

Computer Control Hydraulic Servo Universal Testing Machine

Model: WAW-C Series



1, General introduction

United Test make Universal Testing Machines are known for their long lasting trouble-free performance and highest quality material used in the manufacturing process. The Hydraulic universal testing machine can perform tension, compression, flexure/bending and shearing test for kinds of specimens. Suitable for metal and nonmetal material, such as iron, steel, steel bar, rebar, cement, concrete, rod and so on.

Specially design for production, research, student training and industrial laboratory. Available in wide range of loadframe capacities (300kN to 2000kN)/(10Ton to 200Ton) and with combination of control panels (Digital, Computerised) makes United Test product range suitable for every customer requirement. Load weighing system meets or exceeds the requirements of the following standards: ASTM E4, EN10002-2, BS 1610, DIN 51221, ISO 7500-1.

2, Application

Widely used for industrial application, factory quality control, science and research institute, QC & QA college student training, education institute, testing and inspection center, laboratories, construction company, aerospace, mechanical production, electric appliance fields.

3, Key Features

1), Computer controlled hydraulic servo model, adopt Japan SHIMADZU technology, worm wheel and worm shaft to drive crosshead up and down; double working space, tensile test at upside of crosshead, compression and bending test between working bench and crosshead

2), **Advantages of C type frame:**

2.1) The middle crosshead is driven by the motor and gear to make it up and down for a suitable test space for tension or compression test.

2.2) The lead screws are fixed to the seat of machine, and never turn during the space adjusting and loading.

2.3) This structure to make the frame more stable, frame more endurable, long time working life, more test result accuracy.

3), Unique screw gap eliminating structure can guarantee the continuity of the test; Total six columns structure, four column and two leading screw to make the machine more stable and life long working.

4), Independent hydraulic clamping structure can guarantee the reliability of the system; it will not hurt person for falling specimen and ensure the safety of operator;

5), Limitation and electrical protection system can ensure the security of using;

6), Servo valve can control the speed arbitrarily through the software. It can carry out loading, unloading and oil quick feedback function(i.e. the cylinder come back to its original position after the test).

4, Software



5, Main technical specification

Model	WAW-300C	WAW-600C	WAW-1000C
Max. load	300KN	600KN	1000KN
Measuring force range	2%~100%		
Accuracy of load	±1% of indicated value		
Accuracy of deformation	±0.5%, resolution: 0.01mm		
Constant load, displacement, deformation control accuracy	Setting value<10%FS, accuracy better than ±1.0% Setting value≥10%FS, accuracy better than ±0.5%		
Constant load, displacement, deformation control Range	0.4%~100%FS		
Deformation rate control accuracy	Rate<0.05%FS,accuracy ±2.0% Rate≥0.05%FS, accuracy ±0.5%		
Deformation measuring	Clip-on extensometer, standard gauge 50mm, extension 5/10/25mm		
Max. tensile space	800mm	800mm	750mm
Max. compression space	700mm	700mm	600mm
Flat specimen range	0~15mm	0~30mm	0~40mm
Round specimen range	φ6~φ26mm	φ13~φ40mm	φ13~φ60mm
Compression platen dia.	φ130mm	φ130mm	φ160mm
Bending support roller distance	350 mm	350 mm	350 mm
Bending roller width	140mm	140mm	140mm
Bending roller dia.	30mm	30mm	30mm
Piston stroke	250mm	250mm	250mm
Max. piston speed	80mm/min	80mm/min	80mm/min
Clamping mode	Hydraulic automatic		
Dim. of frame	920*580*2350mm	1060*700*2850mm	
Dim. of control box	1120×600×920mm		
Weight	2600kg	4500kg	
Standard Accessories	Load frame, servo oil source, control box, servo valve, Japan Nachi Pump; oil pressure sensor (Load cell is optional), liner displacement sensor, tensile test Jaws, compression platen, bending test accessory, PC, printer, Professional software, tools, anchor bolts, operation manual		