



TEST-E Series Computer Controlled Electro-Hydraulic Servo Universal Testing Machine

The TEST-E Series Computer controlled electro-hydraulic servo universal testing machine is the ideal choice for all your testing needs, capable of testing a wide range of flat and round specimens. The TEST-E Series UTM's also have a controllable speed range to comply with current International standards. The TEST-E series can also carry out compression/ flexural testing on concrete cubes and beams up to 2000 kN.

Standards

- ISO 6892
- DIN EN 10002-1
- JIS Z2241
- BS-18
- ASTM E8
- ASTM A370
- ASTM E4
- EN 10002-4
- ISO 7500-1

Function and Application

Model TEST-E Series computer control electro-hydraulic servo universal testing machine is suitable to test various metallic & non-metallic materials for tension, compression, bending and shearing strength. It is simple, easy to operate and widely used in work shops, laboratories and schools for material properties research and quality control. Equipped with a PC, Software & Printer, it can display, record, process and print test results, control the selected test procedures and draws test curves automatically in real-time. The machine complies with ASTM, DIN, ISO standards.

Load Frame

- Rigid four-column design, with two-lead ball screws
- Dual work space design: Upper for tension, Lower for compression or bending tests
- Movable lower crosshead providing ease of operation
- Accurate force measurement through a precision load cell
- Open front hydraulic wedge grips for easy change of inserts and specimen loading
- Integrated displacement photoelectric encoder

Safety Features

- Overload protection: When the testing load is over 2%-5% of Max. Load, the system will unload
- Stroke protection: When the ram arrives at the upper limited position, the motor will stop

Software

- The software is structured to allow the user to carry out the tests with minimum input
- Features full digital close-loop control modes, such as test load, displacement, stress and strain
- Different control modes can be switched between each easily
- Integrated test procedures, programmable steps up to 100 steps, software can also be extended to complete more complex testing procedures
- The software design aims to be easy and convenient in the testing operation. The software can also be amended to carry out multi batch testing
- Automatic data processing, processing method complies with multi international standards, such as ISO6892-1998, EN10002-1:2001 and ASTM
- International units are used as standard, such as SI, metric measurement, etc. system unit and British so the system can be used in various countries
- Manual data processing can be used to process various kinds of test data
- Test reports, can be stored, printed and re-analysed
- Test data is stored in the form of 'text mode', and any general commercial data processing software can used to reprocess any test data
- Features assorted test curves
- Integrated document operating system, for example, test report, test parameter, system parameters can be stored in the form of 'text mode'
- Compatible with different commercial printers
- Control system is software based, so upgrading the system is easy

Model	TEST-300E/400E	TEST-500E/600E	TEST-1000E	TEST-2000E
Max. Load (kN)	300/400	500/600	1000	2000
Load Measuring Range	2~100%F.S.	2~100%F.S.	2~100%F.S.	2~100%F.S.
Load Accuracy (%)	±0.5	±0.5	±0.5	±0.5
Deformation Measuring Range	2~100%F.S.	2~100%F.S.	2~100%F.S.	2~100%F.S.
Deformation Accuracy (%)	±0.5	±0.5	±0.5	±0.5
Displacement Position (mm)	0.01	0.01	0.01	0.01
Test Loading Speed (mm/min)	0.1-50	0.1-50	0.1-50	0.1-50
Max. Crosshead Speed (mm/min)	200	200	200	200
Stress Control Range	1~60(N/mm ²)S ⁻¹	1~60(N/mm ²)S ⁻¹	1~60(N/mm ²)S ⁻¹	1~60(N/mm ²)S ⁻¹
Strain Control Range	0.00007/s~0.0067/s	0.00007/s~0.0067/s	0.00007/s~0.0067/s	0.00007/s~0.0067/s
Tensile Space ¹	0.00007/s~0.0067/s	0.00007/s~0.0067/s	0.00007/s~0.0067/s	0.00007/s~0.0067/s
Compression Space (mm)	530	590	570	780
Piston Stroke (mm)	250	250	250	250
Column Distance (mm)	435	480	570	840
Column Diameter (mm)	65	75	90	110
Working Table Size (mm)	550 x 670	600 x 670	650 x 800	900 x 1200
Flat Jaw (mm)	73 x 73	90 x 90	110 x 110	160 x 140
Platen Size (mm)	73 x 73	90 x 90	110 x 110	160 x 140
Bending Span (mm)	30-480	30-500	50-500	50-720
Platen Size (mm)	73 x 73	90 x 90	110 x 110	160 x 140
Roller Diameter x Length (mm)	Ø30 x 120	Ø30 x 120	Ø50 x 160	Ø50 x 160
Bending Depth (mm)	100	100	180	180
Max. Height mm	2200	2475	2665	3500
Size of Power Pack (mm)	600 x 600 x 1400	600 x 600 x 1400	600 x 600 x 1400	600 x 600 x 1400
Oil Tank Volume (L)	110	110	110	150
Oil Pressure (MPa)	26.5	26.5	26.5	26.5
Net Weight (Kg)	1200	2450	2600	8500
Dimension of Load Frame ³ (mm)	720 x 560 x 1940	770 x 600 x 2225	900 x 650 x 2415	1300 x 900 x 3250
Shipping Dimension (mm)	2400 x 1000 x 1150 930 x 930 x 1670	2720 x 1130 x 1200 930 x 930 x 1670	2900 x 1250 x 1260 930 x 930 x 1670	3900 x 1450 x 1350 1500 x 1050 x 1670

Power Supply

3PH, 5 Wire 380VAC 50Hz,
2.5kW

3PH, 5 Wire 380VAC 50Hz,
2.5kW

3PH, 5 Wire 380VAC 50Hz,
4kW

3PH, 5 Wire 380VAC 50Hz,
7kW

Datasheet Version: 19.01/01