

# 600kN Computer Control Electro-Hydraulic Servo Universal Testing Machine CMSUTM-600B

## 1. Model and name

CMSUTM-600B Computer Control Electro-Hydraulic Servo Universal Testing Machine

## 2. Usage

This machine adopt the oil cylinder down-setting type, is mainly used for metal, nonmetal tensile, compression, bending and shear test.

Test operation and data processing in accordance with GB/T 228-2010 "metallic materials tensile testing" requirement, if change the structure and related parts replacement and can meet the ASTM, ISO and other international standards requirements. The machine is suitable for metallurgy, construction, light industry, aviation, space, materials, tertiary institutions, scientific research units, etc.

## 3. Main Technical Parameter

3.1. Max. Test force:	600kN
3.2. Accuracy levels:	1 class
3.3. The column number:	4 columns
3.4. Measurement range of test force:	2%~100%FS (full scale)
3.5. Test force value relative error:	$\leq \pm 1\%$
3.6. Test Force Resolution:	0.01kN



# 600kN Computer Control Electro-Hydraulic Servo Universal Testing Machine CMSUTM-600B

3.7. Deformation measurement range:	2% to 100% of Extensometer
3.8. Deformation Resolution:	0.001mm
3.9. Displacement value relative error:	$\leq \pm 1\%$
3.10. Displacement resolution:	0.01mm
3.11. Clamping method:	hydraulic clamping
3.12. Piston stroke:	200 mm
3.13. The piston movement maximum speed:	100 mm/min
3.14. Maximum tensile test space:	600mm(include piston stroke)
3.15. Distance between two columns :	500mm
3.16. Round specimen clamping range:	$\varphi 13$ - $\varphi 40$ mm
3.17. Plate specimen clamping thickness:	0-15mm
3.18. Clamping width:	80mm
3.19. Maximum compression test space:	500mm(include piston stroke)
3.20. Pressure plate size:	$\varphi 188$ mm
3.21. Bending test roller spacing:	30-300mm
3.22. Bending test roller width:	140mm
3.23. Bending indenter diameter:	$\varphi 30$ mm
3.24. The host dimension:	820*620*1980mm
3.25. Host weight:	about 2200Kg
3.26. Power supply:	220V,60Hz, 3-phase

Cualquier duda o aclaración favor de llamarnos, estamos para SERVIRLE

México: (-52) 55-5300-4517, 55-53004271, 55-5312-2536

Querétaro: (-52) 442-340-0250, 442-340-0251, 442-193-5678

Puebla: (-52) 222-219-9999, 222-887-0114, 222-228-1633

# 600kN Computer Control Electro-Hydraulic Servo Universal Testing Machine CMSUTM-600B

## 4. Performance characteristics

### 4.1. Mechanical process structure:

Native host part adopts cylinder down-setting type, chain transmission and hydraulic clamping, stretching space located in the upper part of the host, compression, bend, shear test space between middle beams and the workbench in the host; Oil source part adopts hydraulic oil source.

4.1.1. The workbench and beams using cast steel materials, pillar and screw use Cr40 quenched and tempered, rigid;

4.1.2. The cylinder adopts a special process, honing processing, gap seal, sealing strong, long service life;

4.1.3. High pressure oil pump, low noise, smooth operation;

4.1.4. Oil source hose used for containing rubber hose steel wire cables, security seal does not leak;

4.1.5. Oil source using steel plate forming, surface plastic spraying processing, marble mesa, computers and printers can be placed clean and save space.

### 4.2. Control and measurement system:

The control and measurement system absorbs all kinds of advanced experience of current test machine control, and adopts full-digital electro-hydraulic servo closed-loop control and measurement system to realize constant velocity stress, constant velocity strain, constant velocity test force, constant velocity displacement and test force maintain, displacement maintain control functions. The system has multiple layers of protection functions, which can achieve various safety protections such as overload, overcurrent, overvoltage, undervoltage, overspeed and limit of the testing machine.

**Cualquier duda o aclaración favor de llamarnos, estamos para SERVIRLE**

México: (-52) 55-5300-4517, 55-53004271, 55-5312-2536

Querétaro: (-52) 442-340-0250, 442-340-0251, 442-193-5678

Puebla: (-52) 222-219-9999, 222-887-0114, 222-228-1633



# 600kN Computer Control Electro-Hydraulic Servo Universal Testing Machine CMSUTM-600B

The system is equipped with a dedicated monitoring and control software, the test data for statistical processing, automatic strike on the lower yield point, tensile strength, tensile strength, elastic modulus and elongation of each point,  $\sigma_{0.2}$  etc data. Computer real-time display of force, displacement, strain and other parameters during the test, and the test curve dynamic display, and according to the different needs of the force - time, force - displacement, displacement - time curve mode switch can also output kinds of test curves and reports:

- 4.2.1, Hierarchical management of user rights, user login, open the appropriate action under the authority of functional modules;
- 4.2.2, Using the most advanced multi-threading technology to collect data rate, stability, and can automatically Immunity various sensor data processing, to avoid accidental capture of failure of control failure defects;
- 4.2.3, Has a powerful report editing features, test reports, prepared in accordance with the requirements and output the desired result, the data can also be used to save Word. format, easy to edit;
- 4.2.4, Database management, automatically save all test data and curves, and has a curve to enlarge, compare and times read function for the laboratory network to provide a quality foundation.

Cualquier duda o aclaración favor de llamarnos, estamos para SERVIRLE

México: (-52) 55-5300-4517, 55-53004271, 55-5312-2536

Querétaro: (-52) 442-340-0250, 442-340-0251, 442-193-5678

Puebla: (-52) 222-219-9999, 222-887-0114, 222-228-1633

[www.cmsmetrology.com.mx](http://www.cmsmetrology.com.mx)

[www.controlymedicion.com.mx](http://www.controlymedicion.com.mx)

# 600kN Computer Control Electro-Hydraulic Servo Universal Testing Machine CMSUTM-600B

## 5. Configuration

NO.	Descriptions	Quantity	Remarks
1	The host Machine 600kN	One Set	Cylinder Down-setting
2	Electro- hydraulic Servo Oil Sources	One Set	Desktop
3	Electro- hydraulic servo valve	One	Imported ATOS
4	High-pressure Oil Pump	One	
5	Oil pressure Oil Pump	One	600kN,
6	Hand Control Box	One	
7	Extensometer	One	Gauge Length:50mm; Deformation: 10mm
8	Special Data Acquisition Card	One	
9	Special Measurement and Control Software	One	
10	Commercial Brand Computer	One	Levono
11	Brand Printer	One	HP Color Inkjet A4
12	Tensile Fixture (Round Jaw)	One	Φ13-Φ26
		One	Φ26-Φ40
	Flat Jaw	One	0-15mm
	Compression Fixture	One	Φ188mm
	Bending fixture	One	Φ30mm (indenter diameter)
13	Foundation Bolt	Four	M16x300mm

Cualquier duda o aclaración favor de llamarnos, estamos para SERVIRLE

México: (-52) 55-5300-4517, 55-53004271, 55-5312-2536

Querétaro: (-52) 442-340-0250, 442-340-0251, 442-193-5678

Puebla: (-52) 222-219-9999, 222-887-0114, 222-228-1633