

Computerised Tensile Testing Machine



These models are suitable for testing metals and iron, Plastics, Rubber, Ceramics, Fabrics , Composites, Cables and wires.

Load is measured through a strain gauge based Load Cell and elongation is through rotary encoder.

Depending upon the customers requirement a suitable type of grips are available. Extra Load cell can be offered suitable for low load samples.

Technical Specification of Tensile Testing Machine

Max. Capacity	2500N	5000N	10 kN	25kN	50 kN
Measuring range	0-2500N	0-5000N	0-10kN	0-25kN	0-50kN
ranges Least Counts	0.125 N	0.25N	0.5 N	1.25N	2.5N
Elongation Scale L.C.	0.01 mm	0.01mm	0.01 mm	0.01mm	0.01mm
Grip separation without Grip :					
Min	25 mm				25 mm
Max	750 mm				600 mm
variable speed drive stepless variation	5 to 300 mm/min				
H.P. (for standard speed)	1 Hp			2hp	
Supply	3 Phase, 415Volts, 50Hz AC				
Over travel Safety	Provided with each model				

Software features :

- Menu driven form system with colour graphs to compare sample test results.
- Test details and reports are stored in database
- User programmable master test templates
- User can select test from master test Templates and can start similar test
- Load and Elongation is continuously displayed on screen
- Overload protection for machine by electronic control
- Tare Load and Reset Elongation facility available
- User selectable sample break detect condition
- Load rate and strain rate are also displayed while testing
- Unlimited Load rate and strain rate control steps *
- With Load rate controller, user can hold the load on specimen for unlimited time *
- With Load rate control, user can specify positive or negative Rate of Loading *
- User selectable units for load and displacement (kg, kN,N, lbf, mm, cm, inch etc.) Results and graphs are automatically displayed accordingly.
- On line display of Load and Displacement (Stress, Extension, Strain) etc. while test is conducted
- Provision of auto zeroing of Elongation at preload set by user
- User Programmable Reports. User can select Header, Footer, Specimen information, Dimensions, Test information, Test results, Stastical analysis as per his need.
- Generated reports can be exported to PDF file and can be e-mailed
- If electronic extensometer is used then proof stress values from 0.1% to1%can be determined
- Software will give alert to user to remove extensometer when load crosses .2% of Gauge length selected then proof load value is calculated. (With extensometer)
- Separate graph of extensometer and encoder is displayed
- Provision of calculation of Load and Elongation at yield, Peak load and Load at break, Yield stress, Ultimate stress etc.
- Special software for tensile, compression, bend, TOR steel and other test software as per customer requirements.

Digital Tensile Testing Machine



Control Panel features :

- Full fledged sealed membrane alpha numeric keyboard for data entry
16 x 2 Lines LCD Graphics display with backlit for displaying Load and Elongation of crosshead with bigger font size.
- Load indicated with resolution of 0.01% of machine capacity for entire range.
- Elongation is measured with resolution of 0.01 mm.
- Auto detection of overload and over travel and specimen break. On detection of any condition electrical motor is automatically turned off.
- Tare load and Reset Elongation facility to display Peak Load and Elongation at Peak, Load at break, Elongation at break
- RS232C interface for computer connectivity



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