Mitech MDW-TW Micro-Control Series Gantry Landing Type Spring Tension and Compression Testing Machine

Overview

Mitech MDW-TW micro-control series gantry landing type spring tension and compression testing machine,by microcomputer control motor drive screw motion, for a wide variety of spring tension and compression experiment was carried out, it adopts the built-in controller, AC servo motor, stable performance, strong structure, high reliability, simple operation and high degree of automation. Computer-aided means to achieve powerful functionality. Widely used in spring manufacturing, low-voltage electrical appliances, power machinery, institutions of higher learning and scientific research units and other fields.It is the necessary professional precision testing equipment for improving production efficiency and saving production costs.

Technical Parameters

Technical Parameters	MDW-TW				
	MDW-TW 10000	MDW-TW 20000	MDW-TW 50000	MDW-TW 100000	MDW-TW 200000
Structural form	gantry landing type				
Maximum testing force (N)	10000N	20000N	50000N	100000N	200000N
Testing machine grade	Level 1 (Level 0.5)				
Operation mode	Microcomputer control (Chinese and English software operation)				
Force measuring range	10% -100% of the maximum test force				
Accuracy of test force	Better than ± 1% of the indicated value (or ± 0.5% special selection)				
Deformation display error	≤±（50±0.5L）				
Minimum resolution of test force	1N				
Beam displacement accuracy	±1%（±0.5%）				
Deformation accuracy	Better than ±1%（±0.5%）				
Speed range	0.01-500mm/min				
Stretch test the maximum distance between two hooks	650mm				
Compression test the maximum	650mm				

distance between two platens	
Protection function	Overload protection, limit protection.
Power supply	220V
Dimensions	700*580*1720mm
Total weight	Approximately 450kg

Working Principle

Spring tension and compression testing machine, the sensor force generated by the signal sent to the measurement amplifier, amplified into the A / D converter into a digital signal is accepted by the computer system,by the computer system to accept the digital processing, the computer system to deal with the operation of A / D converter to the signal through the LCD display data.

Features

- Widely used in spring manufacturing, low-voltage electrical appliances, power machinery, institutions of higher learning and scientific research units and other fields;
- Modeling novel, strong structure, high reliability, simple operation, high precision;
- During the test, the moving speed of the beam can be preset or manually adjusted by the program.
- The beam and bottom panel form a frame structure through two pairs of ball screws to ensure the rigidity of the frame structure.
- Using built-in controller to ensure that the test machine can be specimen deformation, test force and displacement of the closed-loop control;
- The transmission system consists of circular synchronous tooth type belt, screw lead, smooth operation, high efficiency, low noise, no pollution;
- With a limit protection function, to automatically stop after the arrival limit, to prevent the collision in the middle of the beam caused by overload or even damage the sensor;
- 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 end of the test, the test data and the test curve are automatically saved for later retrieval analysis;
- Using the brand computer, Chinese and English Windows operating platform, menu prompts, mouse operation, with fast running, clear interface, simple operation and so on, to meet the needs of different materials testing;
- Consistent with GB, ISO, ASTM, DIN and other relevant domestic and foreign standards.

Scope of application

Widely used in spring mechanical performance test.

Applications

- Spring manufacturing industry
- Power machinery industry
- Experimental teaching experiment in colleges and universities
- Scientific research institutions of material analysis test

- Quality inspection departments quality testing links

Working conditions

- Operating temperature: room temperature ~ 45 ℃;
- Relative humidity: 20% to 80%;
- No vibration around, no corrosive media, no strong magnetic field interference;
- Horizontal installation on a solid basis;

Configuration

	No.	Item	Quantity	Note
Standard Configuration	1	Testing machine host	1	
	2	Control system	1	
	3	Power cable	1	
	4	Channel line	2	
	5	Computer	1	
	6	printer	1	
	7	Attached fiels	1	

Maintenance and care

- Before using this instrument, please read the instruction manual carefully, understand the operation steps and precautions, avoid the damage caused by improper operation or personal safety accident;
- Test machine is a large precision instruments, should pay attention to water, moisture. Exposed workstations, upper and lower beam parts and attached parts should be coated with anti-rust oil to prevent rust;
- If idle for a long time, at least once a week and move the upper and lower beams, so that beam position, silk mother often activities to prevent rust;
- Should be at least once a year for the instrument to do periodic testing to ensure the accuracy of the test machine;
- Electrical connection cable and equipment should be careful when connected, moderate efforts, remember not to swipe, hard pull.
- Don’t disassemble the instrument without authorization, maintenance related matter, please contact MITECH after-sale service department with 4000600280.