WP 510  
*Torsion Testing Machine, 200 Nm, Motor Driven*

* Measurement of the test torque with strain gauges
* Optoelectronic absolute angular sensor
* 4 different deformation speeds can be set
* Display of the values on LC display
* GUNT software for data acquisition

**Technical Description**

The unit is used for torsional testing of different materials to fracture. Test torque and angle of twist are measured. Rods of different length and diameter are used as specimens. The torque is applied using a reduction geared motor. Four different drive velocities (both clockwise and counterclockwise) are realised with the frequency converter. A strain gauge measuring shaft provides the torque as an electrical signal, the angle of twist is recorded by an optoelectronic angular sensor. Both values are displayed digitally, the measurement can also be evaluated on a PC using the software. For adaptation to different length rods, the dolly can be slid. The base plate is reinforced against twisting with square sections. A transparent plastic cover provides protection against flying debris on fracture.

**Learning Objectives / Experiments**

- torsional testing of different materials up to specimen fracture
- recording the torque-angle of twist curve
- determination of the elastic range

G.U.N.T Gerätebau GmbH, Hanskampring 15-17, D-22885 Barsbüttel, Phone +49 (40) 67 08 54-0, Fax +49 (40) 67 08 54-42, E-mail sales@gunt.de, Web http://www.gunt.de

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Torsion Testing Machine, 200 Nm, Motor Driven

Specification
1] experimental unit for motorised torsion testing of different materials to fracture
2] max. test torque 200Nm
3] twisting velocities (clockwise and counterclockwise) 50, 100, 200, 500°/min
4] test rod material steel, aluminium, brass
5] test rod holder 19mm AF hex socket
6] test torque measurement using strain gauge measuring shaft
7] optoelectronic angle sensor
8] digital measured value indication
9] worm drive motor, speed controller via frequency converter, 4 fixed speeds
10] GUNT software for data acquisition via USB under Windows Vista or Windows 7

Technical Data
Twisting velocities: 50, 100, 200, 500°/min^-1
Test rod length: max. 300mm
Test rod holder: hex socket 19mm AF
Frequency converter with 4 fixed speeds
Motor output: 0,12kW, clockwise and counterclockwise
Measuring ranges
- torque: 0...199.9Nm
- angle of twist: 0...3200°, resolution: 0,1°

Dimensions and Weight
LxWxH: 1.100x550x450mm
Weight: approx. 110kg

Required for Operation
230V , 50/60Hz, 1 phase or 120V, 60Hz/CSA, 3 phase

Scope of Delivery
1 complete torsion tester
3 sets of test rods
1 GUNT software CD + USB cable
1 manual

Software screenshot

Order Details
020.51000 WP 510 Torsion Testing Machine, 200 Nm, Motor Driven
WP 510  Torsion Testing Machine, 200 Nm, Motor Driven

Available Accessories:

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