

## Data Sheet

32-1154 REV 1

## Digital Cap Torque Testers Series TT01

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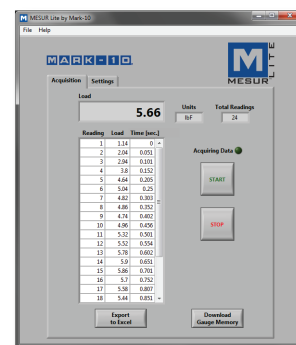
Series TT01 Cap Torque Testers are designed to measure application and removal torque of bottle caps up to 100 lbFin [11.5 Nm]. Adjustable posts effectively grip a broad range of container shapes and sizes, while optional flat and adjustable jaws are available for unique profiles. A rugged aluminum design, and simple, intuitive operation allow for use in laboratory and production environments.

Class-leading accuracy of  $\pm 0.3\%$  and blazingly fast sampling rate of 7,000 Hz ensure reliable and consistent test results, even in quick-action applications.

The TT01 includes a range of sophisticated productivity-enhancing features, including USB, RS-232, Mitutoyo, and analog outputs, automatic data output and zeroing upon cap removal, memory storage for 1,000 readings, pass/fail indicators and outputs, and more. Password protection is provided to prevent unauthorized changes to settings and calibration.

Series TT01 testers include MESUR™ Lite data acquisition software. MESUR™ Lite tabulates continuous or single point data. Data stored in the TT01's memory can also be downloaded in bulk. One-click export to Excel allows for further data manipulation.

MESUR Lite data acquisition software is included with Series TT01 testers



### Features

- Moveable posts and optional jaws accommodate a wide range of sample shapes and sizes
- USB, RS-232, Mitutoyo, and analog outputs
- Automatic output, data storage, and zeroing upon bottle cap removal helps automate testing processes
- 1,000-point data memory with statistics and outputs
- Password protection prevents unauthorized changes
- Programmable set point indicators and outputs for pass/fail determination
- High-speed 7,000 Hz sampling rate accurately captures peak torque values
- Configurable audio alarms and key tones
- 5 selectable units of measurement
- MESUR™ Lite data collection software included

### Controls & Indicators



## Optional Items



**CT001**  
**Flat jaws**

Set of rubber jaws for gripping square or odd shaped containers.



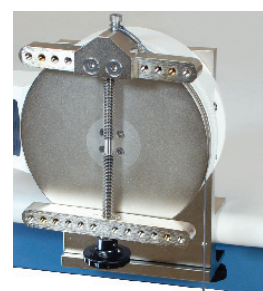
**CT002**  
**Carrying case**

Provides storage space for the TT01 tester, gripping jaws, AC adapter, and accessories.



**CT003**  
**Adjustable jaws**

Rubber-edged arms may be independently repositioned to accommodate unique samples.



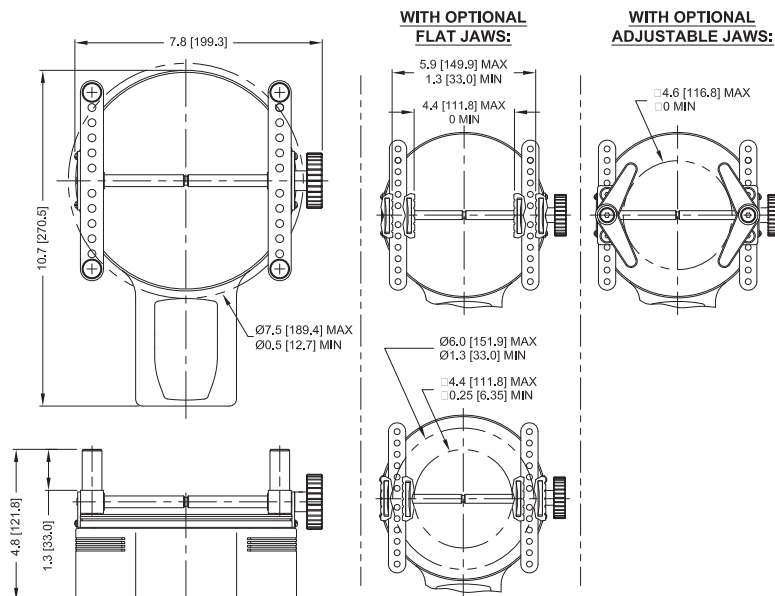
**AC1036**  
**Calibration kit**

Complete set of brackets, cable, AC1036 and hardware for calibration of any Series TT01 torque tester. Weights not available from Mark-10.

## Specifications

|                               |  |
|-------------------------------|--|
| <b>Accuracy:</b>              | ±0.3% of full scale  |
| <b>Sampling Rate:</b>         | 7,000 Hz   |
| <b>Power:</b>                 | AC or rechargeable battery. Multi-step low battery indicator is displayed, tester shuts off automatically when power is too low.   |
| <b>Battery life:</b>          | <b>Backlight on:</b> up to 7 hours of continuous use<br><b>Backlight off:</b> up to 24 hours of continuous use   |
| <b>Units:</b>                 | ozFin, lbFin, lbFft, Nm, Ncm   |
| <b>Outputs:</b>               | <b>USB / RS-232:</b> Configurable up to 115,200 baud.<br><b>Mitutoyo:</b> Serial BCD suitable for all Mitutoyo SPC-compatible devices.<br><b>Analog:</b> ±1 VCD, ±0.25% of full scale at capacity.<br><b>General purpose:</b> Three open drain outputs, one input.<br><b>Set points:</b> Three open drain lines. |
| <b>Configurable settings:</b> | Digital filters, outputs, automatic shutoff, default settings, key tones, backlight, audio alarms, passwords, calibration  |
| <b>Safe overload:</b>         | 150% of full scale (display shows "OVER" at 110% and above)  |
| <b>Weight:</b>                | 8.4 lb [3.8 kg]  |
| <b>Included items:</b>        | Universal voltage AC adapter, battery, quick-start guide, USB cable, resource CD (USB driver, MESUR™ Lite software, MESUR™ gauge DEMO software, and user's guide), and NIST-traceable certificate of calibration with data.  |
| <b>Warranty:</b>              | 3 years (see individual statement for further details)   |

## Dimensions in [mm]



## Capacity x Resolution

| Model No. | ozFin     | lbFin      | lbFft      | Ncm        | Nm           |
|-----------|-----------|------------|------------|------------|--------------|
| MTT01-12  | 192 x 0.1 | 12 x 0.005 | 1 x 0.0005 | 135 x 0.1  | 1.35 x 0.001 |
| MTT01-50  | 800 x 0.5 | 50 x 0.02  | 4 x 0.002  | 570 x 0.5  | 5.7 x 0.005  |
| MTT01-100 | 1600 x 1  | 100 x 0.05 | 8 x 0.005  | 1150 x 0.5 | 11.5 x 0.005 |

All models include 110V AC adapters. Add suffix 'E' for euro plug (220V), 'U' for UK plug (220V), or 'A' for Australian plug (220V).

Ex: MTT01-12E, MTT01-50U, MTT01-100A

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# MARK-10

# 3 YEAR WARRANTY

Specifications subject to change without prior notice