PARAM® MEGA 1500 Auto Tensile Tester



MEGA 1500 Auto Tensile Tester is professionally designed for the determination of tensile strength, peel strength, tear strength, heat seal strength and adhesiveness of plastic films, composite films, flexible packaging materials, adhesives, adhesive tapes, pressure sensitive tapes, medical patches, protective films, release paper, rubber and paper, etc.



Professional Technology

- Double-column ball screw driving mechanism ensures high precision and steady working of the instrument
- Multiple testing modes are available including tensile strength, deformation, peeling and tearing, etc. which
 can meet the testing demands of the customers
- Stress at defined elongation, elastic modulus and stress and strain etc. can be analyzed
- 1200mm extra-long stroke satisfies the test needs of various materials with extreme deformation rate
- 6 working stations and pneumatic specimen clamping facilitate to test multiple specimens simultaneously
- Load cells with different test ranges and stepless speed change from 1 to 500mm/min can meet the requirements for various testing conditions
- The embedded computer controller system, with membrane switch is convenient for instrument operation
- Multi-level over-travel protection, overload protect, automatic position reset and intelligent error alerts for safe test operation
- Embedded computer controlled system effectively guarantees the system security and the reliability of data management as well as test operation
- The instrument can be operated with one monitor, one mouse and one keyboard, not requiring a computer
- The system is equipped with four USB ports and two net connection interfaces, which is convenient to data expansion
- Professional operating software supports superposition analysis of test curves of group specimens and statistical analysis of maximum, minimum, average and standard deviation of test results

Test Principle

The pre-conditioned specimen is mounted between two grips, which move in relative direction during the test. The changes of force and displacement are separately recorded by the load cell fixed on the moveable sample grips and embedded displacement transducer. The tensile strength, tear strength and elongation rate can be obtained by further calculation.

Test Standard

This test instrument conforms to the following standards:



ISO 37, ASTM E4, ASTM D882, ASTM D1938, ASTM D3330, ASTM F88, ASTM F904, GB 8808, GB/T 1040.1-2006, GB/T 1040.2-2006, GB/T 1040.3-2006, GB/T 1040.4-2006, GB/T 1040.5-2008, GB/T 4850-2002, GB/T 12914-2008, GB/T 17200, GB/T 16578.1-2008, GB/T 7122, GB/T 2790, GB/T 2791, GB/T 2792, GB/T 17590, JIS P8113, QB/T 2358, QB/T 1130

Applications

This instrument is equipped with more than 100 grips for tests of more than 1000 materials. And customization is also available for special material tests. Examples of instrument applications:

Basic Application	Extended Application (Additional Accessories Required)				
	Opening Resistance	Tear Test of ZD -	Opening Resistance	90 Degree Pullout	
Tensile Test	Test of Combined	Type Caps	Test of Oral Liquid	Test of Infusion Bag	
	Covers		Caps	Caps	
Test of Tensile	Tear Test of	Tear Test of Adhesives	23 Degree Pullout Test of Bottle Caps	Pullout Test of	
Strength and	Adhesive Binding			Closures of Infusion	
Elongation Rate	Books	Adhesives		Bags	
Test of Tensile Strength at Break	90 Degree Peel Test	Adhesive Strength Test (hard)	90 Degree Peel Test	Opening Resistance	
			of Water-soluble	Test of Jelly Cups	
			Plasters	and Yogurt Cups	
Tear Resistance Test	Adhesive Strength	Pullout Test of Tooth	Peel Test of Flexible	Removal Force of	
	Test (soft)	Brush Hair	Tube Caps	Pipes and Pipe Joints	
Heat Seal Strength	Pullout Test of	Pullout Test of	Tensile Strength of	Separating Force of	
Test	Cosmetic Brush Hair	Rubber Closures	Ropes at Break	Protection Films	
90 Degree Peel Test	Peel Test of Cup	Tear Test of Heatseal	45 Degree Peel Test	Tensile Strength of	
	Films	Films	of Bottle Membranes	Zip-lock Bag Mouth	
180 Degree Peel Test	Peel Test of Release	135 Degree Peel Test	Unwrapping Force	Tear Test Using	
	Paper	of Plugs	of Adhesive Tapes	Trouser Method	
	20 Degree Peel Test	Peeling Grips of	Eccentric Grips	Wide Sample Grips	
		Floating Rollers			
	Japanese Sample Grips	British Sample Grips			

Technical Specifications

Specifications	MEGA1500
Load Cell Capacity	500N (Standard) 50N, 100N, 250N, 1000N (Optional)
Accuracy	1% FS
Test Speed	1-500mm/min (Stepless Speed Change)
Number of Stations	6
Sumber of Specimens	1~6
Specimen Width	25mm (Standard Sample Grip)



Clamping Way	Pneumatic Specimen Clamp	
Stroke	1200mm	
Gas Supply Pressure	0.6MPa~0.7MPa (Outside of Supply Scope)	
Port Size	Ф6mm PU Tubing	
Instrument Dimension	850 mm (L) \times 700 mm (W) \times 2030 mm (H)	
Power Supply	220VAC 50Hz / 120VAC 60Hz	
Net Weight	168 kg	

Configurations

Standard Configurations	Mouse, Pneumatic Clamping System, Wireless Data Interface, Wireless Data Module, Micro-printer, Standard Sample Grip (25mm)
Optional Parts	Sample Cutter Set ^{Note} , High Gain Antenna, Installing Support

Note:

Clamp the whole sample into the sample grips of the 6 stations, then 6 specimens can be made by using the sample cutter set at a time. The specimen width is 15mm.

Remarks:

- 1. The gas supply port of the instrument is $\Phi 6$ mm PU tubing;
- 2. Customers will need to prepare gas supply.

Please Note: Labthink is always dedicated to the innovation and improvement of product performance and function. Therefore, technical specifications are subject to change without further notice. Please visit our website at www.labthink.com for the latest updates. Labthink reserves the rights of final interpretation and revision.