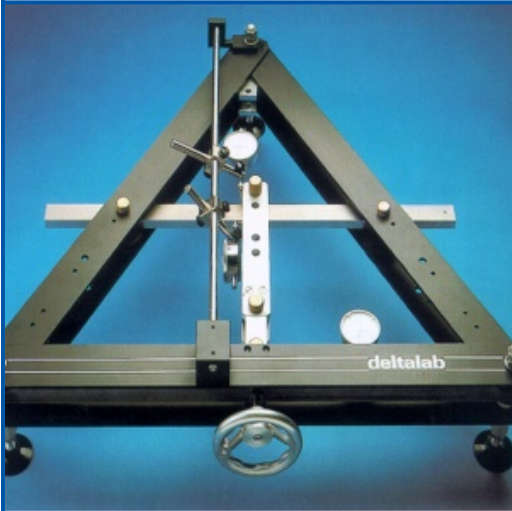


# BENDING TRACTION BENCH



*Non contractual photo*

**SERVICE : THE TEST STAND IS USED HORIZONTALLY, PLACED ON A TABLE OR BENCH.**

**DIMENSIONS : 70 X 70 X 20 CM**

**WEIGHT : 25KG**

## REFERENCE : EX150

The tensile-flexion bench is the basic element for a series of material resistance experiments. This bench allows the study of the relationship between the applied force and the deformations undergone, of a specimen stressed in tension or of a beam stressed in bending. Numerous complementary applications are available around this bench which has become an indispensable standard as a manual table test machine.

### Educational Objectives :

**The manipulations on this bench make it possible to carry out:  
The study of traction :**

- Determination of longitudinal elastic modulus of three materials (steel, light alloy, PVC)
- Determination of the influence of the section by measurement on two specimens of light alloy The study of flexion
- Determination of the influence of the distance between supports
- Determination of the influence of the bending moment of inertia
- Determination of the influence of the material (steel beams and light alloy)

### Technical specifications :

This bench consists of the triangular frame that is placed on a table. It allows tensile to receive test pieces of about 400 mm (including jaws) in length and bending to use two distances between supports 400 and 500 mm. The useful stroke is about 25 mm. The force applied during the test is determined by the measurement of the deflection of a torque bar. The set is calibrated at the factory. The measurement of the elongations of the specimens and the arrows of the beams is carried out by dial indicators. The test bench comes with a set of 4 test specimens (Aluminum section 1x20mm and 2x20mm, Steel sect.1x20mm and PVC sect.2x20mm), a set of 2 beams (Alu and Steel section 15x30mm) and two dial indicators Documentation technical and educational

### OPTIONS :

EX151 Data Acquisition and Processing System The data acquisition and processing system is a complement that adapts to the flexion bench EX150. He introduces computer science into experiments designed to teach students the physical meaning of material elasticity and the strength of mechanical structures. The use of the EX151 requires EI616 and a PC.