Data Sheet

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

- High-speed 7,000 Hz sampling rate accurately captures peak torque values
- First / second peak detection for slip and breakaway torques in tamper evident closures
- Moveable posts and other available gripping options 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
- Programmable set point indicators and outputs for pass/ fail determination
- Password protection prevents unauthorized changes
- MESUR® Lite data collection software included





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Optional Items



CT001 Flat jaws Set of rubber jaws for gripping square or odd shaped containers.



CT005 / CT006 / CT007 **Extended length post sets** CT005: Four 2.5" (63 mm) posts CT006: Four 4" (101 mm) posts

CT007: Kit of four of each length: 1.25" (31 mm), 2.5" (63 mm), and 4" (101 mm)



CT002 **Carrying case** Provides storage space for the TT01 tester, gripping jaws, AC adapter, and accessories.



AC1077 Connector cover kit Helps protect the rear connectors against liquid entry.



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



CERT Calibration certificate w/data

Includes 10 data points in each measurement direction (short form certificate without data is included)



AC1036 **Calibration kit**

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

Specifications

Accuracy:	$\pm 0.3\%$ of full scale
Sampling Rate:	7,000 Hz
Power:	AC adapter: 100-240VAC, 50-60 Hz, 0.3 A Battery: Rechargeable 8.4V NiMH Low battery indicator appears when battery level is low, and gauge powers off automatically when power reaches critical stage.
Battery life:	Backlight on: up to 7 hours of continuous use Backlight off: up to 24 hours of continuous use
Units:	ozFin, IbFin, kgFcm, Nm, Ncm
Outputs:	USB / RS-232: Configurable up to 115,200 baud. Mitutoyo: Serial BCD suitable for all Mitutoyo SPC-compatible devices. Analog: ±1 VDC, ±0.25% of full scale at capacity. General purpose: Three open drain outputs, one input. Set points: Three open drain lines.
Safe overload:	150% of full scale (display shows "OVER" at 110% and above)
Weight:	8.4 lb [3.8 kg]
Environmental requirements:	40 - 100°F, max. 96% humidity, non-condensating
Warranty:	3 years (see individual statement for further details)

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In The Box

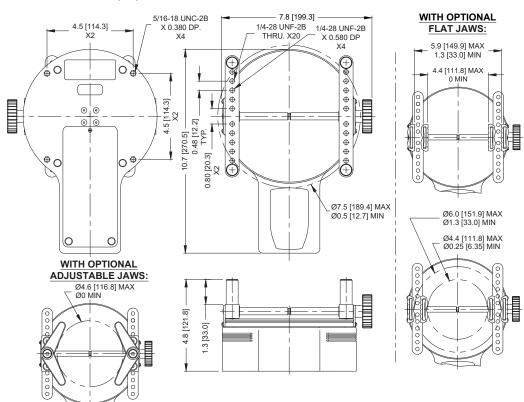
Series TT01 torque testers are shipped as shown at right, and include the following accessories:

- (4) Sample gripping posts
- (1) USB cable
- (1) AC adapter
- (1) Battery
- (1) Resource CD (USB driver, MESUR® Lite software, MESUR® gauge software demo, and user's guide)
- Certificate of calibration without data (data is optional)





Dimensions in [mm]



Capacity x Resolution

Model No.	lbFin	ozFin	kgFcm	Ncm	Nm
MTT01-12	12 x 0.005	192 x 0.1	14 x 0.01	135 x 0.1	1.35 x 0.001
MTT01-25	25 x 0.01	400 x 0.2	28 x 0.02	290 x 0.2	2.9 x 0.002
MTT01-50	5 0 x 0.02	800 x 0.5	58 x 0.05	570 x 0.5	5.7 x 0.005
MTT01-100	100 x 0.05	1600 x 1	116 x 0.1	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, MTT01-25U, MTT01-50A



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