

Mitech MDW-TW Micro Control Series Single-arm Spring Tension/Compression Testing Machine

Overview

Mitech MDW-TW micro control series Single-arm Spring Tension/Compression Testing Machine, through the single-chip automatic control motor driving screw movement, for a variety of coil springs for tensile and compression test. 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. Widely used in spring manufacturing, low-voltage electrical appliances, power machinery, institutions of higher learning and scientific research institutes 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-TW1 00	MDW-TW2 00	MDW-TW5 00	MDW-TW1 000	MDW-TW2 000	MDW-TW5 000
Structural form	Single arm structure					
Maximum testing force	100N	200N	500N	1000N	2000N	5000N
Testing machine grade	Level 1 (or level 0.5)					
Operation mode	Microcomputer control (Chinese/English software operation)					
Force measuring range	2%-100% of the maximum testing force					
Relative error on indicated values of testing force	Better than $\pm 1\%$ of the indicated value (or $\pm 0.5\%$ for special choice)					
Deformation display error	$\leq \pm (50 \pm 0.5L)$					
Minimum resolution on the testing force	0.01N					
Precision on beam displacement	$\pm 1\%$ ($\pm 0.5\%$)					
Deformation accuracy	Better than $\pm 1\%$ ($\pm 0.5\%$)					

Speed governing range	0.01-500mm/min
Stretch effective space	300mm
Compression effective space	300mm
Protection function	Overload protection, limit protection
Power supply	220V
Dimension	450*260*1470mm
Total Weight	Approximately 110kg

Working Principle

Spring tension/compression testing machine measured by the force generated by the sensor signal amplified by the A / D converter into the digital signal is accepted by the computer system, the digital processing, the computer system to deal with the operation of A / D conversion Signal to the LCD display data.

Features

- Widely used in spring manufacturing, low-voltage electrical appliances, power machinery, institutions of higher learning and scientific research institutes and other fields;
- Modeling novel, strong structure, high reliability, simple operation, high precision measurement;
- The speed of the beam during the test can be pre-set by the program or setting by manual;
- 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 and screw lead. Smooth operation, high efficiency, low noise, no pollution
- With a limit protection function, arrived at the limit after the automatic shutdown, to prevent the collision in the middle of the beam caused by overload or even damage to the sensor;
- Automatically according to the size of the load can be switched to the appropriate range to ensure the accuracy of measurement data;
- Zero adjustment, calibration, storage, etc. without any analog adjustment link, the control circuit is highly integrated;
- After testing, test data and test curve will be saved automatically for later retrieval analysis;
- 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.

Scope of application

Widely used in spring mechanical performance test.

Applications

- Spring manufacturing industry

- Power machinery enterprises
- 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 °C;
- 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	1	
	5	Printer	1	
	6	Computer	1	
	7	Attached files	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;
- The instrument should be test at least once a year 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.