MODEL 10ST

ELECTROMECHANICAL MATERIALS TESTING MACHINE





Familiar handheld interface which is tethered to the machine. With its larger, tactile, sealed keypad, this interface is ideal for operators whose use gloves to load and unload specimens and prefer a push buton keypad. It can be used to operate the basic machine functions and will report basic numerical test data or can be linked with Horizon software.

Wireless handheld interface which is connected to the machine by a Bluetooth link. This interface features an Android based operating platform and can be used to control the machine by itself or in conjunction with Tinius Olsen's Horizon software.









The model 10ST 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 10kN / 2,000 lbf
- Different system interface options are available, from a familiar tethered handheld interface, a wireless Bluetooth interface panel running an Android application, or virtual machine controller application running on a pc. All interfaces work with Horizon Data Analysis software.
- Meets or exceeds the requirements of national and international standards for materials testing systems.
- 8 full-length T slots built into machine column to allow accessories to securely mounted to the test frame.
- Built-in pneumatic distribution ports that provide local air supply to pneumatic grips.

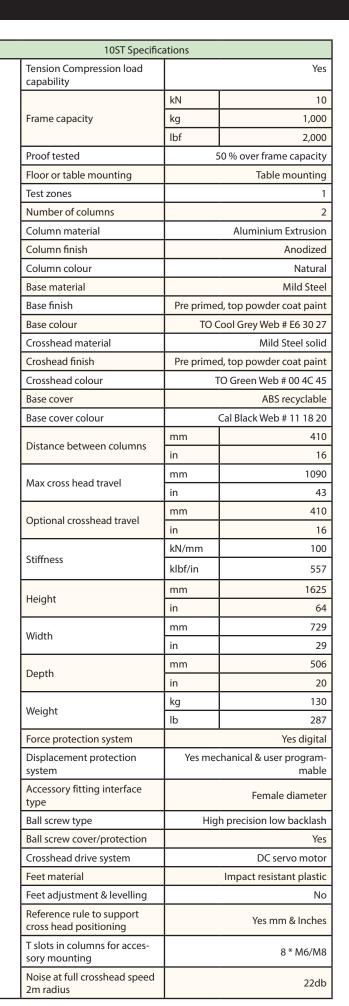
OPTIONS AND ACCESSORIES

- Test frame can be extended by up to 400mm / 16 inches to increase test area size.
- 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 gauge and/or LVDT technologies
- Furnaces and/or 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.

¹Supplied at the time of order



SPECIFICATIONS



Frame



10ST Specifications				
Software required for materials tests				
Controller	Max data processing rate		168 MHz	
	Data acquisition rate at PC	1000 Hz		
	Number of instrument device connections external	4		
	Number of instrument device connections internal	3		
	Bluetooth enabled	v4.0 with A2DP, LE, EDR		
	External PC connection	USB		
	User interface connectivity	TO HMC, Proterm, Horizon		
Force	Force measuring device - type	Stra	Strain gauge based load cell	
	Load cells available	5N, 10N, 25N 50N, 100N, 250N, 500N, 1kN, 2,5kN, 5kN, 10kN		
	Resolution	1 part in 8,388,608		
	Accuracy	+/-0.1% of applied force across load cell force range		
	Range	0.2% to 100%		
	Calibration standard	+/- 0.5% to ISO 7500-1 ASTM E4		
	Internal sampling rate	1000Hz		
Extension measure- ment	Resolution	0.1um		
	Accuracy	+/-10um		
	Range	+/- 217m		
	Calibration standard	ISO 9513, ASTM E83		
	Internal sampling rate	2.73kHz		
Position control	Test Speed	mm/min	0.001 to 1000 to 10kN	
		in/min	0.00004 to 40 to 2,000lbf	
	Resolution	um	0.1	
		in	0.000004	
	Accuracy		+/- 0.005%	
	Return speed post test	mm/min	0.001 to 1000	
		in/min	0.00004 to 40	
	Resolution	um	0.1	
		in	0.000004	
	Accuracy		+/- 0.005%	
	Crosshead positioning speed	mm/min	0.001 to 1000	
	3.4	in/min	0.00004 to 40	
	Resolution	um	0.1	
		in	0.000004	
	Accuracy	+/- 0.005%		
Return to zero function		Yes		
Power require- ment	Supply voltage options	110/240V		
	Frequency	50/60Hz		
	Power	530W +/- 10%		
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	Operating temperature	10 to 40 °C		
Atmo- sphere	Operating humidity	10% to 90% non condensing		
	Storage temperature	10 to 69 ℃		
	Storage humidity	10%	10% to 90% non condensing	