ELECTRONIC UNIVERSAL TESTING MACHINES

Unitek 9400 Series

WITH PC INTERFACE & REAL TIME GRAPH (Panel/PC Controlled)

Technical Description :

SE Universal Testing Series Unitek 9400 are microprocessor based electro mechanical machines with servo drive designed for testing & studying mechanical behavior of various materials like metals, polymers etc. These machines offer good built-in features to offer excellent stand alone performance for standard tests & great flexibility for complex analysis. These machines confirm to IS, BS & ASTM standards.

Main Features :

- Precision DC servo motor & drive with ball lead screw gives an advanced drive system with 1 to 1000 standard speed range.
- Provision for load cell interchangeability & thereby automatic selection of load full scale & Units (kN or N)
- Speed selection through Data entry or variable speed through potentiometer.
- Facility for mounting different load cells & clamping devices to suit different tests & materials such as thin wires, metalsheets, fiberglass, leathers, springs, cardboards etc.
- Built-in parallel interface to connect Dot matrix printer for data & curve print-out.
  Safety interlock for overload & limit switch sensing to ensure protection during test.
- Universal applications in R & D, education, quality control & production for test like tensile, compression, bending etc.

Electronic Control Panel :
(Series Universal 2001)

- Microprocessor based panel incorporating state of art technology with following features.
- Front panel membrane type key board for machine operation with numeric keys for data entry.
- 7 segment display.
- Auto load cell identification.
- Data entry with numeric keyboard of test parameters including speeds, rupture % peak, preload, modulus data, test data &specimen data etc.
- 20 input data set storage, 50 results storage, maintains data & results during power off.
- Batch test facility for generating batch & statistics result. using same data set.
- Optional remote to ease specimen loading/unloading.
- RS232C serial port. Optional windows based software available for ...
- On line graph on PC. Data analysis, statistics point tracing superimposing graphs to compare with standard, zooming graph etc.

Printer port for printer interface with ...

- Graph & result printout. ● Test certificate printout.
- Batch Certificate printout. ● Simple statistics printout.

Optional Accessories :

SE offers a wide range of optional accessories along with Unitek 9400 machines to cover almost every material test requirement.

Load Cells :

SE offers Strain gauge type Universal load cells in different capacities in the following nominal ranges :

100N,250N,500N,1kN,2.5kN, 5kN,10kN, 25kN,50kN, 100kN.
Load cells to different capacity can be offered as per customers requirements.

Grip & Clamping Devices :

A wide range of grips are available from FIE such as :

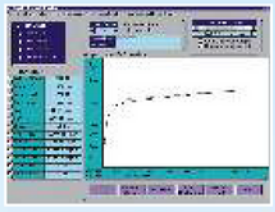
- Wedge type grips for flat & round specimens with different inserts.
- Vise type grips. ● Single threaded grips. ● Compression plates.
- Bending fixtures. ● Shearing attachments.

Extensometers :

Electronic analog extensometers are offered with interface card on the control panel to measure extension.

Model 1 : EE2- STRAIN GAUGE.(with 1 micron resolution).
Model 2 : LTE 800 - DIGITAL TYPE (with 10 micron resolution).

Real time graph on PC.



Graph comparision & point tracing.

Statistics.

Graph with EE2 Extensometer.

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Serial Communication & Software package on PC :

The Universal 2001 series control panel can be hooked to any PC using RS-232 communication port. SE offers different window based software packages with real time graph on PC to enable the user to effectively evaluate different parameters. The features include :

- Real time graph, User friendly software.
- Extensive graphics on screen for curve plotting, magnification and zooming.
- Software features includes Graph comparison, point tracing facility. Different units selection for load & displacement.
- Statistical evaluation with water fall dig., Mean deviation, frequency distribution, Skew dig., Histogram. Also calculates max . value, min. value, Mean Value, Variance, Standard Deviation. (Other statistical parameters on request). Selectable batch & statistical printouts.
- Evaluation of wide range of user selectable parameters such as % elongation, % reduction in area, young's modulus, yield stress, proof stress etc.
- Software packages for Shear, Bend, Torsion, Rubber, Textile testing etc.
- Custom built application software to suit customer requirements.

SPECIFICATIONS :

MODEL NO.		UNITEK 9401	UNITEK 9405	UNITEK 9410	UNITEK 9450	UNITEK 94100		UNITS
						250	500	
Load Range		0 - 1	0 - 5	0 - 10	0 - 50	0 - 100		kN
Load Selection	**1st Range** 0 - 20% of F.S.	1/20000 of F.S.	1/20000 of F.S.	1/20000 of F.S.	1/20000 of F.S.	1/20000 of F.S.		—
	2nd Range 20 - 40% of F.S.	1/10000 of F.S.	1/10000 of F.S.	1/10000 of F.S.	1/10000 of F.S.	1/10000 of F.S.		—
	3rd Range 40 - 100% of F.S.	1/4000 of F.S.	1/4000 of F.S.	1/4000 of F.S.	1/4000 of F.S.	1/4000 of F.S.		—
Load measuring accuracy :		±1% from 2% to 100% of load cell used.	±1% from 2% to 100% of load cell used.	±1% from 2% to 100% of load cell used.	±1% from 2% to 100% of load cell used.	±1% from 2% to 100% of load cell used.		
Max. Crosshead stroke :		1000 (without grips & load cell)	1000 (without grips & load cell)	1000 (without grips & load cell)	1000 (without grips & load cell)	1000 (without grips & load cell)		mm
Clearance between columns :		450	450	450	450	450		mm
Crosshead displacement measurement :		0.01	0.01	0.01	0.01	0.01		mm
Crosshead speed range :		0.5 - 500	0.5 - 500	0.5 - 500	0.5 - 500	0.25 - 250	0.5 - 500	mm/min
Power Supply :		230 VAC, 50 Hz Single Phase	230 VAC, 50 Hz Single Phase	230 VAC, 50 Hz Single Phase	230 VAC, 50 Hz Single Phase	230 VAC, 50 Hz Single Phase		—

• F. S. = Connected load cell full scale.

- Due to constant R & D specifications & features are subject to change without notice.

Wholesale Trader and Supplier By :

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