STF5
EQUILIBRIUM OF A BEAM

A kit for use with the work panel for experiments with forces, moments and reactions around a beam at equilibrium.

KEY FEATURES

• One of a series of kits for experiments in statics fundamentals topics
• Fits to the Work Panel (STF1) for a complete range of experiments that explore the forces, moments and reactions around a rigid beam at equilibrium
• Hands-on approach for improved understanding
• Highly visual and robust – ideal for classroom demonstrations and for use by small groups of students
• Magnetic bases allow accurate and easy positioning of the experiment’s parts
• Supplied in a hard-wearing storage tray
• Includes a fully illustrated user guide
EQUILIBRIUM OF A BEAM

DESCRIPTION
For use with the Work Panel (STF1), the kit allows several experiments with a rigid beam.

Students or teachers fit the magnetic parts of the kit to the Work Panel (STF1) to study or demonstrate forces, moments and reaction forces around a rigid beam at equilibrium.

The kit uses masses, magnetic mounts and spring balances to apply forces to a rigid beam. Students measure the forces around the beam at equilibrium and compare with theoretical values found from theory of moments and equilibrium.

The versatility of the kit means that you can set up several different ways of supporting the beam, including simply supported or balanced.

TecQuipment supplies each kit with a fully illustrated user guide containing theory, experiments and typical results.

LEARNING OUTCOMES
- Using moments and the theory of equilibrium to find beam reaction and other unknown forces
- Simply-supported beams
- Balanced beams

ESSENTIAL BASE UNIT
- Statics Work Panel (STF1)

OPERATING CONDITIONS
FOR USE IN:
Well lit classroom or laboratory

STORAGE TEMPERATURE RANGE:
-25°C to +55°C (when packed for transport)

OPERATING TEMPERATURE RANGE:
+5°C to +40°C

OPERATING RELATIVE HUMIDITY RANGE:
80% at temperatures < 31°C decreasing linearly to 50% at 40°C

ESSENTIAL SERVICES
A strong, level bench or desktop of at least 1100 mm wide x 540 mm front to back (for the STF1).

SPECIFICATIONS
TecQuipment is committed to a programme of continuous improvement; hence we reserve the right to alter the design and product specification without prior notice.

NETT WEIGHT:
3.7 kg + 1 kg storage tray

PACKED VOLUME AND WEIGHT:
Approximately 0.015 m³ and 6 kg

PARTS:
- Rigid beam with hook points
- Spring balances
- Magnetic hook points
- Lightweight hooks
- Weight hangers and weights

STANDARD FEATURES
- Supplied with comprehensive user guide
- Five-year warranty
- Manufactured in accordance with the latest European Union directives
- ISO9001 certified manufacturer