



**BANBROS ENGINEERING PVT. LTD.**

The Precision Measurement People

# TOUCHING SCREEN SPRING TESTING MACHINE



- *VALUE*
- *VERSATILITY*
- *PERFORMANCE*

**BTDT-1000**

**DESCRIPTION:-**

This testing machine is mainly used to measure the tensile test and compression test of various coil springs. It can test both the spring load under a certain deformation and the spring deformation under a certain load. Mainly used in spring manufacturers, low-voltage electrical appliances, machinery, universities and research laboratories.

The mechanical part, the sheet metal part, especially the electrical control part, were upgraded in an all-round way, so that the degree of cooperation, integrity and precision of each part of the whole machine increased by a step. The convenience and speed in the actual use process are greatly improved, and the after-sales service is further facilitated.

The control unit of this machine is the latest generation micro-operating system independently developed by our company. With rich industry experience and innovative ideas, our company's product quality accuracy and practical convenience have always been at the leading level in the industry.

**FEATURES:-**

- The main functions of the full-interface touch system introduction (the following features are unique in the spring test industry):
- A set of measurement and control software specially developed for spring pull test machine, which integrates data collection, motion control and data analysis, and has completely independent copyright.
- compared with the previous generation of software, has better human-machine interactivity, higher test accuracy, stronger stability, higher test efficiency;
- full-touch input mode of human-computer interaction, you can use click, double-click, keyboard input three modes, to achieve instructions, parameter entry and other operations, more in line with the current operating habits;
- display sensor conversion data, can refresh the data in real time, can double-click zeroing, keyboard settings and other operations;
- adaptive display test waveform, the data change trend in the whole playback test process, is suitable for both rapid detection and laboratory accurate analysis.
- button control is divided into one-click trigger and long-press trigger according to function, one-click trigger is used for full function control to achieve automatic control, and long-press trigger is used for motion control to improve safety and prevent mishandling;
- has detailed test data for analysis, including measuring points, results, allowable upper limit, judgment, segmented stiffness, average stiffness, average softness, free height;
- four test methods, two types of test, can set backhaul detection, reciprocating detection, etc.
- the whole process of running at a uniform speed, to avoid the machine and deceleration caused interference to the test force, the real reduction of the test process;
- system comes with a sample library, preset 20 kinds of specimens, users can set the corresponding parameters according to the needs, test can be directly accessed, improve test efficiency, reduce the difficulty of operation;



- test data automatically stored, can store 100 sets of data, can view, print, export and other operations;
- motion control sampling full digital sine wave control, smooth operation without impact, faster response;
- based on fast sensor data conversion, high-speed parallel disk, one-click set compression height zero point;
- load units include Newton (N), kN, kf, kgf, pound force (lbf), kip 6 kinds of international common units, users can set their own according to the needs;
- protection measures:
- overcurrent, voltage protection function;
- load sensor two-way overload protection, 01 machine uplink in the process of two hooks touch, the load increases rapidly, when the controller detected more than the protection range, the machine immediately shut down;
- displacement over-limit protection, 01 machine uplink, beyond the protection travel (test space), the machine immediately shut down, 2 machine downlink, over the limit travel (0mm, the machine immediately stopped;

**TECHNICAL SPECIFICATION:-**

Model No.	BTDT-1000
Capacity	1000N
Structure	Four-column and double ball screws
Way of working	Ball screw drive, precision motor loading
Display type	7 inch LCD display with touch screen
Measuring range	1%-100%
Load resolution	0.1N
Relative error of zero point	±0.1%
Relative error of test force indicating value	±1.0%
Relative error of indicating value repeatability of test force	1.0%
Resolution of displacement	0.01mm
Test space	500mm
Plate OD	150mm
Parallelism error of up and down pressure plate	≤0.10 mm
Test speed range	0.01mm/min-500mm/min
Error of deformation indication value	≤± (50+0.15L)
Dimensions	720*500*1700mm
Weight	400kg
Protection function	Over-load protection function
Power supply	AC 220V±10% 50Hz

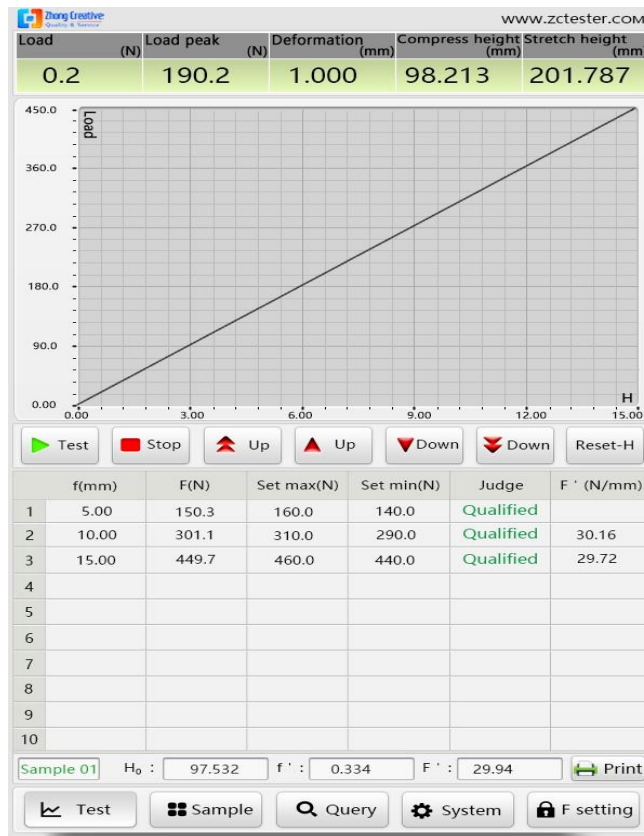


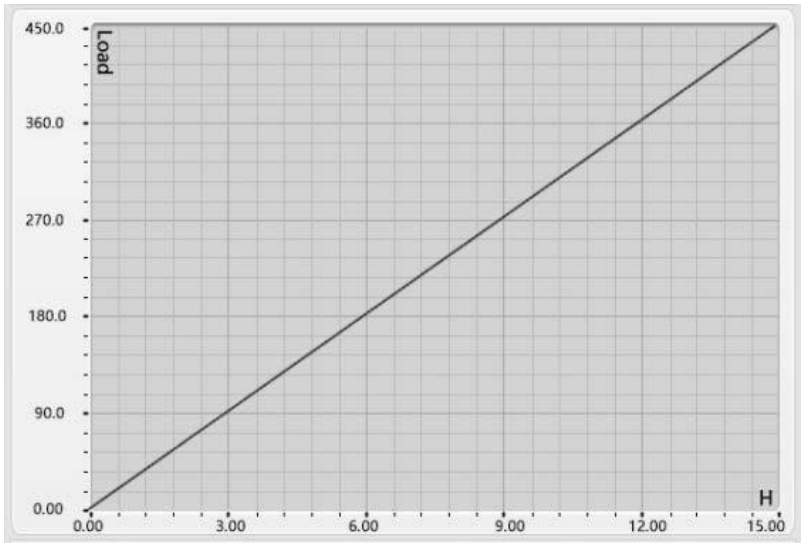
**STANDARD ACCESSORIES:**

Mainframe	1 set
Precision motors	1 set
Motor governor	1 set
Wheel reduction system	1 set
Load cell (500N)	1 set
Displacement Sensor	1 set
Control system	1 set
Industrial touching screen system	1 set
Tensile hook	1 set
Compression plate	1 set
Micro printer	1 set
Power cable	1 set
Documents (Manual, packing list, certificate)	

**TOUCHING SCREEN SYSTEM:-**

1, Man-machine intelligent interactive interface: concise, intuitive, full interface touch operation, fast control speed, Can directly touch the corresponding function keys, the use efficiency is greatly improved, and the stylus can also be used;





2. The test data results are displayed in real time in real time, fast and comprehensively, and the automatic judgment is made;

Test Stop Up Up Down Down Reset-H

	f(mm)	F(N)	Set max(N)	Set min(N)	Judge	F' (N/mm)
1	5.00	150.3	160.0	140.0	Qualified	
2	10.00	301.1	310.0	290.0	Qualified	30.16
3	15.00	449.7	460.0	440.0	Qualified	29.72
4						
5						
6						
7						
8						
9						
10						

Sample 01 H<sub>0</sub> : 97.532 f' : 0.334 F' : 29.94 Print



3. Sample library (up to 20 types can be set), different test types, test methods, test conditions can be set, and different spring samples can be set up at one time and directly called;

### Sample Library

- Sample 01 >
- Sample 02
- Sample 03
- Sample 04
- Sample 05
- Sample 06
- Sample 07
- Sample 08
- Sample 09
- Sample 10
- Sample 11
- Sample 12
- Sample 13
- Sample 14
- Sample 15
- Sample 16
- Sample 17
- Sample 18
- Sample 19
- Sample 20

### Set test parameters

1. Test method:

2. Test type:

3. Test speed:

4. Return speed:

5. Auto return:

6. Test points :

### Set Points

	Set f	Set max F	Set min F
1	5.00	160.0	140.0
2	10.00	310.0	290.0
3	15.00	460.0	440.0
4			
5			
6			
7			
8			
9			
10			


Test
Sample
Query
System
F setting




4.Free height, average stiffness, average flexibility, etc. can be obtained, and the query interface can store 100 sets of test results;

### Test Data

H <sub>0</sub> :	<input type="text" value="97.532"/>
F' :	<input type="text" value="29.94"/>
f' :	<input type="text" value="0.334"/>

  
**Print**  
Print current data

  
**Clear**  
Clear all data