

H10-50KT/S

Universal Testing Machines - Dual Column



Model H10KT being used with HT29 grips to test thin rope



Model H25KT using model HT40 grips to test fabrics



Model H50KT with HT21 grips

Technical Specifications

Model		H10KS	H25KS	H50KT
Capacity	lbf	2,000	5,000	10,000
	kN	10	25	50
	kg	1,000	2,500	5,000
Clearance between columns	in	16	16	16
	mm	405	405	405
Load Cells		Rapid change, low profile Z type, load cells with digital encoding for automatic recognition and scaling		
		10kN, 5kN, 2.5kN, 1kN, 500N, 250N, 100N, 50N, 10N, 5N	25kN, 10kN, 5kN, 2.5kN, 1kN, 500N, 250N, 100N, 50N, 10N, 5N	50kN, 25kN, 10kN, 5kN, 2.5kN, 1kN, 500N, 250N, 100N, 50N, 10N, 5N
Maximum Crosshead Travel (excluding grips)	in	43	43	43
	mm	1100	1100	1100
Testing Speed Range	in/min	0.00004 to 40	0.00004 to 40	0.00004 to 20
	mm/min	0.001 to 1000	0.001 to 1000	0.001 to 500
Capacity at Max. Speed	lbf	1,000	2,000	5,000
	kN	5	10	25
Max. Speed at Capacity	in/min	20	20	10
	mm/min	500	500	250
Jog Speed	in/min	0.00004 to 40	0.00004 to 40	0.00004 to 20
	mm/min	0.001 to 1000	0.001 to 1000	0.001 to 500
Return Speed	in/min	0.00004 to 40	0.00004 to 40	0.00004 to 20
	mm/min	0.001 to 1000	0.001 to 1000	0.001 to 500

Dimensions HxWxD	in	63x26x18	63x26x18	64x29x20
	mm	1600x650x450	1600x650x450	1613x720x500
Weight	lb	255	265	310
	kg	115	120	140

Dual Column Models

The dual column materials testing machines have frame capacities of 10kN, 25kN and 50kN (2000 lbf, 5,000 lbf and 10,000lbf) and include two model types, the S series and the T series. These machines are designed to test a wide range of materials in tension, compression, flexure, shear and peel.

S Series

Using a combination of quality engineering and advanced technology, Tinius Olsen offers a series of machines that are accurate and simple to use. All S series machines feature an easy-to-read backlit liquid crystal display which can be switched between a numerical and graphical display. All data shown on this display is obtained in real time, with the autoranging graphical display showing the test curve of the specimen under test. The control unit features dedicated keys for moving the crosshead up, down, stop, performing the test as well as keys for load and extension tare and crosshead return. The control panel also features an alphanumeric keypad to allow the input of test conditions, test data and the formatting of the test report. The control unit can retain up to five separate test routines for easy and rapid recall.

Powerful as stand-alone units, the machine capability is enhanced by direct connection of a printer through which comprehensive test reports and high resolution graphs can be quickly obtained. The S series of testers are also designed for users all over the world...an optional language module can be plugged into the control panel and all data on the backlit LCD display will be shown in the selected language. Language options include: English, French, Portuguese, German, Italian, Spanish and Polish.

T Series

Building on the quality and technology that is built into the S series, Tinius Olsen offers the T series of machines to

Specifications:

Load measurement accuracy: $\pm 0.5\%$ of indicated load from 2% to 100% capacity; extended range down to 1% capacity with accuracy of 1% of indicated load

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

Speed accuracy: $\pm 0.005\%$ of set speed

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. 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, 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.

complement the popular and successful S series. The T series models have similar specifications to the S series, but they talk directly with a standard PC running a data analysis software package, via a high speed RS232 in both ASCII and super high speed binary modes.

Common Features

The S and T series use rapid change Z beam loadcells that allow for simple and quick 'sizing' of the machine to an appropriate capacity for the test. These loadcells have an accuracy of 0.5% of the applied load value, from 2% to 100% of the loadcell capacity.

The S and T series have a huge assortment of specimen grips and fixtures available, allowing the selection of an ideal grip for your application.

Key Features

- PC control via high speed RS232 using ASCII mode and super high speed binary mode
- Force accuracy of $\pm 0.5\%$ of applied load across the loadcell display range
- Machines are proof loaded to 200% of capacity
- Displacement resolution of 0.0001mm (T series in binary mode)
- 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.

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

Storage temperature range: 14 to 115 °F (-10 to 45 °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.

ORDERING INFORMATION		
	H10KT	Dual Column Universal Tester, Computer Driven, 10KN/2000LBF capacity
	H10KS	Dual Column Universal Tester,With console, 10KN/2000LBF capacity
	H25KT	Dual Column Universal Tester, Computer Driven, 25KN/5000LBF capacity
	H25KS	Dual Column Universal Tester,With console, 25KN/5000LBF capacity
	H50KT	Dual Column Universal Tester, Computer Driven, 50KN/10000LBF capacity
	H50KS	Dual Column Universal Tester,With console, 50KN/10000LBF capacity
	HT5020	QMAT Pro for Textiles Software Package
	HT1010-1034	Load Cells, 5N, 10N, 25N, 50N, 100N, 250N, 500N, 1KN, 5KN, 25KN, 50KN
	HT1010-4160	Grips and Accessories, see separate list
	G265	Silent Laboratory Compressor (Optional) for use with pneumatic grips only
	G278A	IBM Compatible Computer
	G278B	Ink Jet Printer

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