



# TORQUE TESTERS AND CALIBRATORS

## IEICOS COMPUTERIZED TORQUE TESTING MACHINE FOR HAND TOOLS Model CTTM

IEICOS offers computerized torque testing machine especially for testing, checking and calibration of torque of hand tools such as spanners, pliers, socket wrenches, pipe wrenches, screw drivers and any other similar tools. The computer based torque testing machine is a fully automatic programmable system with built-in rotary head for producing torque, jaws, grips and necessary fixtures to hold the hand tools.

Fundamentally, it consists of a precision strain gauge based torque sensor to measure the torque applied. The torque sensor with necessary signal conditioning circuitry displays the applied torque. The torque sensor and its instrumentation is calibrated traceable to NABL and hence is used as a standard.

IEICOS is in the business of manufacturing torque sensors locally for the last 35+ years and is a reputed indigenous manufacturer of torque sensors. This helps to provide long term maintenance and serviceability at very low cost. Availability of spares at all times is a plus.

The torque testing machine a completely enclosed type system with doors provided to mount the hand tool under test inside the enclosure. The rest of the test is conducted automatically by the computer controlled machine.

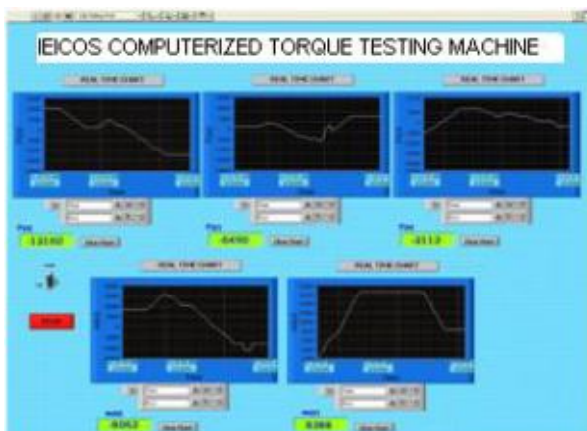
To provide higher accuracy and better precision, IEICOS offers 500 Kgm computerized torque testing machine which has three internal test setups of the following ranges with three independent torque sensors. This break down helps to increase the performance of the system by testing hand tools in the appropriate range instead of testing them in the largest 500 Kgm range.

Ranges:

0 to 5 Kgm

0 to 50 Kgm

0 to 500 Kgm



IEICOS Computerized Torque Testing Machine is fully computerized with graphical menu driven software with control, monitoring and graphics display of the test parameters of fatigue, torque and breaking load. The software is also provided with a screen to enter the details of hand tool under test. The software incorporates data storage, retrieval, plotting and graphing facilities with zoom, pan and other features. Software also includes report generation and printing facility. The report can be configured to have the user name and address on it for issue to customers.

A run-time version of the software is installed on the computer and two CDs of the software are provided for backup.

A latest model personal computer with intel core 2 duo mother board fully loaded with licensed windows software with 17" flat panel monitor, keyboard, mouse, 3 GB RAM, 320 GB Hard Drive, CD/DVD-RW, USB ports etc will be provided. A colour inkjet printer is also included for printing of reports.

Specifications:

Model: CTTM-500

Range: 0 to 500 Kgm

Resolution: 0.01 Kgm for lower torque upto 50 Kgm, 0.1 Kgm for range upto 500 Kgm.

Accuracy: < +/- 0.5% of Full Scale

Linearity: < +/- 0.5% of Full Scale

Power Requirement: 3phase 440 V supply 20 A Dimensions: 2m x 2m x 1m nominal.

Computer Specifications: Intel core 2 duo, 3 GB RAM, 320 GB Hard Drive, CD/DVD-RW, 4 USB ports, 17" Flat Panel Monitor, 101 key keyboard, optical mouse with licensed windows software. Color Inkjet Printer provided



## IEICOS ELECTRONIC DIGITAL TORQUE WRENCH CALIBRATOR Model EDTWC

IEICOS offers electronic digital torque wrench calibrator for checking and calibration of torque wrenches. The digital torque wrench calibrators are based on precision strain gauge based torque sensors and are provided with digital torque indicators for display of torque applied. IEICOS Torque Wrench Calibrators are available in both manual and motorized models with each featuring a precision 1200:1 reduction gear box for accurate application of torque. Ranges: 10 Nm – 5000 Nm

IEICOS Torque wrench calibrators feature:

- testing, verifying and calibrating clockwise and anti-clockwise torque wrenches
- vertical and horizontal testing complying with US/International standards such as DIN EN ISO 6789 with integrated torque transducer
- Microcontroller based digital display with first peak/ peak hold
- Overload protection and tool for manual resetting
- High measuring accuracy: < +/-0.5% Full scale, +/-1 digit
- Robust construction with stainless steel sensing element
- Optional: computer interface/ analog output/ 4-20mA output
- Optional: Graphical Menu Driven Instrumentation Software
- Available in table top and with standalone models.
- Optional: NABL traceable certificate



## IEICOS DIGITAL TORQUE WRENCH TESTER Model DTWT

IEICOS Torque Wrench Testers are designed to be robust, yet lightweight and small for testing of torque wrenches on the shop floor. Microcontroller based digital display with bright LED display with accuracy better than 0.5%. Also other tools such as screw drivers etc can be tested.

The torque tester is designed with the shop floor use with the sensor part separated from the indicator. The sensor part is provided with a base to mount the sensor on a working table close to the torque wrenches. A cable provided helps to locate the indicator on a table pedestal away from the work area.



Specifications:

- Torque Ranges: 2 Nm, 5 Nm, 10 Nm, 20 Nm, 30 Nm, 50 Nm, 100 Nm, 200 Nm and 500 Nm
- Resolution: 0.1% of FS; Accuracy < 0.5% of FS
- Dimensions: Indicator : 120 mm x 85 mm x 150 mm nominal, sensor – depends on range.
- Operates on Battery/230V AC 50 Hz supply (Optional: 110V 60 Hz can be provided)
- Optional: computer interface/ analog output/ 4-20mA output
- Optional: Graphical Menu Driven Instrumentation Software
- Available in table top and with standalone models.
- Optional: NABL traceable certificate



## IEICOS ELECTRONIC DIGITAL TORQUE TOOL TESTER Model EDTTT

IEICOS Electronic Digital Torque Tool Testers are designed to be robust, yet lightweight and small for testing of Pneumatic Screwdrivers, Electrical Screwdrivers, Small torque wrenches. Microcontroller based digital display with 4 digit/6 digit bright LED display with accuracy better than 0.5% with peak hold facility, presettable torque value with visual/audio alarm, user selectable units.

### Specifications:

- Torque Ranges: 2 Nm, 5 Nm, 10 Nm, 20 Nm, 30 Nm, 50 Nm
- Dimensions: 0.25m x 0.15m x 0.1m nominal
- Operates on Battery/230V AC 50 Hz supply (Optional: 110V 60 Hz can be provided)
- Optional: computer interface/ analog output/ 4-20mA output
- Optional: Graphical Menu Driven Instrumentation Software
- Available in table top and with standalone models.
- Optional: NABL traceable certificate



## IEICOS ELECTRONIC DIGITAL BOTTLE TORQUE TESTER Model EDBTT

IEICOS Electronic Digital Bottle Torque Testers are designed to for testing of bottle cap torque during closing or opening. Microcontroller based digital display with 4 digit/6 digit bright LED display with accuracy better than 0.5% with peak hold facility, presettable torque value with visual/audio alarm, user selectable units.

### Specifications:

- Torque Ranges: 1Nm, 2 Nm, 5 Nm, 10 Nm
- Operates on 230V AC 50 Hz supply (Optional: 110V 60 Hz can be provided)
- Optional: computer interface/ analog output/ 4-20mA output
- Optional: Graphical Menu Driven Instrumentation Software
- Available in table top model, handheld model and with standalone models.
- Optional: NABL traceable certificate



## IEICOS ELECTRONIC DIGITAL CHILD RESISTANT CAP TESTER Model EDCRCT

IEICOS Electronic Digital Child Resistant Cap Testers are designed to for testing of child resistant bottle cap which has both push and twist action for torque and force during closing or opening. Independent Microcontroller based digital displays for torque and force with 4 digit/6 digit bright LED display with accuracy better than 0.5% with peak hold facility, presettable force/torque value with visual/audio alarm, user selectable units.

### Specifications:

- Force Ranges: 20N, 50N, 100 N, 200 N, 500 N
- Torque Ranges: 1Nm, 2 Nm, 5 Nm, 10 Nm
- Operates on 230V AC 50 Hz supply (Optional: 110V 60 Hz can be provided) Optional: Battery Supply
- Optional: computer interface/ analog output/ 4-20mA output
- Optional: Graphical Menu Driven Instrumentation Software
- Available in table top and with standalone models.
- Optional: NABL traceable certificate



## IEICOS ELECTRONIC DIGITAL IMPACT TOOL TESTER Model EDITT

IEICOS Electronic Digital Impact Tool Testers are designed for testing of impact tools such as impact screw drivers, pulse tools etc which has both impact force and twist. Independent Microcontroller based digital displays for torque and force with 4 digit/6 digit bright LED display with accuracy better than 0.5% with peak hold facility, presettable force/torque value with visual/audio alarm, user selectable units.

### Specifications:

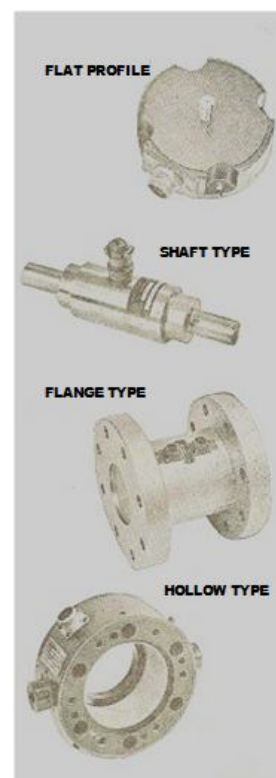
- Force Ranges: 100 N, 200 N, 500 N
- Torque Ranges: 20Nm, 50 Nm, 100 Nm, 200 Nm, 500 Nm
- Operates on 230V AC 50 Hz supply (Optional: 110V 60 Hz can be provided) Optional: Battery supply
- Optional: computer interface/ analog output/ 4-20mA output
- Optional: Graphical Menu Driven Instrumentation Software
- Available in table top and with standalone models.
- Optional: NABL traceable certificate

## IEICOS ELECTRONIC DIGITAL TORQUE TESTERS

IEICOS has the required expertise and knowledge with 38+ years of experience in torque technology to design and develop any torque measuring instrumentation for your needs. Please contact us with your application and we are sure to provide you with a torque solution that meets your needs. We also undertake research and development and consulting work with regards to torque measurement and application.



Inline Rotating Torque Sensors



Reaction Type Torque Sensor

*Mechanical Dimensions, location of Components, Controls and Panel Meters may be changed without notice to incorporate latest state of the Art of Technology.*



## INDUSTRIAL ENGINEERING INSTRUMENTS

203, 12<sup>th</sup> Main Road, 3<sup>rd</sup> Phase, Peenya Industrial Area,  
Peenya, Bangalore-560058. Karnataka, India.

Phone: 080 28394520 Fax: 080 28371386

Email: [info@ieicos.com](mailto:info@ieicos.com) Web Site: [www.ieicos.com](http://www.ieicos.com)