# **MATERIAL TESTING MACHINES**

**Compression Testing** 





MATERIAL





# TYA-2000 Compression Testing Machine w/digital display

This machine mainly used for testing the compression strength of concrete, cement mortar and other construction material; The machine is of high quality construction, manual type for lifting up the upper pressure platen, with the platen size 220\*280mm which suitable for different size square cubes such as 150mm, 100mm, or 200mm, also allow cylinder specimen size with 150\*300mm; Supply with high accuracy sensor;

The digital display with inside printer, can print out the testing data for easy reading; If customer need, we can supply CD disk which can transfer the testing result into PC, convenient for customer to reserve result and check;

Max. capacity:	2000KN
Relative error:	1%
Pressure platen size:	220*280mm
Max. distance between platens:	330mm
Max. stroke of piston:	40mm
Diameter of piston:	250mm
Rated pressure:	40MPa
Power supply:	220VAC 750W

## **TYE-2000 Compression Testing Machine**

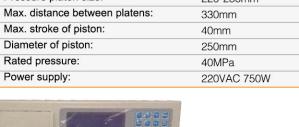
This machine mainly used for testing the compression strength of concrete, cement mortar and other construction material; With pressure platen size 230\*290mm, which suitable for different size square cubes and cylinder specimen;

The big dial gauge make it easy for result reading, and as it's mechanical dial gauge, in some countries with high temp. or high humidity, this is most popular welcomed;

Max. capacity:	2000kN
Rated pressure:	40MPa
Measuring range:	0-800kN & 0-2000kN
Pressure platen size:	230*290mm
Distance between platens:	320mm
Power supply:	220VAC 750W
Max. stroke of piston:	20mm

#### Features:

- small division
- high sensibility
- quick & convenient when adjusting measure range



Note: LCD display is available!





# TYA-300(C) Compression(Flexure) Testing Machine w/digital display

TYA-300 and TYA-300C is similar machine, TYA-300C has extra function of doing flexure test besides compression test, while TYA-300 only do compression test; Both of the models are used for test of concrete, cement mortar, brick, and other construction material; For the field of Highway, Bridge, Railway, Research Institute;

Machine can be suitable for specimen with different size; With high accuracy sensor the digital display can show testing result clearly, and print out easily;

Max. capacity:	300KN
Relative error:	± 1%
Rated pressure:	25MPa
Flexure roller dia.:	D30mm
Max. distance between rollers:	165mm
Pressure platen dia.:	D155mm
Max. distance between platens:	180mm
Max. travel of piston:	80mm
Diameter of piston:	D125mm
Power supply:	220VAC 750W

■ 100KN capacity also available

#### **TYA-300B Compression & Flexure Testing Machine** w/PC control

This machine supply two tests for both compression and flexure, specimen can be cement mortar, brick, concrete and other material; It's computer control type with constant loading, all the testing result will be displayed, recorded, auto-processed and printed through

Machine is suitable for specimen with different size;

Max capacity:	300KN
Max. flexure capacity:	10KN
Relative error:	± 1%
Compression speed range:	0~10KN/s.
Flexure speed range:	0~0.75KN/s.
Power supply:	220VAC 750W

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## **MATERIAL TESTING MACHINES**

**Compression Testing** 









# TYA-2000/3000S Compression Testing Machine w/digital display

Used for testing compression strength for concrete, brick, stone and other construction material;

With electric screw auto loading of pressure platen, easy for operating; With accurate ball based part which make specimen be broken in evenly;

With digital display can read and print the testing result very easily

Max. capacity:	2000KN / 3000KN
Relative error:	1%
Pressure platen size:	260*320mm/340*340mm
Max. distance between platens:	320mm
Max. travel of piston:	50mm
Diameter of piston:	D250mm/D310mm
Rated pressure:	40MPa
Power supply:	220VAC 750W





#### **TYA-2000A Compression Testing Machine** w/PC control

Used for testing compression strength for concrete, brick, stone and other construction material;

With hand wheel to lift up the pressure platen manually;

With accurate ball based part which make specimen be broken in

With computer control at constant loading;

All testing result will be displayed, recorded and stored, auto-processed and printed through computer automatically;

Max. Capacity:	2000kN
Rated pressure:	40MPa
Piston diameter/stroke:	250mm / 40mm
Pressure platen size:	220*280mm
Distance between platens:	330mm
Power supply:	220VAC 750W





### TYA-2000/3000E Compression Testing Machine

Used for testing compression strength for concrete, brick, stone and other construction material;

With electric screw auto loading of pressure platen, easy for operating; With accurate ball based part which make specimen be broken in evenly;

With computer control with constant loading;

All testing result will be displayed, recorded and stored, auto-processed and printed through computer automatically;

2000kN / 3000KN
250mm / 310mm
50mm
D260*320mm / D340*340mm
320mm
220VAC 750W



#### **WA-B Series Universal Testing Machine** w/LCD display

Used for performance of tensile, compression, flexure for metal material, concrete, brick, cement and other construction material; With LCD display,can display testing result clearly and print out easily; With protective fence which keep operator's safety during test, especially for doing tensile test for reinforcing bars;

Max. Capacity:	1000 / 600 / 300 / 100KN
Max. distance between flexible clips:	500 / 500 / 500 / 450mm
Distance between upper & lower platens:	0~500/0~500/0~500/0~450mm
Distance between two fulcrums of bending test:	100~420/100~360/100~360/ 100~300mm
Clipping diameter for round specimen:	20~60/13~40/8~32/6~22mm
Clipping thickness for flat specimen	: 0~40/0~15/0~15/0~15mm
Piston stroke:	200/200/150/150mm
Power supply:	380VAC/220VAC



#### **WA-D Series Universal Testing Machine** w/dial gauge

Used for performance of tensile, compression, flexure for metal material, concrete, brick, cement and other construction material;

The big dial gauge make it easy for result reading, and as it's mechanical dial gauge, in some countries with high temp. or high humidity, this is most popular welcomed;

With protective fence which keep operator's safety during test, especially for doing tensile test for metal material;

With external simple printing hanging at the right side, the testing result can be diagramed easily;

Max. Capacity:	1000 / 600 / 300KN
Measuring range:	0~200\500\1000/0~120\300\ 600/0~60\150\300mm
Max. distance between flexible clips:	500mm
Distance between upper & lower platens:	0~500mm
Distance between two fulcrums of bending test:	100~420/100~360/100~360mm
Clipping diameter for round specimen:	20~60/13~40/8~32mm
Clipping thickness for flat specime	en: 0~40/0~15/0~15mm
Piston stroke:	200 / 200 / 150mm
Power supply:	380VAC / 220VAC

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## **MATERIAL TESTING MACHINES**

**Universal Testing** 

# MATERIAL TESTING MACHINES Fatigue Testing, Impact Testing







## WA-A Series Hydraulic Universal Testing Machine w/PC control

Used for performance of tensile, compression, flexure for metal material, concrete, brick, cement and other construction material; With computer control with constant loading;

All testing result will be displayed, recorded and stored, auto-processed and printed through computer automatically;

Max. Capacity:	1000/600/300/100KN
Max. distance between flexible clips:	500mm
Distance between upper & lower platens	: 0~500/0~500/0~450/0~450
Distance between two fulcrums of bending test:	100~420/100~360/100~ 360/100~300mm
Clipping diameter for round specimen:	20~60/13~40/8~32/6~22mm
Clipping thickness for flat specimen:	0~40/0~15/0~15/0~15mm
Piston stroke:	200/200/150/150mm
Power supply:	380VAC

# WA-C Series Hydraulic Universal Testing Machine w/PC control(with Servo Control)

Note:Technical specification and picture all same as WA-A Series, different only on "servo control" part



### WDW-300 Electronic Universal Testing Machine

WDW Series PC control electronic universal testing machine mainly used for metal, non-metal and other material testing, include tensile, compression, flexure, bending, shear, etc. This machine is designed with high accuracy loading sensor, Panasonic servo drives and motor, ball screw shaft; The whole test will be operated automatically, testing result directly displayed via computer;

Max. capacity:	300KN
Measuring range:	0.2% ~100%FS
Accuracy:	± 0.5%
Deformation measuring range:	1%~100%F.S
Displacement accuracy & resolution:	± 0.3% / 0.04um
Speed adjusting range:	0.005~10% F.S/s.
Speed control accuracy:	speed<0.05%F.S/s @±0.5%/ speed≥0.05%F.S/s @±0.3%
Effective tensile space:	580mm
Effective testing width:	600mm
Power supply:	220VAC 2000W
Standard configure include:	main unit, controller, extensometer, tensile clamp, compression clamp, flexure clamp, printer, computer;

- Other capacity are available, such as 600KN, 1000KN, etc.
- Single Column type are available
- Desk type are available



# PWS-200 Servo-Hydraulic Fatique Testing Machine

PWS series are ideal for a variety of tests like tension compression flex/bend fatigue (low cycle fatigue / high cycle fatigue / fatigue crack propagation ASTM E647), fracture mechanics (K1c per ASTM E399, J1c, CTOD per ASTM E-1290), damping properties and vibration testing.

Our test systems are designed for conducting tests at ambient temperature, elevated temperature (high temperature fatigue characterization) and low temperature.

Max. dynamic capacity:	200KN
Max. static capacity:	200KN
Actuator amplitude:	± 50mm
Frequency range:	0.1~30Hz
Column space:	650mm
Testing space:	not less than 1000mm, include hydraulic clamp not less than 750mm
Main frame strength:	≥3×10 <sup>8</sup> N/m
Oil specification:	70L/min. 21MPa, 30KW



#### **CBD Pendulum Impact Testing Machine**

CBD-Series Pendulum impact testing machine is ideal for testing metals to Charpy standards. It commonly meets the requirements of ASTM E-23 and EN 10045-1 standards, with outstanding quality and user-friendliness

It is fully controlled by computer and equipped with automatic specimen feeding system (manipulator), cooling system, antomatic control system.

Max. impacting force:	500J
Impacting speed:	5.2m/s.
Angle of pendulum:	150°
Temp. range and accuracy:	room temp. to-70°C/ ± 0.3°C
Specimen cooling medium:	ethyl alcohol
Specimen size:	10*10*55mm (or 10*7.5*55mm /10*5*55mm)
Power supply:	380VAC or 220VAC(selectable)