



Tesca Deflection of Curved Bar Apparatus is designed to enable the student to determine experimentally the horizontal and vertical displacements at the free end of various curved bars when subject to single concentrated load.

Tesca Deflection of Curved Bar Apparatus consists of a structure of aluminum and steel that allows the incorporation of different curved bars to be studied. It allows tests with curved bars of different shape.

The use of two dial gauges placed perpendicularly to each other makes it possible to determine the displacements produced in both directions, up to a maximum range of 10 mm.

The load is applied when hanging weights in the application point. A set of weights is supplied with the unit. A steel hook is also included for these weights, and it must be hung in the application point of the force.

Specifications:

- Bench-top unit mounted on a structure of anodized aluminum, with painted steel panel, and with adjustable in height legs.

Note: Specifications are subject to change.

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- The unit basically consist of:
- Structure of aluminum and steel on which the dial gauges are mounted and clamps for the test bars.
- 2 Dial gauges with range from 0-10 mm, and with 0.01 mm accuracy, to measure the deformation of the test bar subjected to a force.
- 4 Test curved bars, made of steel, with different lengths and curvatures.
- Set of weights, composed of:
 - 5 weights of 200 gr. each one.
 - 1 weight of 100 gr.
- Steel hook to hand the weights and it is hanging in the application point of the force.
- Manuals: This unit is supplied with the following manuals: Required Services, Assembly and Installation, Starting-up, Safety, Maintenance & Practices Manuals.

Experiment Possibilities

1. Study of deflection of curved bars.
2. Determination of the horizontal and vertical displacements at the free end of various curved bars when subject to single concentrated loads.
3. Study of the different types of bars geometry and for different positions.
4. Measurement of the horizontal and vertical displacements produced at the free end of the curved bar.
5. Effect of the load value in the bar response..
6. Effect of the bar morphological characteristics in its response to the load.