



Original

WAW-600C Computer Controlled Servo Hydraulic Universal Testing Machine

Brief Introduction: WAW-600C computer controlled servo hydraulic universal testing machine is mainly used to execute the tension, compression, bending, flexural etc. test for metal materials. Attached with simple accessories and devices, it can be used to test wood, concrete, cement, rubber, and so on. It is very suitable for making test to different metal or nonmetal materials under high toughness and hardness against extreme big loading force.

Standards: In accordance with or exceed the requirements of the ISO6892.

C Type Load Frame: The oil cylinder is at the bottom of the load frame. Tension space is at the upside and compression & bending spaces are between lower crosshead and working table. It is adopting oil hydraulic power to push the piston in the oil cylinder to provide loading force. The lower crosshead is driven by the motor and gear inside it to realize the adjustment of testing space. The leading screws are fixed into the machine seat and never turn during the space adjusting & testing to guarantee the machine stability and longer life span.

Measuring System: The machine adopts oil pressure transducer to measure load and use photoelectric encoder to measure the displacement. The computer is timely collecting the testing parameters like loading force, stroke etc. Our Winwew software based on Windows system is able to display the load, load peak value, deformation, testing curves etc. very easily, and can make automatic calculating of test results, i.e. tensile strength, up / low yield strength, Non proportional stress point etc. Report creation function makes it is very simple to make testing report in your needed format.

Applications: It is widely used in different steel works, engineering areas, quality control department, universities and institutes as well as other areas and works.

Features:

- ◆ Full computer controlled testing process.
- ◆ Adopt oil-hydraulic automatic clamps which can be operated from separate control box.
- ◆ Wedge tension jaw processed by advanced technology; increase the stiffness of crosshead under high load and high intensity tests.
- ◆ Powerful multifunctional control software will provide more testing methods to meet ASTM, ISO and other testing standards.
- ◆ Report Guide will create your testing report in only three steps.
- ◆ Programable testing software makes LCF testing or cyclic testing become available.
- ◆ Overload protection will secure operators.

Common sense: The differences between WAW, WEW and WE series testing machines

WAW Series is computer controlled servo hydraulic universal testing machine. The space adjusting, & test processes could be controlled by the software and the test result could be transferred to the software in the computer for further analysis. It is the most advanced series in hydraulic universal testing machines.

WEW Series is computer display manual control hydraulic universal testing machine. The space adjusting & force loading could be executed by manual control. The test result could also be transferred to the software for further analysis.

WE Series is pendulum dynamometer display manual control universal testing machine. The space adjusting & force loading could be executed by manual control, and the test result could be shown through dynamometer.



Export Department of Testing Machine, TIME Group, Inc.

Original

	Specification	WAW-600C
	Max. capacity (KN)	: 600
	Measuring range	: 2%-100% of FS
	Relative error of reading	: $\leq \pm 1\%$
	Uniform speed stress control range($N/mm^2 \cdot S^{-1}$)	: 2-60
	Stress velocity tolerance	: $\leq \pm 5\%$
	Uniform speed strain control range	: 0.00025/s – 0.0025/s
	Strain velocity tolerance	: $\leq \pm 5\%$
	Uniform speed displacement control range(mm/min)	: 0.5-50
	Displacement velocity relative error	: $\leq \pm 5\%$
	Clamping method	: Hydraulic clamping
	Round specimen clamping range(mm):	: $\Phi 13-\Phi 40$
	Flat specimen clamping range(mm):	: 0-30
	Flat specimen clamping width(mm)	: 80
	Max. tension test space (mm)	: 600
	Max. compression test space (mm)	: 500
	Cabinet dimensions (mm)	: 600*480*960
	Load frame dimensions (mm)	: 1180*750*2633
	Motor power (KW)	: 401
	Load frame weight (KG)	: 3000
	Column distance (mm)	: 650
	Compression platen size (mm)	: $\Phi 125$
	Span of bending roller (mm)	: 600
	Width of bending roller (mm)	: 140
	Allowable camber (mm)	: 100
	Shearing specimen diameter (mm)	: $\Phi 10$
	Max. piston stroke (mm)	: 250
	Piston max. speed (mm/min)	: Approx. 80
	Test speed adjusting speed (mm/min)	: Approx. 150





Export Department of Testing Machine, TIME Group, Inc.



Original OFFER SHEET

Introduction of WAW Series Software

1 Software Main Interface

The screenshot shows the main interface of the WAW Series Software. It features a top menu bar with options like 'Management(M)', 'Report(P)', 'Setup(S)', and 'about(A)'. Below this, there are several large digital displays showing '0.00' for Load, Peak, Deformation, and Time. A central 'Test Curve' window displays a 'Time-Load Curve' graph. To the right, there are control buttons for 'Up', 'Hold', and 'Down', along with a 'Speed Console' showing various speed settings. At the bottom, there are fields for specimen parameters and a 'Report Information' section.

Callouts identify the following areas:

- Main menu
- Area for real time test data display
- Area for drawing test curve & inputting specimen parameters
- Area for choosing specimen
- Area for data processing
- Area for test process control, programming and speed display.

This panel shows the 'Basic' control interface. It includes 'Up', 'Hold', and 'Down' buttons, a 'Speed Console' with buttons for 0.2, 1.0, 2.0, 5.0, 10.0, 20.0, 50.0, and 100.0 mm/min, and a 'Load Hold' button. At the bottom, there are 'Test Start', 'Test Over', and 'Return' buttons, along with 'Next Specimen', 'Return Apace', and a power button.

2. Stroke Control

User can define a customized test speed to make tensile, compression or

This panel shows the 'Programming' interface. It features a 'Step Number' dropdown set to 1, a table for test steps, and fields for 'At', 'To', 'Unit', and 'Hold' time. The table is as follows:

Step	At	Mode	To	Unit	Hc
1(Pre)	5	%/s	12	kN	0
2					
3					
4					

Below the table, there are 'Test Start', 'Test Over', and 'Return' buttons, along with 'Next Specimen', 'Return Apace', and a power button.

3. Program Control

User can input programming conditions to regulate test process. Suitable for

This panel shows the 'Speed' interface. It displays four real-time speed values: 'Piston Speed 0.00 mm/min', 'Load Speed 0.00 kN/s', 'Stress Speed 0.000 MPa/s', and 'Strain Speed 0.000 %/s'. At the bottom, there are 'Next Specimen', 'Return Apace', and a power button.

4. Test Speed Timely Display

Piston speed, load speed, stress speed and strain speed timely display.

Export Department of Testing Machine, TIME Group, Inc.

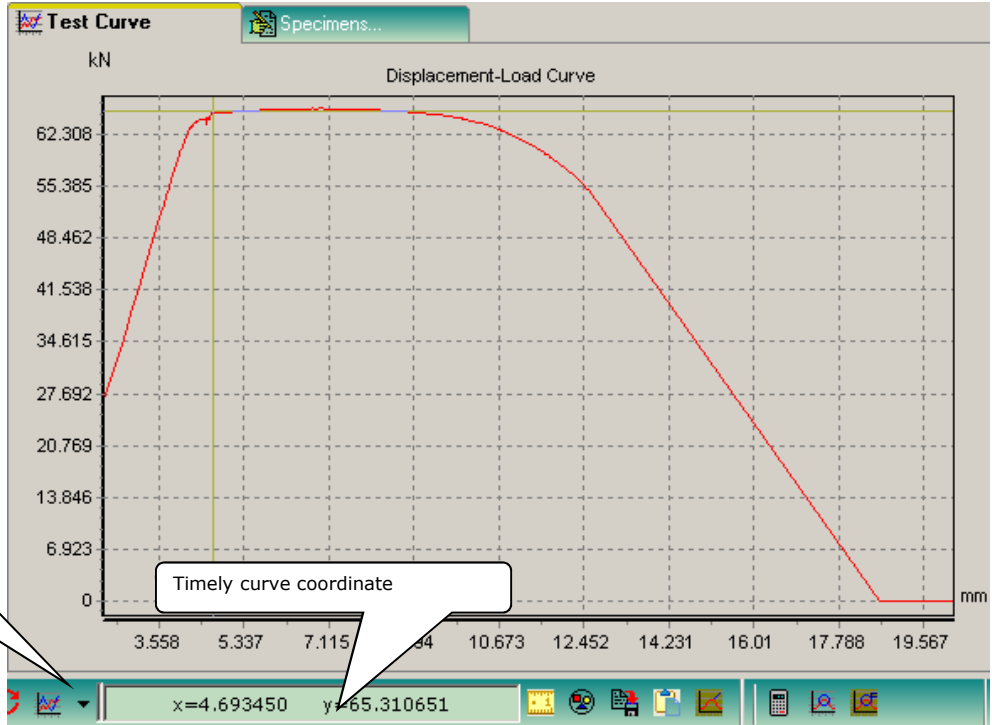
Original OFFER SHEET

Introduction of WAW Series Software

5 Curves switching option

Diversified curves choice

- Time-Load Curve
- Displacement-Load Curve
- Deformation-Load Curve
- Displacement-Stress Curve
- Deformation-Stress Curve
- Strain-Stress Curve**
- Time-Stress Curve
- Time-Strain Curve
- Time-Displacement Curve
- Time-Deformation Curve
- Display Giving Curve



6 Units could be converted as per your requirement based on International System of Units

Conversion Units

Setup | Comment

Load Unit: **kN** Stress Unit: **MPa**

Deformation Unit: **mm** Modulus of Elasticity Unit: **GPa**

Displacement Unit: **mm** Specimens Size Unit: **mm**

Enable and Return
 Cancel

- Load Unit: kN, Kip, Lbs, Kgf, N
- Deformation Unit: mm, inch
- Displacement Unit: mm, inch
- Stress Unit: MPa, Psi, Kgf/sc
- Modulus Elasticity Unit: GPa, Ksi
- Specimens Size Unit: mm, inch

7 Over load protection and stop condition setting

System Protection Setup

Machine Stop: **Test Over**

Deformation exceeds **5** %Full Scale

Control Error

Load control error exceeds **40** kN

Displacement control error exceeds **50** mm.

Deformation control error exceeds **2** mm.

Displacement exceeds **75** mm.

Displacement less than **-75** mm.

Data Processing Option

Item Selection | Modulus of Elasticity | Process Control | Deal With Fracture Poi

Max. force point----Fm&Rm Percentage elongation after fracture----A
 Upper yield point----Feh&ReH Percentage reduction of area----Z
 Lower yield point----Fel&Rel Ratio of Rm/ReL
 Break point----Fb&Rb Ratio of Rel/Re

Proof point of non-proportional extension----Fp&Rp **0.2** **0.5**

Proof point of total extension----Ft&Rt **0.5** **0.7**

Percentage total elongation at Max. force----Agt Measured by displacement transducer.

Percentage non-proportional elongation at max force----Ag[Option]

Percentage yield point extension----Ae[Option]

Display rounded result on result panel Can input bend etc. result.

Enable and Return
 Cancel

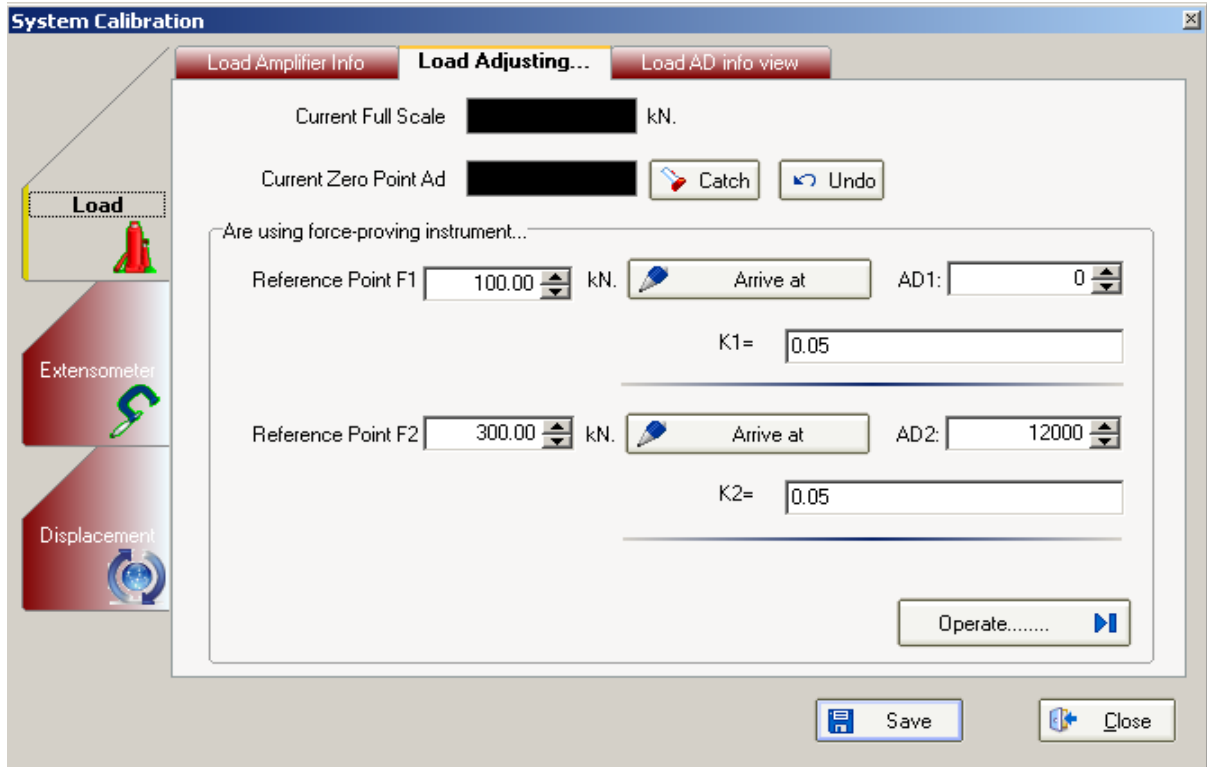
process method input

For more functions, please enquiry our sales manager.

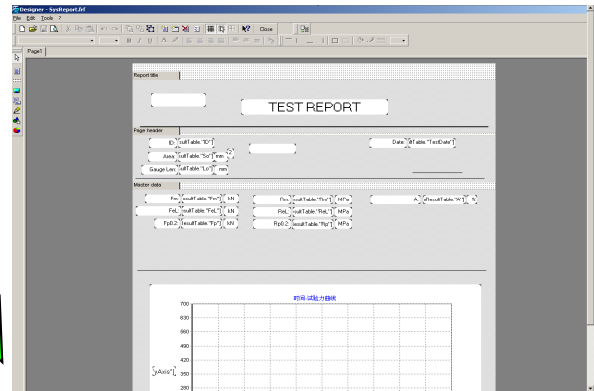
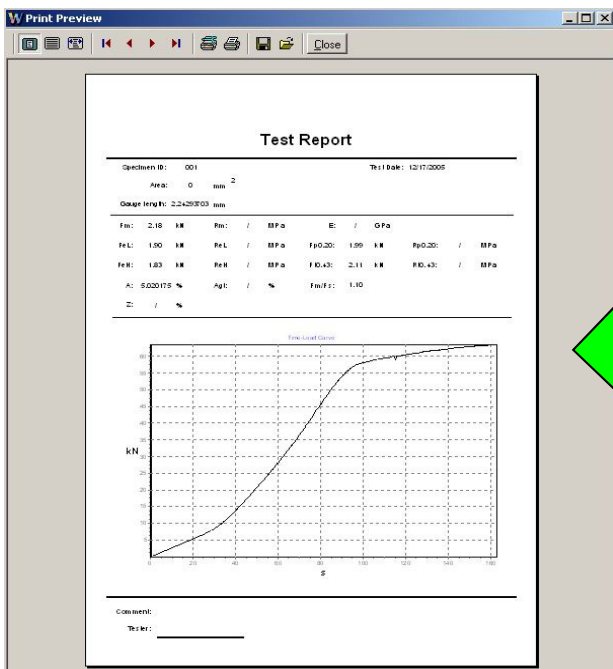
Export Department of Testing Machine, TIME Group, Inc.

Introduction of WAW Series Software

9 Easy software calibration



10 Firendly test report



Customization of test report

1	A	B	C	D	E	F	G	H	I	J	K
2	1	SO	LO	Fm	Rm	A	FeL	ReL	Fp	Rp	Z
3	2	470.4	50	335.5	713.2	0	280.9	595	280.6	595	0
4	3	486.8	50	345.35	710	0	288.3	590	291.9	600	0
5	4	441.4	0	336.9	763.3	0	291.6	660.6	283.95	643.3	0
6	5	441.4	0	336.9	763.3	0	291.6	660.6	283.95	643.3	0
7	6	470.4	50	335.5	713.2	0	280.9	597.2	280.6	596.5	0
8	7	0	0	3.05	0	0	2.55	0	2.69	0	0
9	8	0	0	22.35	0	0	0	0	0	0	0
10	9	0	0	22.35	0	0	0	0	0	0	0
11	10	470.4	50	335.5	713.2	0	280.9	597.2	280.6	596.5	0

The test report could be customized as per your requirements and be transferred to Excel easily for further analysis.

Export Department of Testing Machine, TIME Group, Inc.







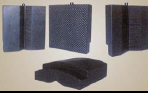











Certificate

ISO9001 International Quality

Original

OFFER SHEET

Standard accessories of WAW-600C UTM

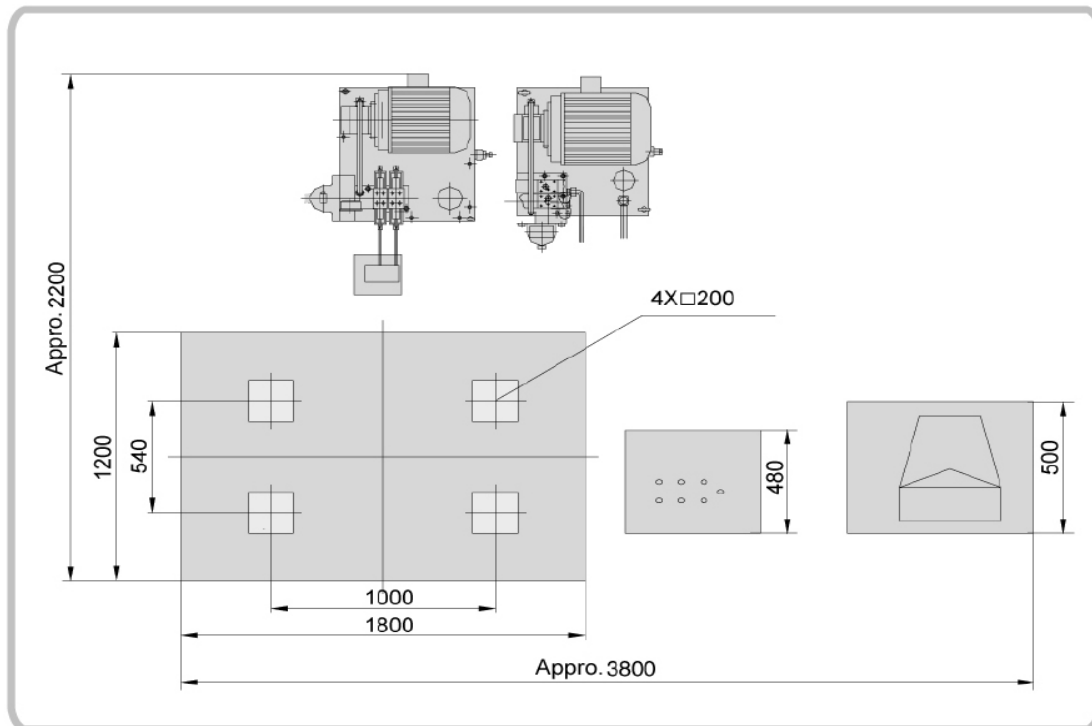
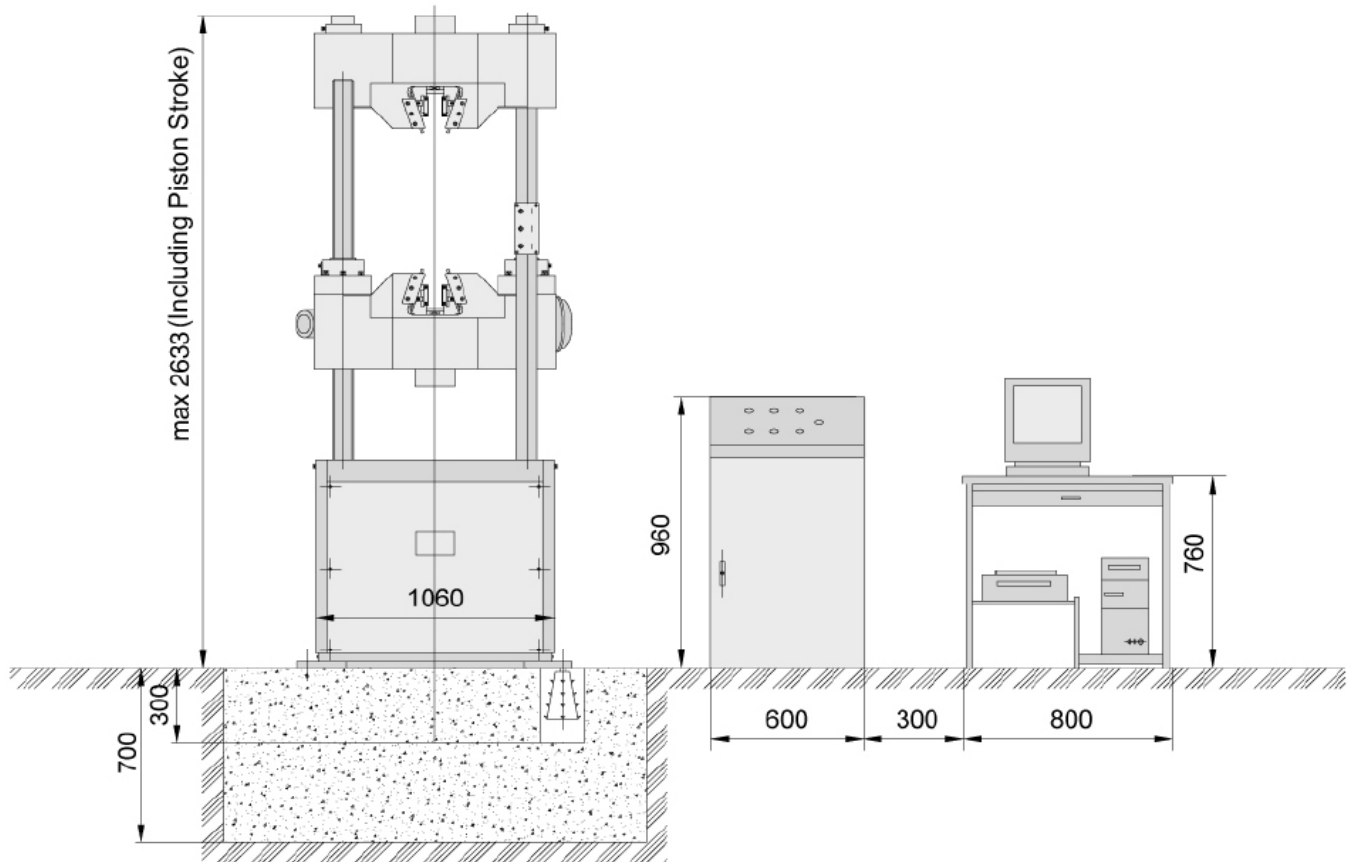
	Content	QTY	Picture
	Load frame The space adjusting is realized by the motor and gear inside it; the leading screw is fixed into the machine seat. High intensity testing machine structure and crosshead, high stiffness to assure accuracy;	1 set	
	Control cabinet Electromagnetic proof cabinet improves the reliability and stability of the whole electric system.	1 set	
	Servo oil source To provide the test load.	1 set	
	Clamping oil source To provide the load to clamp the specimen	1 set	
	Clamping jaws Jaws for round specimen: Φ 13- Φ 26mm, Φ 26- Φ 40mm Jaws for flat specimen: 0-15mm, 15-30mm	Each 1 set Each 1 set	
	Compression test attachment Dimension: Φ 125 mm	1 set	
	Bending test attachment Span: 600mm Width of roller: 140mm Allowable camber (mm): 100mm	1 set	
	Shearing test attachment Shearing diameter: Φ 10mm		
	Tool kit Screw, Spanner, Socket Board etc.	1 set	
	Extensometer YYU-10/50 Standard gauge: 50mm Deformation: 10mm	1 set	
	Photoelectric encoder LEC-500BM	1 pc	
	Oil transducer Model: CYB-12SA	1 pc	
	Data-processing system TIME WINWAW Software	1 set	
	Industry computer (Lenovo Brand) Intel Pentium E2200/Core 2 Duo 2.2G/ 1 G memory 160G Hard disk/ DVD-ROM/17" LCD screen	1 set	
	Printer (HP 1468):	1 set	
	Computer desk		

	<p>Note: Pictures is for reference only. Please make the objects as standard.</p>

Export Department of Testing Machine, TIME Group, Inc.

Original

DIMENSION & FOUNDATION



Export Department of Testing Machine, TIME Group, Inc.



Original		OFFER SHEET	
<h2>Shipping Packages</h2>			
Package Material: In fumigated wooden cases.			
Be suitable for export delivery.			
Wooden case 01			
Content:	Load Frame		
Net weight:	3000kg		
Gross eight:	3500kg		
Dimension:	3060x1440x1280(mm)		
CBM:	5.64m ³		
Wooden case 02			
Content:	Control Part		
Net weight:	700kg		
Gross eight:	800kg		
Dimension:	2250x1550x1480(mm)		
CBM:	5.16m ³		
Total			
Quantity	Two wooden cases		
Total Gross Weight	4300kg		
Total CBM	10.8m ³		
<p>*The above weights & dimensions are just for your reference. The final weights & dimensions should be subject to the delivery.</p>			