

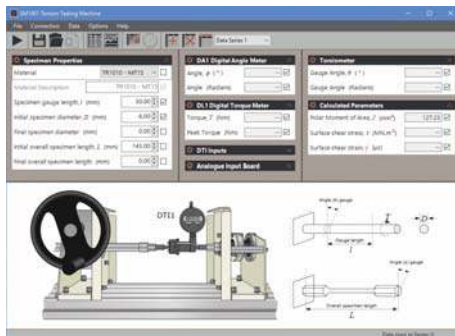
TORSION TESTING MACHINE - 30 NM

VDAS® SM1001

Bench-mounted machine to allow students to do torsion tests on different materials. Demonstrates Bauschinger effect.



TORSION TESTING



SCREENSHOT OF THE OPTIONAL VDAS® SOFTWARE

LEARNING OUTCOMES:

- Determination of modulus of rigidity (shear modulus) and yield strength (when used with the optional torsionmeter)
- Determination of upper and lower yield stresses for normalised steel specimens
- Reversed torsion tests to demonstrate the Bauschinger effect and the effects of residual body and textural stresses on torsional strength
- Comparison of the different elastic and plastic properties of materials (optional specimens required)

MATERIALS TESTING AND PROPERTIES

- Suitable for destructive tests on specimens
- Forward and reverse loading
- Wide range of test specimens
- Optional Torsionmeter (SM1001a) available for tests which need increased accuracy

The Torsion Testing Machine consists of a rigid frame. The specimens fit between a strain head at one end and a torque reaction and measurement system at the other. To apply torque, students turn a handle on the gearbox. The output shaft of the gearbox slides to allow for any change in length of the specimen during tests. A guard protects the user when performing destructive tests.

RECOMMENDED ANCILLARIES:

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| • Torsion Test Specimens (TR) | 172 |
| • Versatile Data Acquisition System – Bench-mounted version (VDAS-B) | 299 |
| • Torsionmeter (SM1001a) – Mechanical torsionmeter for use with 6 mm diameter specimens in both the elastic and plastic regions | |

ALTERNATIVE PRODUCTS:

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| • Additional Torsion Testing Kit (TE16b) | 152 |
| • Torsion of Circular Sections (STR6) | 211 |
| • Torsion of Circular Sections Kit (ES5) | 12 |