

## Electromechanical Universal Testing Machine

**CMT2000 Series      50N-5kN**

### Introduction:

The single column materials testing machines have frame capacities from 50N to 5kN which provide two types of load frame: 101 type (one support column with one ball screw) and 100A type (two support columns with one ball screw) (fig 1). These machines are designed to test a wide range of materials, including, but not limited to: plastics, rubber, films, paper, packaging materials, non-woven fabrics, filter material, felt, leather, adhesives, foils, food, toys, medical products and components etc., in tension, compression, flexure, shear, peel and others.



**Fig1.** Single column testing machine with standard PC

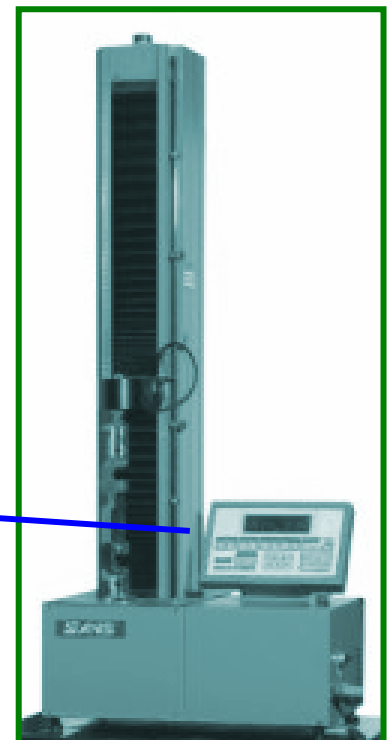
### Main features:

**CMT2000** Series single column universal testing machines owns the system of simplest operation, the standard models is mounted manual operation keyboard LCD(Fig2.) or standard PCs operation, SANS patent full digital control system guarantee load resolution reaching 1/300000 in full loading process with no stage. Additionally, the maximum height of these single models testing machines can be customized in the use of tension tests of rubber and some other long elongation materials by equipping with long travel extensometer (Fig3.) and related accessories.

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**Fig2.** LCD testing machine



- Automatic sensor detection and intelligent help for all dangerous and error situations
- Highest machine availability by use of robust and sturdy industrial drive systems
- Controlled drive and positioning through adaptive control and fully automatic controller (DCS-300 ) adjustment
- Modular system for mechanics, software and electronics with low price configurations to suit requirements
- High investment security through individual configuration possibilities
- Compatibility concept for continuous component expansion
- Low weight and space-saving installation on a table enables the site of operation/testing to be varied as required
- Optionally expandable with a manual

extensometer for direct extension measurement

- Full ISO 9000 and CE compliance

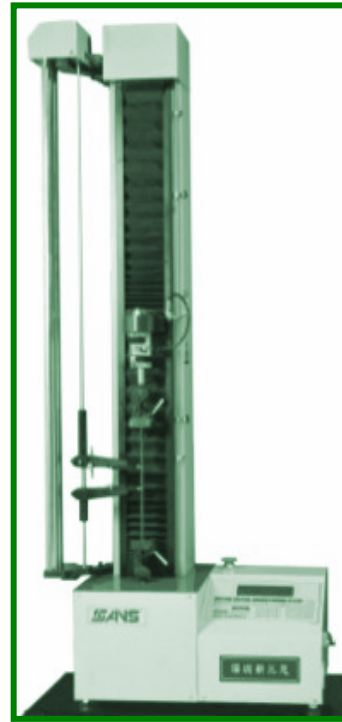
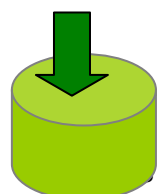
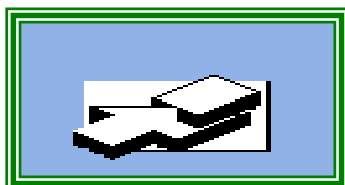


Fig3. Rubber tensile testing with long travel extensometer

## Technical Specifications

MODEL	Unit	CMT2000
Capacity	kN	5
Accuracy	----	Grade 1
Load Cells (rapid -change)	----	5kN, 2kN, 1kN, 500N, 200N,100N, 50N
Position Resolution	µm	0.03
Maximum Crosshead travel	mm	500
Testing Speed Range	mm/min	0.001-500
Jog Speed	mm/min	50-500
Return Speed	mm/min	500
Dimension LxWxH	mm	570x430x1400(1640)
Load Frame stiffness	kN/mm	6
Power	W	200/400
Weight	kg	90



## 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.*

