



Tesca Pin Jointed Frameworks fits onto a Structures Test Frame. Students use stainless-steel members to build different pin-jointed frameworks. The members joined by slotting the ends into bosses.

The equipment includes two framework supports: a pivoting support, and a pivoting and rolling support. Each member has a strain gauge attached that connects to a digital strain bridge. A load cell applies loads to the structure at various angles. When connected to the optional Digital Force Display, the load cell measures the applied load. To apply loads simultaneously, extra load cells are available. A digital deflection indicator measures the deflection and the digital strain bridge shows the strains in the members. From this, students can calculate the forces in the members. A second tray stores the joint bosses and other loose items. Included is a lead to connect the load cell to a Digital Force Display (to be purchased available separately). The lecturer guide provides details of the equipment including sample experiment results. The student guide describes how to use the equipment and gives experiment procedures.

They also extend the choice of tests beyond that available using only the hardware, for example: higher loads, uniform loads or different test specimens. This extends the student's learning experience.

For automatic data acquisition of your experiment

Note: Specifications are subject to change.

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results, Tesca can supply the optional Automatic Data Acquisition Unit.

## **Specifications**

- High-quality structures teaching module for students of mechanical, civil and structural engineering
- Allows safe and practical experiments into pinjointed frameworks
- · Realistic and verifiable experiments results

## **Technical Specifications**

- Bosses:
  - 9 universal bosses, each connect members at 30, 45 or 60 degrees
- Members:
  - 15 stainless steel, various lengths with strain gauges attached
- Strain measurement:
- 16-way digital strain bridge
- Deflection measurement:
  - Digital deflection indicator

## **Experiments**

- Study of Bow's Notation, strains, stresses, forces and deflections in various frameworks, including a Warren girder and roof truss
- Comparison of different frameworks
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