

KALPAK'S AUTOMATIC SPRING TESTER

K TEST series

FOR ONLINE AND OFFLINE TESTING OF SPRINGS



STM-01

Spring Capacity : 1 Kgf/100 gm using two interchangeable load cells.
Units of measurement : Lb/Kgf (gm)/N
Test capability : Load test with length input, Length Test with Load as input, Spring rate, Free Length.
Applications : Automotive, Beryllium Copper, Brush Holder, Clock and Clock work, Compression, Conical, Die, Extension, Hair, Phosphor Bronze, Precision, Rubber, Stainless Steel, Tension, Wire etc.

Spring Capacity : 10 Kgf/1Kgf using Two interchangeable load cells.
Units of measurement : Lb/Kgf (gm)/N
Test capability : Load test with length input, Length Test with Load as input, Spring rate, Free Length.
Applications : Automotive, Alloy, Beryllium Copper, Brush Holder, Clock and Clockwork, Clutch, Cold Wound, Compression, Conical, Die, Extension, Flat, Hair, Mattress, Phosphor Bronze, Precision, Rubber, Stainless Steel, Tension, Vibration, Absorption, Valve, Wire etc.



STM-10

Spring Capacity : 300 Kgf/50Kgf using Two interchangeable load cells.
Units of measurement : Lb/Kgf/N
Operator Safety : With covered test area
Test capability : Load test with length input, Length Test with Load as input, Spring rate, Free Length.
Applications : Automotive, Alloy, Belleville Disc, Clutch, Cold Wound, Compression, Conical, Die, Engine Valve, Extension, Flat, Gas, Rubber, Valve, Stainless Steel, Tension, Vibration, Absorption etc.



STM-300



STM-1000

Spring Capacity : 1000 Kg/100Kg using Two interchangeable load cells
Units of measurement : Lb/Kgf /N
Test capability : Load test with length input, Length Test with Load as input, Spring rate, Free Length.
Applications : Automotive, Alloy, Belleville Disc, Cold Wound, Compression, Conical, Die, Engine Valve, Extension, Flat, Gas, Leaf, Rubber, Stainless Steel, Tension, Vibration, Absorption, Valve etc.

FEATURES

Range : Wide choice from four models covering a range of few gm to Tons	Test Capability : Load test with Length input Length Test with Load as input Spring rate, Free Length	Group testing : Enables user to program for 10 different groups and select the group as per the component to be tested.
Applications : Suitable for Tension as well as Compression for springs of all sizes.	3 Step Test Method : Tests load v/s Deflection values at 3 programmed heights.	Programming : By standard full featured 4 X 4 keyboard.
Load Measuring Units : Selectable Load measurement in Lbs, Kg, gm or N	Tare : Auto and anywhere below overload setting.	Display : 20 X 4 character LCD display.
Drive Mechanism : Ball screw driven by variable speed drive for zero backlash and excellent length accuracy.	Test Options : Choice of fully Automatic as well as Manual Mode.	Control Mechanism : Micro Controller based with inbuilt 30 KB memory storage facility.
Testing Area : Dual space i.e. above and below moving crosshead.	Inching Function : With UP and DOWN function keys.	Superior Performance : Much better accuracy and resolution than Mechanical Testers.
OUTPUT : RS 232 for PC Communication - Parallel port for printer.	Safety : Emergency Stop. Over Travel Protection. Overload Protection.	Customization : Custom - built to your Spring Testing Requirements.
Software : User friendly windows based software for Data storage, retrieval and analysis.	Accessories : Grips for tension measurement Compression Test Fixture, Hooks.	Support : Life time support on hardware as also software products.

Kalpak Spring Testing Software

KALPAK Spring Testing Software is Windows™ based, user - friendly software designed for the user of KALPAK automatic spring tester. The test data is acquired through serial PC port and logged to provide tabular display. It fulfils the basic functions like load and length measurement as well as calculation of free height, deflection and preset load and load at present length or spring rate. User-friendly screen with complete evaluation and presentation of test results in tabular and graphical formats. Easy to load, Easy to operate, no special training required. Online mode to receive mode options. Report Screen is used to make data entry and to generate reports, Layout design of parameters, results can be pre-programmed as per user requirements. Easy access to results of past test data.

Main Screen\MS\PSV\Shubhoda\Spring Testing Machines\KALPAK Spring Tester\Records\ST_25_06_03.SPT

SPRING TESTER

New Open Save As Delete Online Receive Port Setting Report Exit

Select All Test Type Test Mode Part No Speed

Sr.No.	Length(mm)	Load(Kgf)	Length(mm)	Load(Kgf)	Length(mm)	Load(Kgf)	Spring Rate(Kg/mm)
0001	024.50	+00.56	019.50	+01.11	015.50	+01.62	0.11
0002	024.50	+00.58	019.50	+01.12	015.50	+01.60	0.108
0003	024.50	+00.58	019.50	+01.12	015.50	+01.57	0.108
0004	024.50	+00.57	019.50	+01.12	015.50	+01.60	0.11
0005	024.50	+00.57	019.50	+01.11	015.50	+01.59	0.108
0006	024.50	+00.55	019.50	+01.10	015.50	+01.60	0.11
0007	024.50	+00.58	019.50	+01.11	015.50	+01.59	0.106
0008	024.50	+00.56	019.50	+01.11	015.50	+01.59	0.11
0009	024.50	+00.57	019.50	+01.11	015.50	+01.58	0.108
0010	024.50	+00.55	019.50	+01.10	015.50	+01.60	0.11
0011	024.50	+00.55	019.50	+01.13	015.50	+01.60	0.116
0001	024.50	+00.55	019.50	+01.09	015.50	+01.55	0.108
0002	024.50	+00.54	019.50	+01.08	015.50	+01.54	0.108
0003	024.50	+00.54	019.50	+01.08	015.50	+01.56	0.108
0004	024.50	+00.54	019.50	+01.08	015.50	+01.55	0.108

Start Explorer Microsoft Acrobat untitled Main 12:52 PM

Test Data Screen


KALPAK'S K TEST series

AUTOMATIC SPRING TESTER

FOR ONLINE AND OFFLINE TESTING OF SPRINGS

Kalpak Spring Tester : KALPAK AUTOMATIC SPRING TESTER is ideal for both, online and offline testing of springs. It has much better accuracy and resolution for both length as well as load measurements than mechanical testers making it ideal for precision spring testing. The testing capability is increased by use of twin load cells enabling the user to test over a wide range from 100 gm to 1000 kgf capacity springs. It can test tensile as well as compression springs. The Spring Tester can be operated in manual mode as well as auto mode. The variable speed stepper motor is used for rotating the ball screw at test speeds ranging from 1 to 100 mm/minute. Electronic controller unit controls the platen movement through motor speed and direction control. It also allows selection of Load cell, Tensile/compression Test mode, Preset Spring height / load, Unit of Load measurement (Kg/lb/N/gm) as also other user defined test parameters in a user friendly manner through a keypad. The unique Group testing feature enables the user to program for ten different user defined groups and select the appropriate group as per the component to be tested. The Spring Tester measures the Load versus Deflection values at 3 programmable heights. Either automatic after some time delay or under operator control the platen will move to first preset length & stop. The Spring Load at the deflection shall be displayed, stored in the memory & the process shall be repeated for 2 more preset lengths & corresponding Loads shall be displayed & stored in memory. Next the platen shall return to original position. The spring rate & any other required information is calculated, displayed on the LCD & stored in the memory. Alternately the tester can be interfaced with a PC or a printer. KALPAK can also offer CUSTOM BUILT SOLUTIONS to your Spring Testing needs.

SPECIFICATIONS

MODEL				
MODEL NO	STM - 01	STM - 10	STM - 300	STM - 1000
LOAD CAPACITY	1 Kgf / 100 gm	10 Kgf / 1 Kgf	300 Kgf / 50 Kgf	1000 Kg / 100 Kg
UNITS OF MEASUREMENT	Lb/Kgf (gm)/N	Lb/Kgf (gm)/N	Lb/Kgf/N	Lb/Kgf/N
LOAD SENSOR	Suitable Load Cells	Suitable Load Cells	Suitable Load Cells	Suitable Load Cells
LOAD RESOLUTION	1 part in 1000 or better	1 part in 1000 or better	1 part in 1000 or better	1 part in 1000 or better
LOAD ACCURACY	0.1 % of full scale	0.1 % of full scale	0.1 % of full scale	0.1 % of full scale
ACTUATOR DRIVE	Stepper Motor	Stepper Motor	Stepper Motor	Stepper Motor
TEST SPEED	1 to 100 mm/min	1 to 100 mm/min	1 to 100 mm/min	1 to 100 mm/min
LENGTH SENSOR	Encoder	Encoder	Encoder	Encoder
LENGTH RESOLUTION	0.01 mm	0.01 mm	0.01 mm	0.01 mm
SPEED ACCURACY	Better than 0.5 %	Better than 0.5 %	Better than 0.5 %	Better than 0.5 %
MAX. SPRING DIA & LENGTH	Dia 25 mm Length 200 mm	Dia 25 mm Length 200 mm	Dia 100 mm Length 200 mm	Dia 100 mm Length 200 mm
SUPPLY	230 V ac +/- 10% 50 Hz 50 VA	230 V ac +/- 10% 50 Hz 50 VA	230 V ac +/- 10% 50 Hz 50 VA	230 V ac +/- 10% 50 Hz 500 VA
SIZE (in mm)	370(W) X 320(D) X 550 (H)	370(W) X 320(D) X 550 (H)	520(W) X 460(D) X 800 (H)	450(W) X 550(D) X 800 (H)

KALPAK INSTRUMENTS & CONTROLS

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In view of Technological developments and our policy of continuous improvements in our products, Kalpak Instruments and Controls reserves the right to change Specifications, Dimensions and Features without notice.