

SFT600



MOTORIZED TORSION UNIT 200Nm



Experimental capabilities

- Study of the behavior of different materials subjected to the torsion / elastic domain
- Study of the behavior of different materials subjected to the torsion / plastic domain until rupture
- Determination of the Coulomb module / comparison with theoretical approach

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Operating principle

The SFT 600 bench allows to implement easily the torsion experiments on various materials until rupture

Maximum torque 200Nm

Torque measurement by gauge bridge sensor

Displacement measurement by encoder

Displays of measured variables (torque and angle)

Acquisition card on USB port

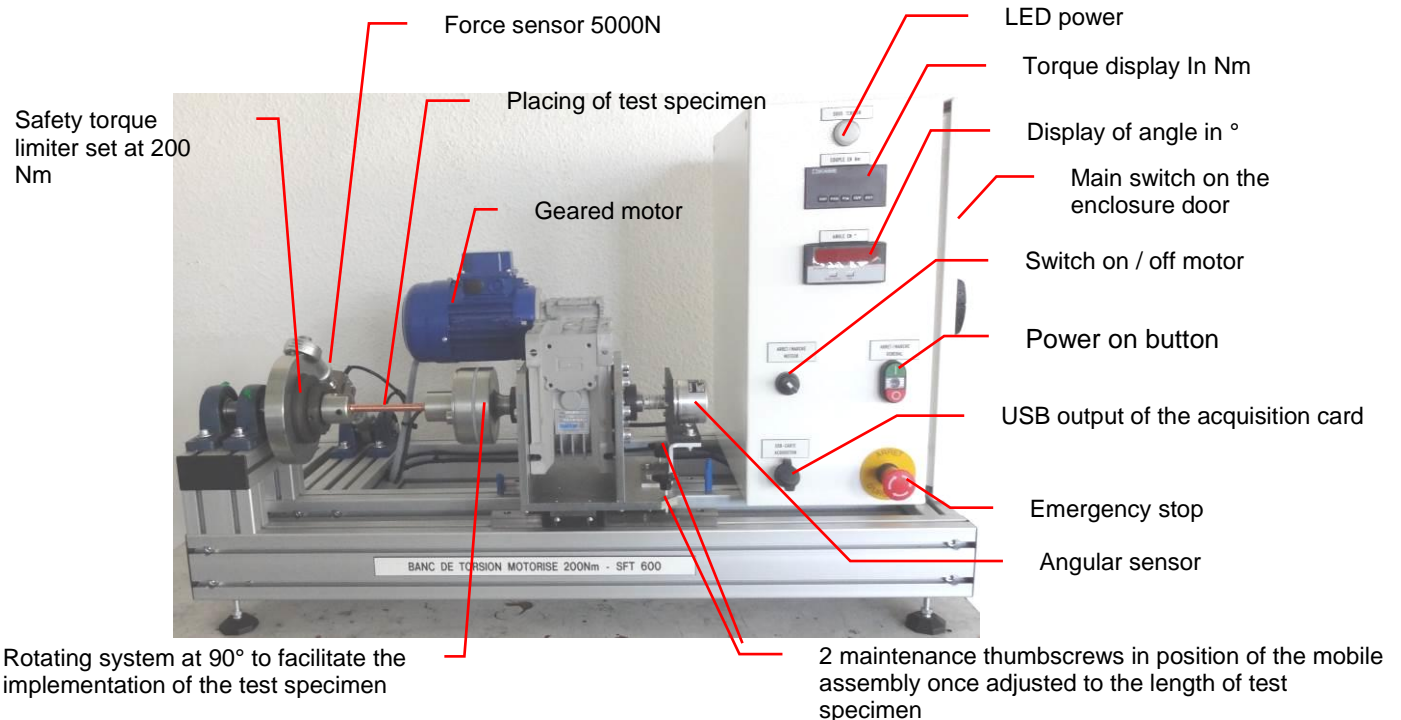
The robust design of this device makes it suitable for use in schools.

The equipment is set up on an Anodized aluminium frame on casters wheels. This gives it great strength and a flexibility of integration into your premises.

The manufacture of this equipment complies with the European standard for machinery manufacturing.

Illustrations

Technical details



Structure and electric box:

- **Chassis** in anodized aluminum profiles
- **4 adjustable feet** dampers
- **Set up the specimen facility in the holding jaws**
- **Electrical box** making control desk office including main switch, emergency stop, acquisition card, differential circuit breaker, etc
- Startup **switch** of motor
- **Angle display with analogue output**
- **Torque display with analogue output**

Geared motor

- **Motor 230V** three phase - 0.12kW – 50/60Hz powered via a variator (adjustable rotating speed easily according to the type of test)
- **Double reducer** of total reduction ratio $i = 1/1600$
- **Torque limiter** of safety calibrated at 200Nm.

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Instrumentation :

- **Angle measurement: Encoder of resolution 3600 ppt**
- **Torque measurement: Force sensor capacity of 500daN mounted on swiveled torque arm**
- **Displays** of torque and angle (CF electrical box) with analog output to the acquisition card.
- **Multichannel acquisition card** for acquisition on the PC (not supplied) via USB port (cable supplied)
- **Software** compatible with acquisition card for data recording (compatible excel export) variable period of sampling, conditioning calculation formulas of acquisition signals and printable graphic plots

Services required

Documentation

- Electrical supply : 230 Vac – 50 Hz
- Other volume: XX L
- Dimensions: (LxWxH mm): 900 x 500 x 600
- weight (Kg): 65

- User's manual
- Technical documentation of the components
- Certificate of conformity CE

Note : if the equipment installation is operated by our staff, all supplies and exhaust connections required must stand at less than 2m from the machine