



# ST-120

## Automatic Torque Tester

*for Continuous Thread, Child-Resistant and Tamper-Evident Closures*

### Features

- Real time, automatic display
- NIST traceable calibration procedure
- Strain gauge transducer technology
- Automatic container clamping and closure gripping – adjustable pressure
- Adjustable torque application speed
- 180 degree chuck rotation
- Counter balance system for height adjustment
- Heavy duty components

### Testing Capabilities

- Applied/Removal Torque
- Peak and Transient Torque
- Container/Closure Fatigue
- Release and Re-apply Torque
- Topload Force (*optional*)

### Cap Torque Importance

- Consumer Safety
- Product Integrity
- Package Appearance
- Customer Satisfaction

### Benefits

- Highly accurate
- Eliminates manual variances
- Fast and easy changeovers
- Ideal for industrial environments
- Decreases risk of ergonomic injury
- Test and record data in U.S. (lb-in) or S.I. (Nm)

### Accessories

- Portable stand with drawers
- Portable air compressor
- Calibration kits
- Serial port printer
- Personal computer



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### Options

- NEMA 4X electrical enclosures
- Explosion proof electrical enclosures
- Light curtain or interlocked guarding
- Alarms (audio and/or visual)
- Inlet air filter assembly
- 10" platform extension to accommodate large containers
- Infinite rotation (SERVO)
- Encoder to measure angular degree of rotation
- Special container and closure fixtures
- Additional sets of change parts (collets and clamps)
- Topload force testing capability
- Custom-designed software and hardware
- Base adapter for small containers
- Various start button configurations (optical or push-button)
- Password protection (4 levels)
- Programmable decay time
- Customizable data communication
- Data acquisition
- Emergency stop button
- Training and service



ST-120 with  
NEMA 4X  
enclosure

### Our equipment meets or exceeds these standards and methodologies:

- National Institute of Standards & Technology (NIST)
- American Society for Testing and Materials (ASTM)
- Food & Drug Administration's (FDA) Good Manufacturing Practice (GMP)
- Consumer Product Safety Compliance

### Specifications

Capacity:	0-88 lb-in (0-10Nm), both CW and CCW
Accuracy:	+/- 0.2 lb-in for static loads over scale
Repeatability:	+/- 0.2 lb-in for one set up
Calibration:	Dead weight, NIST certifiable NIST
Resolution:	0.1 unit (optionally 0.01 or 1)
Maximum overload:	150%
Rotation:	180 degrees (optionally infinite)
Torque tests:	tightening, removal (CR, CT, etc.)
Torque units:	dNm, Nm, kg-cm, kg-m, oz-in, lb-in
Torque transducer:	350 ohm, strain gauge
Control:	Unitronics Vision 120 OPLC
Analog signal acquisition:	14 bit, 100ms or 16bit, 12.5ms
Average response time:	<12ms
HMI display:	128 x 64 monochrome graphical LDC
HMI input:	Sealed membrane keypad with 16 keys
Communication protocol:	RS-232 or RS-485
Real-time clock:	7 year typical battery backup
Air:	60-80 PSI, 4cfm
Power:	120VAC, 1A
Temperature:	41-104°F (5-40°C)
Relative humidity:	20-80%
Dimensions:	12" x 16" x 31"
Weight:	approximately 60 lbs.
Enclosure:	NEMA12
Material, coating:	Clear anodized aluminum

### Container Sizes

Maximum height:	16.75"
Minimum height:	1.75" (1.0" if used with base adapter)
Minimum neck diameter:	0.25"
Maximum neck diameter:	4.0" (7.5" if used with 10" platform)