

## SSTM-2.5KN "SMART" MATERIALS TESTING SYSTEM

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

The SSTM-2.5KN is designed to perform a variety of test routines including tension, compression, flex, shear and peel with user-friendly Windows®-based software. This system is able to test the strength of materials in accordance with most industry standards including ASTM, BS, DIN, ISO and JIS.

- Affordably priced
- Small footprint
- Efficient working space
- Easy to operate
- USB data connectivity
- Interchangeable load cells (optional)
- Compatible with various extensometers
- Variable speeds from 0.001" to 40"/minute
- Two-year guarantee
- Made in USA



SSTM-2.5KN shown with optional United Laser Extensometer, Parallelogram Dog Bone Grips and Floor Stand.

# SSTM-2.5KN FEATURES AND SPECIFICATIONS

## Data Acquisition & Control

The SSTM-2.5KN incorporates a PC-compatible computer for data acquisition and machine control functions. The machine includes the following features:

- USB connectivity for high speed data acquisition and control.
- 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: programmable.
- Operator-selectable measurement units: English, Metric, SI or mixed.
- Operator may set any test speed within the capacity of the machine by keyboard entry.
- 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.
- Manufactured in USA by United Calibration Corporation.

## 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:  $\pm 0.25\text{mm}$  (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  $\mu\text{m}$  (5 microinches)

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

Position Repeatability:  $\pm 0.005\text{mm}$  (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-2.5KN

Maximum Capacity: 2.5KN (560 lbf)

Crosshead Travel: 30" (762mm)  
(excluding load cell & fixtures)

Depth to Column: 5" (127mm)

## Loadframe Dimensions:

Height: 54" (1371mm)

Width: 12" (305mm)

Depth: 24" (610mm)

## Weights

Loadframe: 150 lb (68 Kg)

Computer System: 40 lb (18 Kg)

**\*SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE!**

**United**

Web: [www.tensiletest.com](http://www.tensiletest.com)

E-mail: [united@tensiletest.com](mailto:united@tensiletest.com)

### **United Calibration Corp.**

5802 Engineer Drive  
Huntington Beach, CA 92649  
Phone: (714) 638-2322, (800) 765-9997  
Fax: (714) 897-8496

### **United Testing Systems, Inc.**

5171 Exchange Drive  
Flint, MI 48507  
Phone: (810) 732-2800, Fax: (810) 732-2872  
E-mail: [Utsflint@tir.com](mailto:Utsflint@tir.com)

### **United Testing Systems Canada, Ltd.**

225 Bradwick Drive, Unit 21  
Concord (Toronto), Ontario L4K 1K7  
Phone: (905) 669-5327, Fax: (905) 738-5051  
E-mail: [sales@utscanada.com](mailto:sales@utscanada.com)