

Torsion of Bars Apparatus (EDC-SM-114)

EXPERIMENTAL DATA:

- Purpose of the shear modulus of various materials.
- Angle of twist dependent on:
 - Clamping length.
 - Bar diameter.
- Design of proportional relationships for the angle of twist.



DESCRIPTION:

Torsion is the twisting or wrenching of a body by the exertion of forces tending to turn one end or part about a longitudinal axis while the other is held fast or turned in the opposite direction.

Torsion is a typical load to which components are subjected. The resultant stresses and deformations can lead to failure of the component. A number of different factors play a role in this, including the material, the cross-section of the bar, the clamping length and the method of bearing support.

SPECIFICATIONS:

- Aluminum Frame.
- Graduated Disk.
- Chucks for holding for bars.
- Weights for loading purpose.

DIMENSIONS AND WEIGHT:

- L x W x H (mm): 1000 X 300 X 400 approx.
- Weight: 18 kg approx.

SCOPE OF DELIVERY:

- 1 x EDC-SM-114.
- 1 x Instructional Manual.

TECHNICAL DATA:

- Torsion bars:
 - Material: aluminium, steel, brass, copper.
 - Ø 10mm: l=50 - 640mm (aluminium).
 - ØXL:10x50mm/10x340mm (aluminium, steel, copper, brass).
 - Diameter with L=50/340mm: Ø5 - 12mm (steel).
- Graduated Disk:
 - 0 to 360° with 1° resolution.
- Weights:
 - 1x 100g (hanger).
 - 1x 100g.
 - 1x 400g.
 - 1x 500g.
 - 1x 900g.

