

Computer Servo Tensile Test Machine

Product Pictures



Product Description

This series of Tensile Tester is widely used in wires & cables, hardware, metal, rubber, footwear, leather, apparel, fabric, tape paper products, pharmacy and so on, for tensile strength, tear resistance, peel strength, bend strength, shear force, etc with different fixtures according to national and international standards customer required.

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

Main Technical Parameter

Items	Specification
Sensor	Celtron load cell
Capacity	1000,2000,3000,5000kg,10000kg
Unit Switchover	G, KG, N, LB
Display Device	PC
Resolution	1/250,000
Accuracy	±0.5%
Max. Stroke	1000mm (including fixture)
Test Speed	0.1-300mm/min (adjustable)
Motor	Panasonic Servo Motor
Screw	High Precise Ball Screw
Elongation Accuracy	0.001mm
Power	1 ø, AC220V, 50HZ
Weight	Approx.250kg
Accessories	One set tensile clamp, one set Lenovo computer, one piece English software CD, one piece operation video CD, one piece English user manual

Product Features

1. Motor system: Panasonic servo motor +Servo driver +High precise ball screw (Taiwan)
2. Control system: a, computer control with TM2101 software; b, Back to origin automatically after the test, c, store data automatically or by manual operation
3. Data transmission: RS232
4. Displacement resolution: 0.001mm
5. Graph scale automatic optimization can make graph to display with best measurement and can implement graphics dynamic switching in the test and has force-elongation, force- time, elongation -time, stress - strain.
6. It can save results automatically after test finished, and it is manual filing. It can display maximum force,

yield strength, compressive strength, tensile strength, elongation, peel interval maximum, minimum and average, etc.

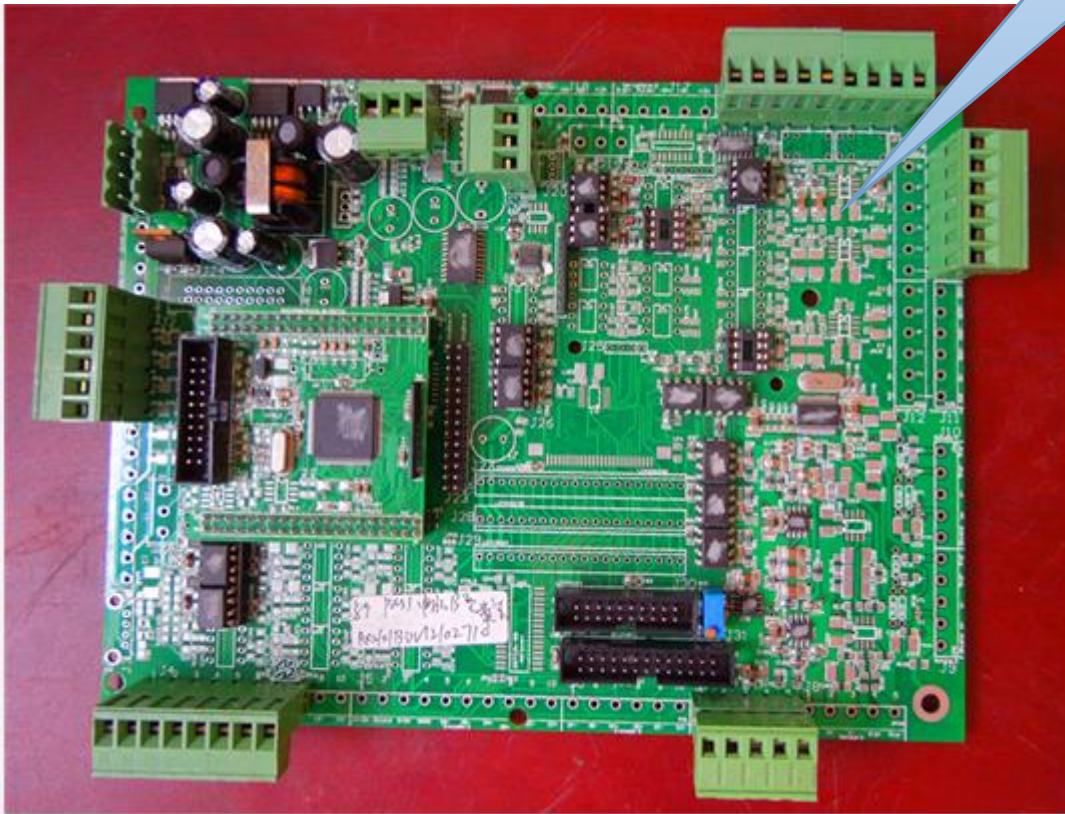
7. User can set parameters of product material such as length, width, thickness, radius, area and so on.

8. Many languages random switching: Simplified Chinese, Traditional Chinese

Product Components

1) Circuit Board

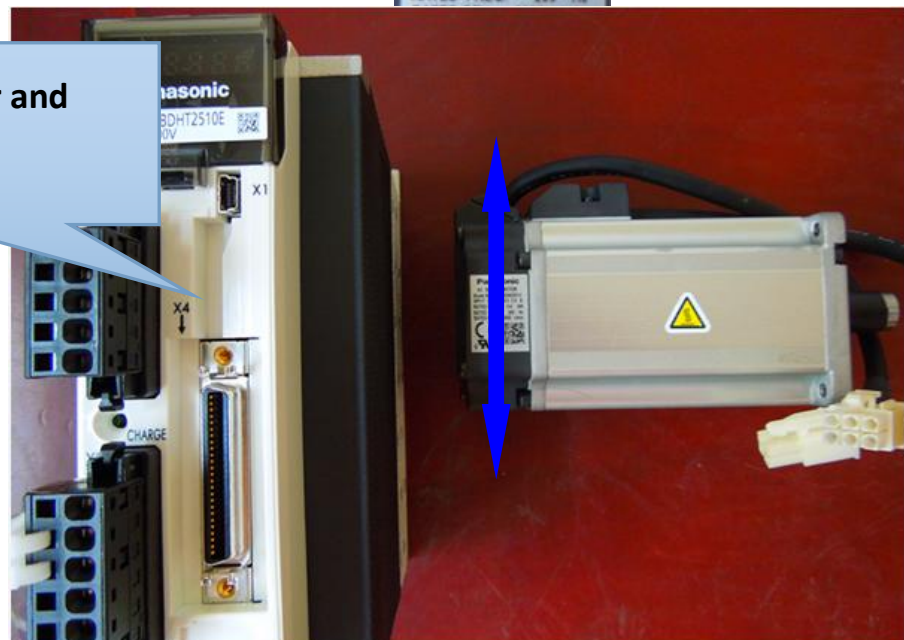
good quality circuit board



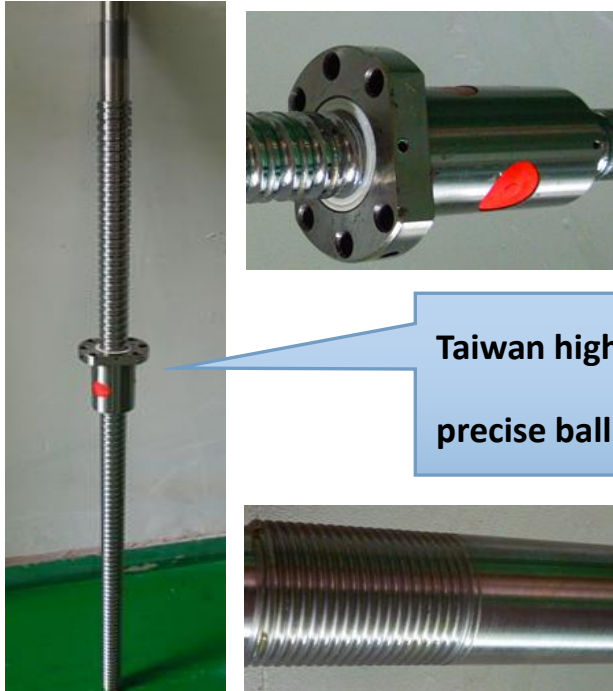
2) Motor and Driver

Panasonic Servo Motor and
Panasonic Servo Driver

Panasonic
AC SERVO MOTOR
Model No. MHMD042Q1U
INPUT 3ΦAC 100 V 2.6 A
RATED OUTPUT 0.4 kW
RATED FREQ. 200 Hz



3) Screw



Taiwan high
precise ball screw



Some other suppliers
use this screw

4) Dust -proof Cover

Dust -proof cover with good
elasticity is used to protect the
ball screw by avoiding foreign
materials.



5) Structure Material

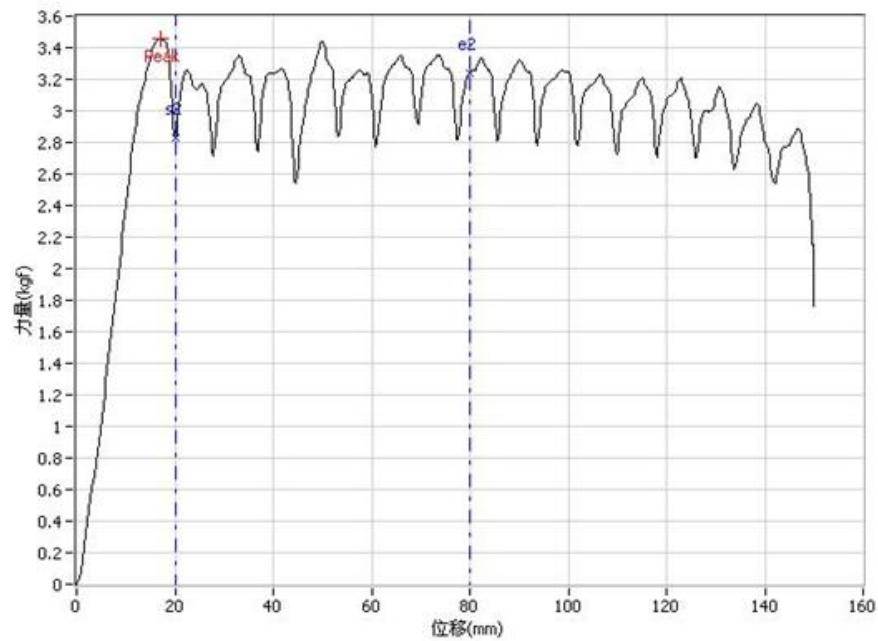


Our structure material is stainless steel. However, some other suppliers use metal plate.

Software and Curves

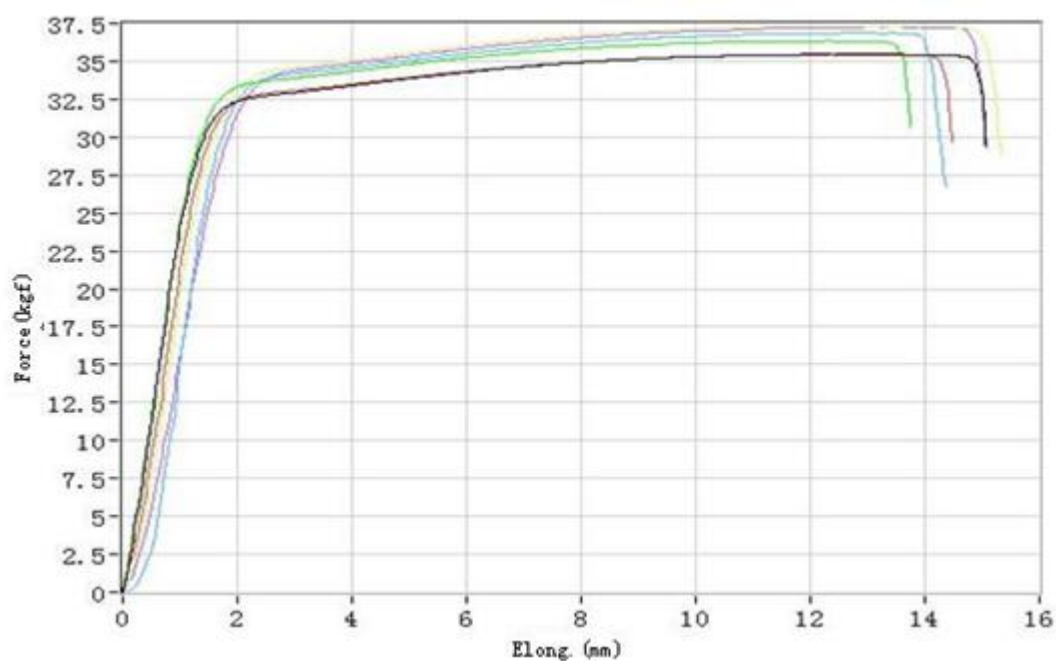
The TM2101 software is designed purposely for computer controlled electronic universal testing machine, used for tension, compress, bend, shear, tearing and peel test. With the personal computer and interface plate, it could collect, save, process and print test result. Further it can calculate multiple parameters, i.e. maximum force, yield strength, average peel force maximum deformation, yielding point and elastic modulus; this system is featured in curve process, multi-sensor support, image interface, flexible data process and powerful system function.

1) Sample curve 1



No.	Max force at second interval (kgf)	Min force at second interval (kgf)	Mean value at second interval (kgf)	Test speed (mm/min)
1	3.440	2.545	3.149	300.000

2) Sample curve 2



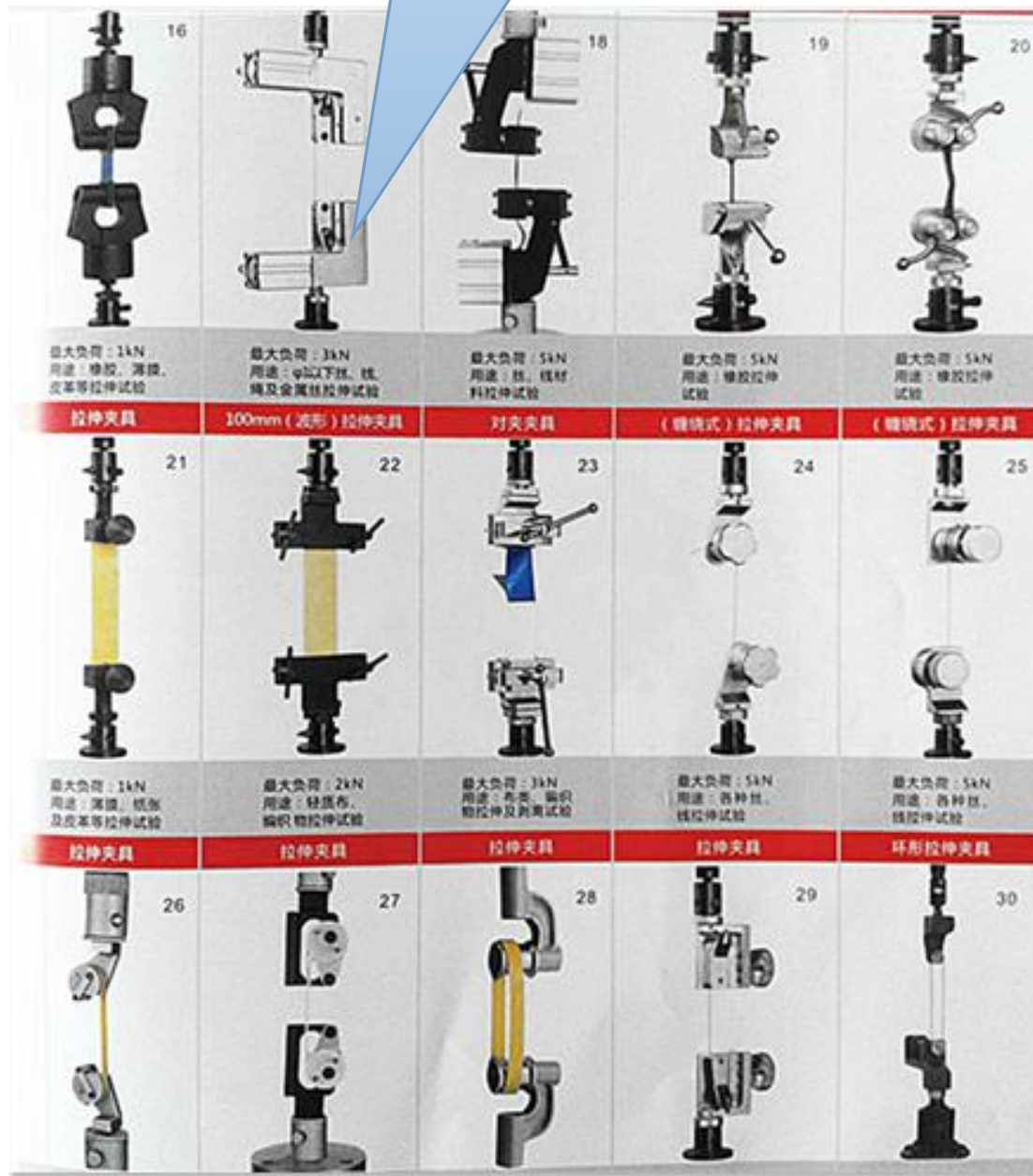
No.	Max. strength (kgf)	Area (mm ²)	Width (mm)	Thickness (mm)	Testing speed (mm/min)	Tensile (MPa)
1	35.480	1.270	12.700	0.100	20.000	273.968
2	35.450	1.270	12.700	0.100	20.000	273.737
3	36.350	1.270	12.700	0.100	20.000	280.686
4	36.860	1.270	12.700	0.100	20.000	284.625
5	37.340	1.270	12.700	0.100	20.000	288.331
6	37.250	1.270	12.700	0.100	20.000	287.636
Max.	37.340	1.270	12.700	0.100	20.000	288.331
Min.	35.450	1.270	12.700	0.100	20.000	273.737
Ave.	36.455	1.270	12.700	0.100	20.000	281.497

Fixtures/Clamps

1) Fixture list 1

The fixture is very important to the test.

This is the fixture list and we also can do it according to customer's requirement.



2) Fixture list 2

				
最大负荷: 5kN 用途: 塑料板材、 软管等拉伸试验	最大负荷: 30kN 用途: 金属及非金属 板材、棒材拉伸试验	最大负荷: 50kN 用途: 金属及非金属 板材、棒材拉伸试验	最大负荷: 100kN 用途: 金属及非金属 板材棒材拉伸试验	最大负荷: 300kN 用途: 金属及非金属 板材棒材拉伸试验
液压夹具	压缩夹具 (φ100)	压缩夹具 (φ200)	弯曲夹具 (跨距100mm)	弯曲夹具 (跨距400mm)
				
最大负荷: 600kN 用途: 各种金属、 非金属材料拉伸性能试验	最大负荷: 30kN 用途: 各种材料的 压缩试验	压缩夹具 (φ200) 最大负荷: 300kN 用途: 各种材料压 缩试验	最大负荷: 30kN 用途: 各种材料三 点弯曲试验	最大负荷: 300kN 用途: 各种材料三 点弯曲试验
四点弯曲夹具	剪切夹具	剪切夹具	弧形金属材料拉伸夹具	(气动) 拉伸夹具
				
11	12	13	14	15

3) Fixture warehouse 1



4) Fixture warehouse 2



Our company

Introduction:

HAIDA INTERNATIONAL is a professional manufacturer of various kinds of testing equipments over 24 years. HAIDA products are widely used in paper products, packaging, ink printing, adhesive tapes, bags, footwear, leather products, environment, toys, baby products, hardware, electronic products, plastic products, rubber products and other industries, and applicable to all scientific research units, quality inspection institutions and academic fields.

1) Factory



2) Machine adjustment



Our certification



After-service

If you face any problems in future during testing process we promise we will give you a reply within **48** hours and solution provide within **3 working days**. We can offer operation video and English operation manual. We can provide video-conference. If customers require on-site service, the transport and travel expense shall be borne by customer;

Product package and size

