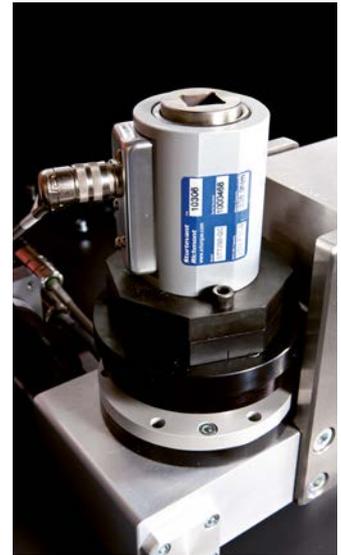


EC Calibration Bench for Torque Wrenches – Z-Pro TTB



Image is also showing optional components



The EC calibration system for torque wrenches is characterized by the highest torque measurement accuracy, an exemplary sensitive and freely parameterizable control of the servo drive as well as simple and uncomplicated software parameterization.

The system is just as suitable for tough everyday use for testing a large number of torque wrenches as it is for demanding torque analyzes in the QA laboratory.

The various torque transducers are housed in an LED shelf, which is equipped with proximity sensors, so that the operator always clearly uses the transducer suitable for the test object. The software integration of the LED shelf prevents possible operator errors.

The torque sensors can be changed quickly and easily. Different industrial standard (I/S) transducers in the torque range from 0.5 to 1400 Newton meters are available.

The fully automatic testing or calibration of torque wrenches in accordance with EN ISO 6789 or individual test procedures can be parameterized on the very user-friendly software interface.

The individual test methods include the possibility to parameterize the torque ramp in the pre-tightening and in the final tightening, so that in deviation from EN ISO 6789 (between 80% - 100% of the target value within 1s to 4 s) a different torque / angle of rotation-time ratio can be parameterized.

Furthermore, the servo drive of the calibration device can be controlled very sensitively using a joystick or the torque can be applied with an individually adjustable step control.

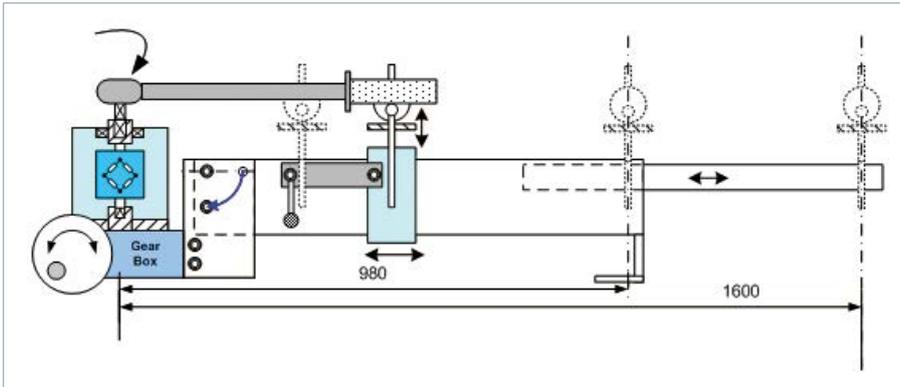
Key Features

- ▶ Covering torque ranges from 0.5 to 1355 N-m.
- ▶ Automatable calibration according to EN ISO 6789:2017.
- ▶ Freely programmable calibration and test procedures.
- ▶ Tool capability test procedures (Cm/Cmk).
- ▶ Tool continuous load analysis.
- ▶ Customizable calibration certificates.
- ▶ Recognized as a calibration standard for torque wrenches and measuring range sensors.
- ▶ Software-integrated LED shelf for measuring range sensors.
- ▶ Fast and uncomplicated changing of the measuring torque transducers.
- ▶ Touchscreen monitor with industrial PC.
- ▶ Editable software according to customer requirements.
- ▶ Software password protection and assignment of rights per operator / user.
- ▶ Data export (formats by arrangement).
- ▶ Comprehensive input options for individual control of the servo drive for optimal torque development.
- ▶ Joystick with a step function in manual operation mode.
- ▶ Reaction arm can be extended up to 160 cm for long torque wrenches.
- ▶ Spring-loaded, precisely adjustable brace on the reaction arm.
- ▶ Robust and solid workmanship of all components for industrial approach.



Sensor shelf with LED display





Static torque transducers

- 3.5 Nm
 - 6 Nm
 - 11 Nm
 - 28 Nm
 - 68 Nm
 - 135 Nm
 - 270 Nm
 - 540 Nm
 - 1000 Nm
 - 1700 Nm
- are available separately.



Its manifold capabilities make this calibration device a flexible and practical torque measurement system.

Collected measurement data can be transferred to customer-specific ERP / QS systems via an USB interface. Calibration certificates can e.g. can be created individually in Excel or generated using the in-house QA software via the measurement data import.

Photos/images of the test objects can be stored in the database so that the operator gets a visual comparison in addition to the written technical information. This supports operational error proofing and efficient work.

Barcode readers and barcode printers are optionally available. Remote maintenance via RAC software (Remote Access Control) is possible via the internet.

Applications

This test bench provides the necessary metrological properties and drive methods to carry out torque wrench testing in accordance with EN ISO 6789 or other test methods. The operator can freely program customized test

procedures and carry out tests or calibrations automatically.

The test method according to EN ISO 6789 distinguishes between signaling and indicating torque tools and, depending on the type and class, allows an uncertainty of $\pm 4\%$ or $\pm 6\%$. Each and every torque wrench should be calibrated after 12 months or 5000 load changes. The measurement deviation of the calibration device may be max. 1/4 of the maximum allowable deviation of the tool; the torque should be applied between 80% and 100% of the respective test point target value within 1 to 4 seconds. Mechanical signaling torque wrenches (type II) are calibrated to 20%, 60% and 100% of the capacity only with increasing force, i.e. always from lower to higher value.

Rotating torque transducers

- 5 Nm
 - 10 Nm
 - 20 Nm
 - 75 Nm
 - 180 Nm
 - 500 Nm
 - 1400 Nm
- are available separately.



Basic Unit:

- Model Z-PRO TTB-1400, ingress protection IP54.

Operating and visualization unit:

- Industrial PC with touchscreen monitor, ingress protection IP54.

Dimensions:

- H: 170 cm (incl. Touchscreen Monitor).
- W: 150 cm (incl. Control Unit).
- D: 80 cm.
- Working height: 85 cm.
- Weight: 128.8 kg.

Standard Accs*:

- Square adaptors for 1/4", 3/8", 1/2", 3/4".
- keyboard with USB connector.

Optional Accs:

- Lockable drawer base cabinet.
- 2D barcode scanner.
- 2D barcode label printer.
- Torque transducers (see above).
- Signal cable (w/o image).
- B/W laser printer.



Further information available on our website - 24/7.

* Standard accessories (except optional accessories) are included.