

## SSTM-100/-500 "SMART" TEST SYSTEMS

### Table Model

Finally! An affordable, ultra-accurate, single-column materials testing machine for those low capacity testing needs. Ideal for use in a variety of settings including test labs, R&D applications, quality control and production testing.

Designed to perform a variety of test routines including tension, compression, flex, shear and peel. Extensive library of user-friendly Windows®-based software available for virtually every testing application. Operating system meets most every industry standard including ASTM, BS, DIN, ISO and JIS.

- Affordably priced
- Small footprint
- Efficient working space
- Easy to operate
- User-friendly
- Ultra-accurate load cell (optional)
- Compatible with various extensometers
- Variable speeds from 0.001" to 40"/minute
- Two-year guarantee
- Made in the U.S.A.



**SSTM-500**

Laser Extensometer is optional (as shown)

**SSTM-100**

# SSTM-100 & SSTM-500 FEATURES AND SPECIFICATIONS

## Data Acquisition & Control

The SSTM-100/500 incorporates a PC-compatible computer for data acquisition and machine control functions. As a minimum, the machine computer system features:

- Industrial-grade CPU for maximum performance in all operating environments
- Fast Intel® processor with 32-bit bus
- Large capacity, high-speed memory
- High-capacity hard disk drive
- CD-RW (or Zip®) and floppy disk drives
- 17" CRT monitor and video card
- Microsoft® Windows
- Mouse and keyboard
- USB, serial, and parallel ports
- Two SPC device ports (for use with United measurement tools)
- Two analog-to-digital converter channels (force and strain)

## Additional Control Features Include

- Preload, Test, Stop, and Return operations initiated with one keystroke.
- Preload Force, Test Speed and Return Speed may be preset.
- JOG controls allow fast and accurate crosshead setup.
- Automatic Stop or Return following sample break.
- Graphic display in real time – Load or Stress vs. Extension.
- Load measurement accuracy:  $\pm 0.5\%$  of reading from 1% to 100% of rated capacity.
- Extension from crosshead: resolution = 0.12 micron/jaw separation. Accuracy =  $\pm 83$  microns/meter of travel.
- Extension from extensometers: resolution = 1/262144 of full range. Accuracy per extensometer specifications.
- Standard system supports one load and one extensometer input channel. Additional channels are optional. Resolution: 20 bits binary. DSP filter standard. Conversion rate: 4096 Hz (standard), 8192 Hz (optional).
- Operator-selectable measurement units: English, Metric, SI or mixed.
- Operator may set any test speed within the capacity of the machine by keyboard entry.
- Twenty speeds may be preset by the operator for instant selection.
- Speeds may be selected "on the fly" with instant crosshead response.
- Limits programmable-position, load or strain.
- Cycle functions programmable-position, load or strain control.
- Area compensation can be turned on or off.
- Digital servo control system – optical encoder, digital signal processor, solid-state amplifier.

Optional upgraded, customized, or "specific-brand" computer systems can also be provided to meet special application requirements or customer preference.

## Force Measurement System

Accuracy:  $\pm$  the larger of 0.5% of reading or 0.005% of capacity.

Repeatability:  $\pm$  the larger of 0.25% of reading or 0.005% of capacity.

## Loadframe & Drive System Specifications:

Lateral Motion:  $\pm 0.25$ mm (0.01 inch) maximum over full crosshead travel.

Speed Accuracy:  $\pm 0.1$  percent of set speed for all forces within the capacity of the machine when averaged over the larger of 15 seconds or 50mm (2 inches).

Position Resolution: 0.12  $\mu$ m (5 micro inches)

Position Accuracy: The greater of 0.025mm (0.001 inch) or 0.025% of movement.

Position Repeatability:  $\pm 0.005$ mm (0.0002 inch).

Drive Resolution: Same as Position resolution.

Frame Stiffness: 5000 lbs. (2262 Kg.)/inch deflection.

Speed Range: 0.001" to 40" (1016mm)/min.

### SSTM-100

### SSTM-500

Maximum Capacity:	0.5kN (100 lbs.)	2.0kN (500 lbs.)
Crosshead Travel: (excluding load cell & fixtures)	12" (305mm)	30" (762mm)
Depth to Column:	3.5" (89mm)	5" (127mm)

## Loadframe Dimensions:

Height:	31" (787mm)	54" (1371mm)
Width:	12" (305mm)	12" (305mm)
Depth:	14" (356mm)	24" (610mm)

## Weights:

Loadframe:	76 lbs. (34 Kg.)	150 lbs. (68 Kg.)
Computer System:	85 lbs. (38 Kg.)	85 lbs. (38 Kg.)

Manufactured in the USA by United Calibration Corporation

\*SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE!

**United**

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