

## **SOM-008    TORSION TESTING MACHINE**



**DESCRIPTION :** In many areas of engineering applications, materials are sometimes subjected to torsion in services, for example, drive shafts, axles and twisted drills . The torque is the product of tangential force multiplied by the radial distance from the twisting axis and the tangent, measured in a unit of N.m. In torsion testing, the relationship between torque and degree of rotation is graphically presented and parameters such as ultimate torsional shearing strength (modulus of rupture), shear strength at proportional limit and shear modulus (modulus of rigidity) are generally investigated. Moreover, fracture surfaces of specimens tested under torsion can be used to determine the characteristics of the materials whether it would fail in a brittle or a ductile manner.

### **RANGE OF EXPERIMENTS :**

1. To Perform Torsion Test

### **TECHNICAL DESCRIPTION :**

- Torsion Testing Machine is designed for conducting torsion and twist on various metal wires, tubes, sheet materials torque measurement is by pendulum dyanometer system.
- Torque can be applied to specimen by geared motor through gear box.
- The accuracy of torque indication is  $\pm 1$  of the true torque.

Max. Torque Capacity : 200 kg m

Torque Ranges : 200,100,50 kg m

No. of div. on Dial : 500

Clearance between Grips : 0-420 mm

Grips for Round specimens : 7- 10 , 10 -15,15 – 20 mm

Motor (400-440 V, 3 Phase & 50 Hz.)



**SERVICE REQUIRED :** Power Supply: 440 V, 50 Hz, A.C.Three Phase ,  
Foundation As Per Drawing  
**SPACE REQUIRED** : 1.5 m. ( L) x 1.0 m (W) X 1 m (H).  
**WEIGHT** : @ 200 Kg