Fluid Mechanics



Equilibrium of Force Module (EDC-EF-401)

SPECIFICATIONS:

- Hands-on approach for an improved understanding of the equilibrium of moments.
- Highly visual and robust, making it ideal for classroom demonstrations and small group learning.
- Ball bearing-mounted beam with an integrated scale, serving as a two-arm lever.
- Sturdy metal frame for durability and long-term use.
- Sturdy base plate ensures the unit stands securely during experiments.



DESCRIPTION:

The Force Module for Equilibrium of Moments is a highly visual and hands-on experimental setup designed to teach students the fundamentals of the law of levers and moment equilibrium. This unit consists of a centrally mounted beam, which acts as a two-arm lever, and allows students to investigate how forces interact to achieve balance. By placing movable riders on the beam and applying weights, students can explore the relationship between force, distance, and equilibrium. The integrated scale provides accurate distance readings, ensuring precise calculations of lever arms.

Built with a sturdy metal frame and secure base plate, the unit is ideal for classroom demonstrations and group activities. The ball bearing-mounted beam ensures smooth movement, while the included storage system keeps weights and components organized and protected. This versatile experiment helps students develop a deeper understanding of physics concepts related to moments, forces, and equilibrium through practical engagement.





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TECHNICAL DATA:

- Experimental Features:
 - Investigation of the equilibrium of moments on a two-arm lever.
 - Ball bearing-mounted beam with an integrated scale for accurate measurements.
 - Sturdy metal frame for durability.
 - Storage system included for easy organization of components.
- Beam & Lever Specifications:
 - Beam size (LxWxH): Minimum 600 x 30 x 10 mm.
 - Centrally ball bearing mounted for smooth operation.
 - Lever length: Minimum 2×300 mm.
- Weights Included:
 - 3×1 N (hanger).
 - 6×5 N weights.
 - 12×1 N weights.
- Dimensions & Weight:
 - Overall size (LxWxH): Minimum $600 \times 300 \times 410$ mm.
 - Weight: Approximately 10 kg.
- Storage System:
 - Storage box 1 (LxWxH): Minimum $200 \times 70 \times 40$ mm.
 - Storage box 2 (LxWxH): Minimum $95 \times 68 \times 35$ mm.
- Items Included:
 - 1 experimental unit.
 - 1 set of weights.
 - 1 storage system.