



BENDING STRESS in a BEAM

HST20



Year 2
study

Features

- Only requires one HDA200 to view all key parameters.
- Span can be adjusted.
- Quick and easy installation of 'T' Beam.
- All wires terminated for quick connection.
- Potential for customer specific specimens.
- Dedicated e-book supplied

Description

An inverted aluminium T-beam is mounted between two simple supports on point contacts. The load onto the T-beam is applied using a screw jack mechanism with integral load cell. The load cell arrangement and supports create a three point loading. A number of precision strain gauges are accurately located on the T-beam specimen. These strain gauges are paired with temperature compensation dummy gauges for output stability. Each strain gauge pair is numbered for accurate connection to the HDA200 Interface (sold separately). The signals from the loading mechanism and strain gauges are fed directly into the HDA200 Interface (sold separately).

Related Laws/Applications

- Bending Stress.
- Strain.
- Strain Gauges.
- Bending Equation.
- Neutral Axis.
- Second Moment of Area.

Learning capabilities

- Comparison of theory with experimental results
- Working with Strain gauges
- Bending equation
- Neutral axis
- Working with stresses and strains and their conversion
- Second Moment of Area

Technical Specification

- Beam: 900(L) x 51(H) x 25(W) x 3.2(t) mm
- Loading Mechanism: 0...500N
- Five pairs of strain gauges
- Half Bridge Strain Gauging

Essential Ancillaries

- HST1 (or HST100)
- HDA200

What's in the Box?

- 1 x Strain Gauged 'T' Beam
- 1 x Loading Mechanism
- 2 x Support Pillar
- 2 x Dowell Point Contact
- 1 x Tape measure
- Accessories container
- Hex wrench
- Instruction manual
- E-book
- Packing list
- Test sheet

You might also like

- HST35
- HSM18

Weights & Dimensions

- Weight: 4 kg
- Length: 1000mm
- Width: 430mm
- Height: 120mm

Essential Services

- 110/120V, 60Hz or 220/240V, 50Hz, single phase, live neutral and earth for optional HDA200

Operational Conditions

- Storage temperature: -10°C to +70°C
- Operating temperature range: +10°C to +50°C
- Operating relative humidity range: 0 to 95%, non condensing

Ordering information

To order this product, please call PA Hilton quoting the following code: HST20

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COUNTRY OF ORIGIN - UK WARRANTY PERIOD - 5 YEARS