



## EXTENSION and COMPRESSION of SPRINGS

### HSM56



Year 1  
study

#### Features

- Two experiments in ONE: Tension and Compression
- Wall mounted apparatus
- Can be mounted to HST1, HST100, HAC10, HAC14, HVT12f frames
- Four Tension Spring
- Three Compression Spring
- Full set of weights and hanger supplied

#### Description

A wall mounted vertical bracket houses two independent mechanisms side by side for testing tension and compression springs. The left hand side tests tension springs whilst the right hand side tests compression spring. A set of springs is supplied which allows the student to test the relationship between applied load and extension for tension and compression springs. The springs are easily installed and changed, and the integral deflection scale ensures accurate monitoring of the deflection during spring loading. A set of calibrated weights is supplied with this apparatus. Weights are attached to the Load hanger for the tension and compression testing.

#### Related Laws/Applications

- Hooke's Law
- Modulus of Elasticity
- Strain
- Wire
- Extension
- Compression

#### Learning capabilities

- Determine the relationship between applied load and deflection of springs
- To compare tension and compression springs
- To view how springs work and installed
- Understand Hooke's law

### Technical Specification

- Integral deflection scale: 0.....80mm; 1mm resolution
- 4 x tension springs supplied, with spring rates of:
  - - 0.58N/mm
  - - 1.04N/mm
  - - 0.31N/mm
  - - 0.79N/mm
- 3 x Compression springs supplied with spring rates of:
  - - 2.71N/mm
  - - 3.29N/mm
  - - 3.06N/mm

### Essential Ancillaries

- HST1
- HST100
- HAC10
- HAC14
- HVT12f

### What's in the Box?

- 1 x HSM56
- 2 x Load hanger
- 4 x Extension spring
- 3 x Compression spring
- 1 x Hex wrench set
- 1 x 5N; 6 x 10N; 1 x 20N
- Instruction manual
- Packing list
- Test sheet

### You might also like

- HSM7
- HSM8
- HSM6

### Weights & Dimensions

- Weight: 16 kg
- Length: 660mm
- Width: 460mm
- Height: 130mm

### Essential Services

- Sturdy vertical support

### Ordering information

To order this product, please call PA Hilton quoting the following code:  
HSM56

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