



The object of Tesca Bending & Torsion Apparatus is to determine what levels of combined bending and torsion cause elastic failure in different materials, and to compare them with various theories of failure. The apparatus uses specially machined 'necked' specimens which are clamped at one end to the base plate and at the other end to a counterbalanced circular loading plate. Regular interval graduations on the loading plate allow a special hanger to locate. The special hanger enables pure bending, pure torque or a combination of both to be applied depending on the position of the hanger. The specimen deflection is measured by a dial gauge mounted diametrically opposite the load point. A set of calibrated weights is supplied along with a set of test specimens. Further test specimens are available separately.

#### **Specifications**

- The object of this experiment is to determine what levels of combined bending and torsion cause elastic failure
- In different materials, and to compare them with various theories of failure. The apparatus uses specially machined specimens which are clamped at one end to the base plate and at the other end to a counterbalanced circular loading plate.

#### **Experiment Possibilities**

- To determine elastic failure of a specimen subjected to several ratios of bending and torsion simultaneously
- To compare the results with the established theories of failure

Note: Specifications are subject to change.

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