



UNIVERSAL TESTING KM-U Series



KM-U Series UNIVERSAL TESTING KM-U2000N

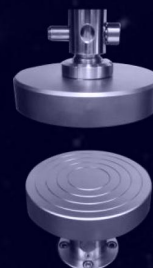
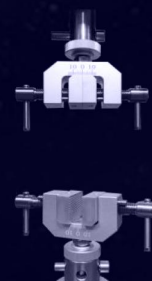
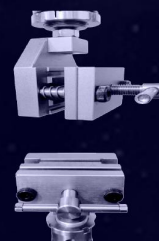
TouchScreen Single Column Tensile Tester



Application: The Cosmax series tensile testing machines are precision testing equipment integrating multiple mechanical property tests including tensile, compression, bending, peel, tear, and shear tests. Primarily designed to measure critical mechanical parameters such as tensile strength, yield strength, elongation, and elastic modulus for metals, nonmetals, and composite materials, these systems are widely applicable in industrial quality inspection, academic research laboratories, material development validation, and third-party certification processes. They provide accurate and reliable mechanical data support for material selection, product quality control, process optimization, and compliance with industry standards.

Specifications

Capacity selection: 200kg (sensor options available for weight ranges of 10-200kg)
 Unit switch: kg, lb, N, g
 Measurement range: 5%-100% of the full scale;
 Measurement system: Touchscreen control/computer control (dual measurement system).
 Load measurement accuracy: Load element: Display $\pm 0.5\%$
 Specificity: 1/50,000
 Column height: 850mm
 Test speed: 1-500 mm/min
 Data sampling frequency: 30Hz (high frequency customizable, up to 1000Hz)
 Power system: Pulse motor with stable output and controllable speed
 Power: 200W
 Volume: 45x40x106 cm
 Weight: 60kg
 Power source: ,220V



KM-U Series UNIVERSAL TESTING KM-U20KN

Application: The computerized universal material testing machine is widely used for evaluating various materials including adhesives, self-adhesive materials, hardware, metals, rubber/plastics, footwear, leather, textiles, insulators, wires/cables, and terminals. It performs comprehensive mechanical property tests such as tensile strength, shear resistance, tear strength, peel strength, compressive strength, flexural shear strength, and three-point flexural strength. Featuring a dual-column design with stable structure and high rigidity, this equipment is particularly suitable for large-scale material testing applications requiring load capacities exceeding 1000N.

Measurement Parameters

1. Maximum test force: selectable from 100KG to 2T;
2. Accuracy grade: 0.5;
3. Test force measurement range: 0.01% to 100% (maximum load);
4. Test force indication error: 1%;
5. Test force resolution: 1/300000
6. Displacement indication accuracy: 0.01mm;
7. Displacement resolution: 0.001 mm.
8. Large deformation measurement range: 600 mm (if equipped with large deformation measurement device; maximum gauge length: 600 mm)
9. Large deformation indication error: 0.1 mm (if equipped with large deformation measurement device)
10. Large deformation measurement resolution: 0.001 mm (if equipped with large deformation measurement device)



TouchScreen Two Column Tensile Tester

Specification

1. Test width: 400 mm;
2. Test space (column length): 1250 mm;
3. Test speed: 0.5-500 mm/min
4. Displacement measurement accuracy: $\pm 0.5\%$ of the displayed value;
5. Data acquisition sensing method: High-precision sensors from the United States;
6. Control system: servo controller;
7. Test force resolution: maximum load capacity of 500,000 N·m; no internal/external classification, with constant resolution throughout the entire process;
8. Software-based measurement and control system: A fully digital closed-loop control system capable of achieving constant stress, constant strain, constant displacement, and test functionality;
9. Test bench lifting device: Computer digital control/manual pulse control;
10. Test bench safety protection device: software-based automatic diagnosis and electronic limit switches;
11. Test regression: Manual operation allows maximum speed to return to the initial test position, while automatic operation enables self-return after test completion.
12. Overload protection: Maximum load value can be set for automatic protection;
13. Tooling fixture configuration: Customized according to user product sample requirements;
14. Main unit dimensions: 750×530×1550 mm;
15. Power supply: Voltage 220V/50Hz $\pm 10\%$; Power 0.4KW;
16. Main unit weight: approximately 180 kg.



KM-U Series

UNIVERSAL TESTING

KM-U50KN

Capacity:

5000KG ServoMotor

Control Testing Speed: 0.1-500 mm/min

Application: Applicable to industries such as rubber materials, plastic materials, paper products, color-printed packaging, adhesive tapes, luggage and handbags, hardware, sanitary products, building materials, and electrical/electronic components. It is used for testing the physical properties of various materials, finished products, and semi-finished products.

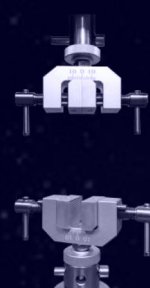
Measurement Parameters

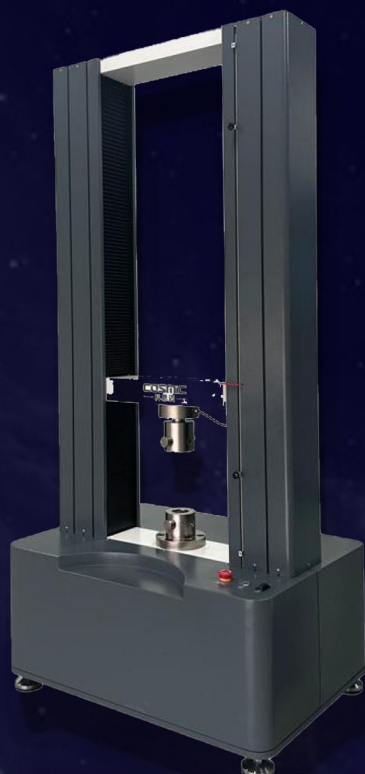
- Capacity: 5T ; Precision class: Class 0.5
- Maximum beam load: 50KN
- Effective force measurement range: 0.2%-100%;
- Test force resolution, maximum load 1/300,000 N·m; no internal/external gradation, with constant resolution throughout the entire process
- Significant deformation: Minimum gauge length 10mm, Deformation range: 800mm (optional)
- Minor deformation: Marking scale 25mm, 50mm, 100mm; Deformation range: 5mm, 10mm, 25mm (optional)
- Measurement accuracy for minor deformation: $\pm 0.5\%$ of the indicated value.
- Effective test width: 390mm
- Machine column height: 1350mm
- Machine dimensions: approximately 750×530×1640 mm (length×width×height)
- Power supply: Single-phase, AC220V 50/60Hz
- Test speed: 0.5~500 mm/min.
- Speed accuracy: within $\pm 0.5\%$ of the displayed value;
- Displacement measurement accuracy: $\pm 0.5\%$ of the displayed value; Deformation measurement accuracy: $\pm 0.5\%$ of the displayed value.
- Data acquisition method: high-precision sensor;
- Control system: fully digital IAC servo controller;
- Tooling fixture configuration: Customized according to user product sample requirements.
- Software-based measurement and control system: A fully digital closed-loop control system capable of achieving constant stress, constant strain, constant displacement, and test functionality.
- Test bed lifting device: computer digital control/manual pulse control;
- Test bed safety protection device: software-based automatic diagnosis, electronic limit switches;
- Test regression: Manual operation allows for the fastest return to the initial test position, while automatic operation enables self-return after test completion.
- Overload protection: Maximum load value can be set for automatic protection;
- Motor: 0.75KW
- Weight: 210 kg



TouchScreen Two Column Tensile Tester

Specification





KM-U Series UNIVERSAL TESTING KM-U100KN

Capacity:
(10T)10000KG ServoMotor
ControlTesting Speed:0.1-500 mm/min

Application:

This product is widely used for mechanical property testing of metals and non-metallic materials, including tensile, compressive, bending, and shear tests. When equipped with various accessories, it can also be applied to mechanical property testing of profiles and structural components. It demonstrates extensive applicability in material testing fields such as ropes, belts, wires, rubber, and plastics, where high-speed testing with significant specimen deformation is required. The product is suitable for testing applications in quality supervision, educational research, aerospace, steel metallurgy, automotive manufacturing, and construction materials industries.

Maximum test force (KN)	100	Remarks
Accuracy class	Level 1	
Test force measurement range	2%-100%	
Relative error of test force indication	$< \pm 1\%$	
test force resolution	1/300,000 of the maximum test force	
Transformation measurement range	2%-100%	
Relative error of deformation indication value	$< \pm 1\%$	
deformation resolution	0.001mm	
Relative error of displacement indication	$< \pm 1\%$	
Displacement resolution (mm)	0.001mm	
velocity range	0.5mm/min ~ 500mm/min	infinite speed variation
Column stroke	1450mm	(Pillar height)
Stretching stroke (mm)	600	
compression space (mm)	600	
Test width (mm)	450	
Compatible with fixtures	Tension, compression, bending, shearing, peeling, tearing, etc.	
Main unit dimensions (mm)	890×645×1860	

