

Automatic Insert & Extract Test Machine Model:RS-6600A



Application

The machine is applicable for various connectors to be as tests between insertion force and withdrawal force, also can be of various tension tests and pressure tests ,and configure automatic O-heart device and special clamps of various connectors, which is able to get completely accurate results of insertion forces. The local machine adopts Windows procedure setting, which is easy and simple to handle, can store the testing data automatically (loading-routes curve, loading attenuation curve of life and the test results), and besides, all the test conditions can be stored. It adopts load cell measurement of high precision and servo motor drives, so it is able to get precise insertion force results. In fact, it is a kind of necessary detecting instrument for connector manufacturer and various finished products manufacturers to develop and check products.

Typical applications

Whole row plug tests of connectors	Single-hole plug tests of connectors
Connectors plug service life tests	Connector PIN and plastic retention force tests
Connector normal force tests	Connectors' shrapnel compression tests
Connectors' dynamic impedance tests	Various tension tests and pressure tests

Features

1. Full-automatic test mode

Testers only need to input and store the test condition of that test piece (a batch) and then can achieve automatic compression tests and tensile tests.

2. Wide applicability

Coordinated with different clamps, conduct various connectors, etc. products tests, which not only can be as compression tests and tensile tests of connectors, etc. R&D, IQC finished products, but also as service life and dynamic impedance tests. And after completing tests, automatically store test curves and data.

3. High precision

Loads resolution: 0.01gf. displacement resolution: 0.001mm.

4. Unit conversion

Loading: N, gf, kgf and Lb can be freely converted; displacement: mm and cm can be freely converted.

5. Language switch

Equipped with English, traditional Chinese and simplified Chinese, which can be freely inter-translated, with stronger applicability.

6. Large memory space

Test data (curves and data) is stored in the hard disk of the computers (each data can be stored with unlimited numbers).

7. Humanization design, easy and simple to handle

All the test conditions are set up by computer pictures: testing loading, displacement, numbers, speeds and waiting time...

8. Humanization report design

Contents of report title can be modified at any time (both English and Chinese are applicable), and reports shall be generated automatically, without need to re-input. Data reports and curve reports can be printed.

9. Automatically decide and analyze tests results

he upper limits and lower limits of the compression and tensile loading can be inputted, and automatically decide and analyze the test results, namely passed or failed, and so on.

10. Scroll-type graph display

Automatically generate tensile curves and compression curves, of which insertion means positive values and pulling-out means negative values.

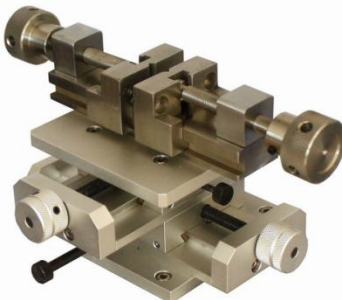
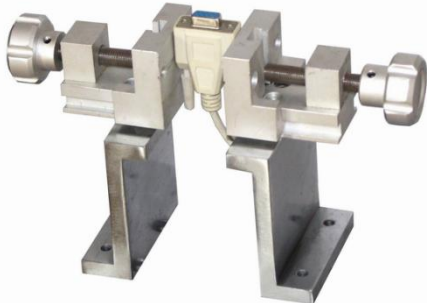
Bill of main materials

Component names	Detail	Qty	Manufacturer
servo motor and actuator	Lifting actuating and controlling	1pcs	Japanese PANASONIC
Precise ball screw	Lift drive	1pcs	Taiwan ABBA
Load cell	Insertion and pulling-out force, volumes: 200N	1pcs	America TRANSCCELL
Move rail	Drive the insertion & pulling-out clamps to move up and down.	1pcs	ITM-LAB
Up rail	Fix the clamps on the load cells.	1pcs	ITM-LAB
Large-scale X-Y mobile platform	After clamping samples, move towards X-Y direction, and the movement scope of X-Y: 0~75mm.	1 set	ITM-LAB
Automatic O-shape device	Automatically centering can solve the unilateral problem while testing.	1pcs	ITM-LAB
Elevated clamp	Connector clamps with cables	1set	ITM-LAB
Single PIN retention force clamp	Applicable for the retention force tests	1set	ITM-LAB
Test Control Board	For the control and collection of force value and displacement	1set	ITM-LAB
Console	Adopt high quality buttons of Siemens, which can control slowly going up and down and fast going up and down, sudden shut and so on.	1 set	ITM-LAB
Control computer	DELLT1700 18.5 inch LCD	1 set	DELL
Control cabinet	Adopt numerical control shearing, and laser cutting	1pcs	ITM-LAB
Mainframe computer	For the user of system control	1pcs	DELL
Switching power		1pcs	Taiwan MEAMWELL

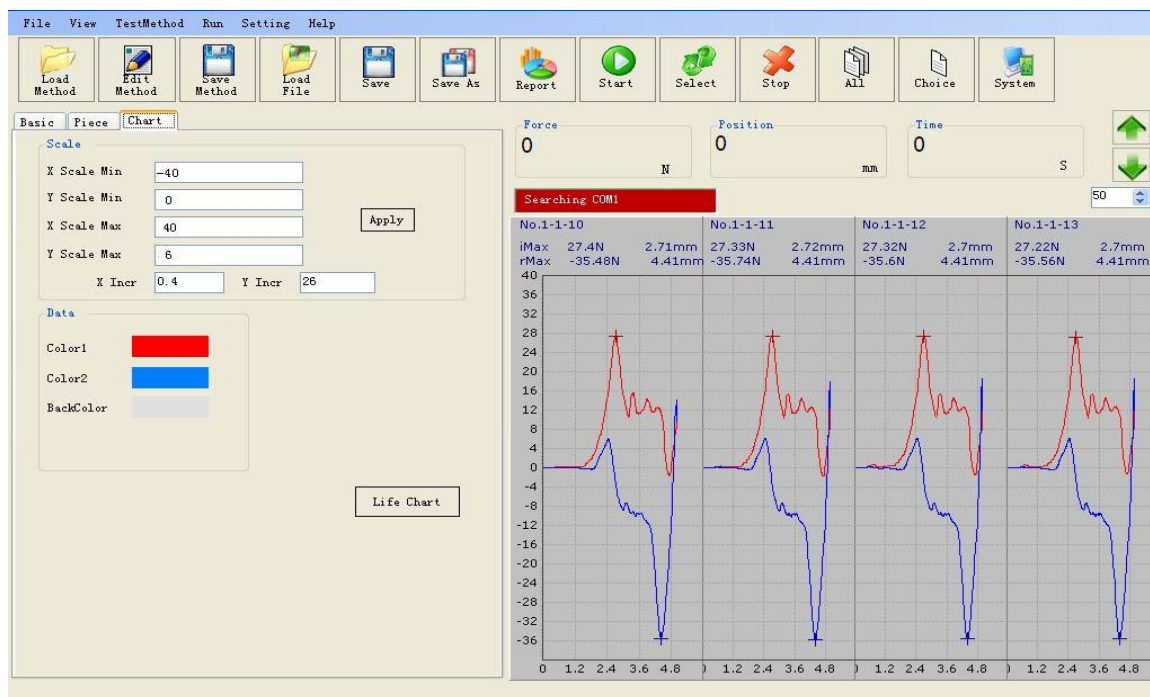
Technical sheet

Capacity(optional)	5kgf,10kgf,20kgf,50kgf,100kgf
Unit(Switchable)	kgf, N, Lb, gf
Load Accuracy	±0.2%
Load Least Display	0.01kgf or 0.01gf
Test Stroke	0~150mm
Stroke Least Display	0.001mm
Effective Width	290mm
Test speed	0~200mm/min or 600mm/min
Speed Accuracy	±0.5%
Motor	Japanese PANASONIC servo motor
Main Unit Dimension(WxDxH)	460x270x950mm
Main Unit Weight	70kg
Power	AC220 5A
Emergency stop time	100ms

Fixtures

	
Automatic O-shape device of the whole row insertion and pulling-out Automatic O-shape device Automatically centering I tests Applicable for various connectors (finished) clamps	Large-scale X-Y mobile station the maximum moving range: 75*75mm applicable for wide-range of sliding position test connectors single-pin insertion and retention force pilling-out
	
Elevated jig (without clamps) Applicable for connectors with cables or the ordinary connectors For the use of higher products tests (mobile phones /PDA	Special clamp for single-pin retention force applicable for retention force test the maximum clamp width: 2mm

Software



Equipped with the functions of units and language switch; multiple curves display; single and multiple retest options (patch tests); and being able to conduct the retention force, pulling force, pressure and fracture force tests; the test methods can be set up, stored and transferred;

Tests statements:

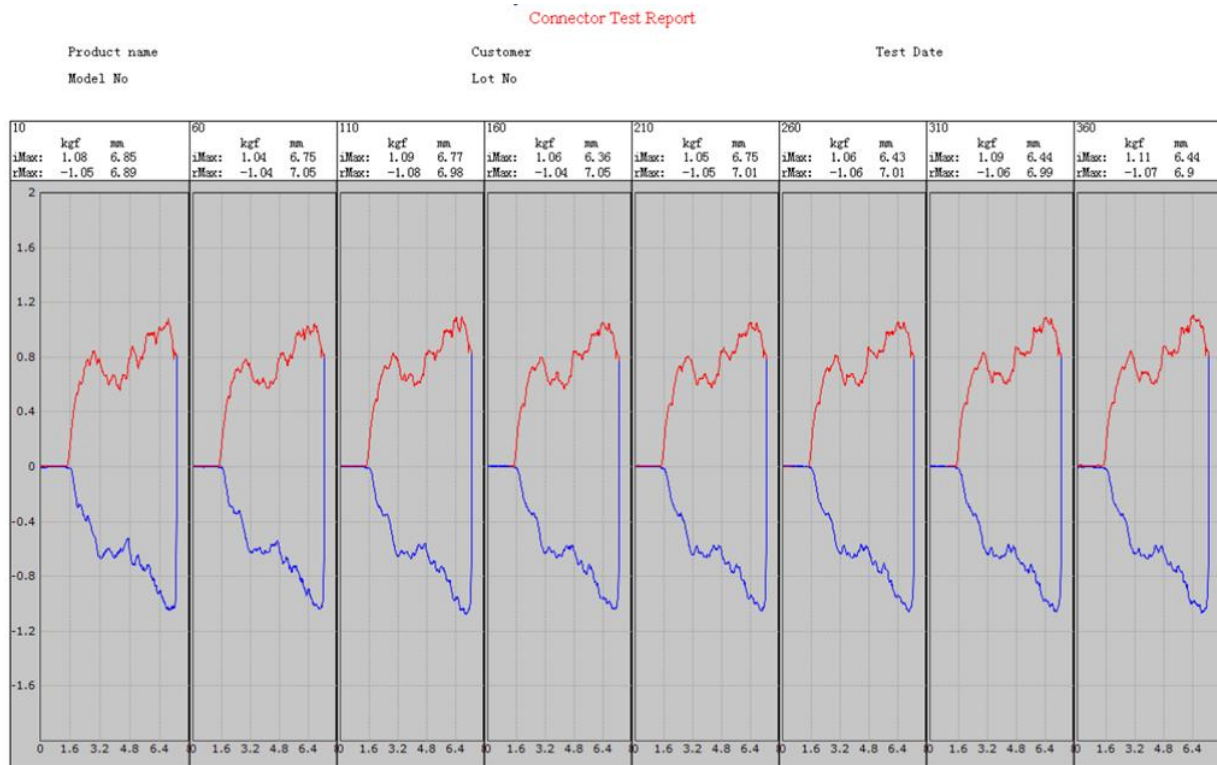
Connector Test Report

Product name		Customer		Test Date	
Model No		Lot No			
Upper	iMax	iPos	rMax	rPos	
Lower	102	1000	0	1000	
	0	0	-10.2	0	
max	1.13	6.85	-1.11	7.05	
min	1.04	6.36	-1.04	6.89	
rang	1.1	6.51	-1.07	6.95	
ang	0.09	0.49	-0.07	0.16	
	iMax	iPos	rMax	rPos	
10	1.08	6.85	-1.05	6.89	
60	1.04	6.75	-1.04	7.05	
110	1.09	6.77	-1.08	6.98	
160	1.06	6.36	-1.04	7.05	
210	1.05	6.75	-1.05	7.01	
260	1.06	6.43	-1.06	7.01	
310	1.09	6.44	-1.06	6.99	
360	1.11	6.44	-1.07	6.9	
410	1.13	6.39	-1.07	6.92	
460	1.12	6.38	-1.07	6.91	
510	1.13	6.42	-1.1	6.9	
560	1.13	6.39	-1.1	6.9	
610	1.12	6.43	-1.1	6.91	
660	1.13	6.42	-1.11	6.91	
710	1.13	6.43	-1.1	6.91	

Checked by _____ Approved by _____ Signature _____

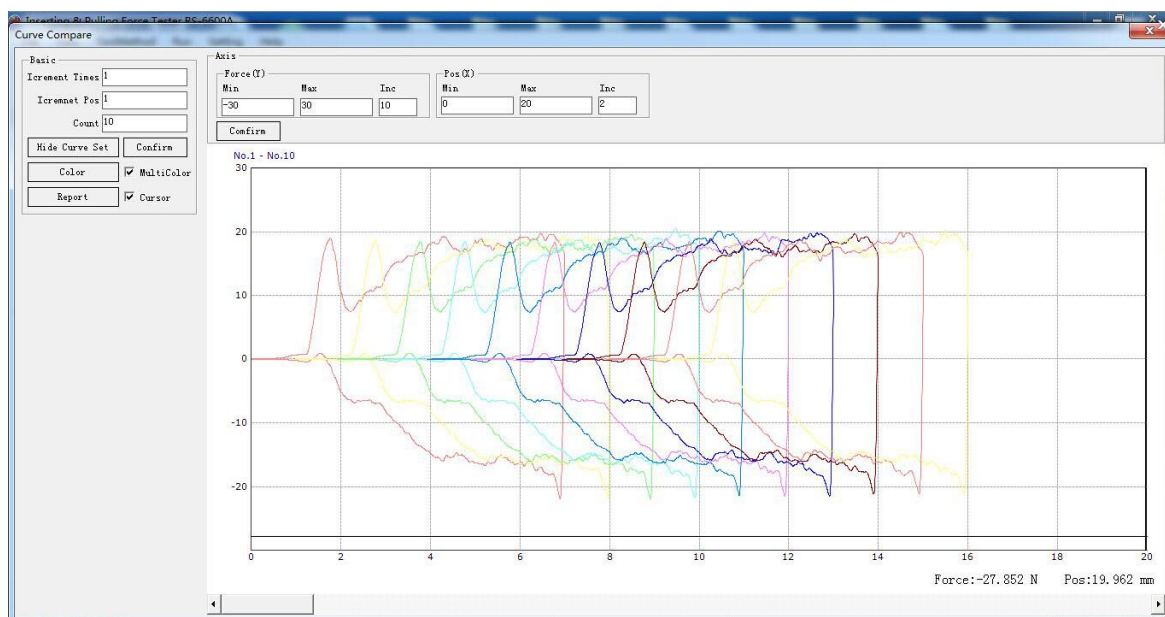
Curves statements (able to select the data curves that need to be printed)

Multiple curves can be printed in an A4 paper, pull the scroll bar to select the curves numbers needing to be printed freely or export the curves into other procedures, for example, electronic document...while sending an e-mail, insertion and pulling-out peak values and the corresponding displacement values shall be displayed on the curves automatically.



Output in the form of PDF

Curve compare function:



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