

Universal Tensile Testing Machine (Double Column Type)

Model: RC-101

Mainly applicable to rubber, plastics, wire and cable, fiber optic cable, seat belts, belts, leather belt, waterproofing materials, composite materials, plastic profile steel, copper, profile, spring steel, bearing steel, stainless steel, and other high hardness steel), castings, steel plates, steel, non-ferrous metal wire tensile, compression, bending, shear, peel, tear, two-point extension (match) extensometer and other test.



Theory

This machine is a kind of electric tensile tester which uses the motor to drive ball screw to move fixture. Place the sample between the upper and lower fixture, use a given speed to pull the upper fixture upward, and the upper load cell with sensor to check tensile strength and convert the strength into voltage signal and output to the display screen. And the strength value will be displayed automatically on the computer.

The machine adopts mechatronics design, which is mainly composed of force sensor, transmitter, microprocessor, load driving mechanism, computer and color ink jet printer. It has a wide and accurate range of loading speed and force measurement. It has high accuracy and sensitivity to the measurement and control of load and displacement. Floor type, modeling and painting are fully considered modern industrial design, ergonomic relevant principles.

Standards:

Universal tensile testing machine can be suitable for so many test standards, here we just show some mainly used test standards, other standards, pls tell us the standards you need, then we check for you.

Mainly test standard :

ASTMD903, ASTM D412, GB/T16491, GB/T1040, GB/T8808,GB13022,
GB/T 2790/2791/2792, CNS- 11888,
JIS K6854, PSTC-7, ISO etc.

Metals :

- ASTM E8/E8M-13: "Standard Test Methods for Tension Testing of Metallic Materials" (2013)
- ISO 6892-1: "Metallic materials. Tensile testing. Method of test at ambient temperature" (2009)
- ISO 6892-2: "Metallic materials. Tensile testing. Method of test at elevated temperature" (2011)
- JIS Z2241 Method of tensile test for metallic materials

Composites :

ASTM D 3039/D 3039M: "Standard Test Method for Tensile Properties of Polymer Matrix Composite Materials"

Flexible materials :

- ASTM D638 Standard Test Method for Tensile Properties of Plastics
- ASTM D828 Standard test method for tensile properties of paper and paperboard using constant-rate-of-elongation apparatus
- ASTM D882 Standard test method for tensile properties of thin plastic sheeting
- ISO 37 rubber, vulcanized or thermoplastic—determination of tensile stress–strain properties

Features

1. Adopting windows platform, and all the parameter settings can be processed in the dialog box, and it operates easily.
2. Using a single-screen operation; do not need to switch the screen
3. With three languages in Simplified Chinese, Traditional Chinese and English, the software interface can be switched easily
4. The pattern of Test reports can be selfdesignated; test data can be displayed directly in the main screen.
5. Choosing translational, comparative mode at the same time to make a number of curve data comparison
6. With a variety of measurement units, Measure in Imperial & Metric are switchable; With self-return & auto-correction function
8. With automatic magnification function, in order to achieve the most appropriate size of the graphics

Specifications

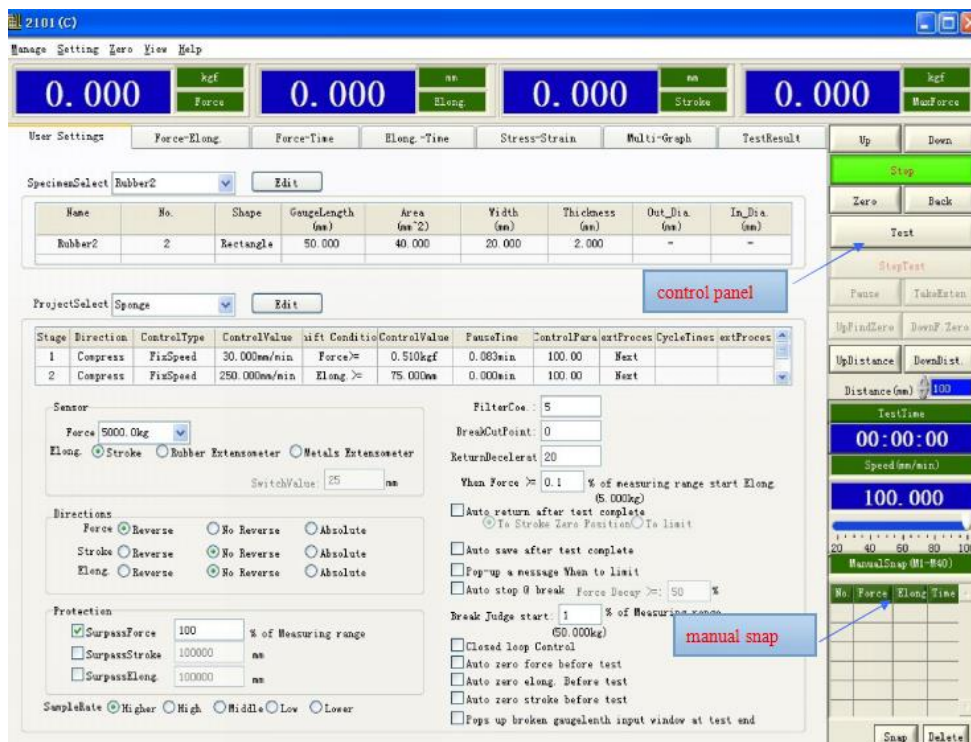
Items	Universal Tensile Testing Machine
Max. Capacity	5, 10, 20, 50, 100, 200, 500, 1000, 2000, 3000Kg
Unit	G, KG, N, LB can be exchanged
Accurate Grade	0.5 grade / 1 grade
Display Device	PC controlled
Resolution	1/300,000
Effective Accuracy	±0.2%(0.5grade) or ±1%(1grade)
Max.width	400mm,500mm(or customize)
Max.Stroke	800mm, 1300mm(optional)
Speed Range	0.05-500mm/min (adjustable)
Motor	Servo Motor + High Precise Ball Screw
Elongation Accuracy	0.001mm(rubber or soft plastic)/0.000001mm(metal or hard plastic or others)
Power	AC220V, 50/60HZ(custom-made)
Machine size	800*500*2200mm
Standard Accessories	Tensile clamp, Tool kit, Computer system, English software CD, User manual

Electrical measurement and control system

- 1) With protect function of overload, over current, over voltage, displacement limit, emergency stop etc.
- 2) The controller can control more load sensor, high integration, stable and reliable, easy to adjust
- 3) When finished testing, automatic stop
- 4) Control system with programmable amplifier A/D conversion, digital I/O, counting and pulse happen (PWM), and other functions in one
- 5) Mechanical zero setting, automatic force measurement, zero setting, calibration and save, highly integrated control circuit

Software and software interface

- 1) Based on Windows operation platform, the software adopting modulus design, with simple operation and powerful functions
- 2) The control panel has defined all the control parameters, data dealing method and report content also the form, different test can be set according to the control panel.
- 3) Program adopting open database structure, integrated the GB, ISO, ASTM, JIN, DIN testing methods and can customized according to special requirements
- 4) With internet interface, can transmit, save and print data. Can connect enterprise Internal LAN and Internet.
- 5) Can edit and set the report form freely, also can print out the testing data.
- 6)





- **Frequently Used Tensile Clamp:**

Mainly used in wire elongation, plastic, rubber , metal, fabric, waterproof materials and so on.

Here just show some example for you. According your test item, we will recommend you best suitable one.

