



ASTR9 Three-Pinned Arch

三铰拱



Features:

- For studying the characteristics of a three-pinned arch under various load conditions
- High-quality structures teaching module for students of mechanical, civil and structural engineering
- Allows safe and practical experiments into three-pinned arches
- Realistic and verifiable experiment results
- Optional All'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 All's Structures Software package for automatic data acquisition and virtual experiments
- One of many interchangeable experiment modules from All'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 fits onto a Multi Structures Test Frame (ASTR1, available separately). Students apply various loads at set positions along the top of a simple 'determinate' three-pinned arched structure. They can also apply a uniformly distributed load.

The structure has a pivot at one end and at the crown. The arch rolls against a load cell at the opposite end. The load cell connects to a Multi-Channel Digital Transducer Display (ASTR1a, available separately) to measure and display the thrust reaction. The equipment includes a lead to connect the load cell to a Multi-Channel Digital Transducer Display (ASTR1 a).



ASTR9 Three-Pinned Arch 三鉸拱

Specification:

- Standard Features
 - Supplied with lecturer guide and student guide
- Experiments
 - Studies of the: characteristics of a three-pinned arch; relationship between applied loads and horizontal thrust produced from a simple determinate arched structure.
 - Also: Appreciation of footing stability and economy
- 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
 - 700 x 310 x 70 mm \pm 15%
- Arch
 - 100 mm rise
 - 500 mm span
 - 9 loading positions
- Masses
 - 1 x 100 g
 - 1 x 200 g
 - 1 x 300 g
 - 2 x pair of uniformly distributed loads
- Accessories
 - 1 x 600 mm Rule

