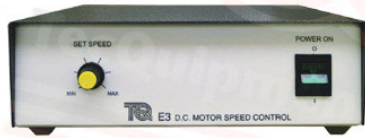
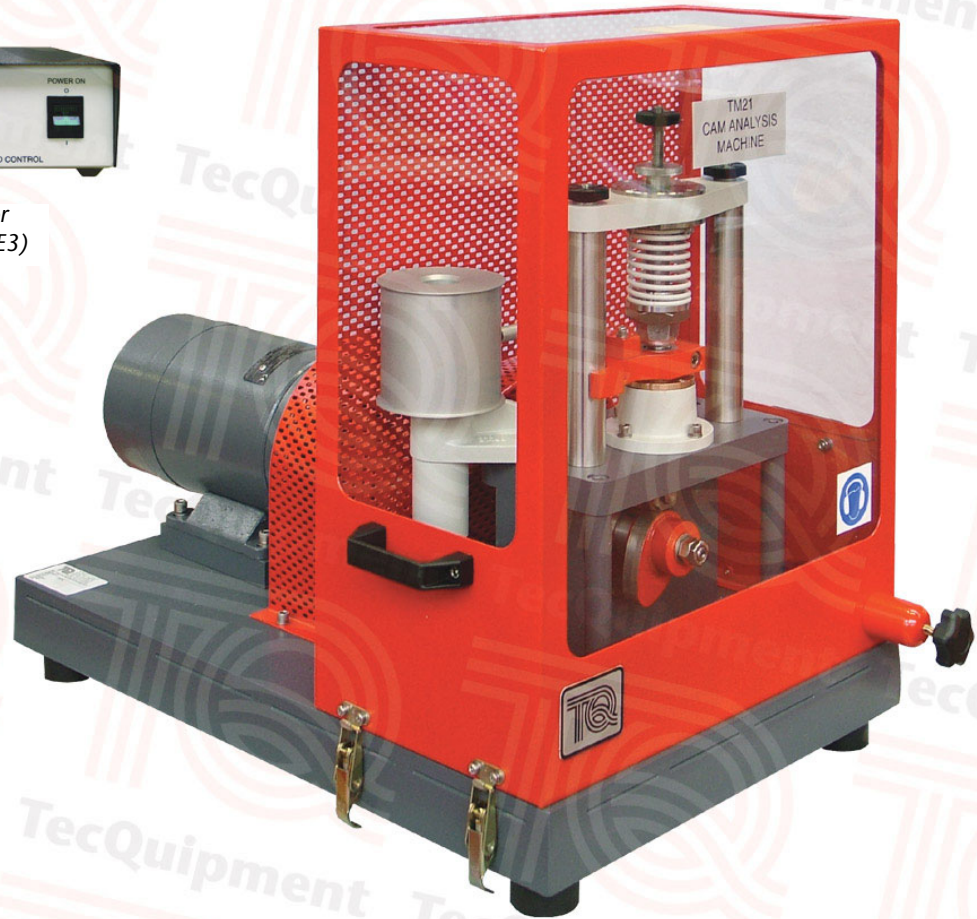


TM21**Cam Analysis Machine**

***Studies the dynamic behaviour
of different cams and followers***



*Includes a Motor
Speed Control (E3)*



- Studies the dynamic behaviour of cam followers
- Clearly shows follower 'bounce'
- Includes different cams and followers
- Variable follower inertia and compression spring rate
- Includes a drum recorder to trace the movement of the follower – even at bounce
- Bench-mounted and suitable for class demonstrations
- Heavy, robust construction for accurate results

- TecEquipment Ltd, Bonsall Street, Long Eaton, Nottingham NG10 2AN, UK
- **T** +44 115 972 2611 • **F** +44 115 973 1520 • **E** info@tecequipment.com • **W** www.tecequipment.com
- An ISO 9001 certified company

TM21

Cam Analysis Machine

Description

The main part of the product is a geared motor coupled to an extension shaft with a tapered end that carries a cam.

A vertical compression spring pushes a cam follower onto the cam face. A nut adjusts the spring tension. Students can add different weights (included) to alter the inertia of the follower. Included with the product is a selection of springs, followers and cams.

A timing belt from the cam shaft drives a cylindrical drum carrying chart paper. A pen traces a record of the cam follower amplitude.

Included is an optical tachometer to measure the cam shaft speed. A heavy flywheel reduces any speed fluctuations. A motor speed control (included) varies the speed of the cam shaft and the direction of rotation. A guard covers the moving parts to protect the user.

Standard Features

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

Experiments

- Tests to check the theory for predicting lift with different spring rates, tensions, follower weights and speeds.
- Finding follower velocity, acceleration and inertia forces.
- Demonstration of follower bounce.

Essential Services

Bench space needed:
762 mm x 610 mm

Electrical supply:
Single-phase 230 VAC 50 Hz or 110 VAC 60 Hz
The speed control uses approximately 600 W maximum power.

Operating Conditions

Operating environment:
Laboratory environment

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

Specifications

Nett dimensions and weights:
Main Unit: 730 mm x 450 mm x 620 mm and 123 kg
Motor Speed Control: 90 mm x 260 mm x 300 mm and 4.2 kg

Packed dimensions and weight (total):
0.76 m³ and 225 kg

Weights:
Five x 400 g

Cams:
2 convex (two different shapes), 1 concave, 1 tangent

Followers:
1 roller, 1 flat face

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