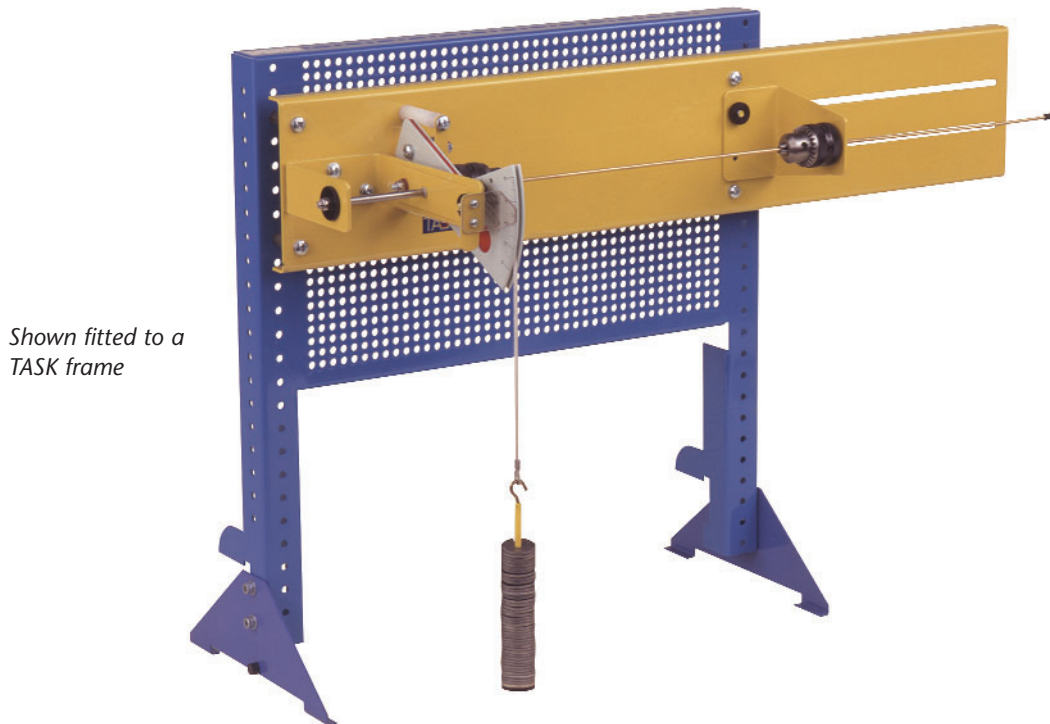


Shows students how to use torsion tests to find the properties of solid rods in the elastic region



Shown fitted to a TASK frame

- Ideal for classroom demonstrations and for use by small groups of students
- Fits onto one of the optional TASK Frames and shows how to find the properties of a rod by torsion tests
- Includes specimen rods
- Colour-coded parts to help students understand what each part does
- Supports all teaching levels up to and including first year university courses
- Hands-on equipment - easy-to-assemble parts allow students to build the experiments for improved understanding of the experiment

- **TecEquipment** products are designed and manufactured by TQ Education and Training Ltd
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- TQ is an ISO 9001 certified company

Description

A kit that builds into a machine that uses torsion to find the properties of solid rod specimens.

Students assemble the torsion tester on a mesh frame (frames available separately).

The kit includes two specimen rods of different materials. To perform a torsion test, students attach a specimen rod to chucks. They then apply loads using weights (weights available separately) to a radius arm on one of the chucks. A protractor scale accurately shows rod deflection, in degrees.

Students work individually or in groups of up to three. The colour of parts indicates their function. For example, yellow parts are mainly stationary or passive, and white parts are instrumentation. Red parts may move or contain energy.

The kit comes with Assembly Instructions. A Teacher Guide provides experiment methods, information, references and tips. A Student Workbook guides students through experiments.

Standard Features

- Supplied with comprehensive User Guides (Assembly Instructions, Student Workbook and Teacher Guide)
- Two-year warranty
- Manufactured in accordance with the latest European Union directives

Essential Ancillaries

- Upright Frame (UF)
- Weight Set (WT)

Experiments

- Proof of the general torsion theory
- Derive the modulus of rigidity for brass
- Derive the modulus of rigidity for mild steel
- Illustrate why torsional deflection may be desirable and undesirable in engineering design

Operating Conditions

Operating environment:
Laboratory environment

Storage temperature range:
-25°C to +55°C (when packed for transport)

Operating temperature range:
+5°C to +40°C

Operating relative humidity range:
80% at temperatures < 31°C decreasing linearly to 50% at 40°C

Specifications

Packed Dimensions and Weight: 0.02 m³ and 4.25 kg

Specimen Rods

- Brass
- Mild Steel

Main Parts

- Back plate, lever, chucks and chuck keys.
- Pointer arm and pointer, spindle, cord assembly and tie plate.
- All necessary nuts and bolts, washers, end tips, pillars, stops.

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