

Electronic Universal Testing Machine

Mitech WDW Micro Control Series Gate Type Electronic Universal Testing Machine

Overview Mitech MDW micro control series gate type electronic universal testing machine, through the computer control motor drive screw, equipped with the corresponding auxiliary for metal, non-metallic and composite materials for pull, pressure, bending and other mechanical properties test (Tensile test carried out between the upper beam of the main body and the moving beam. Compression and bending tests carried out between the table of the host and the moving beam). It's adopts the built-in controller, AC servo motor, by computer-aided means to achieve powerful function with stable performance, strong structure, high reliability, simple operation, high degree of automation. It's widely used in metal and non-metallic processing industry, quality inspection departments, scientific research and other areas of higher education institutions and it's a necessary professional precision testing equipment for improve production efficiency and save production costs



Technical parameters	MITECH								
	WDW 0,1-5	WDW-10	WDW-20	WDW-50	WDW-100	WDW-200	WDW-300	WDW-500	WDW-600
Structural form	Single-Arm Type	Gate Type							
Maximum testing force (KN)	0.1- 5KN	10 KN	20 KN	50 KN	100 KN	200 KN	300 KN	500 KN	600 KN
Testing machine grade	Level 1 (Level 0.5)								
Operation mode	Computer control (English software operation)								
Force measuring range	2%-100% of the maximum testing force (0.4%-100%)								
Relative error on indicated values of testing force	Better than ±1%of the indicated value (or±0.5% special selection)								
Error on deformation display	±1% (or±0.5%)								
Minimum resolution on the testing force	0.01N								
Precision on beam displacement	±1% (±0.5%)								
Deformation accuracy	Better than ±1% (±0.5%)								
Speed governing range	0.01-500mm/min					0.01-300mm/min (500mm/min)			
Testing travel	≥600mm (it can be customized According to the customer needs)								
Testing space adjusting mechanism	Stepping motor/servo motor, synchronization with drive								
Protection function	Overload protection, limit protection								
Power supply	220V					380V			
Clamp form	Suitable clamps will be configured according to the customer requirements. Special clamps can be customized for the customer								
Wooden Case									
Dimensions (mm)	450*260*1470	700*580*1720		700*580*1850		1100*770*2600		1440*1100*2870	
Weight (approximate)	120kg	450kg		500kg		750kg		1250 kg	

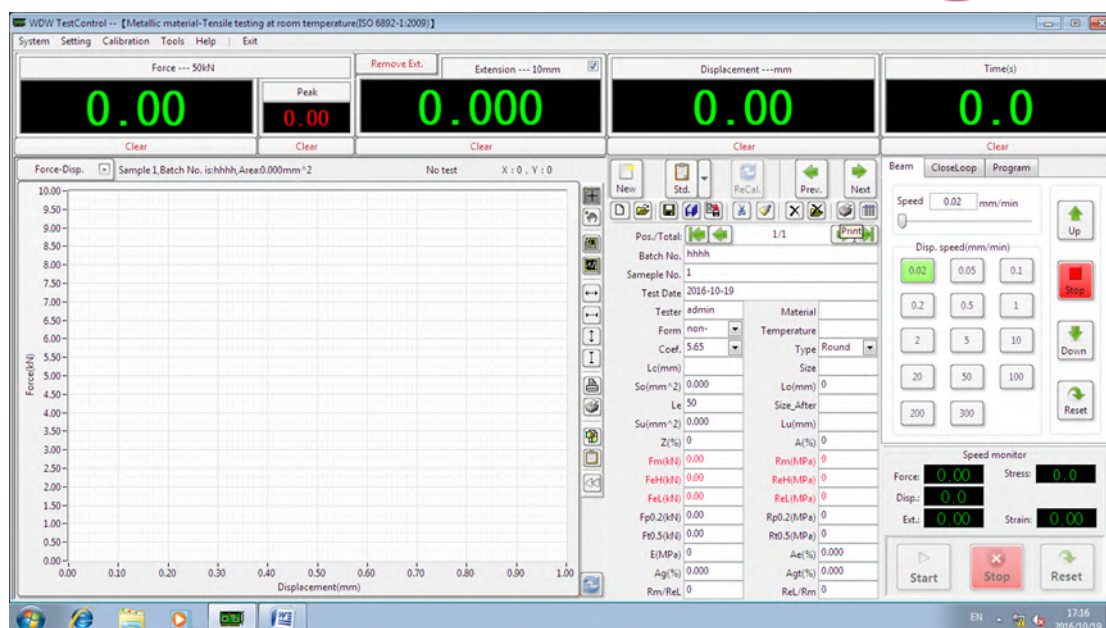
Working Principle

The testing machine is a combination of testing machine technology and mechanical transmission technology, sensor technology, automatic control technology. It consists of drive system, control system, measurement system. The drive system is mainly used for the movement of the beam of the testing machine, and the speed of the beam can be controlled by changing the motor speed. The control system is operated by the console control testing machine, and the state of the testing machine and the test parameters can be obtained through the display screen. The measurement system utilizes sensors, signal amplifiers, photoelectric encoders, and data processing systems to perform force measurement, deformation measurement, beam displacement measurement. Drive system, control system, measurement system and other subsystems to coordinate with each other to complete the material pull, pressure, bending and other mechanical performance testing.

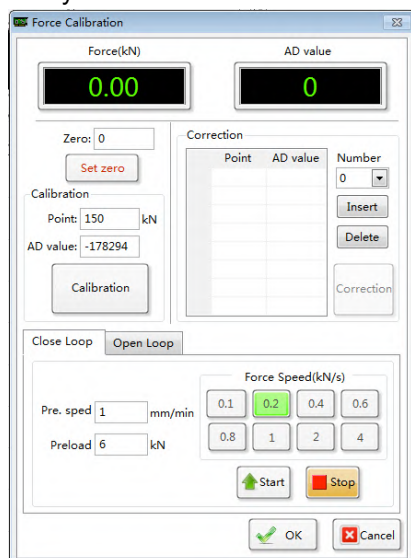
Features

- ☐ Widely used in metal and non-metallic processing industry, quality inspection departments, scientific research and other areas of higher education institutions;
- ☐ The movement speed of the beam during the test can be preset by the program or manually adjusted.
- ☐ The engine structure is formed by the upper beam, the middle beam, the lower beam and the bottom panel with two pairs of ball screw-rod and a vertical column. That ensured frame structure is rigid.
- ☐ Adopt all-digital AC motor drives the reducer and the synchronic gear belt and high-precision and seamless ball screw-rod that ensure its smooth load and high efficiency.
- ☐ The relative accuracy is high with 5000-line photoelectric encoder.
- ☐ The high-precision and high stability spoke strain sensor and high-precision measuring amplification system ensures the high-precision of the test force.
- ☐ Built-in controller to ensure that the test machine can be specimen deformation, test force and displacement of the
- ☐ The machine has a limit protection for auto-stop that can prevent the collision in the middle of the beam caused by overload or even damage the sensor;
- ☐ A variety of auxiliary equipment to meet the needs of a variety of materials testing;
- ☐ According to the size of the load can be automatically switched to the appropriate range to ensure the accuracy of measurement data;
- ☐ Zero, calibration, storage, etc without any analog adjustment link. The control circuit is highly integrated; ☐ The sample process is highly automated. The system is able to automatically achieve the calibration of standards of displayed values;
- ☐ After testing, the test data and the test curve are automatically saved for later retrieval; ☐ Can be batch test, the same parameters of the sample only a test set;
- ☐ With a brand computer to control the software operating system, Chinese and English Windows operating platform, menu prompt, mouse operation, it has the characteristics of high speed, mild interface and easy operation. It can meet the test measurement needs of different materials.
- ☐ Consistent with GB, ISO, ASTM, DIN and other relevant domestic and foreign standards

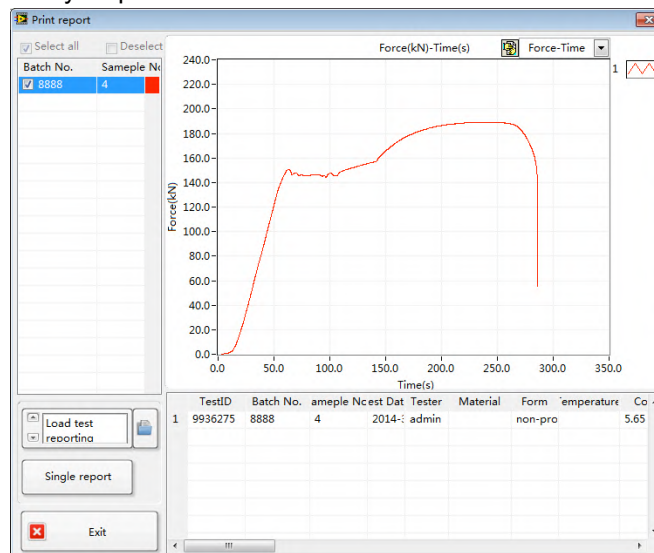
Software



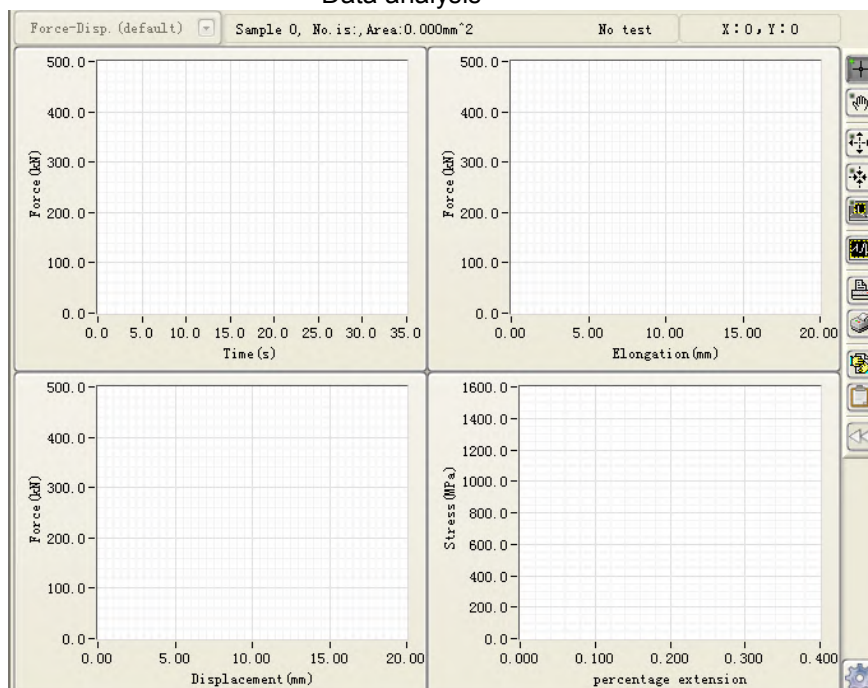
Easy Calibration



Easy Report



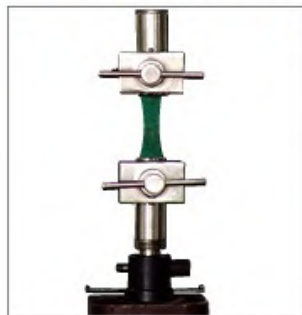
Data analysis



Standard Accessories for WDW Series

Items	Qty.	Picture
Main Unit	1	
Standard Double-clip Type Jig for Tension Test, Accessories for Compression Test	One Pcs. Each	
PANASONIC AC Servo Motor	1	
PANASONIC Driver		
High-precision Loading Transducer	1	
High-precision photoelectric encoder	1	
Desktop Computer Monitor, Computer Case, mouse and keyboard	1	
Adjusted Full-digital Data Acquisition Board	1	
Data Pro Software	1	
Remote Control for Gate Type	1	
Manual Book, Quality Certificate	One Pcs. Each	

Electronic Universal Testing Machine Can Be Equipped With Clamp



Rubber sheet tensile fixture



Tensile wire clamp



Rope tensile fixture



Tensile fixture wire



Pressure shear attached



The tensile shear clamp



The connecting rod tensile fixture



Woven belt tensile fixture



90 ° peeling clamp



Hydraulic tensile fixture



Bursting fixture



Geotextile tensile fixture



Rotary tensile fixture



Lever type cuneiform pull clamp



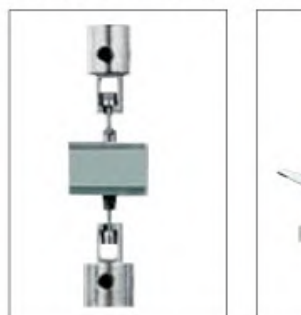
Lever type wedge clamp



Bending attached



8 matrix clamp



Other special materials attached

