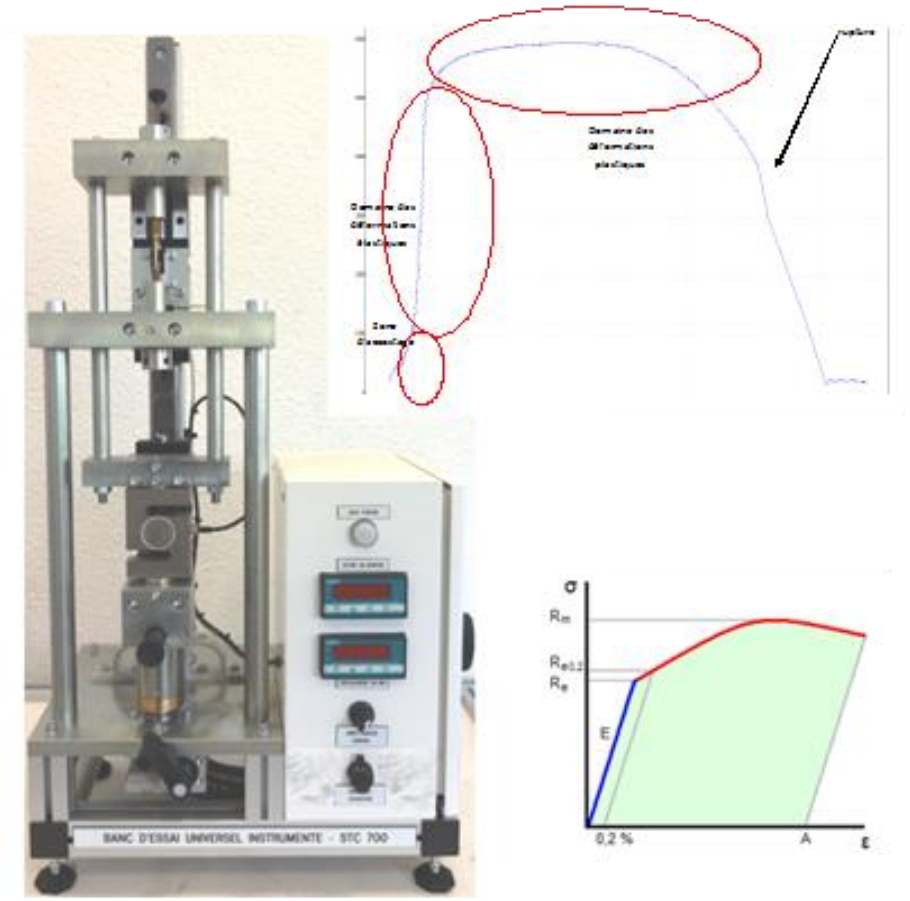
STC700

INSTRUMENTED UNIVERSAL TEST UNIT



Experimental capabilities

Depending on retained tools

- **Tensile material characterization.**
- **Determination of the Young's modulus of the material. .**
- **Characterization of hardness material Brinell**
- **Characterization of material in compression**
- **Characterization of material in bending**
- **Characterization of material in shearing**
- **Testing stamping, plastic deformation**

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STC700

Operating principle

The bench STC 700 is a bench destined to the test conduct of characterization of materials such as the tests of tensile, compression, bending, hardness, shear, or stamping up to 20kN
The load necessary to conduct of tests is performed manually.
The characteristics such as the Young modulus, the elastic limit of the materials and the limit of fracture can be studied.
Retransmission of the force measures and displacement on acquisition card connectable to the USB port of a PC

- Force measure by sensor gauge bridge of capacity 20kN
- Deformation measurement by potentiometric sensor, 10mm stroke accurate to 0.01mm
- Display of force and deformation measurements on 2 screens integrated into the front panel
- Retransmission of the measures force and displacement on connectable acquisition card to the USB port of a PC
- Graphical operating software and data archiving {time, force, position relative elongation, constraints} / excel compatible data format (TXT ...)

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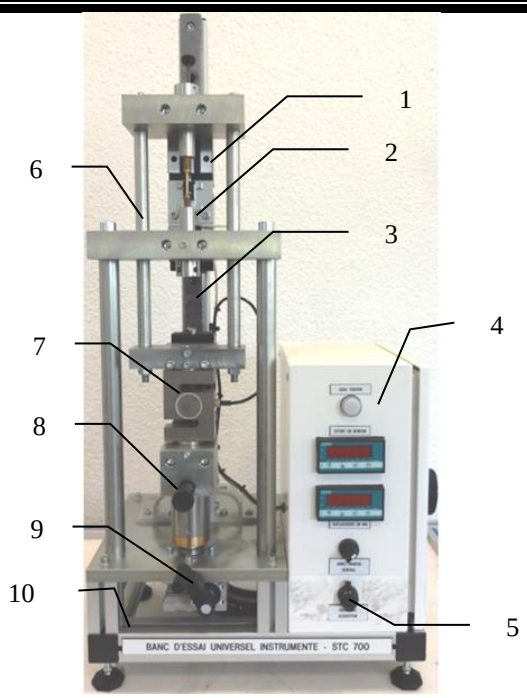
The bench is supplied in its basic version only equipped with tensile testing tool.
All other tools compatible with this bench are proposed in this technical sheet to enable an à la carte selection to suit your needs
The specimens for each type of test can be replenished at any time with the company DIDATEC (see at the end of data sheet).
However, to guarantee optimum replenishment cost, we provide in the technical file of the machine, the definition plans of these specimens. Thus, the institutions will have free choice of specimens embodiment (internally, through DIDATEC or sub-contractor of their choice)

Illustrations



Technical details

1. Tensile test area
2. Displacement sensor
3. Compression test area, bending, shear and stamping following options selected
4. Panel with On/Off button, moving display in mm, force display in Newton
5. Acquisition card with integrated USB connector on the bench
6. Steel gantry of adapted sections to the forces exerted
7. Sensor force measurement
8. Mechanical system of fast presetting of the spacing between the movable part and the tooling set depending on the type of specimen to be tested
9. Hand crank for force application and displacement
10. Anodized aluminum structure

Accessoires inclus

Set for tensile tests :

- Tools made of 2 treated steel supports
- For cylindrical specimen to screw M10x100mm, section 3 to 5mm following matter
- Tensile force supported: 20kN
- Set of 8 specimens to screw M10x100mm (2 steel, 2 alu 2 copper, 2 brass)
- Ref : STC710 (Included in basic STC 700)

Services required

- Electrical supply : 230 Vac – 50 Hz – 6 A
- Dimensions: (LxWxH mm): 550 x 370 x 1030
- weight (Kg): 85

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

Documentation

- User's manual
- Pedagogical manual
- Technical documentation of the components
- Lab exercises
- Software :
- Certificate of conformity CE

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version : FT-STC700-STD-A

STC700

Options

Kit for compression tests:
- Support tools
- Set of 8 specimens (4 Alu, height 20mm for compression-type "buckling"
  4 Alu height 10mm for compression-type "barrel")

- Ref : STC720

Kit for Brinell hardness tests:
- Tools for Brinell hardness test (ball indenter 5mm diameter)
- Compatible tests at 7.5kN
- Support samples
- Set of 8 specimens (2 steel, 2 alu, 2 copper, 2 brass)

- Ref : STC730

Kit for bending tests:
- Punch
- Support dual bearing
- Set of 8 specimens (2 steel, 2 alu 2 copper, 2 brass)

- Ref : STC740

Kit for shear tests:
- Punch
- Matrix
- Set of 8 specimens (4 Alu, 4 copper)

- Ref : STC750

Kit for stamping tests:
- Stamping punch equipped with hold-down spring
- Forming matrix
- Set of 8 specimens (4 round steel Ø80 x 0.5mm and 4 round aluminum Ø80 x 1.0mm)

- Ref : STC760

Additionnal specimens for replenishment

8 specimens / for tensile testing	Ref : STC711
8 specimens / for compression testing	Ref : STC721
8 specimens / for hardness testing	Ref : STC731
8 specimens / for bending testing	Ref : STC741
8 specimens / for shear testing	Ref : STC751
8 specimens / for stamping testing	Ref : STC761

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