

## Big Capacity Double Column Servo Motor Microcomputer Tensile Testing Machines

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#### Product Description:

This **material testing machine** is used to test the physical properties of the raw material, finished products, semi-finished products. This **tensile testing machine** can do various of test such as tensile test, compression test, bending test to get the result with elongation, Internal stress, strain and testing data. Tension tester can match different fixture, accessories, two point stretcher and load cell, It can be connected by computer to operate the machine.

#### Selling point:

1. TM 2101 intelligent automatic detection of the operating system, (can adapt to all current PC)
2. High-tech, low noise
3. Humanized industrial design, easy to place and transport
4. The world famous brand core precision components
5. Security protection system
6. Valid test trip length (modifiable)

This **tensile strength tester** can analyze all the test results, such as: elongation, stress, strain and damage value, average, etc. The Tensile strength tester can provide the all testing process according to the type of the sample or the different demands. It can analysis the physical properties of the samples, such as the compressive strength, flexural, fatigue, peel, strength, bending, and so on This machine has other accessories,

#### Optional Accessories:

##### 1. Clamps

- UP Foam Tensile Clamp (1000kg)

- Compression Plate
- **2. Load cell**
- 500kg load cell
- Calibration Certificate
- Calibration Device

**Detection function:**

1. Universal test
2. Tensile strength test
3. Bending strength test
4. shearing test
5. Tear fatigue test
6. 3 points bending test
7. Compressive test
8. Other functional testing ...

**Application Industry:**

1. Electronic products: mobile phones, computers, television, video recorders and so on
2. Textile fabric products: clothes, hats, shoes, ropes
3. Wire and cable: data cable, usb,
4. Leather products: handbags, wallets, leather shoes, leather chairs
5. Instrumentation, vehicles, plastic products, metal,
6. Food, chemical, building materials, medical, aerospace
7. Others...

**Design Standard**

Including but not limited to **ASTM, JIS, CE, ISO, EN, BS EN, SAE...etc.**

**Main Parameter**

Item	Description
Max. Force	5000 kg (50KN)
Load cell	Germany brand load cell for high accuracy
Control system	PC with windows 7 system
Motor	Panasonic servo motor w/ DC variable speed drive system, high-precision mechanical ball screw rod
Force reading	kgf, lbf, N, KN, T etc
Stoke	1100mm including fixture
Load cell Resolution	1/250,000
Load Precision	within $\pm 0.5\%$
Test speed	0.01~300mm/min (adjustable)
Software	TM 2101
Curves display	Load- elongation, Elongation-time, Time-elongation, Stress-strain
Data display	Max. force, speed, sample information, strength(Kpa, Mpa, N/mm, N/mm <sup>2</sup> ) etc...
Safety features	E-Stop Over-load protection Upper and lower limit switches Load sensor with automatic retreat

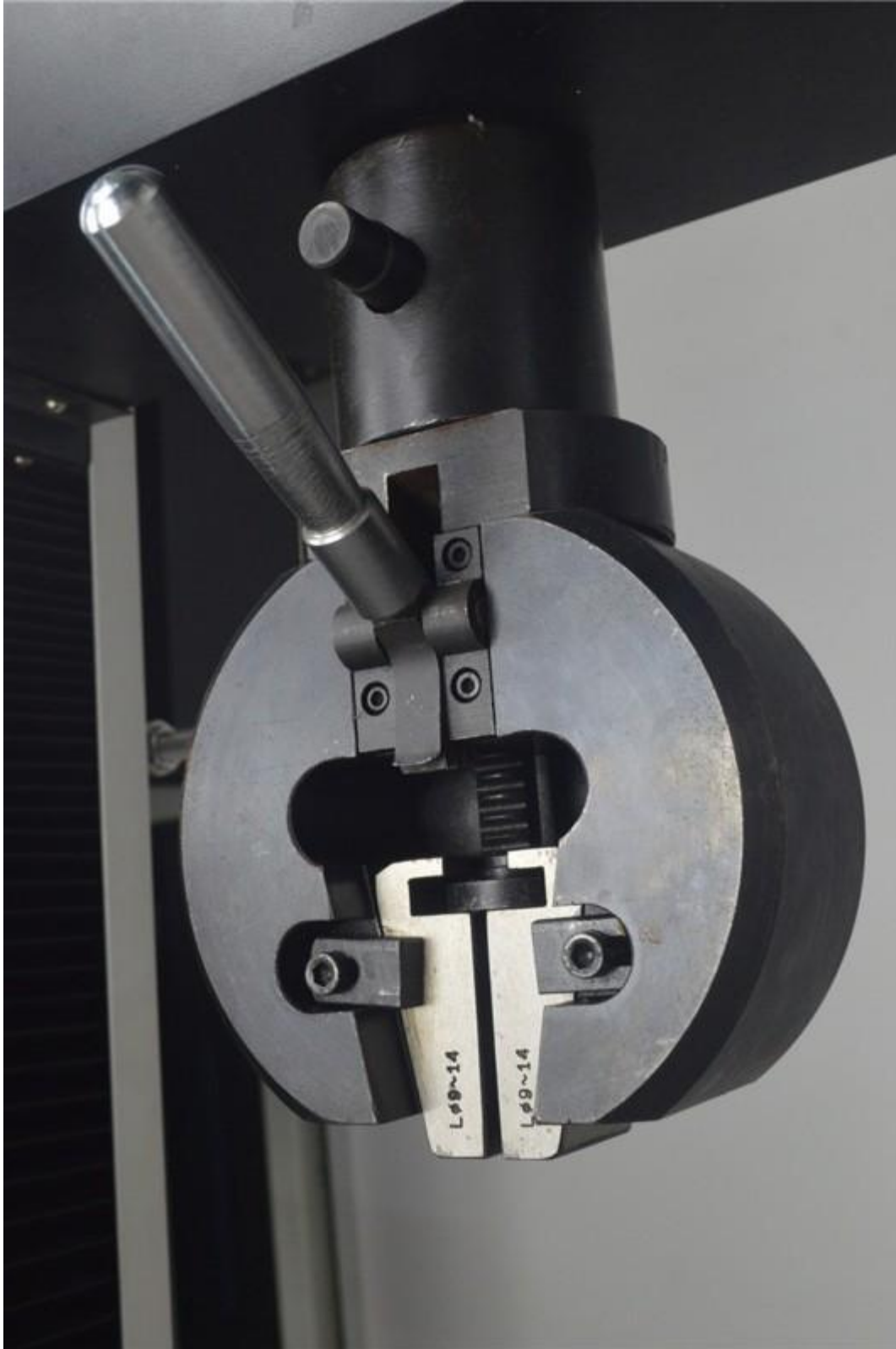
**Theory**

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 sign and output to the display screen. And the strength value will be displayed automatically on the computer.

### **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;
7. With self-return & auto-correction function;
8. With automatic magnification function, in order to achieve the most appropriate size of the graphics;
9. With the user-defined Test methods; with experimental data analysis function;
10. High quality, accurate and reliable models with reasonable price.



**Software**

The TM2101 measurement and control system is designed purposely for microcomputer controlled

electronic universal testing machine, microcomputer controlled universal hydraulic testing machine and microcomputer controlled compress testing machine, used for tension, compress, bend, shear, tearing and peel test. With the personal computer and interface plate, it could collect, save, process and print test result. Further it can calculate multiple parameters, i.e. maximum force, yield strength, average peel force, maximum deformation, yielding point and elastic modulus; this system is featured in curve process, multisensor support, image interface, flexible data process and powerful system function.

**Universal testing machine TM2101 control system data display:**

- 1. Max. force, 2. speed, 3. sample information, 4. strength(Kpa, Mpa, N/mm, N/mm<sup>2</sup>) etc...
- 1. Load- elongation, 2. Elongation-time, 3. Time-elongation, 4. Stress-strain.



