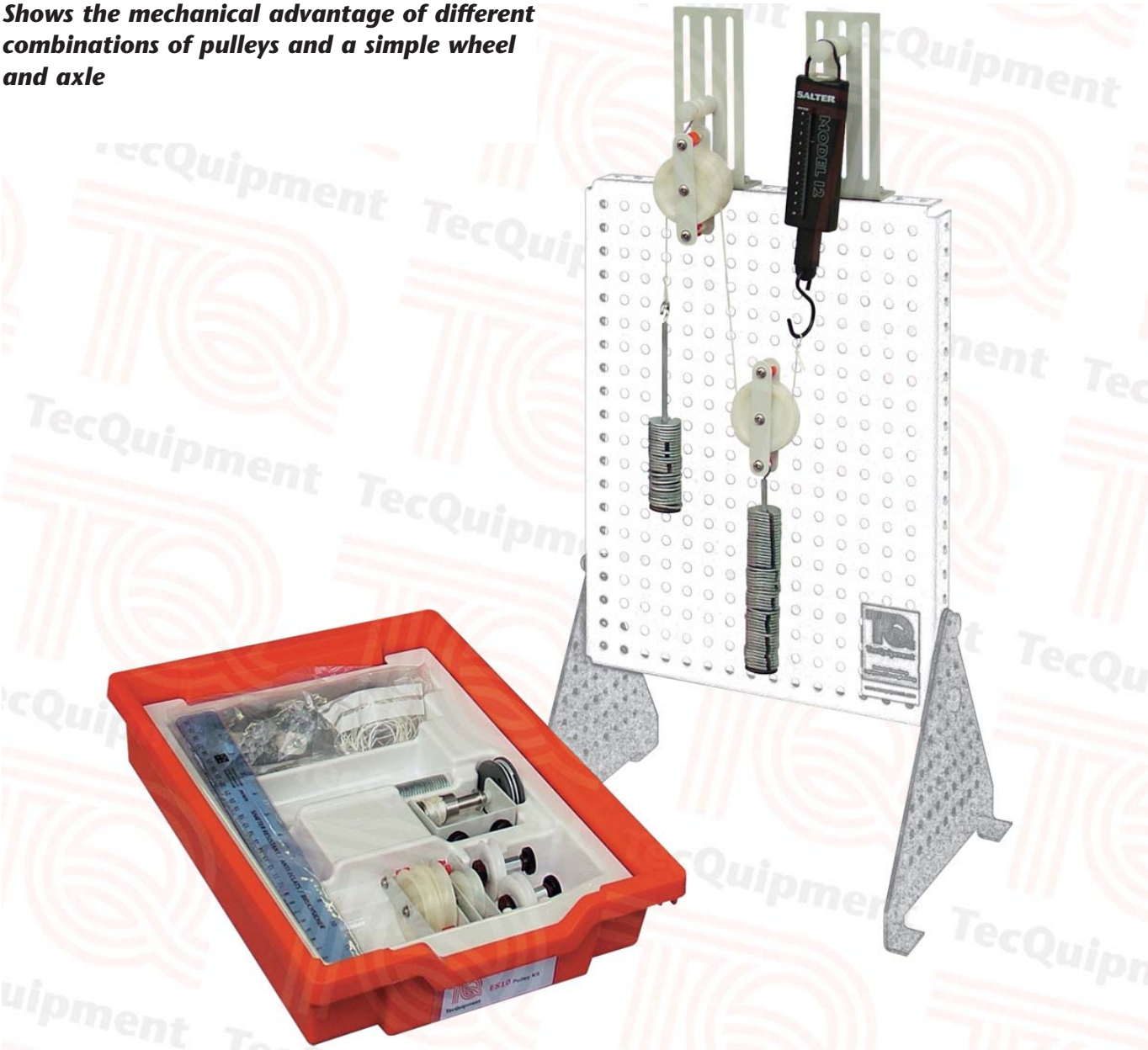
ES10 Pulley Kit

Shows the mechanical advantage of different combinations of pulleys and a simple wheel and axle



- 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 with sensible size parts – each kit fits onto the Work Panel (ES1) for experiments and simple 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 all parts needed for experiments in pulleys

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TecQuipment

ES10 Pulley Kit

Description

This versatile kit is part of a series that allows many experiments using different arrangements of their parts. Students, teachers or lecturers fit the parts of the kit to the Work Panel (ES1) (supplied separately) to study or show an engineering science topic.

This kit includes a wheel and axle with single, double and triple wheel or 'sheave' pulleys for experiments in mechanical advantage.

Students test fixed, movable and compound pulleys attached to load and effort weights to test their mechanical advantage.

The kit includes a unique pulley - the Weston Differential pulley to show how two different size sheaves on one pulley has a dramatic effect on mechanical advantage.

The kit introduces students to key engineering terms such as machine efficiency, velocity ratio and 'work done'.

TecQuipment supplies 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

Experiments

- Simple Pulleys - fixed, movable and compound
- The Wheel and Axle
- The Weston Differential Pulley

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

Storage tray (with clip-on lid):
450 mm x 320 mm x 85 mm

Nett weight:
3.8 kg

Packed volume and weight:
Approximately 0.015 m^3 and 4.3 kg

Main parts:

- Single, double and triple wheel (sheave) pulleys
- Weston differential pulley
- Wheel and axle
- Weight hangers and weights

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