

L SERIES ELECTROMECHANICAL UNIVERSAL TESTING MACHINES



Tinus  Olsen

THE FIRST NAME
IN MATERIALS TESTING

THE L SERIES

Up to 50 kN of force applied by advanced digital control.

The L series of electromechanical testing machines from Tinius Olsen are designed to test a wide range of materials, including, but not limited to: plastics, films, paper, packaging materials, filter material, adhesives, foils, food, toys, medical devices and components, in tension, compression, flexure, and peel.

Testing machines are available in frame capacities of 1kN, 5kN, 10kN, 25kN and 50kN and are combined with a variety of grips and fixtures, extensometers and software to provide standard testing systems for a variety of applications.

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 the L series of machines which communicate directly with a standard pc via a high speed RS232.

Robust construction of the loadframes comprising oil soaked precision leadscrews, high precision ball race bearings, high grade material for crossheads and current 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 capacity for the test. These loadcells have a measurement accuracy of $\pm 0.5\%$ 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 extremely rapidly and is exceptionally easy.

Model H5kL - 5 kN capacity
(500 kg/1,000 lbf)



Model H1kL - 1 kN capacity
(100 kg/200 lbf)



Model H50kL - 50 kN capacity
(5,000 kg/11,000 lbf)



Model H25kL - 25kN capacity
(2,500 kg/5,000 lbf)

The Tinius Olsen L Series of mechanical testing systems provide the simplicity, performance, and affordability needed for quality control and product testing. From routine, standardized QC/QA tests to general purpose mechanical testing, the L Series is Tinius Olsen's best value solution for the modern laboratory or school.

MACHINE SPECIFICATIONS



MODEL		1kL	5kL	10kL	25kL	50kL
Capacity	kN	1	5	10	25	50
	lbf	200	1,000	2,000	5,000	11,000
Test Speed Range	mm/min	0.001 to 1000 up to 500N, 0.001 to 500 up to 1kN	0.001 to 1000 up to 2500N, 0.001 to 500 up to 5kN	0.001 to 1000	0.001 to 1000	0.001 to 500
	in/min	0.00004 to 40 up to 100lb 0.00004 to 20 up to 200lb	0.00004 to 40 up to 500lb 0.00004 to 20 up to 1,000lb	0.00004 to 40	0.00004 to 40	0.00004 to 20
Clearance Between Columns	mm	n/a	n/a	410	410	405
	in	n/a	n/a	16	16	16
Throat Depth	mm	200	200	n/a	n/a	n/a
	in	8	8	n/a	n/a	n/a
Max Crosshead Travel	mm	750	750	1100	1100	1100
	in	29.5	29.5	43	43	43
Dimensions (HxWxD)	mm	1140 x 490 x 450	1140 x 490 x 450	1600 x 650 x 450	1600 x 650 x 450	1613 x 720 x 500
	in	46 x 20 x 18	46 x 20 x 18	64 x 29 x 20	64 x 29 x 20	64 x 29 x 20
Weight	kg	50	50	115	120	140
	lb	101	101	287	287	310

NOTES:

1. Load weighing system meets or exceeds the requirements of the following standards: ASTM E4, ISO 7500-1, and EN 10002-2. Tinius Olsen recommends that systems are verified at installation in accordance with ASTM E4 and ISO 75001.
2. Strain measurement system meets or exceeds the requirements of the following standards: ASTM E83, ISO 9513 and EN 10002-4.
3. Specifications are subject to change without notice

Features And Benefits

- Suitable for tension, compression, flexure, shear and other tests to a maximum force of 50kN / 11,000 lbf
- Primary system interface is a pc running Tinius Olsen's Horizon Data Analysis software connected via RS232.
- System features local Jog Up, Jog Down and Stop buttons so that the crosshead can be positioned for easy specimen loading.
- Meets or exceeds the requirements of national and international standard for materials testing systems.

Options And Accessories

- Test frame can be extended by up to 400mm / 16 inches to increase test area size.¹
- Grips and fixtures can be easily mounted securely with a simple locking pin, which also allows simple and rapid changes.
- Precision extensometers and deflectometers are available using encoder, strain gauge and/or LVDT technologies
- Safety enclosures with interlocks can be installed to protect operators from violent specimen breaks.

¹Supplied at the time of order



SOFTWARE



Tinius Olsen has built upon its long history of providing solutions to an enormous variety of testing problems to develop Horizon, a comprehensive software program that makes testing simple, precise, and efficient. Whether the test sample is metal, paper, composite, polymer, rubber, textile, or a micro component, Tinius Olsen's Horizon software goes far beyond data collection and presentation. It will help you automate your operations, from R&D to the charting and analysis of QC testing.

Our Horizon software sets new standards of data analysis by adding a host of report writing and data manipulation capabilities that will make easy work of your materials testing programs. As with most features of Horizon, flexibility is key; reports can be customised by operators in any way they wish, as can all user screens allowing operators to focus on features that are most important to them.

In addition to powerful reports, Horizon Materials Testing software is networkable and scalable so operators and managers can operate equipment and review test results from multiple sources and locations. Horizon provides a library of standard, specific, and application-focused test routines that have been developed in close cooperation with customers around the world and to the standards they are using.

Among the many valuable features offered by Horizon are: a test routine library; simultaneous multiple machine control; test, output, method, and result editors; and multilayered security. This software is designed for data acquisition, data analysis, and closed loop control of nearly all Tinius Olsen testing machines.

Horizon is rich with capabilities that improve productivity and enable

you to build, access, and use a modern, powerful materials testing database. It employs the latest Windows environments, running on touchscreen enabled

monitors, to create an intuitive user experience. Built-in tutorials, on-line help, and help desk access provide additional user support.



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