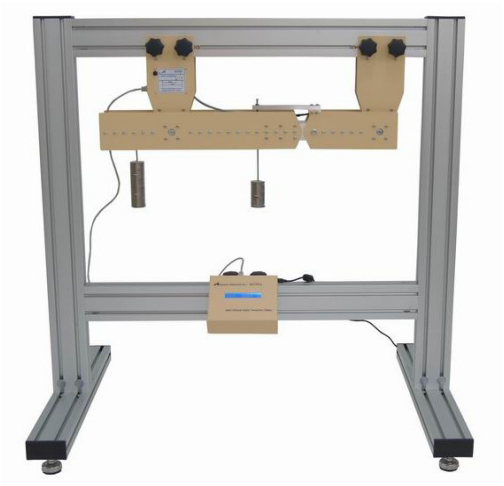
ASTR2 Bending Moments in a Beam

橫樑之彎曲力矩



Features:

- Shows and proves the basic theory of bending moments in a beam
- High-quality structures teaching module for students of mechanical, civil and structural engineering
- Allows safe and practical experiments into bending moments in a beam
- Realistic and verifiable experiment results
- Optional AII's Structures Software package for extra 'virtual' experiments that simulate and confirm the results from your hardware and allow extended experiments
- Optional ASTR2000 unit with AII's Structures Software package for automatic data acquisition and virtual experiments
- One of many interchangeable experiment modules from AII's modern, flexible and cost-effective Structures teaching system
- Ideal for classroom demonstrations, or students working in pairs or small groups

Description:

The experiment hardware is a simply supported beam 'cut' by a pivot. The beam fixes to the Multi Structures Test Frame (ASTR1, available separately). Students apply loads at set positions using hangers holding various masses. To stop the beam collapsing, a moment arm bridges the cut onto a load cell thus reacting (and measuring) the bending moment force. A Multi-Channel Digital Transducer Display (ASTR1a, available separately) displays forces during experiments.

ASTR2 Bending Moments in a Beam
橫樑之彎曲力矩

Specification:

- Standard Features
  Supplied with lecturer guide and student guide

- Experiments
  - Bending moment variation at the point of loading
  - Variation of bending moment away from the point of loading
  - Examination of various other loading cases, including loads traversing the beam

- Essential Ancillaries
  - Multi Structures Test Frame (ASTR1)
  - Multi-Channel Digital Transducer Display (ASTR1a)

- Recommended Ancillaries
  - Structures Software (ASTRS) for virtual experiments or
  - Automatic Data Acquisition Unit (ASTR2000) for automatic data acquisition and virtual experiments

- Operating Conditions
  +5°C to +40°C

- Dimensions
  660 x 250 x 90 mm ± 15%

- Loads
  - 5 weight hangers
  - 200 pieces 10 g masses

- Hanger supports
  22 loading positions along the beam

- Force measurement
  Electronic load cell