STRUCTURAL MODELS

Equipment for experiments on STRUCTURES consists of two main parts, accessories for specific experiment and a frame for attachment of the accessories. Many accessories common for various experiment.

ST 340 STRAIN AND STRESS IN A BEAM

Photograph includes optional equipment

GENERAL DESCRIPTION:

The apparatus demonstrates the use of electrical resistance strain gauge in measuring strain of material under stress. It is to be used with ST300 Universal Structural Frame or ST305 Universal Base Frame (separately supplied).

A beam is simply supported at both ends. Strain gauge(s) are fixed at different locations of the beam specimen. Each gauge is wired to form a full bridge with temperature compensation and zero adjustment. Load is applied by a load hanger and weights. Strain(s) are measured by a strain indicator.

Instruction manual is also included.

EXPERIMENT CAPABILITIES:

- Examination of the relationship between stress and strain
- Finding the neutral axis
- The effect of beam cross-section to the second moment of area and neutral axis

TECHNICAL DATA:

- Test beams : Aluminium, different shapes
- ST 113 Built-in/Knife Edge Supports : 2
- ST 151 Strain Indicator : 1
- Load hanger : 1
- Weights : 1 lot
- Software for data display and analysis by computer (separately supplied).
- Power supply : 220 V, 1 Ph, 50Hz. or as required

OPTIONAL EQUIPMENT:

- ST340-055 Computer assist
  ST 125 Vertical Force Load Cell and ST150 Force Indicator with digital output instead of Load hanger with weights
- Other optional equipment, please contact manufacturer (essom@essom.com)

Net (unassembled) Shipping Dimensions WxLxH : 70 x 80 x 20 cm
Net Weight : Approx. 12 kg