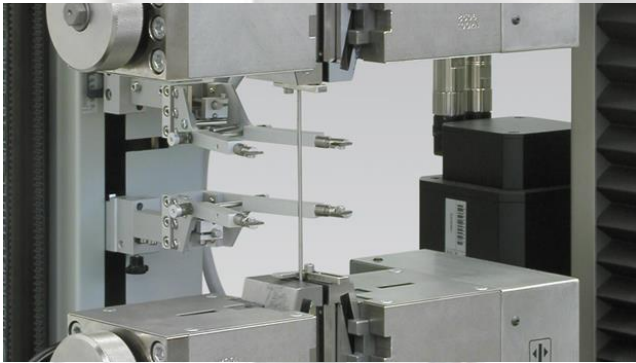


# METAL TESTING MACHINE

MODEL NO. EM-AC/STB/L – 10 TO 200

## METAL WIRE | METAL STRIP

Different machines or structures require different types of metals. The metal used in a bridge, for instance, is different from the metal used in a car fender. Each has varying mechanical properties which must be verified via testing to ensure safe use in the intended application. EQVIMECH materials testing machines are used all over the world by companies who need to make sure their metal materials make the grade.



EQVIMECH materials testing systems determine important characteristics of metals like elastic modulus, yield, elongation, reduction of area, n-value, R-value, Poisson’s ratio, fracture toughness plus many torsional properties. Regardless of which metals you work with or how you need to test them, EQVIMECH offers accurate, reliable, rugged, easy to use testing systems that are made in the **INDIA**.

Tensile testing of metals such as steel or metal alloys. This test determines important mechanical properties such as yield strength, ultimate tensile strength, elongation, and reduction of area.

The compression testing of metals such as steel or metal alloys. This test method determines important mechanical properties such as the yield strength, the yield point, Young’s Modulus, the stress-strain curve, and the compressive strength.

Testing standard that covers the tension testing requirements of metallic foil in thicknesses less than 0.006 in (0.150mm). (UTM Low Force Capacity)



### **Calculations: (LED Display / Software interface)**

- Ultimate Tensile Strength or Peak Stress
- Compressive Strength
- Yield Strength by Offset or Extension Under Load Method
- % Elongation at Break (includes plastic deformations only)
- Reduction of Area
- Yield Point Elongation (YPE)
- Elongation at Fracture (includes elastic and plastic deformations)
- Bend Strength etc. (as per customer requirement)



### **Recommended Equipment**

<b>Testing Equipment</b>	• <b>Model No. EM – AC/SS/TL/B – 10 to 200</b>
<b>Testing Standards</b>	• ASTM D 370
	• ASTM D 938
	• ASTM E 8
	• ASTM E 9
	• ASTM E E 111
	• ASTM E 345
	• ASTM F 519
<b>Accessories</b>	• Extensometers

## Technical Specification:

<b>Capacity</b>	<b>10 kN to 200 kN</b>
<b>Load cells available</b>	1kN to 200kN (100kg – 20000kg)
<b>Maximum crosshead travel</b>	1000 mm
<b>Testing speed range</b>	0.1 to 500 mm/min
<b>Maximum crosshead speed at 10 kN</b>	500 mm/min
<b>Jog speed</b>	0. 1 to 500 mm/min
<b>Return speed</b>	0.1 to 500 mm/min
<b>Frame stiffness</b>	10kN/mm to 200kN/mm (as per model)
<b>Dimensions (H × W × D)</b>	1800 mm × 11000 mm × 450 mm
<b>Weight (approx.)</b>	400 - 800 kg (as per model)
<b>Display</b>	Graphical with test data output through inbuilt software
<b>Power</b>	220 V, Single phase , 50 Hz
<b>Accuracy</b>	± 0.5 % at 2 to 100 % Full Load
<b>Standard Speed</b>	0.5-500mm/min *Optional through computer software
<b>Grip to Grip Suspension</b>	Min 25 mm and Max.900 mm (applicable only with vice type standard grip)
<b>Digital Load Suspension</b>	LCD Display
<b>Drive Mechanism</b>	Variable Frequency Drive
<b>Safety</b>	Yes
<b>Grippers</b>	Vice Type (Screw Side Action Tensile Grips) Flexural Wedge Type Compression Plates Pneumatic Hydraulic 3 – Point Bend Test
<b>Communication Converter</b>	RS 232
<b>Material</b>	<b>Metal Sheet, Rods, Wire and More</b>
<b>Finish</b>	Power coated / Zinc plating for corrosion resistant finish

