



### Features

- Open Type Cross Head
- Hydraulic Wedge Action Grips
- Loading accuracy as high as + 1%
- Straining at variable speeds to suit a wide range of materials.
- Motor driven threaded columns for quick effort. Less adjustment of middle cross-head-to facilitate rapid fixing of test specimen.
- Simplicity in reading because of digital readouts.
- Wide range of standard and special accessories,
- Easy change from plain to threaded and screwed specimens.
- Large effective clearance between column enables testing of standard specimens as well as structures.
- Simple controls for ease of operation.
- Robust straining frame of an extremely rigid construction.
- Safe operation ensured by means of safety devices.
- Fully enclosed and protected pressure transducer.
- Optional serial port to transfer data to computer for analysis / storage evaluation etc.

### Application

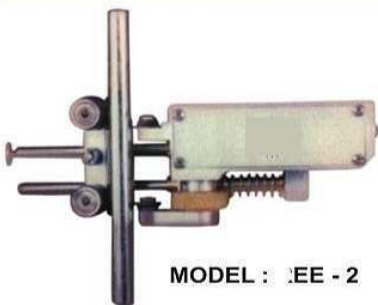
SSS Electronic Universal Testing Machine is designed for testing metals and other materials under tension, Compression, bending, transverse and shear loads. Brinell Hardness test (BHN) on metals can also be conducted.

### Principle of Operation

Operation of the machine is by hydraulic transmission of load from the test specimen through pressure transducer to a separately housed load indicator. The Hydraulic system is ideal because it replaces all mechanical parts for transmission of load, Which may wear out & Damage due to shock after rupture of test sample. The machine is equipped pressure transducer & digital encoder as a sensor.

Hand operated wheels are used to control the flow to and from the hydraulic cylinder. The regulation of oil flow infinitely variable, Incorporated in the hydraulic systems a regulating valve, which maintains a practically constant rate of piston movement. Control by this valve allows extensometer readings to be taken.

### Electronic Extensometer



MODEL : EE - 2

## COMPUTERIZED UNIVERSAL TESTING MACHINE (FRONT OPEN HYDRAULIC GRIPS)



MODEL : SSS-UTM-FLG

### Features for Electronic Control Panel

- Auto-ranging Microprocessor based digital display
- Data entry & parameter selection through membrane dust free sealed keyboard.
- Non volatile memory, so the input data remains saved during power OFF.
- Result & Graph print out facility.
- RS 232 C serial interface to PC with variety of optional windows based software for data analysis.
- Overload and Over travel protection.
- Preload selection to start the graph from zero position.

### Electronic Extensometer

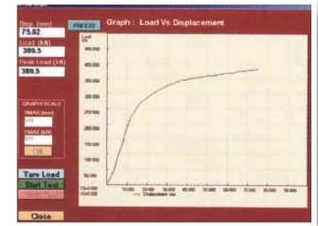
SSS offers electronic extensometer EE-2 to measure material extension with a resolution of one micron. Strain gauge type extensometer to be used up to elastic limit to determine important parameters like 0.1% to 0.5 proof Stress and Young's Modulus.

### SPECIFICATIONS

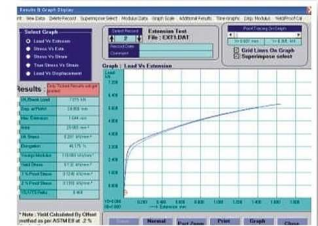
- Gauge length : 25mm & 50 mm
- Maximum Extension : 2mm
- Resolution : 1 micron
- Specimen Diameter : 0.5 to 30 mm
- Specimen Thickness : up to 30 mm
- Specimen Width : up to 30mm

# SPECIFICATIONS

MODEL	SSS-UTM	UNITS	UTM-FLG 10(E)	UTM-FLG 20(E)	UTM-FLG 40(E)	UTM-FLG 60(E)	UTM-FLG 100(E)
Maximum Capacity		KN	100	200	400	600	1000
Measuring Range		KN	0-100	0-200	0-400	0-600	0-1000
Load Resolution		KN	0.005	0.01	0.02	0.03	0.05
Resolution of Piston Movement (Displacement)		mm	0.1	0.1	0.1	0.1	0.1
Clearance for tensile at fully descended working piston		mm	50-700	50-700	50-700	50-800	50-850
Clearance for compression test at fully descended working piston		mm	0-700	0-700	0-700	0-800	0-850
Clearance between columns		mm	500	500	500	600	750
Ram Stroke		mm	150	200	200	250	250
Straining / Piston speeds (at no load)		Mm/min	0-300	0-150	0-150	0-100	0-80
<b>CONNECTED LOAD</b>							
HP @ (Voltage: 440 V, Phase: 3, Hz: 50)			1.3	1.3	2.3	2.5	3.5
<b>DIMENSIONS</b>							
L x W x H (approx)		Mm	2032 x 750 x 1960	2032 x 750 x 1960	2100 x 750 x 2200	2300 x 750 x 2534	2415 x 825 x 2900
WEIGHT (approx)		Mm	1500	1500	2200	3000	4500
<b>STANDARD ACCESSORIES</b>							
<b>FOR TENSION TEST</b>							
Clamping for round Specimens diameters		Mm	10-20 20-30	10-20 20-30	10-25 25-40	10-25 25-40 40-55	10-25 25-45 45-70
Clamping jaws for flat specimens thickness		Mm	0-10 10-20	0-10 10-20	0-15 15-30	0-15 15-30	0-22 22-44 44-65
Width		Mm	50	50	65	70	70
<b>FOR COMPRESSION TEST</b>							
Pair of compression plates of diameter		Mm	120	120	120	120	160
<b>FOR TRANSVERSE TEST</b>							
Table with adjustable rollers width of rollers		Mm	160	160	160	160	160
Diameter of Rollers			30	30	30	50	50
Maximum clearance between supports		Mm	500	500	500	600	800
Radius of Punch tops		Mm	6,12	6,12	12,16	16,22	16,22



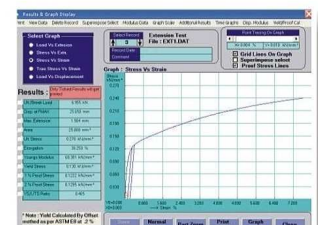
Real time graph on PC



Graph comparison & point tracing



Statistics



Graph with EE-2 Extensometer

### SPECIAL ACCESSORIES :

These include load stabilizer, Brinell Test Attachment, 180° bend test attachment, shear test attachment and a wide range accessories offered on request at an additional cost.

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

The dimensions given above are approximate.

### INSTALLATION :

It is recommended that machines be erected on a foundation. Details of foundation can be given on request.



## SSS INSTRUMENTS

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