

*a measurable difference...*

**IDM**<sup>®</sup>  
instruments

**Computer Control Electronic  
Tensile/Compression Testing Machine  
WDW-05,1, 2, 5 KN**

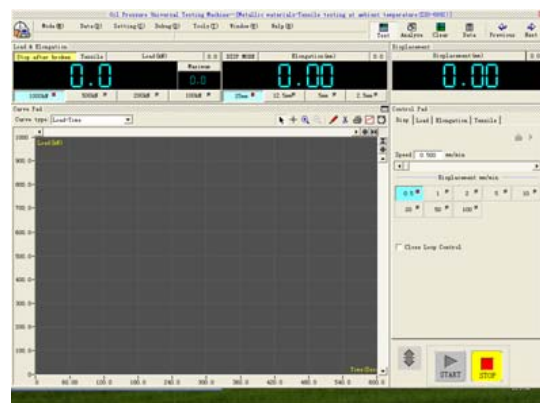
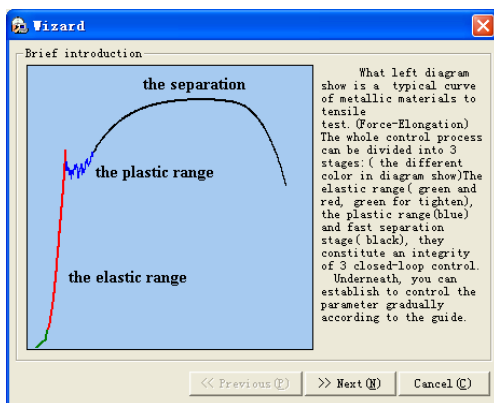


**ISO9000 Qualified**

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## Introduction

WDW Computer control tensile and compression machines are suitable for tensile, compression and all other special load test for non metal material for example, plastic, rubber, thread, wood, alloy, PVC, spring , electrical wire and cable, composite, profiled bar, waterproof roll, etc. Add relative optional accessories, it is easy to achieve the test of bending, shearing, peeling, friction, tearing, puncture and hardness test. They are essential testing instruments for quality testing section, university and college, research institution and industrial and mining enterprise. The machine is calibrated as ASTM E4, ISO 75001 international standard. By adding different grips it can do the test of ISO 527, ISO 8295, ISO 37, ISO 178, ISO 6892, ASTM D412, ASTM C1161, ASTM D882, ASTM D885 ASTM D918, ASTM D1876, ASTM D4632 and all the force and extension JIS, DIN, BSEN testing standards.



The machine equipment with high precision servo motor control system, ball screw leading and high precision reducer or synchronous belt make the machine add the load when testing. Stable structure of the machine frame makes the test and control in high accuracy.

Control system is full closed loop measuring and control system. It adequately absorbs advanced functional characteristics and integrates the latest international professionally developed measuring and control system. Control software can automatically finger out routine data, such as tensile strength, yield strength, modulus of elasticity, extend rate after rupture, non-proportional extend strength RP0.2, etc. It can adopt many kinds of controlling modes, such as constant force, constant displacement, constant deformation, and real time display many testing curves of force-displacement, force-time, and stress-strain. These curves automatically switch. Testing process control and data processing conform to the requirements of all kinds of test standard.











## Features

- ✧ High accuracy Load cell, Encoder and optional extensometer to test the force, displacement and extension. Reading resolution can be 1/300000 of full range. Computer control 3 close-loop control testing machine by load, displacement and extension.
- ✧ Speed Servo control from 0.01mm/min to 500mm/min by servo motor.
- ✧ Easy to install many kinds of test grips and accessories to do many kind of test
- ✧ PCI computer control card to get the test value and control the servo motor
- ✧ Multi-languages supported, Data saved and support Microsoft Words, Excel.
- ✧ Database function, allow customer define test method, value result formula and test report format.
- ✧ Multi sensor supported. Max 7 load cells and 4 extensometers can be defined.
- ✧ Metric and British unit exchanging supported mm, N, KN, kg and inches, lbs and pound.
- ✧ Calibration automatically and easily
- ✧ Two grade of user administrate system for common operator and system administrator

## Specification

Parameters	WDW-05	WDW-1	WDW-2	WDW-5
Maximum force	0.5 KN	1KN	2KN	5KN
Accuracy	≤±1% (0.5% as special order)			
Measuring range of force (KN)	0.4%--100%FS			
Resolution of force	1/300000 of maximum force			
Accuracy of displacement measuring	±0.5%			
Resolution of displacement	0.01μm			
Accuracy of deformation measuring	±0.5%			
Speed adjusting range of displacement	0.01-500mm/min			
Speed adjusting range of force	0.005-5%F.S / S			
Speed adjusting range of deformation	0.005-5%FS/S			
Speed adjusting range of constant displacement, force and deformation	0.5%-100%FS/S			
Speed controlling accuracy	≅ ± 1.0% of the set value			
Valid tension testing space	800			
Compression testing space	950			
Power supply	220, 0.75 kW, 50/60Hz			
Working environment	Room temperature 10℃~30℃, relative humidity≤80%			
Over Dimension and Weight	740×500×1680mm, 350kg			

Standard Parts

Description	Remarks	
Control PC	Dell Brand\ (P4, 1G Memery, 80G Disk, 17"LCD)	
Control DSP card and softwre	3 Close Loop Control	
Printer	Hp brand Color inkjet printer	
Panasonic Servo Motor	Motor with driver Built in the machine	
Extensometer	Gauge length 50mm, Defomraiton 50%	
Tension Test Accessories	Tension grips for round and flat speciman	
Compression Test Accessories	Round or Flat Compression Plate Dia 150mm	
Load Cell	American Brand Celtron Load Cell Buit in the machine	
High-precision Ball Screw Lead	Chine, Taiwan, or Germany Brand	
photoelectric encoder	Chinese or Japanese brand	

# Applications

Optional Parts



Bending Test Jig



Compression Jig



Opposite Clamping Grip



Wedge Tension Grip



Film & Paper Tension Grip



Shearing Test



Adhesive Tape Tension Attachment



Eccentric Wheel



Dumbbell Tension

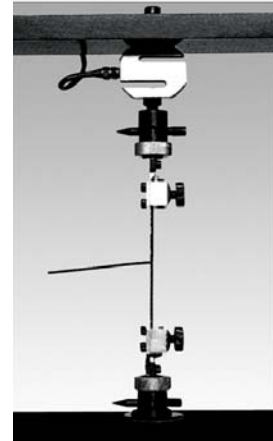
## *Applications*



Peeling Test Hard



Steel Wire Tension



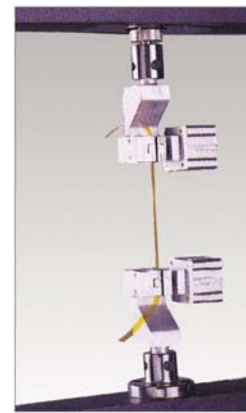
Film Tear Test



Puncture Attachment



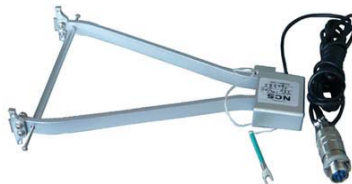
Soft Steel Wire Tension



Pneumatic Tension Grips



Silk & Thread Tension Grip



Extensometer



Load Calibrator