

# UTM5000

## Universal Testing Machine

### Standard Configuration

Main frame	1
Motor and system research and control of stepping motor	1
Ball screw pair	1
Load sensor 5KN	1
Standard fixture	1
Tester standard version	1



### Introduction

This test measurement and control system is designed for electronic universal testing machine matching set measurement, control in one of the measurement and control instrument. Can be tensile, compression, bending, shear, tear, peel and other tests.

### Features

- This machine adopts single-arm structure, lower space compression, beam stepless lifting.
- Transmission part adopts circular arc synchronous tooth belt, lead screw pair transmission, stable transmission, low noise.
- The specially designed synchronous gear belt deceleration system and precision ball screw pair drive the moving beam of the testing machine to realize the non-clearance transmission.

### Technical Specification

Model	UTM5000		
Test machine level	0.5 level	Host parameters	Tensile stroke: 650mm
Test force index	Maximum value: 5kN	Force control rate control precision	Compression stroke: 800mm
	Measuring range: 2%-100%		Test width: 380mm
	Accuracy: better than $\pm 1\%$ of the indicated value	Deformation rate adjustment range	when the rate is $< 0.05\%FS$ , it is within $\pm 1\%$ set value; Rate BBB 0 0.05%FS within $\pm 0.5\%$ set value
	Resolution: $\pm 200000$ yards		
Deformation index	optional	Accuracy of deformation rate control	0.02-5%FS/S
Maximum value	10mm	Accuracy of displacement rate control	when the rate is $< 0.05\%FS$ , it is within $\pm 1\%$ set value; Rate BBB 0 0.05%FS, within $\pm 0.5\%$ set value
Measuring range	2%-100%		
Accuracy	better than $\pm 0.5\%$ of the indicated value	Constant force, constant displacement, constant deformation control range: 0.5%~100% FS accuracy: when the set value is $\geq 10\%FS$ , it is within $\pm 0.1\%$ of the set value; When the speed rate is $< 10\%$ FS, it is $\pm 1\%$ of the set value	when the rate is $< 0.01\text{mm/min}$ , it is within $\pm 1\%$ of the set value; When the speed is $> 0.05\text{mm/min}$ , it is within $\pm 0.2\%$ set value
The displacement	Measuring accuracy: better than $\pm 0.5\%$ of the indicated value		
	Resolution: 0.001mm	Host size	about 600 x 430 x 1380 mm
Speed	Range: 0.005mm/min ~ 500mm/min stepless speed regulation		
	Accuracy: better than $\pm 1\%$ of the indicated value	Force control rate adjustment range	0.005-5%FS/S
Working environment	room temperature 10~35 C, humidity 20%~80%		

# UTM2TM/5TM/10TM

## Computerized Universal Testing Machine

### Standard Configuration

Main frame  
 Motor and system research and control 1 set of stepping motor  
 Ball screw pair  
 Load sensor 20KN / 50KN / 100KN(Different models with different load sensors)  
 Standard fixture  
 Tester standard version  
 Computer industry computer  
 Random tools, random file manual, installation manual, etc.



### Introduction

This test measurement and control system is designed for electronic universal testing machine matching set measurement, control in one of the measurement and control instrument. Can be tensile, compression, bending, shear, tear, peel and other tests.

### Features

- This machine adopts twin column structure, lower space compression, beam stepless lifting.
- Transmission part adopts circular arc synchronous tooth belt, lead screw pair transmission, stable transmission, low noise.
- The specially designed synchronous gear belt deceleration system and precision ball screw pair drive the moving beam of the testing machine to realize the non-clearance transmission.



UTM2TM



UTM5TM



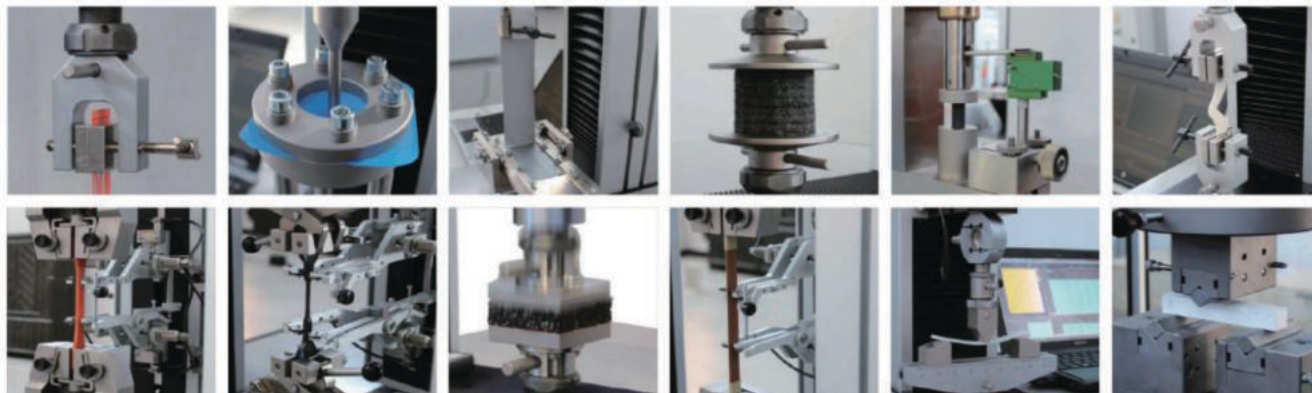
UTM10TM



## 8 Technical Specification

Model		-UTM2TM	-UTM5TM	-UTM10TM
		800 × 470 × 1650 mm	860 × 550 × 1900 mm	860 × 550 × 1900 mm
		0.5 level	0.5 level	0.5 level
Test force index	Maximum value	20KN	50KN	100KN
	Measuring range	2%-100%		
	Accuracy	better than ± 1% of the indicated value		
	Resolution	±200000 yards		
Deformation index	optional	optional		
	Maximum value	10mm		
	Measuring range	2%-100%		
	Accuracy	better than ± 0.5% of the indicated value		
The displacement	Measuring accuracy	better than ± 0.5% of the indicated value		
	Resolution	0.001mm		
Speed	Range	0.005mm/min ~ 500mm/min stepless speed regulation		
	Accuracy	better than ± 1% of the indicated value		
Host parameters	Tensile stroke	700mm	780mm	780mm
	Compression stroke	900mm	1100mm	1100mm
	Test width	380mm	410mm	410mm
Working environment		room temperature 10 ~ 35 C , humidity 20% ~ 80%		
Force control rate adjustment range		0.005-- 5%FS/S		
Force control rate control precision		when the rate is < 0.05%FS, it is within ±1% set value; Rate BBB 0 0.05%FS within ±0.5% set value		
Deformation rate adjustment range		0.02-5%FS/S		
Accuracy of deformation rate control		when the rate is < 0.05%FS, it is within ±1% set value; Rate BBB 0 0.05%FS, within ±0.5% set value.		
Accuracy of displacement rate control		when the rate is < 0.01mm/min, it is within ±1% of the set value; When the speed is > 0.05mm/min, it is within ±0.2% set value.		
Constant force, constant displacement, constant deformation control range		0.5%~100% FS		
constant force, constant displacement, constant deformation control accuracy		when the set value is ≥ 10%FS, it is within ±0.1% of the set value; When the speed rate is < 10%FS, it is ±1% of the set value		

### Various Fixtures Can Be Customized

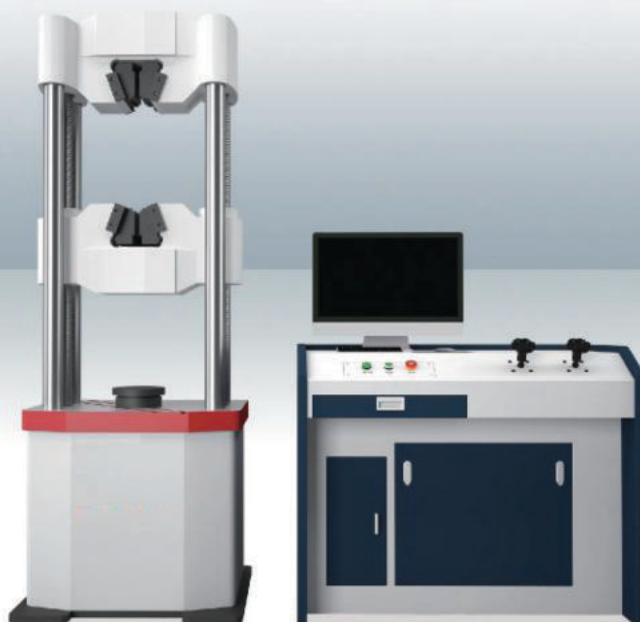


# UTMD30TM/60TM/100TM

## Hydraulic Universal Testing Machine

### Standard Configuration

Main frame	1
Motor and system research and control 1 set of stepping motor	1
Ball screw pair	1
Load sensor 300KN / 600KN /1000KN(Different models with different load sensors)	1
Standard fixture	1
Tester standard version	1
Computer industry computer	1
Random tools, random file manual, installation manual, etc.	1



### Introduction

This machine is an important equipment for testing the physical properties, mechanical properties, process properties, structural properties and internal and external defects of various materials and their products. It can realize the tensile, compression, bending, shear and other tests of metal or non-metallic materials, automatically obtain the tensile strength, yield strength, specified non proportional extension strength, elastic modulus and other performance indexes of the measured materials.

Model	-UTM300D	-UTM600D	-UTM1000D
Max. Test load (kN)	300	600	1000
Displacement Resolution		0.01mm	
Test force resolution		1/500000	
Test Load Indicating Accuracy		<±1%	
Deformation measuring range		1%-100%FS	
Deformation Test Accuracy		<±0.5%	
Load Measuring Range		2%-100%F. S	
Displacement Test Accuracy		<±0. 5%	
Deformation Resolution		1/200000	
No. Of column		6	
Distance between two columns (mm)	480	540	600
Diameter of column (mm)	60		75
Size of workbench (mm)	640*480*58	735*550*78	825*620*98
Depth of workbench (mm)	590	760	815
Max. Stroke of piston (mm)		250	
Max.speed of crossbeam adjustment (mm/min)	About 150	200	200
Motor power for crossbeam movement (kW)		0.4	
Load Frame Dimension (mm)	640*580*1900	735*550*1950	825*620*2300
Oil source controlled cabinet (mm)		1200*680*750	
Load Frame Weight (kg)	About 1450	About1750	About2750
Power (kW)		2. 75	