



## Ultra Wide Testing Machine

Tinius Olsen's Ultra wide testing machine demonstrates our continuing commitment to our customers' unique testing requirements. This machine is built on our popular T series design and has an extra wide distance – 835 mm (almost 33 inches) - between the leadscrews, designed to accommodate 'oversized' samples and specimens. The Ultra Wide materials testing machines have frame capacities of 50kN and are combined with a variety of grips and fixtures, extensometers and application specific software to provide turnkey testing systems that can perform tension, compression, flexure, shear, puncture and peel.

At the heart of each system is the testing machine, so, building on the quality and technology that is built into all Tinius Olsen machines, we have developed this Ultra Wide Tester to talk directly with a standard PC via a high speed RS232 in both ASCII and a proprietary super high speed binary modes.

Robust construction of the loadframes comprising anti backlash precision leadscrews, high precision ball race bearings, high grade material for crossheads and electronics, combined with our years' of experience in machine construction, results in these superior testing machines.

Flexibility and simplicity of use is also built into the design of these machines. Each machine features rapid change Z beam loadcells that allow quick and easy capacity reduction to an appropriate load capability for the test. These loadcells have a measurement accuracy of +/- 0.5% of the applied load, from 2% to 100% of the loadcell capacity. Each machine also features rapid grip change capability; a simple pinning technique means that the gripping fixtures can be changed for different test configurations quickly and is exceptionally simple.

### Key Features

- 835mm (almost 33 in) wide testing area.
- PC control via high speed RS232 using ASCII mode and super high speed binary mode
- Force accuracy of 0.5% of applied load across the loadcell display range
- T slot table option available
- Machines are proof loaded to 200% of capacity
- Displacement resolution of 0.0001mm
- Speed resolution of 0.001 mm/min
- Built-in intelligent active force and displacement alarm system
- 32 bit precision motor controller
- 150% mechanical overload capacity on each loadcell
- 20% digital load tare while maintaining full load cell capacity
- Automatic motor drive alarms that monitor over/under voltage, current and temperature.



# Specifications

<b>Capacity</b>	10,000 lbf / 50 kN / 5,000 kg
<b>Clearance between columns</b>	33 in / 835 mm
<b>Load Cells</b>	Rapid change, low profile Z type load cells with digital encoding for automatic recognition and scaling available - 50kN, 25kN, 10kN, 5kN, 2.5kN, 1kN, 500N, 250N, 100N, 50N, 10N, 5N
<b>Maximum Crosshead Travel</b>	Measurement direct from ballscrew - fully auto scaling of single measurement range. 40 in / 1024 mm
<b>Testing Speed Range</b>	0.00004 to 20 in/min / 0.001 to 500 mm/min
<b>Capacity at Max. Speed</b>	5,000 lbf / 25 kN
<b>Max. Speed at Capacity</b>	10 in/min / 250 mm/min
<b>Jog Speed</b>	0.00004 to 20 in/min / 0.001 to 500 mm/min
<b>Return Speed</b>	0.00004 to 20 in/min / 0.001 to 500 mm/min
<b>Dimensions HxWxD</b>	64 x 45 x 20 in / 1629 x 1145 x 500 mm
<b>Weight</b>	662 lb / 301 kg

## Specifications:

Load measurement accuracy: +/-0.5% of applied load from 2% to 100% capacity. Extended range down to 1% capacity with accuracy of +/- 1% of applied load.

Position measurement accuracy: 0.01% of reading or 0.001mm, whichever is greater

Speed accuracy: 0.005% of set speed

Operating temperature range: 32 to 100 degrees F (0 to 38 degrees C)

Storage temperature range: 14 to 115 degrees F (-10 to 45 degrees C)

Humidity range: 10% to 90% non-condensing, web bulb method

Power: Standard optional voltages 220/240VAC, 50-60 Hz, 2000W

Power must be free of spikes and surges exceeding 10% of the nominal voltage.

## Notes:

1. Load weighing system meets or exceeds the requirements of the following standards: ASTM E4, EN 10002-2, BS 1610, DIN 51221, ISO 7500-1.
2. Strain measurement system meets or exceeds the requirements of the following standards: ASTM E83, EN 10002-4, BS 3846 and ISO 9513.
3. These models conform to all relevant European CE Health and Safety Directives EN 50081-1, 580081-1, 73/23/EEC, EN 61010-1
4. Specifications are subject to change without notice



1065 Easton Road  
 Horsham, PA 19044 USA  
 (215) 675-7100  
 Fax (215) 441-0899

info@TiniusOlsen.com

6 Perrywood Business Park  
 Honeycrook Lane, Salfords  
 Redhill, Surrey RH1 5DZ England  
 +44 (0) 1737 765001  
 Fax +44 (0) 1737 764768

[www.TiniusOlsen.com](http://www.TiniusOlsen.com)

**Contact Your Local Representative:**