

# ***TENSILE TESTING MACHINE***

*Professional Laboratory*

*Rubber & Plastics*

*Testing Equipment*



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## Description

This Tensile testing machine is an electromechanical universal testing machine driven by a servo motor specially used to measure the tensile properties, tear strength, bending resistance and other properties of vulcanized rubber, thermoplastic elastomers, plastics and other non-metal materials. It is capable of applying a prescribed force at a constant speed to a specimen, and the data of the specimen responding to the stress are recorded and presented in real time.

## Standards

ISO 37, ASTM D412, ISO 34, ASTM D624, ASTM D638, ISO 527, ASTM D790, ISO 178, ASTM D624, etc.

## Main Technical Specifications

Model	AT-U2002 series	
Load cell capacities	100N, 200N, 500N, 1KN, 2KN, 5KN, 10KN, 20KN optional	
Drive + transmission	Servo motor + ZNT high precision ball screws	
Column span	380 mm (customizable)	
Grosshead travel	1100 mm (grips excluded, customizable)	
Accuracy level	0.5 grade	
Load parameters	Force measuring range	0.4% ~ 100% FS
	Force measuring error	≤ 0.5%
	Force resolution	± 1/500000
Displacement parameters	Displacement accuracy	≤ ± 0.5 / ± 0.2 of indicating value
	Displacement resolution	0.015 μ m
Deformation measuring system (Optional with extra cost)	<ul style="list-style-type: none"> <li>● Large deformation: minimum gauge length 10mm   Deformation range: 800mm</li> <li>● Small deformation: gauge length 25mm, 50mm, 100mm   Deformation range: 5mm, 10mm, 25mm</li> </ul>	
Control parameters	Controller	Windows-based PC software
	Test speed	0.001 ~ 500 mm/min adjustable
	Force control rate adjustment range	0.005 ~ 5%FS/s

Control parameters	Force control rate accuracy	Within $\pm 2\%$ of the set value when the rate is $< 0.05\%FS/s$ , and within $\pm 0.5\%$ of the set value when the rate is $\geq 0.05\%FS/s$ .
	Deformation rate adjustment range	0.005 ~ 5% FS/s
	Accuracy of deformation rate control	Within $\pm 2\%$ of the set value when the rate is $< 0.05\%FS/s$ , and within $\pm 0.5\%$ of the set value when the rate is $\geq 0.05\%FS/s$ .
	Rate control accuracy	Within $\pm 0.2\%$ of set value
	Constant force, constant deformation, constant displacement control range	0.5% ~ 100% FS
	Constant force, constant deformation, constant displacement control accuracy	Within $\pm 0.5\%$ of the set value if the set value is $\geq 10\%FS$ , and within $\pm 1\%$ of the set value if the set value is $< 10\%FS$ .
Grips	Compatible with various gripping devices and attachments depending on the desired test items and specimens	
Machine dimensions	700 mm (W) x 530 mm (D) x 2200 mm (H)	
Power supply	AC 220 V or 110 V, 50 Hz or 60 Hz	
Weight	Appr. 300 kg	