

**Product Name :**  
Equilibrium Single Plane, Statically Determinate System

**Product Code :**  
ALABS-A179-144



**Description :**

**Equilibrium Single Plane, Statically Determinate System**

The experiment is an example of the application of static conditions of equilibrium, in particular the important principle of “freeing”. The main element of the experiment is the model of a ladder, with a movable clamped weight. The reaction at the “wall” is free while that at the base of the ladder is fixed or pin jointed. The effective reactions can be fully compensated by attaching cable forces in x and y direction. The ladder is in a state of equilibrium, without changing its angular position and without need of the structural bearings. The ladder is “free”. For students, that is a persuasive example of the principle of “freeing” in statics. The various elements of the experiment are clearly laid-out and housed securely in a storage system. The complete experimental set-up is arranged in the mounting frame. The well-structured instructional material sets out the fundamentals and provides a step-by-step guide through the experiments.

**Specification:**

1. Investigation of the static principle of “freeing”
2. Full compensation for the reactions by cable forces

3. Movable clamped weight
4. 2 reactions (1x pin joined, 1x free)
5. 3 deflection rollers
6. Steel rule with millimetre scale
7. Storage system to house the components
8. Experimental set-up in Mounted Frame

**Features:**

- States of equilibrium and the reaction forces in a ladder



## Equipments Exporters

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