

Product Name :
Astra Scientific Tensile Strength Testing Machine

Product Code :
MAT-LAB-0011



Description :

Astra Scientific Tensile Strength Testing Machine

Technical Specification :

material testing systems perform accurate and reliable tension tests / tensile tests. Our systems are ideal for measuring the tensile properties of metals, plastics, textiles, adhesives, medical devices and many other products and components. As they pull materials apart, ADMET testing machines accurately calculate mechanical properties such as tensile strength, peak load, elongation, tensile modulus, and yield.

Tensile tests are used to determine how materials will behave under tension load. In a simple tensile test, a sample is typically pulled to its breaking point to determine the ultimate tensile strength of the material. The amount of force (F) applied to the sample and the elongation (ΔL) of the sample are measured throughout the test. Material properties are often expressed in terms of stress (force per unit area, σ) and strain (percent change in length, ϵ). To obtain stress, the force measurements are divided by the samples cross sectional area ($\sigma = F/A$). Strain measurements are obtained by dividing the change in length by the initial length of the sample ($\epsilon = \Delta L/L$). These values are then presented on an XY plot called a stress-strain curve. Testing and measuring procedures vary based on the material being tested and its intended application.

FEATURES:

- Universal test machine frame
- Proper grips and fixturing to hold your sample
- Exceeds ASTM and ISO accuracy standards
- Electronic load & elongation measurement
- Digital indication for breaking load & elongation
- Load-elongation curve & test report printing facility by electronic printer (optional)
- With computer hookup facility
- Higher capacity on request
- Advanced load sensor sensing through advanced electronics.
- Highly sensitive load sensor with linearity feature and repeatability
- Cross head travel length: 700mm grip to grip
- Single column rugged structure
- Safety limit switches for over travel safety
- Hardened lead screws for frictionless movement
- Load cell calibrated by NABL approved proving ring/dynamometers
- Highly accurate micro-controller based system controls
- Peak Hold facility available (Max. value save in memory)
- Bright LED display
- Immediate analysis of results after test with complete accuracy & precision

SPECIFICATIONS:

- Display: Digital (LED)
- Accuracy: $\pm 2\%$ at full load (with master load)
- Speed: 100 mm/min and 200 mm/min
- (Changeable through Belt & Pulley Mechanism)
- Grip-to-Grip: Separation Min 25mm and Max. 700mm

- Power: 220V, 50 Hz AC
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Astra Scientific

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