

caliTEST mobile

Type 5413-5721/...

Mobile calibration device for torque wrenches

caliTEST mobile is a calibration device for fast and precise testing and calibration of torque wrenches. The compact dimensions of caliTEST mobile enable the unit to be used directly on the assembly line.

- Calibration and testing of indicating and setting torque wrenches in accordance with the requirements of DIN EN ISO 6789:2003 and VDI/VDE 2645 Part 2
- Attainable measurement uncertainty of $\leq 1\%$
- Multirange torque reference transducers
- CEUS software platform
- caliTEST mobile 300 for mobile, line-independent battery operation
- caliTEST mobile 1000 for mobile, grid-bound operation

Description

The calibration device consists of a mobile base unit with wraparound casing, which holds the mounting fixture for torque wrenches, a drive unit with a multirange torque reference transducer, an electronic measurement and control system, and the accumulator (only with caliTEST mobile 300).

As an evaluation and operating system, an optional rotating and tilting industrial PC system with a touchscreen and fold-out keyboard or a notebook on an optional notebook mount is used on the caliTEST mobile 300.

On the caliTEST mobile 1000, a notebook is used directly on an optional notebook mount, eliminating the need to continually shut the PC system down and start it up again at each testing station.

The caliTEST mobile 1000 features a pull-out wrench support for long torque wrenches, ensuring a compact design for mobile use.

The torque wrenches to be calibrated are mounted horizontally and coupled to the drive via exchangeable square adapters as specified in DIN 3121.



caliTEST mobile 1000/50 with optional propulsion drive and notebook mount

A freely adjustable wrench support enables the torque wrench to be accommodated in a standard manner. The maximum possible wrench length varies depending on the testing equipment. The caliTEST mobile 300 calibration device can be operated via a cord to the power grid, as well as line-independently via a built-in, rechargeable battery.

The caliTEST mobile 1000 calibration device is operated via a cord to the power grid.

Application

The tool to be tested or a corresponding test specification is selected or set in the Windows CEUS software via the evaluation unit, and the test program / test procedure is started.

When calibrating torque wrenches, the multirange torque reference transducer measures the torque applied by the drive unit.

The calibration device is controlled by an integrated electronic measurement and control system, so that fast automatic tests with cyclic load application are possible.

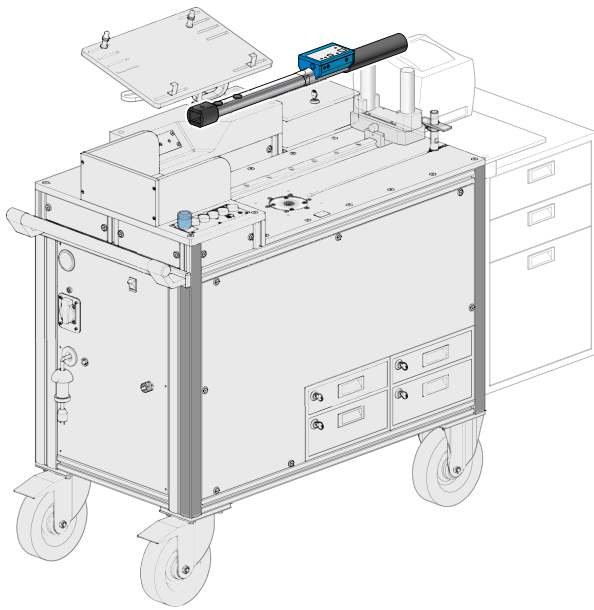
All measured values are displayed on screen during testing and are subsequently analyzed by the CEUS software, evaluated according to specifications and used to create the certificate.

Technical data

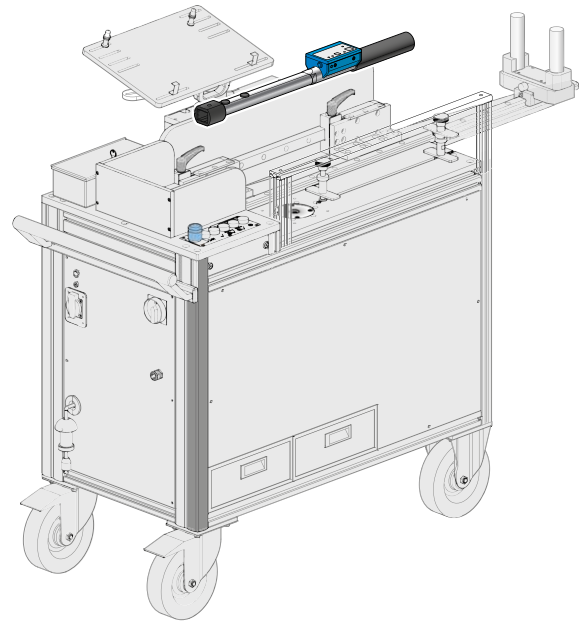
caliTEST mobile	300 N·m	1000 N·m
Measuring range	0.5 ... 50 N·m (optional) 3 ... 300 N·m	0.5 ... 50 N·m (optional) 10 ... 1000 N·m
Maximum rotational speed	8.4°/s (50 N·m; optional) 5.5°/s (300 N·m)	8.4°/s (50 N·m; optional) 9°/s (1000 N·m)
Minimum effective length	0.5 ... 50 N·m: 90 mm (optional) 3 ... 300 N·m: 63 mm	0.5 ... 50 N·m: 90 mm (optional) 10 ... 1000 N·m: 85 mm
Maximum effective length	0.5 ... 50 N·m: 520 mm (optional) 3 ... 300 N·m: 820 mm	0.5 ... 50 N·m: 520 mm (optional) 10 ... 1000 N·m: 1310 mm
Attainable measurement uncertainty acc. to DKD-R 3-8	≤1%	
Line voltage	115 V/230 V +/-10%	230 V +/-10% (115 V with optional transformer)
Line frequency	50 Hz/60 Hz	
Power consumption	max. 0.3 kVA	max. 1.5 kVA
Accumulator	24 V / 40 Ah	
Operating / Charging time for battery operation	8 hr / 8 hr, for battery operation	–
Recommended minimum charging time	1x weekly 14 hr	–
Degree of protection (DIN EN 60529)	IP 20	
Protection class (DIN EN 61140)	I	
Operating temperature range (nominal temperature range)	10 ... 40 °C	
Storage temperature range	-20 ... 70 °C	
Air humidity	max. 70%, non-condensing	
Weight	approx. 315 kg	approx. 325 kg

Options

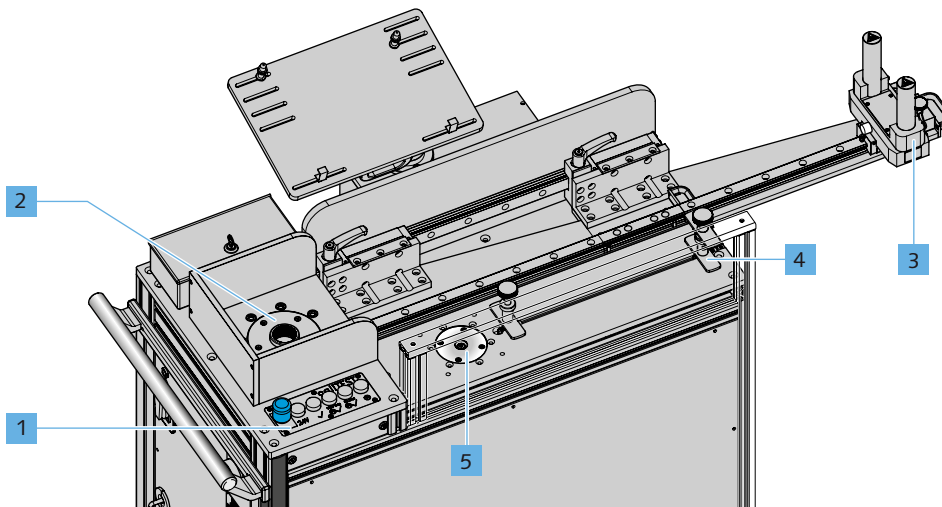
- Connection for external sensors
- 50 N·m unit
- Wrench support up to 250 N·m for short torque wrenches for 300 N·m or 1000 N·m calibration devices
- Mount for torque wrenches in screwdriver form for 50 N·m calibration device
- Propulsion drive
- Document desk
- Label printer
- Barcode scanner
- Special custom solutions



caliTEST mobile 300/50 with optional 50 N-m unit, optional notebook mount, drawer cabinet and label printer



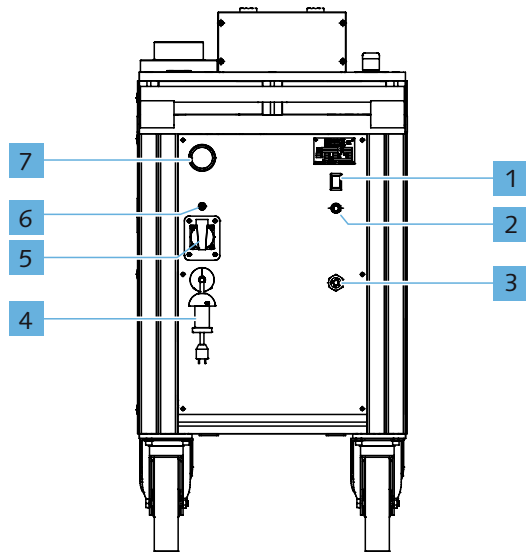
caliTEST mobile 1000/50 with optional 50 N-m unit and optional notebook mount



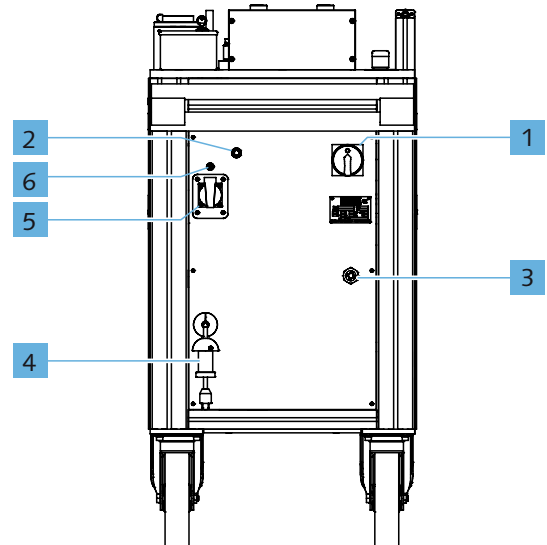
caliTEST mobile at a glance

- 1 Control panel
- 2 Multirange torque reference transducer (300 N-m or 1000 N-m)
- 3 Wrench support (figure shows pull-out version of the caliTEST 1000)
- 4 Wrench support (50 N-m; optional)
- 5 Multirange torque reference transducer (50 N-m; optional)

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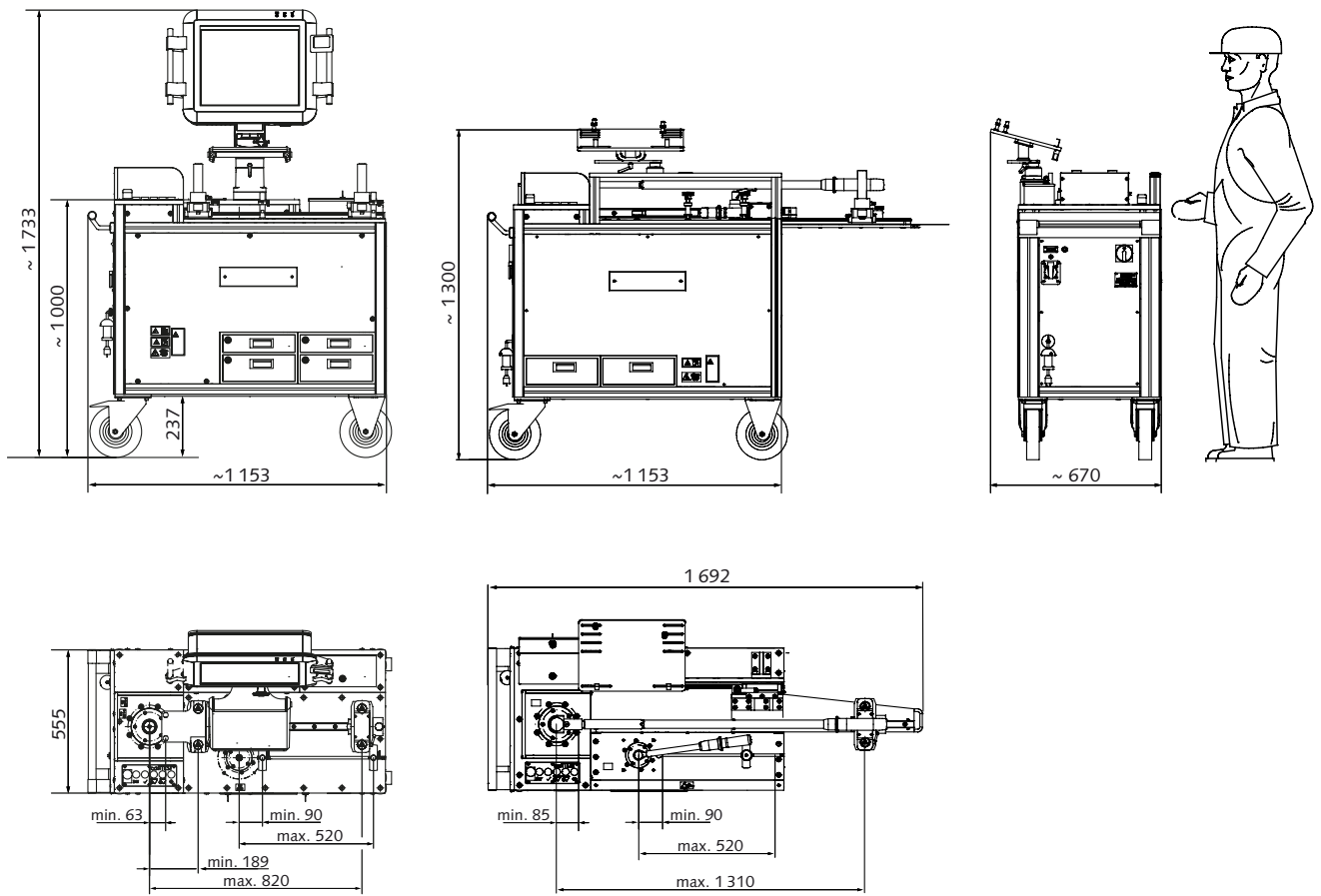
Connections on caliTEST mobile 300



Connections on caliTEST mobile 1000

- 1 Toggle switch or main switch, ON/OFF
- 2 Connections for external sensors (optional)
- 3 Temperature and humidity sensor
- 4 Power plug
- 5 Socket (optional)
- 6 Socket fuse (optional)
- 7 Voltage indicator for accumulator (only on caliTEST 300)

Dimensions of caliTEST mobile



caliTEST mobile 300/50 device dimensions

caliTEST mobile 1000/50 device dimensions

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