

## ST94 ELECTRONIC TORQUE TESTER WITH ANGULAR DEGREE OF ROTATION MEASUREMENT

On the industry, government, and consumer levels, there has been an increased focus on cap torque testing. This is in response to concerns regarding safety, liability, ergonomic issues such as Carpal Tunnel Syndrome, as well as product integrity and shelf life. Sure Torque has developed the ST94 Cap Torque Tester to address these concerns.

Now, the torque value at each individual degree of rotation can be plotted in a graph format. Illustrated in the APPLIED TORQUE GRAPH for a "Tamper Evident Closure" is the rise, fall, and additional torque as the TE band expands over the container's neck ring, becoming loose again, and followed by being tightened to the cap's appropriate seal. In the "Release Graph", recorded torque shows break away of the TE band as each individual tib is stretched to the breaking point, followed by torque dropping to the cap's point of release.

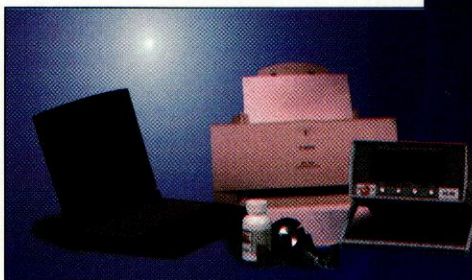
Graph configurations are available which capture a broad variety of events for the first time on all types of closure and container combinations. Total and thorough closure to container relationships can be completely understood for the first time. The characteristics and behavior of closures of all types, such as CT, CR, TE, ROFP, etc., will unfold in vivid graphic detail.

The Model ST94's operation is as simple as placing the container on a platform and pushing a button. The machine will automatically clamp the container, positively chuck the cap, run the designated test, display the results, and finally transfer those results to your computer database or printer.

Using the Sure Torque ST94 Cap Torque Tester increases your productivity and accuracy, and greatly diminishes the risk of ergonomic injury.

### Benefits

- Fully Automatic Testing
- Automatic Clamping
- Highly Accurate Transducer Technology
- Ergonomically Designed Configurations
- User Friendly Design
- Wide Range of Test Features Available
- Heavy Duty "Production" Designed Components
- Accuracy of 0.2 in-lb Over Scale
- Resolution % +/- 0.1 in-lb
- 0-100 in-lb Range Standard
- Digital Display of Test Results-Peak & Hold
- Digital Display Torque Settings
- Digital Read-Out & Message Center
- Automatic or Override Mode
- 180° Operation (Standard)



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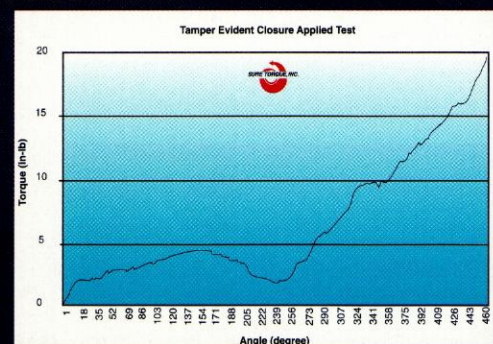
1-847-683-7720

[www.bid-on-equipment.com](http://www.bid-on-equipment.com)

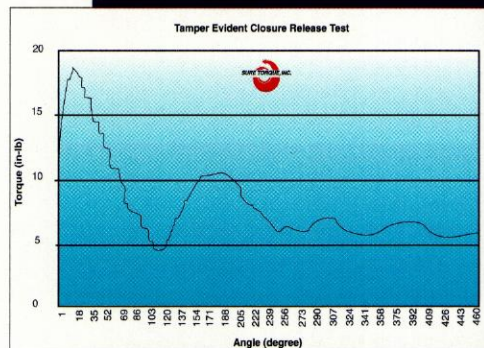


"An Ergonomically Responsible Company"

## QUALITY ASSURANCE INSTRUMENTATION



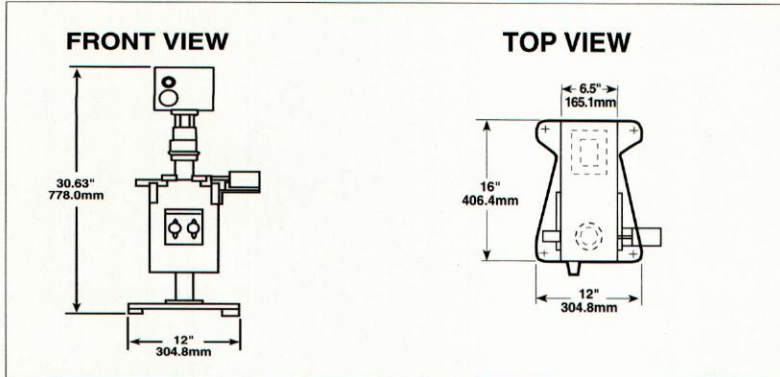
Applied Graph



Release Graph

**ERGONOMICALLY  
SAFE  
ST94  
TORQUE TESTER  
WITH ANGULAR  
DEGREE OF ROTATION  
MEASUREMENT**

# SPECIFICATIONS, OPTIONS, FEATURES, ANCILLARY EQUIPMENT



## Specifications

Measurement Torque Range:	0 - 100 in-lb (11.3 Nm)
Applied Torque Range:	0 - 100 in-lb (11.3 Nm)
Temperature Range (Components):	32° - 122° F (0 - 50° C)
Nominal Sensitivity:	2mV / V
Measurement Resolution:	+/- 0.1 in-lb
Accuracy (Full Scale):	+/- 0.2 in-lb
Transducer:	350 OHM Strain Gauge
Maximum Load, Safe (%):	150%
Calibration, Certifiable NIST	
Traceable Accuracy:	ASTM Calibration Test Kit
Display:	4 / 20 Character Message Center
Control:	4 Multi-function Push Buttons
Power:	110 - 220VAC, 47 - 63 Hz, Max 35 VA
Air:	Min 80 psi

## Options

- NEMA 4 Electric Enclosure
- ASTM Calibration Kit - Laboratory
- ASTM Calibration Kit - Portable
- 360° Rotation
- 720° Rotation
- In-Line Units
- Top Load Feature
- 10" Platform
- Angular Degree of Rotation Measurement
- Cap Decay Test Mode
- Designed for Explosion Proof Environments
- Special Component Fixture
- Special or CR Type Closures
- Additional Sets of Change Parts - Collets/Clamps
- Custom Engineered Functions
- Table Top Printers
- Sure Torque Compatible Personal Computer
- Touch Screen w/Graphics
- Software - Angle vs Torque Measurement @ 1° Increment
- Software - Statistical Process Control Package
- Software - Sure Torque Data Analysis
- Password Protection Installation



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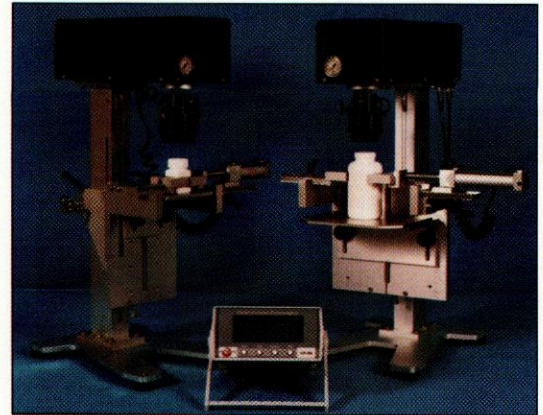
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subject to change without notice



**Sure Torque ST94 Torque Tester w/Standard & Optional 10" Table**

## Features

- NEMA 12 Housing & Electronic Enclosure
- Semi Automatic Torque Testing - NO HUMAN INTERVENTION
- Semi Automatic Tightening - NO HUMAN INTERVENTION
- Pneumatic Container Clamping & Cap Chucking
- No Ergonomic Repetitive Actions
- No Manual Container Clamping or Cap Removal
- No Handwritten Results (Printer Port)
- Decreased Risk of ERGONOMIC INJURY
- ACCURATE Determination of ACTUAL CAP REMOVAL
- ACCURATE Determination of ACTUAL APPLIED TORQUE
- Electronic Torque Adjustment
- Fast Easy Changeovers
- State-of-the-Art Micro Electronics
- Factory Calibrated with Certifiable Test Weights with NIST Traceable Accuracy
- Fast Change Torque Setting
- Real Time Clock Interface
- Newton-Meters Conversion
- IBM Compatible Software for Data Acquisition
- Counter Balance System for Height Adjustment
- Automatic Test Cycle Counting
- 4000 Tests Memory
- Fatigue Test Mode
- Release Torque Test (NON DESTRUCTIVE)
- Release Test & Reapply Mode (NON DESTRUCTIVE)
- Double Release Torque Test
- Release for Dual Peak Readings
- Applied Torque Mode (for applying closures)
- Multiple Applied Torque Mode
- Apply & Then Release Test Mode
- Over Torque Mode (DESTRUCTIVE)
- RS-232 Serial Port
- RS-485 Serial Port
- Parallel Printer Port

## Ancillary Equipment

- Air Compressor (Portable)
- Portable Stand w/Casters & Drawers
- Guarding w/Safety Interlock
- Emergency Stop Button