off an OLED display.

Due to the high wear-resistant touching surfaces of the gauge its maintenance demand is minimal but in case it is necessary then the change of the touching elements (sensor feelers, balls which provide the basis and the sheets providing the reference distances) is easy to be done.

It is possible to measure with the gauge quickly and with high accuracy on site or in maintenance halls as well.

Optional measuring program:



An optional measuring program can be requested for the measuring instrument, in which it is possible to record the actual axle layout of the assembly, the unique identifiers of each axle and to store a sufficient number of measurement results for the measured wheel.

The software provides an immediate evaluation and result, taking into account the set test threshold, of the wheel diameter values on an axle.

Technical parameters

Wheel diameter measuring ranges per bases	150 mm: 330-750 mm 300 mm: 750-1400 mm
Measuring range of the sensor	25 mm
Resolution of the sensor	0,2 µm
Accuracy of the sensor	± 2 µm
Accuracy of the wheel diameter measurement	± 0,2 mm
Dimensions of the gauge in transportation status	110 x 215 x 365 mm
Necessary minimum height during the measurement - perpendicular to the running surface to be measured	140 mm
Reference distance (nominal running circle distance)	Upon demand, as default 70 mm
Screen	OLED, 1.30''
Protection class	IP40
Touching surfaces	Hardened, wear-resistant, stainless steel
Weight	1,5 kg
Battery	1db, 800 mAh, 14500, Li-ion
Operating time	10 hours or 500 measurements
Calibration, checking applications	Upon separated demands
Operating temperature range	-20…+50 °C

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