



## ELECTRO-HYDRAULIC SERVO CONTROL UNIVERSAL TESTING MACHINE (Multi Wire Strand) 1200kN

Standard: BS EN 10002-1, BS 5896, ISO 7500-1, ASTM A370, ASTM A1061/A

### Tensile & Compression

This TT 6000 Series UTM used for the mechanics property test such as the tensile, bending, compression and etc to various metallic and non-metallic materials. The testers have been developed according to BS EN 10002-1, ISO 7500-1 & ASTM A370 "Metal Tensile Test Method" with the adoption of the electro-hydraulic servo control and electronic measurement. It can automatically process the test result for statistical purpose and print default or user-defined test report.

TT 6000 Series UTM use the micro-computer automatic data collection and processing, real time display of the test data and curves. It has the functions such as unlimited storage of test result in the computer, printing the test results and curves, processing the batch test result report, managing the database and so on. It also has the network interface. It can automatically seek the multiple technical parameters such as elastic module E upper yield strength ReH, lower yield strength REL, stipulated non-proportional elongation intensity Rr, tensile strength Rm, stipulated total elongation intensity Rt, yield point percentage elongation and etc.

TT 6000 Series UTM have the features such as the high precision, advantage performance, high reliability, convenient operation and etc.

### OPERATION DISPLAY

Computer Screen Display unit with the following functions

- \*Test force display
- \*Break detection
- \*Full auto test range switching function
- \*Auto return function
- \*Peak / Break value display function
- \*Test conditions

### SAFETY FEATURES

The system include with the followings safety features

- \*Emergency stop switch
- \*Overload limit
- \*Ram-stroke limit
- \*Hydraulic pump motor over-current & over heating protection
- \*Leak / over current protection
- \*Automatic stop control
- \*Safety Guard

### CONTROL & DATA PROCESSING SOFTWARE

- \*User friendly & easily due to clear and brief operation – operation interface
- \*Automatically save the test conditions & results
- \*User define test curves including : Stress / Strain, Force / Elongation, Strength / Time to suit various requirement
- \*Individual or combine display test curves on the same screen to compare with other several data at the same time
- \*Compatible with Microsoft Excel by import or export function
- \*Base of testing with digital sample break detection, auto ranging, auto calibration, quick tare & auto return facilities
- \*Exceeds all International Standards for accuracy, ASTM, DIN, ISO, JIS, EN, GB...etc
- \*Tension, Compression, Shear, Cycling & Creep Test facilities
- \*User define Real Time Display Including Load, Stress, Elongation, Strain, Speed or Time
- \*Advanced protection features with software setting or / & hardware switch upper & lower limit setting
- \*Operation fully control by computer
- \*USB communication system & ethernet
- \*Grips & fixtures for tension, compression, flexural, shear & products testing available
- \*Fully user define report including Report Sheet, Label, Chart & Bitmap or JPG
- \*Report sheet consist of Load, Elongation, Yield, Break, Stress Modulus, Strain, Tear Strength, Peel Strength etc
- \*Force display unit : kN,N,tons, & mN
- \*Stress display unit : GPa,Mpa,Pa,psi,N/sq.mm, & Kg/sq.mm.
- \*User define Yield Strength, Young Modulus, Offset Setting, Graph Offset, Export & Import test data, ...etc

### Unique Feature :

- \*Over size prestressed 4 column with twin screw
- \*High toughness fragment safety guard with transparence sliding door
- \*High precision load cell ram
- \*Built-in shock absorbing system on base mounting
- \*Console Control Unit

CIVIL ENGINEERING TESTING EQUIPMENT

STEEL

## 1200kN Specification

### Technical Specifications :

Model Number	TT 6KSX / 029		
Load. Capacity	1200 kN	Effective Measurement Range	1% - 100% FS (Full Range without binning)
Machine Class	Class 1	Deformation Measurement Range	1% - 100% FS
Load. Accuracy	±1%	Relative Error of Deformation Indication	±1%
Displacement Resolution	0.001 mm	Relative Error of Displacement Indication	±1%
Max. Compression Space	900 mm	Relative Error of Displacement Rate Control	±1%
Max. Tensile Space	1000 mm	Strain Rate Control Adjustment Range	0.00025/s / 0.0025/s
Piston Stroke	200 mm	Relative Error of Strain Rate Control	±2%
Max. Cross Head Speed	240 mm/min	Force, Deformation & Displacement	0.3% - 100% FS
Test Speed	100 mm/min	Retention Control	
Wire Strand Size	Ø8 - Ø18 mm	Relative Error of Force, Deformation & Displacement Retention Control	≤1%
Round Specimen Size	Ø14 - Ø45 mm	Horizontal Clearance (max)	505 mm
Flat Specimen Size	40 mm	Dimension (Frame)	1050 (L) x 800 (W) x 2800 (H) mm
Max. Distance of Bending Test	300 mm	Dimension (Control Console)	1100 X 750 X 900 mm
Size of Compression Platen	Ø225 mm	Power	380 - 415 V, 2.2 kw / 0.4 kw , 50 / 60 Hz
		Weight (Control Console)	300 kg
		Weight (Frame)	3500 kg

### Unit Standard Accessories :

Model Number	Accessories Description	Qty
TT 6KSX / 029 – P 001	Flat Specimen Jaw Set (0 - 20 mm Thick)	1 set
TT 6KSX / 029 – P 002	Round Specimen Jaw Set A (Ø13 - Ø26 mm)	1 set
TT 6KSX / 029 – P 003	Round Specimen Jaw Set B (Ø26 - Ø40 mm)	1 set
TT 6KSX / 029 – P 004	Compression Platen Set (Ø225 mm)	1 set
TT 6KSX / 029 – P 006	Footing Stopper Bar c/w Wall Plug (2 Bar & 4 Plugs)	1 set
TT 6KSX / 029 – P 007	Wire Strand Jaw Set (Ø8 - 18 mm)	1 set
TT CP – 200	Computer Printer	1 unit
TT 6000 X TSL	2 Step Ladder	1 unit
TT SVP – 2.2	Servopack Console Control Unit with Built-in Computer and Pre-Installed with TestMaster Software	1 unit

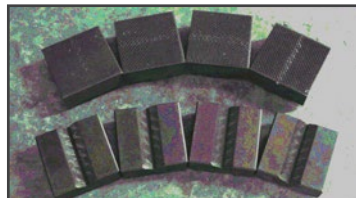


Front Grip

\*1 Copy of Manual Instruction



Compression Platen Set



V-Shaped & Flat Jaws



Stopper Bar

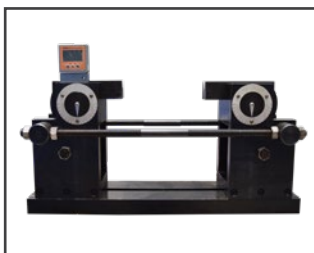


Computer Printer

### Optional Accessories :

Model Number	Accessories Description
TT AEX – 25/10	Axial Electronic Extensometer (GL25 / D10)
TT AEX – 50/25	Axial Electronic Extensometer (GL50 / D25)
TT AEX – 100/25	Axial Electronic Extensometer (GL100 / D25)
TT AEX – 500/25	Axial Electronic Extensometer for PC Strand (GL500 / D25)
TT 6000 X / BRD	Bend & Re-bend Device
TT 6000 X / BRD – A1	Bending Holder & Mandrel Set
TT 6000 X / AGP1	Aluminium Grip Piece (T=1.5mm) For 12.7mm Wire
TT 6000 X / AGP2	Aluminium Grip Piece (T=2.4mm) For 12.7mm Wire
TT 6000 X / AGP3	Aluminium Grip Piece (T=1.5mm) For 15.6mm Wire

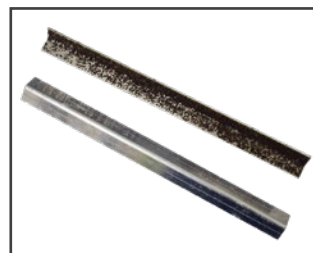
\*1 Copy of Manual Instruction



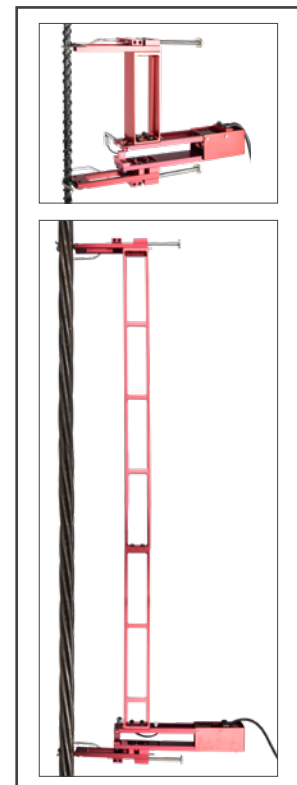
TT 6000 X / BRD



TT 6000 X / BRD – A1

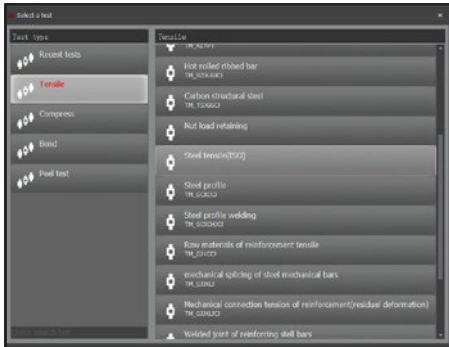


TT 6000 X AGP

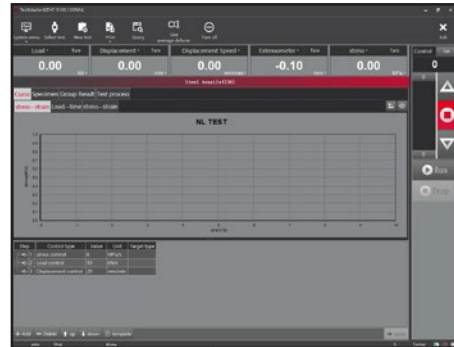


Extensometers

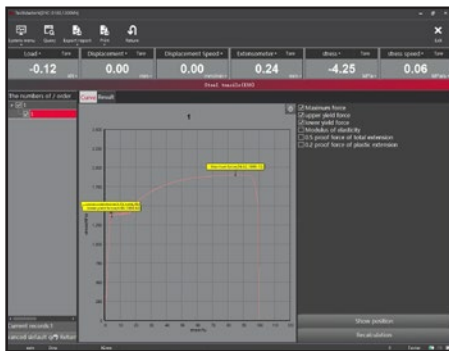
## TEST REPORT SOFTWARE



Testing Type List



Main Testing Interface



Result Display Interface

Order	Material	Standard	Yield strength (MPa)	Tensile strength (MPa)	Elongation at break (%)	Reduction of area (%)	Number of cycles
1	S205	EN10025-2	355	510	22	50	1000

Exported Test Result



2 Steps Ladder