

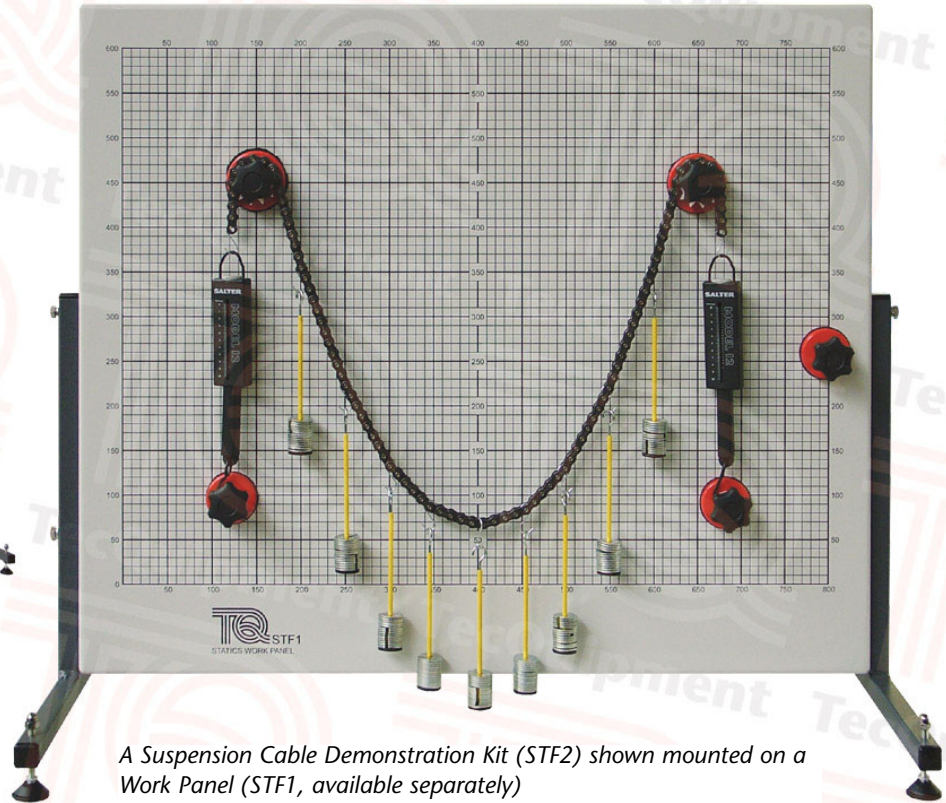
STF Range

Statics Fundamentals

A range of kits that teach the fundamentals of static equilibrium



The Statics Work Panel (STF1)



A Suspension Cable Demonstration Kit (STF2) shown mounted on a Work Panel (STF1, available separately)

- Choice of four different kits that teach the fundamentals of static equilibrium
- Highly visual and ideal for classroom demonstrations and for use by small groups of students
- Shows static forces in suspension cables, beams and ladders
- All kits fit onto the Statics Work Panel (STF1) for accurate positioning and measurements
- Robust, hands-on equipment – easy to assemble parts allow students to build and change experiments for improved understanding
- Cost-effective – you only need to buy the kits you need for your course, or gradually build up to the complete range
- Fully illustrated user guide includes theory and suggested experiments

- TecEquipment Ltd, Bonsall Street, Long Eaton, Nottingham NG10 2AN, UK
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- An ISO 9001 certified company

STF Range

Statics Fundamentals

General Description

A comprehensive range of kits for experiments in 'statics' – the Statics Fundamentals range (STF) teaches the science of loads and forces in equilibrium.

The kits give different statics experiments in popular structures, from suspension cables to beams and ladders. Each kit fits onto the Statics Work Panel (STF1, available separately), which has a clear metric grid to help position the kits correctly and give accurate measurements from experiments.

Note: You can only fit one kit on a work panel at a time, so you may need to buy extra work panels if you need to use several kits at the same time.

Standard Features

- Supplied with comprehensive user guide
- Two-year warranty
- Manufactured in accordance with the latest European Union directives

Description of the Statics Kits

Statics Work Panel (STF1)

An easy to assemble vertical steel work panel with a metric grid.

Suspension Cable Demonstration (STF2)

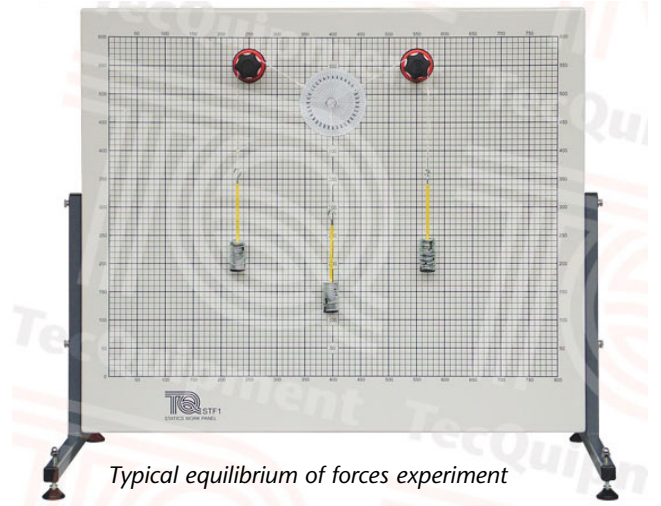
Includes a roller chain, weights and magnetic supports. For experiments that show the shape and tensions in symmetrical and non symmetrical suspension cables. It shows the difference between a catenary cable and a suspension cable and comparison with theoretical catenary and parabolic curve equations.

Equilibrium of a Rigid Body (STF3)

Includes a model ladder, magnetic rollers, a spring balance, cords and weights. For experiments that show the forces on a ladder-type structure at different angles, with a known mass at different positions.

Equilibrium of Forces (STF4)

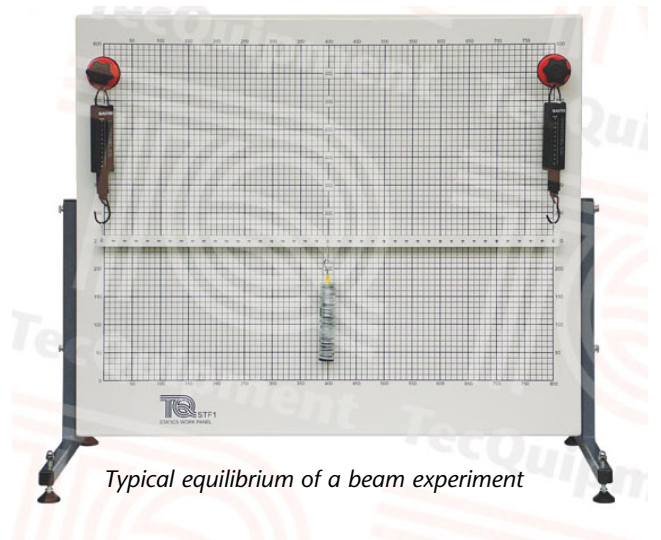
Includes magnetic rollers, a magnetic protractor, a spring balance, cords, cord rings and weights. For experiments with concurrent and non concurrent coplanar forces (force polygons) and conditions for equilibrium.



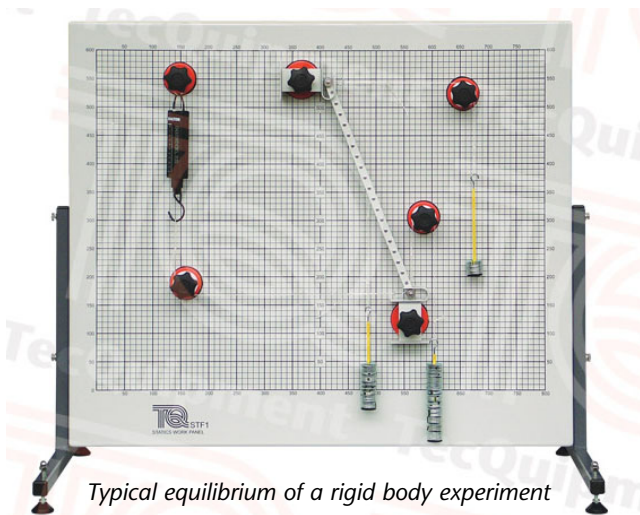
Typical equilibrium of forces experiment

Equilibrium of a Beam (STF5)

Includes a rigid beam, magnetic supports, spring balances and weights. For experiments that show the forces, moments and reactions of a rigid beam.



Typical equilibrium of a beam experiment



Typical equilibrium of a rigid body experiment

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STF Range

Statics Fundamentals

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 (for each Work Panel)

A strong, level bench or desktop of at least 1100 mm wide x 540 mm front to back.

Specifications – STF1

Assembled dimensions and weight:

1000 mm wide x 540 mm front to back x 840 mm high and 25 kg

Packed volume and weight:

Approximately 0.3 m³ and 30 kg

Specifications – STF2

Nett weight: 3.8 kg

Packed volume and weight:

Approximately 0.02 m³ and 5 kg

Parts:

- Roller chain
- Magnetic chain sprocket pulleys
- Spring balances
- Magnetic hook points
- Lightweight hooks
- Weight hangers and weights

Specifications – STF3

Nett weight: 3.5 kg

Packed volume and weight:

Approximately 0.02 m³ and 5 kg

Parts:

- Model ladder
- Magnetic pulleys
- Spring balances
- Magnetic ladder hook and plate points
- Magnetic hook points
- Lightweight hooks
- Weight hangers and weights

Specifications – STF4

Nett weight: 3.9 kg

Packed volume and weight:

Approximately 0.02 m³ and 5 kg

Parts:

- Magnetic protractors
- Magnetic pulleys
- Spring balances
- Cords with rings
- Magnetic hook points
- Lightweight hooks
- Weight hangers and weights

Specifications – STF5

Nett weight: 3.0 kg

Packed volume and weight:

Approximately 0.02 m³ and 5 kg

Parts:

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