

SureTorque Model ST-50

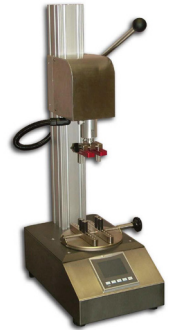
SureTorque Model ST-50

Simple and Accurate Constant Speed Removal Torque Measurement or Cap Tightening

The SureTorque Model ST-50 bench-top torque tester is designed specifically for bottlers looking to meet ASTM standards for measuring removal torques. The ST-50 will perform full release torque testing to protocol as well as perform final cap tightening to a setpoint. An on-board, calibrated load cell guarantees that all application and measurements are accurate. Data can be captured and downloaded for recall and reference. A simple interface provides visual results for each test.

Features

- NIST traceable transducer
- Programmable speed control
- Motorized testing; constant speed
- No plant air required
- Portable
- 4-Post adjustable cap grip
- 4-Post adjustable container clamp
- Color touch screen interface
- Small footprint
- Simple and quiet operation



All SureTorque testers are configurable to test various size and shape containers. Standard cap and container tooling for the ST-50 is a 4-post manually operated design. On request, serrated tooling specific to cap features can be supplied. Initial topload is achieved during setup through an additional fixture built into the tooling.

Technical Specifications*

Testing	
Torque Tests	Cap release test, Cap tightening (final application)
Torque Range	0-50 lbf•in (0-5.6N•m)
Torque Transducer	Strain gauge
Accuracy	+/- 0.5% for static loads over full scale
Resolution	Min 0.1 lbf•in
Maximum Overload	150%
Rotation	2-60 RPM, CW and CCW, Infinite
Modes	Speed or Torque control
Torque Units	d•Nm, N•m, kg•cm, kg•m, oz•in, lbf•in
Calibration	Certifiable (NIST)
Standards	Meets or exceeds NIST, ASTM, FDA, GMP
Electrical	
Control	PLC-based system
Analog Signal	16bit, 12.5ms acquisition
Response Time (avg)	<12.5ms
HMI Display	256-Color Touch panel
Communication	RS-232/RS-485 (Ethernet optional)
Real-Time Clock	7-year typical battery backup
Utilities	
Air Source	Air source not required
Power Source	100-240VAC, ~2.5A, 50-60 Hz

*subject to change (without notice)

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Environment	
Temperature Range	32-122°F (0-50°C)
Relative Humidity	10% to 95% (non-condensing)
Mounting	Flat surface or desktop
Container Sizes	
Bottle Heights	2.75" to 12.00"
Bottle Diameters	0.50" to 7.5"
Closure Diameters	0.25" to 2.5"
Dimensions	
Dimensions	32 x 10" x 16.5" (HxWxD)
Weight	30 lbs
Materials of Construction	
Enclosures	300 Series Stainless Steel
Framework	Finish
Hardware	Anodized Aluminum
Tooling	300 Series Stainless Steel, Anodized Aluminum



Collets (Cap Grip)



Clamps (Container Grip)



Calibration Verification

Tooling and Options

4-Post-CT	Standard threaded manual cap grip with vertical float
4-Post-CR	Child resistant manual cap grip with spring topload fixture (5-25 lbf)
Serrated-CT	Serrated slip-on cap grip with vertical float
Serrated-CR	Serrated slip-on cap grip with spring topload fixture (5-25 lbf)
4-Post Container Clamp	Round container clamps (left and right)
2-Post Container Clamp	Flat/Profiled container clamps (left and right)
DAQ Option 1	Captures peak torque, time and date stamp. Windows based software, version 1.10 – 1.12.
DAQ Custom	Consult factory.
Serial Printer	For all torque tester models. Interface: RS-232. Paper dimensions: 57.5, 69.5, or 76.0 mm (W) x 83.0 mm dia. Reliability: MTBF-180,000 hour.
Laboratory Kit	ASTM Calibration kit in protective case with 3 weights
Portable Kit	ASTM Calibration kit in protective case with 1 weight
SureCheck™	For daily "Quick Check" of calibration, 2-24 lbf•in or 10-50 lbf•in ranges available.