

# **TORSION SPRING TESTER Type TST-2000**



## Features:

\* Range up to 2000 Kg-mm in 3 different Models
\*Interchangeable torque cartridges \* Selectable
Torque/Force Display \*Interchangeable tooling\*
Statistical printout summary \*Rapid changeovers
\*Automatic spring rate calculation \* Better data
matching between source and user because of
standardization of testing and tooling

The TST-2000 is a manually operated torque / angle tester available in three ranges: 500, 1000 & 2000 Kg-mm. The angle measurement can be done max. up to 10000.0 degrees. The high resolution of 0.1 KG-mm for torque or 0.01 Kg for force & 0.1 degree for angle provide very accurate measurement. The solid steel base and aluminum frame is rugged for durability in many different testing environments. The TST series comes standard with a traceable certificate of calibration.

The unique feature about TST series is adjustable Load arm. The exact load arm contact point is read digitally to nearest 0.1 mm length. This removes the guess work out of actual point of loading. The main advantage of this facility is repeatable accurate measurement according to the drawing or specifications. This simplifies hassle of custom tooling required for each individual spring. Another unique feature of the TST series is Torque as well as Force display with Torque or Load arm. The torque measurement is done using state of the art torque transducer & rotation angle is measured by angle encoder.

The TST-2000 is built around state of the art micro-controller with 16 x 2 character LCD for display. A special keypad is designed to facilitate program parameter entry & display selection. It has a built-in data logger that can store test data up to 1,000 test points. It automatically compensates deflection which corrects for torque windup and always displays accurate angle measurements. The RS 232 type serial interface for PC enables downloading of the test data. The unit selection facilitates load measurement in desired unit.

The TST series comes standard with two cranking ratios, giving the operator flexibility when testing. The 1:1 ratio can be used for light springs or coarse movements & the 40:1 ratio can be used to fine tune the measurements. The automatic tester version is also available. In automatic tester Automatic Spring Rate Calculation is provided with two point testing.

### **Limit Lights / Statistical Analysis -**

The TST series offers built-in facility to program set limit values either as Load or deflection angle. As an option, these features specify a range or tolerance in either load or deflection angle. With the convenient light indicators, you Can determine if the item tested is low, good or high.

## Specifications:

Range: Torque 0-1999.9 Kg-mm, in 3 full scale ranges

Angle 9999.9 degrees

Sensor: Torque transducer for Torque measurement

Angle Encoder for Angle measurement

Display: 16 x 2 alphanumeric back lit LCD Accuracy: Better than +/- 0.5% of FS

Resolution: Torque 0.1 Kg-mm

Force 0.01 Kg Angle 0.1 degree Torque Arm 0.1 mm

Setting: Parameter programming by custom Key pad

Output: Serial Interface RS 232 Type for PC

Supply: 230 V ac +/- 10%,

Size: 450 (L) x 180 (W) x 200 (H) mm



#### KALPAK INSTRUMENTS & CONTROLS

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