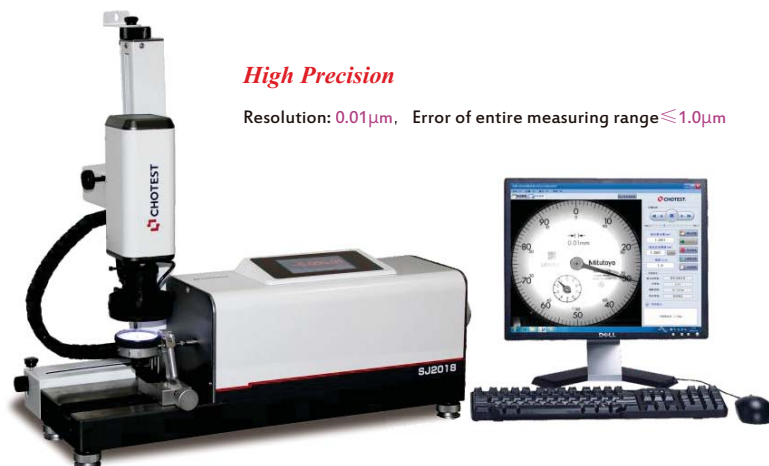


SJ2018 Fully Automated Dial Indicator Testing Machine



High Precision

Resolution: $0.01\mu\text{m}$, Error of entire measuring range $\leq 1.0\mu\text{m}$

Description

SJ2018 measures dial indicators accurately and automatically by using precision linear encoder system, accurate measurement and control technology of glass-scale displacement, long-life patented precision rail, imported motorized control system, patented non-reflective light source, high-resolution CCD camera, control system with LCD touch screen, and the newest intelligent image processing technology. A motor controlled by computer drives glass-scale to travel accurately, without manual adjustment by hand wheel or microdrum; All data is acquired by software automatically, without manual sampling; Scale and indication value are identified automatically by the CCD camera which completely simulates manual reading, without observed and read by operator; That Significantly reduces human labour and brainwork, as well as improves the testing speed.

SJ2018 is a fully automated testing machine. The operator only needs to install the dial indicator and select indicator type, division value, measuring range and other parameters in software, then the machine measures automatically after click the "Start" button, in accordance with relevant regulations. After measurement, the test record and result can be printed quickly(including data list of measuring points, error curve of forward – reverse measuring, qualification & eligibility level of indication errors, etc.).

Functions

1. Measure dial gauges, micrometer indicators, lever-type indicators, bore dial indicators, comparators automatically according to the newest relevant regulations and standards.
2. Measure the above with digital display automatically.
3. Measure the above with imperial system automatically.
4. Semi-auto testing function, which is for testing dial indicators with stains.
5. Function of automatic zeroing without manual zeroing before testing.
6. Function of overstandard hinting in measuring process.
7. Process and qualify the measured data automatically.
8. Can display and print former test results and test reports including error sheet or curve of measuring points and deviation values compared to specified standard.
9. Can query and manage the test records according to object type, manufacturer, manufacturing number, inspector, submitted institution, equipment number, inspection date or effective date etc.
10. Can print multiple selected test records or test certificates from database at once time.
11. Can export test data to the Word file.
12. Data backup and restore.
13. Can customize format of test report and test certificate according to requirements of customer.
14. Can customize testing standards according to requirements of customer.

Features

1. Artificial intelligence: Do not need manual reading & recording & calculating and manual adjustment with hand wheel or microdrum.

(1) Scale and indication value are identified automatically by the CCD camera which completely simulates manual reading, without observed, read and recorded by operator

(2) Function of automatic zeroing without manual zeroing before testing;

(3) A motor controlled by computer drives measuring spindle to arrive measuring point accurately, without manual adjustment by hand wheel or microdrum

(4) Powerful software automatically processes and qualifies the measured data, finally generates test result, additionally all test records can be queried, displayed, saved, printed.

2. Special light source:

(1) Patented no-reflective light source(Patent No.: ZL200620056214.1)

(2) If the surface of dial indicator is convex, the no-reflective light source is necessary to assure reliability of test data.

3. New patented slider:

National utility model patent(Patent No.: ZL201220239454.0)

Eliminate gap in forward – reverse measuring by reducing the wear between the slider and the guide rail;

High repeatability: significantly improve lifespan of the slider and guide rail.

4. Humanized design:

With Humanized design for both machine and software, the operator can be trained to use it in a short time. Operation of software with user-friendly UI is extremely simple. Particularly the system can identify pointer on dial indicator and acquire the indication value accurately even if the dial indicator is not in the right center of camera, so the dial indicator can be installed fast, and that simplifies the operating procedure and save operating time.

5. Large-capacity database

With built-in large-capacity storage space for database, the system can record and save all test records automatically.

6. Powerful print

Output 3 formal and nice report formats(curve, sheet or error value). Test data can be saved automatically, particularly a number of test results can be printed at a time, which saves operating time.

Parameters

Item No.	SJ2018
Measuring range	(0-50)mm
Resolution	$0.01\mu\text{m}$
Repeatability	$0.1\mu\text{m}$
Accuracy of automated reading	1/30 of division value for micrometer 1/60 of division value for dial indicator
Indication error	Random 1mm $\leq 0.6\mu\text{m}$ Random 2mm $\leq 0.6\mu\text{m}$ Random 10mm $\leq 0.8\mu\text{m}$ Random 30mm $\leq 0.9\mu\text{m}$ 50mm $\leq 1\mu\text{m}$
Return error	$\leq 0.5\mu\text{m}$
CE certificate	CE-EMC, CE-LVD
Interface	RS232 (Can convert to USB)
Input voltage	AC 220V 50Hz
Operation environment	Temp. (20 $\pm$ 2) $^{\circ}\text{C}$, RH(50~70)%
Dimension	Dimension (640 $\times$ 240 $\times$ 530) mm
Weight	35kg

Configuration

1. SJ2018 host machine	1 set
2. Workholder	2 sets
3. Desktop computer	1 set
4. HP laser printer	1 pc
5. Aluminum alloy case	1 pc
6. Measuring software	1 set
7. Cables	1 set
8. User manual	1 pc
9. Product certification and Warranty card	1 set

SJ3100 Electric Dial Indicator Testing Machine

Long base is optional

Vertical-horizontal standing type is optional

(Ideal for precision dial indicators which require micro measuring force)



Description

SJ3100 is a electric measuring instrument by using the newest linear encoder system and imported motorized control system. In accordance with a variety of regulations and standards, it measures dial indicators, clock gauges, lever-type indicators, bore dial indicators, dial indicators with large measuring range. The system processes the measured data automatically according to relevant regulation and standard, finally generates test report and result.

Features

1. A servo motor drives measuring spindle to travel accurately, without manual adjustment by hand wheel or microdrum.
2. Powerful software automatically processes and qualifies the measured data, finally generates test result.
3. Timely update the software against the newest regulations and standards.

Parameters

Item No.	Measuring range	Resolution	Indication error					Return error
			Random 1mm	Random 2mm	Random 10mm	Random 30mm	50mm	
SJ3100-10B SJ3100-10C	(0-10)mm	0.1μm	≤0.8μm	≤1.2μm	≤1.5μm	/	/	≤0.5μm
SJ3100-50B SJ3100-50C	(0-50)mm	0.1μm	≤1.0μm	≤1.3μm	≤1.5μm	≤2.0μm	≤2.8μm	≤0.5μm

Note: B series is standard model; C series is with imperial system based on B series.

Functions

1. Measure dial indicators, clock gauges, lever-type indicators, bore dial indicators, dial indicators with large measuring range in accordance with the newest regulations and standards.
2. Measure the above with imperial system and digital display function.
3. Semi-auto measurement.
4. Process and qualify the measured data automatically.
5. Can display and print former test results and test reports including error sheet or curve of measuring points and deviation values compared to specified standard.
6. Can query and manage the measuring records according to object type, manufacturer, manufacturing number, inspector, submitted institution, equipment number, inspection date, effective date and so on.
7. Can modify the saved test data and records.
8. Can print multiple selected test records or test certificates from database at a time.
9. Data backup and restore.
10. Can export test data to Word files.
11. Can customize the format of test record and test certificate according to the requirements of customers(optional).
12. Can customize test standard according to the requirements of customers(optional).

Configuration

- | | |
|--|-------|
| 1. SJ3100 dial indicator testing machine | 1 set |
| 2. Workholder | 1 set |
| 3. Aluminum alloy case | 1 pc |
| 4. Measuring software | 1 set |
| 5. Cables | 1 set |
| 6. User manual | 1 pc |
| 7. Product certification and Warranty card | 1 set |

SJ3000 Manual Dial Indicator Testing Machine



Description

SJ3000 semi-automatically measures dial indicators, lever-type indicators, bore dial indicators and special dial indicators in accordance with present regulations and standards, by using the newest photoelectric & mechano-electronic technology and precision linear encoder system. The machine processes the measured data automatically according to relevant regulation and standard, finally generates test record and result. (With the cooperation of software and computer, all test data and records can be queried, modified, saved and printed; The machine can measure independently without software and computer)

Configuration

- | | |
|--|-------|
| 1. SJ3000 dial indicator testing machine | 1 set |
| 2. Workholder | 1 set |
| 3. Aluminium alloy case | 1 pc |
| 4. Measuring software | 1 set |
| 5. Cables | 1 set |
| 6. User manual | 1 pc |
| 7. Product certification and Warranty card | 1 set |

Parameters

Item No.	Measuring range	Resolution	Indication error					Return error
			Random 1mm	Random 2mm	Random 10mm	Random 30mm	50mm	
SJ3000-10K SJ3000-10A	(0-10)mm	0.2μm	≤1.0μm	≤1.4μm	≤1.8μm	/	/	≤0.5μm
SJ3000-10B SJ3000-10C		0.1μm	≤0.8μm	≤1.2μm	≤1.5μm	/	/	
SJ3000-50K SJ3000-50A		0.2μm	≤1.0μm	≤1.4μm	≤1.6μm	≤2.5μm	≤3.0μm	
SJ3000-50B SJ3000-50C	(0-50)mm	0.1μm	≤0.8μm	≤1.3μm	≤1.5μm	≤2.0μm	≤2.8μm	≤0.5μm

Note: K, B series are standard models, and A, C series are with imperial system based on K, B series.