

The first name in materials testing

Model 25kL

Electromechanical Materials Testing Machine



The model 25kL is an Electromechanical Materials Testing Machine. It is a robust design for use in a range of materials testing.









Model 25KL

The model 25kL is designed for tension, compression, flexure and shear strength testing on materials and assemblies. The robust design that incorporates quality materials and components ensures that our reputation for superior system performance, ease of use, and longevity is maintained. A variety of loadcells are available at differing capacities that give precise applied load measurements from the smallest test specimen to ones that go to full machine capacity. Test machines become complete, powerful test systems with the addition of grips to hold the specimen, strain measurement instrumentation and Tinius Olsen's Horizon Data Analysis software.

Features and benefits

- Suitable for tension, compression, flexure, shear and other tests to a maximum force of 25kN/5,000lbf
- Meets or exceeds the requirements of national and international standard for materials testing systems
- Built-in pneumatic distribution ports provide local air supply to pneumatic grips
- Primary system interface is a PC running Tinius Olsen's Horizon data analysis software connected via USB
- System features local Jog up, jog down and stop buttons so the crosshead can be positioned for easy specimen loading
- Protective screen supporting panels on the sides, USB connectivity, Sunken power connector to ease service





OPTIONS AND ACCESSORIES

- Grips and fixtures can be easily mounted securely with a simple locking pin, which also allows simple and rapid changes.
- Full range of precision extensometers and deflectometers are available using video, laser, encoder, strain gage and/or LVDT technologies
- Furnaces and environmental chambers can be installed for tests at high or low temperatures.
- Safety enclosures with interlocks can be installed to protect operators from violent specimen breaks.
- Tinius Olsen's Horizon software can be connected to the tester by the operator.

MACHINE INTERFACE

 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 automate operations, from R&D to the charting and analysis of QC testing.









Specifications

Item # 99-99-0708 Tension compression load capability Yes Frame capacity kN 25 In part of tested 50% over frame capacity Floor or table mounting Table mounting Test zones One Number of columns Two Column material Steel sheet Column color TO Co-Grey Web # E6 30 27 Base material Steel sheet Base finish Powder coat paint Base color TO Co-Grey Web # E6 30 27 Crosshead finish Powder coat paint Base color TO Co-Grey Web # E6 30 27 Crosshead finish Powder coat paint Base color TO Co-Grey Web # E6 30 27 Crosshead finish Pre-prespect, top powder coat paint Base color TO Co-Grey Web # E6 30 27 Crosshead finish Pre-prespect, top powder coat paint Base color Main paint Crosshead finish Pre-prespect, top powder coat paint Maximum crosshead travel Min paint 10 Maximum crosshead travel Min paint	25KL Frame specifications				
Frame capacity kg	Item #		99-999-0708		
Frame capacity kg 2,500 Proof tested 50% over frame capacity Floor or table mounting Table mounting Test zones One Number of columns Two Column material Steel sheet Column color TO Cool Grey Web # E6 30 27 Base material Steel sheet Base material Powder coat paint Base color TO Cool Grey Web # E6 30 27 Crosshead material Solid Steel Crosshead color TO Green Web # 00 4C 45 Maximum crosshead travel mm 410 Maximum crosshead travel mm 1095 Min 43 Stiffness kN/mm 100 Stiffness mm 1575 In 62 mm 1575 in 62 Width mm 650 Width mm 450 Depth mm 450 in 18 43 Weight kg 130 Weight kg 130	Tension compression load capability		Yes		
Ibf		kN	25		
Proof tested 50% over frame capacity Floor or table mounting Table mounting Test zones One Number of columns Two Column material Steel sheet Column finish Powder coat paint Column color TO Cool Grey Web # E6 30 27 Base material Powder coat paint Base color TO Cool Grey Web # E6 30 27 Crosshead material Pre-primed, top powder coat paint Crosshead finish Pre-primed, top powder coat paint Crosshead color TO Green Web # 00 4C 45 Maximum crosshead travel mm 109 in 43 kN/mm 100 klbf/in 571 Height mm 1575 in 62 width mm 650 width mm 450 bepth kg 130 Weight Yes, mechanical and user programmable Force protection system Yes, mechanical and user programmable Accessory fitting interface type Heigh precision low backlash Ball screw type High precision	Frame capacity	kg	2,500		
Test zones One Number of columns Two Column material Steel sheet Column finish Powder coat paint Column color TO Cool Grey Web # E6 30 27 Base material Steel sheet Base finish Powder coat paint Base color TO Cool Grey Web # E6 30 27 Crosshead material Solid Steel Crosshead finish Pre-primed, top powder coat paint Crosshead color TO Green Web # 00 4C 45 Distance between columns In 16 Maximum crosshead travel In 16 Maximum crosshead travel Stiffness KN/mm 100 Stiffness KN/mm 100 Width In 62 Width In 62 Width In 65 Pre-primed, top powder coat paint In 16 mm 1095 in 16 mm 1095 in 62 MR/mm 100 Klbf/in 571 Mm 1575 in 62 Mm 450 in 18 Kg 130 Ib 287 Force protection system Yes, digital Displacement protection system Yes, mechanical and user programmable Accessory fitting interface type Female diameter Ball screw type High precision low backlash Ball screw cover/protection Yes Crosshead drive system DC servo motor Feet material Non-adjustable impact resistance plastic Pneumatic air distribution Amm OD hose with pushfit coupling, rated to 100psi maximum		lbf	5,000		
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Weight kg 130 lb 287 Force protection system Yes, digital Displacement protection system Yes, mechanical and user programmable Accessory fitting interface type Female diameter Ball screw type High precision low backlash Ball screw cover/protection Yes Crosshead drive system DC servo motor Feet material Non-adjustable impact resistance plastic Pneumatic air distribution 4mm OD hose with pushfit coupling, rated to 100psi maximum	Depth	mm	450		
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Feet material Non-adjustable impact resistance plastic Pneumatic air distribution Amm OD hose with pushfit coupling, rated to 100psi maximum	Ball screw cover/protection	Yes			
Pneumatic air distribution 4mm OD hose with pushfit coupling, rated to 100psi maximum	Crosshead drive system	DC servo motor			
Prince pling, rated to 100 psi maximum	Feet material				
Noise at full crosshead speed 2m radius 22db	Pneumatic air distribution				
2200	Noise at full crosshead speed 2m radius	22db			

NOTE - Software required for materials tests

Frame s	specifica	ations		
CONTROLLER SPECIFICATIONS				
Max data processing rate		168MHz		
Data acquisition rate at PC		1000Hz		
Number of instrument device connections – external	One			
External PC connection		USB		
FORCE I	MEASURE	EMENT		
Force measuring device type		Strain gage-based load cell		
Load cells available	25N, 5	ON, 100N, 250N, 500N, 1kN, 2.5kN, 5kN, 10kN, 25kN		
Resolution		One part in 64,000		
Accuracy	0.5% of applied force across load cell force range			
Range	0.2-100%			
Calibration standard	+/- 0.5% to ISO 7500-1, ASTM E4			
Internal sampling rate	1000Hz			
EXTENSION MEASUREMENT				
Resolution	0.1µm			
Accuracy	+/-10µm			
Range	0.1µm to 1095mm			
Calibration standard	ISO 9513			
Internal sampling rate 2.73kHz				
POSITION CONTROL				
Test Speed	mm/ min	0.0001-1000 up to 12.5kN, 0.0001-500 up to 25kN		
·	in/min	4μ "- 40 " up to 2.5klbf 4μ "- 20 " up to 5klbf		
Resolution	μm	0.1		
	in	4µ"		
Accuracy		+/-0.05% of indicated speed		
Return speed post test	mm/ min	0.0001-1,000		
	in/min	4µ"-40"		
Crosshead positioning speed	mm/ min in/min	0.0001-1,000		
Return to zero function	111/1111111	4μ"-40" Yes		
POWER F	REQUIDE			
Supply voltage options	TEQUINE.	115/230V		
Frequency	50/60Hz			
Power	530W +/- 10%			
ATMOSPHERIC REQUIREMENTS				
Operating temperature		0-38°C		
Operating humidity		10-90% non-condensing		
Storage temperature		-10-45°C		

10-90% non-condensing

Storage humidity





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- OHorsham, PA, USA Redhill, Surrey, UK
- O Noida, UP, India O Shanghai, PR China