

SureTorque Model ST-S3

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For Continuous-Thread, Child-Resistant and Tamper-Evident Band Closures

The Model ST-S3 benchtop torque tester is designed specifically for the pharmaceutical and food industries and will perform full testing to protocol including release, apply, release and re-apply, tamper-evident break and strip torque tests. All application and reporting torque is accurate and consistent. Data can be captured and downloaded for reference. Servo drive and flexible PLC controls design allow programming possibilities that duplicate how your consumers use the product.

Features

- Stainless steel finish
- Servo drive control
- Infinite rotation programmability
- Position, speed or torque control
- Faster test cycle time with servo drive
- Self-centering clamps
- Quick-change tooling
- Color touch screen interface
- Chuck Pressure Monitoring
- Quiet operation



All SureTorque testers are configurable to test various size and shape containers. Tooling is designed for quick, tool-free changeover. Design specific tooling provides secure 360 degree gripping of cap and container. Adjustable chuck pressure ensures appropriate cap squeezing.

Technical Specifications*

Testing	
Torque Tests	Cap release test, Final application, Fatigue, Tamper evident break
Torque Range	0-88 lbf•in (0-10N•m)
Torque Transducer	Strain gauge
Accuracy	+/- 0.5% for static loads over full scale
Resolution	Min 0.1 lbf•in
Maximum Overload	150%
Rotation	0-60 RPM, CW and CCW, Infinite
Modes	Position, 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 conversion
Response Time (avg)	<12.5ms
HMI Display	3.5" 256-Color Touch panel
Communication	RS-232/RS-485 (USB, Ethernet optional)
Real-Time Clock	7-year typical battery backup
Utilities	
Air Source	80-125 PSI, 5 SCFM
Power Source	100-240VAC, ~2.5A, 50-60 Hz

*subject to change (without notice)

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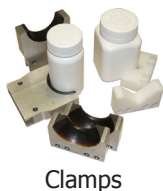
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Environment	
Temperature Range	32-122°F (0-50°C)
Relative Humidity	10% to 95% (non-condensing)
Mounting	Flat surface or desktop
Container Sizes	
Height Range	2.75" (with base adapter) to 13.75"
Diameter Range	0.25" to 5.00"
Dimensions	
Dimensions	29" x 12" x 20 (HxWxD)
Weight	86 lbs
Materials of Construction	
Exterior	300 Series Stainless Steel Finish
Framework	Anodized Aluminum
Hardware	300 Series Stainless Steel
Tooling	Anodized Aluminum (Rubber molded)

Tooling and Options



Collet CT	Standard threaded cap collet
Collet CR	Child resistant cap collet
Angular Gripper	Spray type or odd shaped cap gripper
Spring Loaded	Serrated or non-threaded closures (beer cap)
Standard Clamp Set	Round container clamps (left and right)
Clamp Adapter Set	Adapts existing tooling to new design
"V" Clamp Set	Clamps for square or glass containers
Topload Chuck	Chuck housing with adjustable spring topload fixture (5-25 lbf). Use for child-resistant push-to-turn closures.
Axial Float Chuck	Chuck housing with floating mechanism. Use to minimize topload during testing for standard thread caps.
Height Base Adapter	Platform base for short containers
Locating Base Adapter	Locating base for square or round bottom containers

DAQ Option 1	Captures peak torque, time and date stamp. Windows based software, version 1.10 – 1.12.
DAQ Option 2	Captures realtime Torque vs. Time or Angle vs. Torque. Windows based software, version 3.1.
DAQ Custom	Consult factory.
TorqueIQ SPC Software	FDA 21 CFR Part 11 compliant record keeping and Statistical Process Control Software
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 and 4 pulleys for 25 points of calibration.
Portable Kit	ASTM Calibration kit in protective case with 1 weight and 2 pulleys for 3 points of calibration.
Gold Bottle	For daily "Quick Check" of calibration, 0-20 lbf•in range.