



SM1000F

COIL SPRING

Fits in the Universal Testing Machine (SM1000) for compression spring tests on a coiled spring. Demonstrates Hooke's law.



KEY FEATURES

- Fits in the compressive test area of TecEquipment's Universal Testing Machine for tests on a coiled compression spring
- Includes fittings to hold the spring securely
- Shows Hooke's law and how to find 'spring rate' by experiment
- Heavy-duty coil spring for a more practical experience

COIL SPRING

DESCRIPTION

The Coil Spring (SM1000f) fits in the area above the loading platform of TecQuipment's Universal Testing Machine (SM1000).

The spring is of the same heavy-duty design as those used in vehicle suspensions. This gives students a better understanding of a 'real world' engineering component.

Two metal 'bosses' hold the spring securely in the testing machine, which compresses the spring. The digital indicator of the testing machine measures the change in spring length (displacement) for a given change in applied force. Students use the displacement and force values to find the actual spring rate and compare it with the theoretical value, based on the spring dimensions. The experiment helps to show Hooke's Law for the relationship between force and displacement on a spring.

STANDARD FEATURES

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

LEARNING OUTCOMES

- Compression tests on a coiled spring

ESSENTIAL BASE UNIT

- Universal Testing Machine (SM1000)

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

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

APPROXIMATE NETT WEIGHT:

6 kg

APPROXIMATE PACKED VOLUME:

0.02 m³

SPRING:

Coiled spring steel, ground ends

Spring Rate <180 N/mm

APPROXIMATE DIMENSIONS:

135 mm long (uncompressed) x 71 mm internal diameter.
14.3 mm wire diameter.