

# Computer Compatible Motorized Torsion Testing Machines

Model Series: TSTM— Low capacity



TSTM is a line of microprocessor controlled motorized machines designed to automate, simplify and standardize the strength different types Torsion Springs and different specimen both in clockwise and counterclockwise direction. Electronics Torque Transducers are used measure the torque and optical encoders to measure angle of rotation accurately.

Torque is applied using front control panel mounted push button or through the microprocessor based controller.

If PC operation is opted for these controllers can also be linked to a PC through RS232 (serial) port or USB port.

Application Software, tTEST, converts the test stand in to a Computerized Testing Station. Operator can view the material characteristics on the VDU (monitor) and generate test report through printer connected to the host computer. Facility also exists to display a reference or master curve in different color on the monitor to allow instant assessment of the quality of the device being tested.

Models TSTM-0.13, TSTM-1.3 and TSTM –5 are **LOW TORQUE models**. They incorporate imported **Precision Torque Transducer**.

## Features

- Accurate torque vs angle characteristics
- Easy Fixing of Spring to Test
- Microprocessor based controller and Application Software converts the machine into Computerized Test Station
- Repeatable Test Results

## Specifications

Model	TSTM-0.13	TSTM-1.3	TSTM-5	TSTM-20	TSTM-50	TSTM-100
Maximum Torque Rating [N-m]*	0.13	1.3	5	20	50	100
Torque Measuring Resolution	0.0001N-m or 0.01 N-cm	0.001 N-m or 0.1 N-cm	0.01 N-m or 1 N-cm	0.01 N-m or 1 N-cm	0.1 N-m	0.1 N-m
Torque Measurement Accuracy	0.5 % of Rating	0.5 % of rating	0.5 % of Rating	0.5 % of Rating	1 % of Rating	1 % of Rating
Angle Measurement Range	360 degree					
Angle Measurement Resolution	0.1 degree					
Standard Test Speed Range Customized versions available	0.2 to 12 degree per second			10 to 360 degree per min		
Maximum diameter of spring or specimen [mm]	50	50	75	75	100	100
Maximum Length of spring or specimen [mm]	50	50	75	300	350	500

**Machine Controller:**

Microprocessor based with RS232 port for PC interface

**Drive:**

Servo Motor, digitally controlled

**Power Source:**

230 V +/-10%, 50Hz

**Ambient :**

10 .. 45 deg C,

**Construction:**

Table-top

**Accessories**

One set of plates and spring mounting pin, Rs232 cable and one USB interface cable for connection to PC

**Application Software (tTest) (supplied with each machine)**

Features include easy setup for different types of springs, real-time graphic display of torque vs. Angle characteristics, Data storage, view of previously conducted tests, Test report generation.

\* Torque Unit: 1 N-m = 100 N-cm = 1000 N-mm = 0.102 kgf-m = 10.2 kgf-cm

**For Custom accessories as per requirement Consult factory. These could include special spring adaptors, chucks etc.**



**AG Measurement Pvt. Ltd.**

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As a result of continuous development these specifications are subject to change without notice.

# Computer Compatible Motorized Torsion Testing Machines

Model Series: TSTM— High Capacity



Models TSTM-200 TSTM-500 and TSTM –1000 and TSTM-2000 are High Torque models. They incorporate imported Precision Torque Transducer.

## Features

- Accurate torque vs angle characteristics
- Easy Fixing of Spring to Test
- Microprocessor based controller and Application Software converts the machine into Computerized Test Station
- Repeatable Test Results

## Specifications

Model	TSTM-200	TSTM-500	TSTM-1000	TSTM-2000		
Maximum Torque Rating [N-m]*	200	500	1000	2000		
Torque Measuring Resolution	0.1 NM	1 NM	1 NM	1 NM		
Torque Measurement Accuracy	0.5 % of Rating	0.5 % of rating	0.5 % of Rating	0.5 % of Rating		
Angle Measurement Range	360 degree					
Angle Measurement Resolution	0.1 degree					
Standard Test Speed Range Customized versions available	0.2 to 12 degree per second					
Maximum diameter of specimen [mm]	400	400	600	600		
Maximum Length of specimen [mm]	500	500	750	900		

**Machine Controller:** Microprocessor based with RS232 port for PC interface  
**Drive:** Servo Motor, digitally controlled  
**Power Source:** 415 V and 230 V +/-10%, 50Hz  
**Ambient :** 10 .. 45 deg C,  
**Construction:** Floor Standing  
**Accessories** One set of plates and one USB interface cable for connection to PC

**Application Software (tTest) (supplied with each machine)**

Features include easy setup for different types of springs, real-time graphic display of torque vs. Angle characteristics, Data storage, view of previously conducted tests, Test report generation.

\* Torque Unit: 1 N-m = 100 N-cm = 1000 N-mm = 0.102 kgf-m = 10.2 kgf-cm

For Custom accessories as per requirement Consult factory. These could include special spring adaptors, chucks etc.



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