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**Product Name :**  
Equilibrium of Parallel Forces

**Product Code :**  
LBNY-0005-13900041



#### **Description :**

The Equilibrium of Parallel Forces are produced with cords tensioned by weights on hangers, double pulleys being used to turn the upward forces downward. A Equilibrium of Parallel Forces board is clamped into the Universal Frame and Stand Two acrylic models engraved to simulate a 'Warren' and an 'N' truss are used for the application of vertical loads and reactions. The lines of action of the cords can be transferred onto a sheet of paper clipped to the force board. The set of weights needed for the experiment is included. A circular disc with twelve attachment points is used for the couples. To simplify the results each acrylic model has a counterbalancing weight to render each one 'weightless'.

#### **Experimental Capabilities:**

Special case where equal and opposite parallel forces produce a couple acting on a body  
Equilibrium of opposing couples  
Verify the conditions of equilibrium when sets of parallel forces act in one plane on a rigid body  
Experimental verification of the use of a link polygon and is a test of  $M = 0$  (where  $M =$  moments)  
 $F_v = 0$  (where  $F =$  forces and  $V =$  vertical).

#### **Technical Specification :**

A circular disc of Perspex provided to offer 12 peripheral attachment points for applying opposing couple.  
Two acrylic models shaped and engraved to simulate a 'Warren' and an 'N' truss are used for the application of vertical loads and reactions  
The forces produced by nylon cords tensioned by weights on hangers, pulleys being used to turn the cords vertically downward  
Each Perspex model has a counterbalancing weight to render each one 'weightless'

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The lines of force to be transferred onto paper sheet clipped to the force board  
Comprehensive instruction manual provided  
Must be used with universal Frame and Stand.



**Laboratory Instrument India**