

Electromechanical Universal Testing Machine

CMT8000 Series

(5N-500N)

Instruction:

CMT8000 Series (Fig1.) dual column electromechanical universal testing machines offer load frame capacities from 5N to 500N. The system can be equipped with standard computer and color printer, inherent operation software in PC integrates SANS DCS-300 controller carry out three closed loops control function including load, deformation and displacement. It is suitable in performing tensile, compression, peeling, and tear tests of wire, tinsel, film, paper, precise spring and so on according to ISO, ASTM, DIN or other standards.



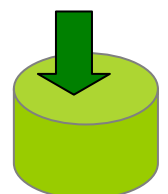
Fig 1. CMT8000 with standard PC & Printer

Common Features:

CMT 8000 Series thoroughly considered of saving your investment cost to launch both single testing space models and dual testing space models, and these models are utilized furthest in various heights, width, be equipped with varied accessories and further test equipments are also available in wide range to meet your particular needs.

Apply extremely rigid guide profile with concentric guide axis. The play-free guide and the ball lead screw ensure low wear and comfortable operation in tensile, compression and some special tests modes. Additionally the profile of these CE-conform machines enables accessories to be mounted for greater ease of use.

The high precise digital technology servomotor drive system features a high control range. Super robust, industrial drives are used with a negligible thermal development (thus increasing the lifespan of the system), making them highly dynamic through position, velocity, and acceleration control. These drives are extremely low noise even at nominal speed at rapid crosshead return. The operation with standard PCs and the test software PowerTest® offers you the highly comfortable operation, efficient data analysis and statistics, and preferment networking functionality. The test machines are all equipped with our proprietary



controller DCS-300 upgrade) based on

DSP technology.

Key Features:

- High precision and easy to use
- The CMT series have a huge assortment of specimen grips and fixtures allowing the selection of an ideal configuration for your application
- SANS offers two kinds of load cells including Grade 0.5 with accuracy of $\pm 0.5\%$ and Grade 1 with accuracy of $\pm 1\%$
- The effective load measurement range from 0.4% to 100% of the load cell capacity in grade 0.5 and 0.2% to 100% of the load cell capacity in grade 1.
- Mini style and saving space
- Wide range application and low cost investment
- Maximum tensile space reaches 500mm
- Load weighing resolution of 1/300000 of full capacity without any stage
- Highly displacement resolution of 0.00008mm
- Speed resolution of 0.001 mm/min
- Force accuracy of 0.5% of applied load across the load cell display range
- Constant load, constant strain, and constant displacement control available in full testing processing
- PC control via high speed USB using ASCII mode and super high speed binary mode
- Built-in intelligent active force and displacement limit system
- High precision servo motor controller
- 120% mechanical overload capacity on each load cell
- Automatic motor drive alarms that monitor over/under voltage, current and temperature

Technical Specifications:

Series	Unit	CMT8000
Model	----	8500、8101、8201、8501、8102、8202、8502
Capacity	N	5、10、20、50、100、200、500
Accuracy	----	Grade 1/0.5
Position Resolution	μm	0.08
Clearance Between Columns	mm	300
Vertical test space	mm	500
Testing Speed Range	mm/min	0.001-500
Jog Speed	mm/min	50-500
Return Speed	mm/min	500
Dimension LxWxH	mm	500x370x1160
Load frame Stiffness	N/mm	600
Power	W	200
Weight	kg	50

Remarks: Vertical test space means the space between standard tensile grips, which varied according to different grips. Vertical test space and the clearance between columns can be extended according to customer's requirement. "/" means the optional items

Specifications:

Load measurement accuracy: +/- 1% of indicated load from 0.2% to 100% capacity(Grade 1); +/- 0.5% of indicated load from 0.4% to 100% capacity(Grade0.5)

Load measurement resolution: 1/300000 of capacity, no steps in full loading range and keeping unchanged

Position measurement accuracy: +/- 0.5% of reading

Strain measurement accuracy: +/- 0.5% of indicated load from 0.2% to 100% capacity FS

Displacement speed accuracy: +/-1% of setting when speed less than 0.01mm/min, +/-0.2% of setting when speed (equip to)/more than 0.01mm/min

Operating temperature range: 0 to 38 degrees C

Storage temperature range: -10 to 45 degrees C

Humidity range: 10% to 90% non-condensing, web bulb method

Power: standard optional voltages 220/240VAC, 50-60 Hz, ; power must be free of spikes and surges exceeding 10% of the nominal voltage(CMT5000 needs voltage in 380V+/-10%)

Notes: 1. Load weighing system meets or exceeds the requirements of the following standards: ASTM E4, EN10002-2, BS 1610, DIN 51221, ISO 7500-1. SANS recommends that systems are verified at installation in accordance with ASTM E4 and ISO 75001. 2. Strain measurement system meets or exceeds the requirements of the following standards: ASTM E83, EN 10002-4, BS 3846 and ISO 9513.

