



DEFLECTION of CURVED BARS

HST12



Year 3
study

Features

- Six specimens supplied as standard
- Two Digital Dial Gauges supplied for HDA200 & software connection
- Deflections measured at tip of specimens
- Weights set supplied as standard
- Dedicated e-book supplied

Description

Six different shaped curved cantilever specimens are attached to a horizontal or vertical fixing bracket at their base. A special hanger is suspended from small pins on the free end of the specimen to allow loading to be applied to the specimen using the calibrated weights set provided. Each specimen can be quickly and easily interchanged. The special hanger applies a vertical load and presents horizontal and vertical faces for two displacement dial gauges on moveable stands to measure the vertical and horizontal deflections simultaneously.

Related Laws/Applications

- Simpsons Rule.
- Unit Force method.
- Castiglianos' Theorem.

Learning capabilities

- Comparison of experimental results with those derived by exact and approximate methods of analysis
- Use Castigliano's rule and Simpsons rule
- Deflection of free end analysed using twin displacement gauges

Technical Specification

- Specimen section approximately 25mm x 3mm, coated steel
- Semi-circular: R148.5mm
- Semi-circular Bracket: 75 (L) and R73.5mm
- Double Davit: 205(L) and R73.5mm
- Quadrant: R148.5mm
- Single Davit Curved: 205(L) and R73.5mm
- Single Davit Straight: 205(L) and 75(L)mm
- Digital Dial Gauge: 12.7mm travel; 0.01mm resolution
- Weights set: 5 x 2N, 3 x 5N, 1 x 10N

Essential Ancillaries

- HST1 (or HST100)

Recommended Ancillaries

- HDA200

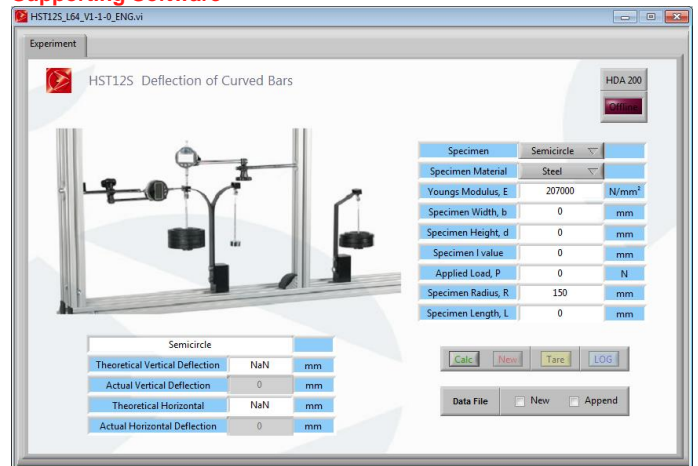
What's in the Box?

- 1 x Semi-circular Specimen
- 1 x Semi-circular Bracket specimen
- 1 x Double Davit Specimen
- 1 x Quadrant Specimen
- 1 x Single Davit Curved Specimen
- 1 x Single Davit Straight Specimen
- 1 x Vertical Clamp Bracket
- 1 x Horizontal Clamp Bracket
- 5 x 2N, 3 x 5N, 1 x 10N weights
- 2 x Digital Dial Gauge and data cable
- 2 x Dial Gauge Stand
- 1 x Load hanger
- 1 x Tape measure
- Accessories container
- Hex wrench
- Instruction manual
- Software
- E-book
- Packing list
- Test sheet

You might also like

- HSM10

Supporting Software



- HST12S

Minimum System Requirements

- Computer or Laptop running WIN7 or above

Weights & Dimensions

- Weight: 8 kg
- Length: 310mm
- Width: 270mm
- Height: 350mm

Essential Services

- 110/120V, 60Hz or 220/240V, 50Hz, single phase, live neutral and earth for 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: HST12

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