



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

Capacity	10,000 lbf / 50 kN / 5,000 kg
Clearance between columns	33 in / 835 mm
Load Cells	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
Maximum Crosshead Travel	Measurement direct from ballscrew - fully auto scaling of single measurement range. 40 in / 1024 mm
Testing Speed Range	0.00004 to 20 in/min / 0.001 to 500 mm/min
Capacity at Max. Speed	5,000 lbf / 25 kN
Max. Speed at Capacity	10 in/min / 250 mm/min
Jog Speed	0.00004 to 20 in/min / 0.001 to 500 mm/min
Return Speed	0.00004 to 20 in/min / 0.001 to 500 mm/min
Dimensions HxWxD	64 x 45 x 20 in / 1629 x 1145 x 500 mm
Weight	662 lb / 301 kg

Specifications:

Load measurement accuracy: +/-0.5% of applied load from 2% to 100% capacity.
 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, wet 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



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