

Model MT-1540 Precision Universal Tester with 45 Kg/0.44 kN/100 lbf integral load cell and 690 kPa (100 psig) pneumatic sample grips. Shown with load cell mounted to the right of column for maximum working area table testing.

### **Oakland Instrument Corp.**

Oakland Instrument Corp. specializes in the design, manufacture and distribution of test, measurement and control systems for the plastics, flexible packaging, and paper industries.

### **Customer-Driven**

We team with our customers to help them solve their quality and process-control problems.

### **Technology-Based**

Our applications knowledge and engineering depth allow us to offer both standard and custom systems based on industry leading technology.

# Series MT-1500 Precision Universal Tester

## Full-Featured Force Test Stands for Film, Paper and Sheet Materials

In the past, film extruders, paper producers, converters, and woven/non-woven fabric producers have had the choice of test stands and universal test machines which are either value-priced peak-force-only machines, or expensive computer-operated integral-load cell machines. Now you can have the best of both worlds in a single instrument. Oakland Instrument offers the Series MT-1500, a simple to use computer operated tester, with Quality Control software for automatic calculation and graphical display of break, elongation, yield, modulus, and other, tension and compression force information.

## **Improved Film & Paper Quality, Increased Profit Margins**

The Series 1500 Precision Force Test Stand is a proven tool for more closely controlling nominal and peak strength and elongation characteristics to speed your: Research and development of new film and paper products, converted materials, wovens/non-wovens, fabrics and textiles. Inspection of incoming film and paper products, In-process checks to ensure on-spec product for converting operations, and Quality-control reporting.

## **The Oakland Advantage**

### **Conforms to ASTM, ISO and TAPPI Standards**

Conforms to ASTM D882, ASTM D1934, ASTM D3330, ASTM F88, ASTM F904, ISO 527.1 standards for tensile testing of plastic film and sheet, ASTM D3354 for blocking of plastic film and sheet and TAPPI T-829 for score quality of paper and corrugated. Capable of many other tests with installation of suitable fixtures.

## **Advanced Technical Features in Each Model**

### **Expandable; Industry-Leading Software**

Portable and expandable with optional software, printers and computer system. A computer is required for operation. Advanced software for display or hard-copy reporting of statistical and graphical analysis of data including yield, elongation, break strength, modulus, and friction values.

### **Affordable**

Best of all, the series 1500 is economically priced.

### **Unique, Modular Design**

Test Stand can be set up with Load Cell mounted on the front of the column for easy access for strip testing, or with Load Cell mounted to the right of the column for access to the large working table area for testing.

### **Advanced Engineering & Technology**

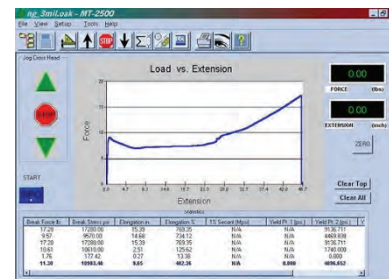
- Tension & compression testing to 220 Kg/2.2 kN/500 lbf
- Crosshead travels up to 1470 mm (58 inches)
- Peak force, average force, and stress / strain testing
- Servo motor drive and integral S-type load cells
- Broad speed range for full range of testing requirements, Standard speed range: 2.5 – 500 mmpm (0.1 – 20 ipm)  
High speed range option: 10 – 1000 mmpm (0.4 – 40 ipm)
- Uses encoder feedback for elongation computation
- Computer controlled with Model MT-2500 Software for full range of testing, graphical and statistical displays.

Specifications	Model MT-1516	Model MT-1522	Model MT-1528	Model MT-1540	Model MT-1552
Mode of operation	Off-line testing	✓	✓	✓	✓
Digital Force Measurement Capacity	340 Kgf/3.3 kN/750 lbf	✓	✓	220 Kgf/2.2 kN/500 lbf	✓
Max. Throat Depth	5.1 to 12.7 cm (2 to 5 in.)	✓	✓	✓	✓
Force Capacity vs. Derated Throat Depth					
12.7 cm (5 in.)	68 Kgf/0.67 kN/150 lbf	✓	✓	✓	✓
8.9 cm (3.5 in.)	110 Kgf/1.1 kN/250 lbf	✓	✓	✓	✓
5.1 cm (2 in.)	220 Kgf/2.2 kN/500 lbf	✓	✓	✓	✓
Load Cell	1. Right hand over work table (factory preset)		✓	✓	✓
Mounting Options	2. Front mounted (factory preset)		✓	✓	✓
Materials	All sheet materials	✓	✓	✓	✓
Maximum Force Measurement Capacity:	1.0 Kgf/0.098 kN 2.2 lbf	✓	✓	✓	✓
	4.5 Kgf/0.044 kN/10 lbf	✓	✓	✓	✓
	23 Kgf/0.22 kN/50 lbf	✓	✓	✓	✓
	45 Kgf/0.44 kN/100 lbf	✓	✓	✓	✓
	68 Kgf/0.67 kN/150 lbf	✓	✓	✓	✓
	110 Kgf/1.1 kN/250 lbf	✓	✓	✓	✓
	220 Kgf/2.2 kN/500 lbf	✓	✓	✓	✓
	Other ranges available.				
Measurement Accuracy:	± 0.02% Full scale	✓	✓	✓	✓
Measurement Resolution:	0.45 gf/0.0044 N/0.001 lbf	✓	✓	✓	✓
	Depends on load cell capacity.				
Sample Rate:	1000 / second	✓	✓	✓	✓
Base Speed Range:	2.5 to 500 mmpm (0.1 to 20 ipm)		✓	✓	✓
High Speed Option:					
Speed Range			10 to 1000 mmpm (0.4 to 40 ipm)	✓	
Max. Force Capacity:			110 Kgf/1.1 kN/250 lbf	✓	
Speed Accuracy:	± 0.25 mmpm (± 0.01 ipm)	✓	✓	✓	✓
Crosshead Travel:	560 mm / 22.0 in.	710 mm / 28 in.	865 mm / 34 in.	1170 mm / 46 in.	1470 mm / 58.0 in.
Max. Test Travel:	400 mm / 16 in.	560 mm / 22 in.	710 mm / 28 in.	1015 mm / 40 in.	1320 mm / 52 in.
Return/Jog Speed:	25 to 500 mmpm / 1 to 20 ipm	✓	✓	✓	✓
Power Requirements:	115 VAC, 60 Hz or 230 VAC, 50 Hz. Consult factor for special requirements				✓
Overall					
Height	86.4 cm / 34.0 in.	102 cm / 40.0 in.	117 cm / 46.0 in.	147 cm / 58.0 in.	178 cm / 70.0 in.
Weight	32 kg / 70 lb	34 kg 75 lb	36 kg / 80 lb	41 kg / 90 lb	45 kg / 100 lb
Serial Data Communications:	RS-232, 9 pin D-Sub(2) or USB / Serial Adaptor (2) ✓				✓
	Two cables required. One for load cell and one for crosshead motor control.				✓

Due to continuous improvement, all specifications are subject to change without notice.

## Options and Accessories

Computer system and Model MT-2500 Quality Control Software for statistical and graphical analysis of force data required to operate universal tester. Optional mechanical grips or accessories required for COF, peel strength, seal strength, shrink force, three point bend, and block / re-block tests.



## Ordering Information



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