

Product Name :
Computerized Universal Testing Machine

Product Code :
ENGLABINGCAG430001



Description :

Computerized Universal Testing Machine

Technical Specification :

Operation of the universal testing machine is by hydraulic transmission of load from the test specimen to a separately housed load indicator.

The system is ideal since it replaces transmission of load : through levers and knife edges, which are prone to wear and damage due to shock on rupture of test pieces.

Main cylinder pressure is transmitted to the cylinder of the pendulum dynamometer system housed in the control panel.

The cylinder of the dynamometer is also of self – lubricating design.

The load transmitted to the cylinder of the dynamometer is transferred through a leverage to the pendulum.

Displacement of the pendulum actuates the rack and pinion mechanism which operates the load indicator pointer and the autographic recorder.

The deflection of the pendulum represent the absolute load applied on the test specimen.

Return movement of the pendulum is effectively damped to absorb energy in the event of sudden breakage of the specimen.

Load is applied by a hydrostatically lubricated ram.

Machine consists of:

Straining Unit

Control Panel Power Pack

Hydraulic Controls

Automatic Continuous Roll Load – Elongation Recorder

Load Indicator System

Software Features:

Test you can conduct:

Tensile Test

Proof Test [Stress Vs %Strain (If Extensometer is used)]

Compression Test Bend Test

Single Shear

Double Shear

Some Data Entry Points :

Pre – Load Data Entry to avoid slippage in graph

Fully customized data entry

Extensometer Gauge Length Selection – 10, 25, 50 mm

Lower force & higher force data entry in % of maximum load to calculate proof stress

Real time Graphs :

Dual Graph – Stress Vs %Strain and Load Vs Displacement (If Extensometer is used)

Load Vs Displacement

Specimen Types :

Round

Flat Hollow

TOR / TMT Steel

Units :

Load – kN, Kg, N

Stress – kN/mm², N/mm² (MPa), Kg/mm²

Displacement – mm

Before start test you will get all information entered regarding test.

Fully customized header & footer information for test report.

Facilities to search, open, view, delete previously tested files.

Results Parameters : * Ultimate Load, Ultimate Strength, Displacement at Ultimate Load, Maximum

Displacement, %Elongation, %Reduction in area, Breaking Load, Breaking Stress, Yield Load, Yield Strength,

0.02% Proof Strength, 0.1% Proof Strength, 0.2% Proof Strength, 0.5% Proof Strength,, 1% Proof Strength, all

Proof loads, Young's Modulus.



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