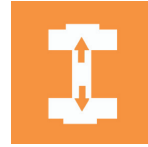


MODEL 2000SL HYDRAULIC MATERIALS TESTING MACHINE



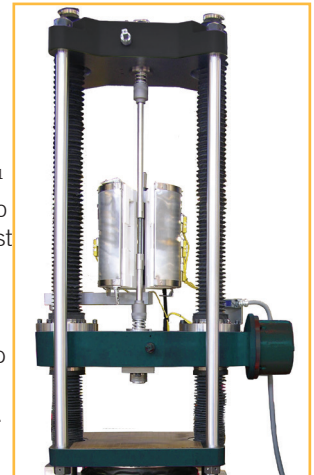
The model 2000SL is designed for tension, compression, flexure and shear strength testing on materials and assemblies. The robust design that incorporates quality materials and components ensures that our reputation for superior system performance, ease of use, and longevity is maintained.

FEATURES AND BENEFITS

- Suitable for tension, compression, transverse, shear and other tests to a maximum force of 2000kN / 400,000lbf
- Four column rugged design allows larger samples to be tested
- Friction-free piston operation allows smooth, controlled operation and minimal down-time.
- Different system control options are available, from a familiar tethered handheld controller running with a pc based virtual machine control application, or a wireless Bluetooth interface.

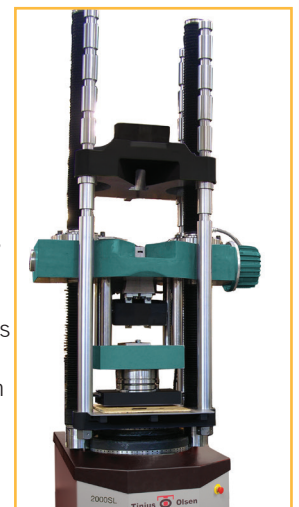
OPTIONS AND ACCESSORIES

- Crossheads can be closed / semi open / or fully open for easier specimen loading and unloading. ¹
- Columns can be extended by up to 914mm / 36 inches to increase test area size. ¹
- Top crosshead can be made adjustable and columns can be notched to allow the adjustable top crosshead to be repositioned for more comfortable working heights. ¹
- In-head pocket grips can be supplied to accommodate flat or round tensile specimens.
- External grips and fixtures can be easily mounted securely.
- Full range of precision extensometers and deflectometers are available using video, laser, encoder, strain gauge 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.



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.

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 button keypad. It requires virtual machine control software running on a connected pc to operate the basic machine functions and report basic numerical test data.



¹Supplied at the time of order

SPECIFICATIONS



Model 2000SL Specifications		
FRAME SPECIFICATIONS		
Tension Compression load capability		Yes
Frame capacity	kN	2000
	kg	200,000
	lbf	400,000
Proof tested		To frame capacity
Floor or table mounting		Floor mounting
Test zones		2
Number of columns		4
Column material		Steel
Column finish		Chrome
Column colour		Chrome
Base material		Mild Steel
Base finish		Pre primed, top coat powder coat paint
Base colour		TO Cool Grey Web # E6 30 27
Crosshead material		Mild Steel solid
Croshead finish		Pre primed, top powder coat paint
Crosshead colour		TO Green Web # 00 4C 45
Base cover		ABS recyclable
Base cover colour		Cal Black Web # 11 18 20
Distance between screws	mm	565
	in	22.25
Maximum piston stroke travel	mm	229
	in	9
Maximum travel of adjustable cross-head	mm	959
	in	38
Stiffness	kN/mm	1,700
	klbf/in	9,500
Height	mm	2445
	in	96
Width	mm	940
	in	37
Depth	mm	851
	in	33.5
Weight	kg	5444
	lb	12,000
Optional extensions to crosshead screws		305, 610, or 914mm 12, 24 or 36 in
Optional extensions to columns		305, 610, or 914mm 12, 24 or 36 in
Adjustable top crosshead and adjustable columns		Optional
Pit mountable		Optional
Screw cover/protection		Optional
Feet material		Mild steel with provision for anchor bolts
Noise at full crosshead speed 2m radius		68db
CONTROLLER SPECIFICATIONS		
Max data processing rate		168 MHz
Data acquisition rate at PC		1000 Hz

Model 2000SL Specifications		
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 MEASUREMENT		
Force measurement device		Pressure transducer
Resolution		1 part in 8388608
Accuracy		+/-0.2% of applied force across load range
Range		0.2% to 100%
Calibration standard		+/-0.5% per ISO 7500-1 ASTM E4
Internal sampling rate		1000Hz
EXTENSION MEASUREMENT		
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 76
	in/min	0.00004 to 3
Resolution	um	0.1
	in	0.000004
Accuracy	um	+/- 10
Crosshead positioning speed	mm/min	305
	in/min	12
Resolution	um	0.1
	in	0.000004
Accuracy	um	+/- 10
Home function		Yes
POWER REQUIREMENTS		
Supply voltage options		208 - 500V
Frequency		50/60Hz
ATMOSPHERIC REQUIREMENTS		
Operating temperature		10 to 40 °C
Operating humidity		10% to 90% non condensing
Storage temperature		10 to 69 °C
Storage humidity		10% to 90% non condensing
CONSOLE DIMENSIONS		
Width	mm	1010
	in	39.75
Depth	mm	831
	in	32.66
Height	mm	865
	in	34
Oil Reservoir Volume	liters	113
	US gal	30