



≡ ADDITIONAL MECHANISMS KIT

ES18

Demonstrates how the Geneva mechanism and a ratchet mechanism convert motion.



KEY FEATURES

- One of a series of 18 kits for experiments in fundamental engineering science topics
- For use on any engineering course from foundation to postgraduate
- Flexible and modular, each kit fits onto the work panel (ES1) for experiments and classroom demonstrations
- Supplied in a hard-wearing storage tray with moulded insert to hold parts securely and a graphical list to help check the kit contents
- Rugged and durable parts for safe 'hands-on' experiments, allowing better understanding
- Contains two popular mechanisms that show how they can usefully convert motion from one form or direction to another



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ES18

DESCRIPTION

This kit offers additional mechanisms, supplementary to those of the Simple Mechanisms Kit (ES14). Students, teachers or lecturers fit the parts of the kit to the work panel (ES1) (supplied separately) to study or demonstrate an engineering science topic.

This kit includes two popular mechanisms for experiments in conversion of motion from one form to another. These include the Geneva mechanism (sometimes called the Maltese cross mechanism or crank and star), and a ratchet mechanism.



Students test each mechanism to see how it works and note the differences in the way that each mechanism converts the motion.

The two mechanisms are the same as those used in real applications, such as CNC machines, hand tools, turnstiles and lifting hoists. Each has a unique way of converting motion, shown by the experiments.

TecQuipment supply a CD-ROM with the work panel (ES1). It includes all the worksheets, guidance notes and lecturer notes (with answers) needed for typical experiments with each kit. The selection of parts in the kits and the choice of fixing points on the work panel means that teachers or lecturers may extend the experiments to an even greater range.

NOTE: The kit is for use with the ES1 work panel (supplied separately).

STANDARD FEATURES

- Five-year warranty
- Manufactured in accordance with the latest European Union directives
- ISO9001 certified manufacturer

LEARNING OUTCOMES

- Conversion of motion using the Geneva mechanism
- Conversion of motion using a ratchet

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 level bench or desktop of at least 500 mm wide x 500 mm front to back.

ESSENTIAL BASE UNIT

Work Panel (ES1)

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.

STORAGE TRAY (WITH CLIP-ON LID):

450 mm x 320 mm x 85 mm

NETT WEIGHT:

2.5 kg

PACKED VOLUME AND WEIGHT:

Approximately 0.015 m³ and 3 kg

MAIN PARTS:

- Geneva mechanism
- Ratchet mechanism