



COMPRESSION of SPRINGS APPARATUS

HSM8



Year 1
study

Features

- Sturdy Wall mounted apparatus
- Can be mounted to HST1, HST100, HAC10, HAC14, HVT12f frames
- Demonstrates Hooke's Law
- Integral displacement scale
- Customer specific springs can be tested
- Four compression springs supplied
- Full set of weights and hanger supplied

Description

A steel, powder coated wall housing is mounted to a rigid vertical support. A compression spring with industry standard ground ends rests flat onto the lower inner horizontal surface of the housing. At the upper end of the spring, rests a profiled boss attached to the Load hanger. The profiled boss has a chamfered face thus ensure central location of the spring during loading and caters for other diameters of springs also. An integral compression scale is attached to the wall housing. This gives an accurate indication of the compression being applied to the spring. A compression indicator is attached to the shaft of the Load hanger. This has a horizontal reference line to ensure the compression can be read off the compression scale. The indicator can be adjusted up and down the length of the Load hanger to adjust the start position of compression and also to cater for different lengths of compression spring that may be used. The Load hanger has a solid base to allow safe suspension of the calibrated weights supplied with the apparatus.

Related Laws/Applications

- Hooke's Law
- Spring rate
- Wire
- Compression

Learning capabilities

- To test the relationship between the load applied and the change in compressive length of a spring (Hooke's Law)
- To determine spring stiffness using measured experimental results and formulae provided
- Load versus compression graphs
- Action of springs
- The dependence of spring stiffness on the wire diameter, spring diameter, length, number of turns and material can be observed and calculated
- Comparison with theoretical estimate and manufacturer's data

Technical Specification

- Steel, powder coated wall housing
- Zinc plated carbon steel compression springs
- - 1 x O.D = \varnothing 31.75mm; wire = \varnothing 3.25mm; Spring Rate = 2.71N/mm
- - 1 x O.D = \varnothing 25.4mm; wire = \varnothing 2.64mm; Spring Rate = 3.06N/mm
- - 1 x O.D = \varnothing 31.75mm; wire = \varnothing 2.64mm; Spring Rate = 0.92N/mm
- - 1 x O.D = \varnothing 38.1mm; wire = \varnothing 3.25mm; Spring Rate = 3.29N/mm
- Load hanger
- Movable extension indicator
- Extension scale calibrated in mm, resolution 1mm

Essential Ancillaries

- HST1
- HST100
- HAC10
- HAC14
- HVT12f

What's in the Box?

- 1 x HSM8
- 4 x Compression spring
- 1 x 5N; 1 x 10N; 2 x 20N
- Instruction manual
- Packing list
- Test sheet

You might also like

- HSM56
- HSM7
- HSM6

Weights & Dimensions

- Weight: 10 kg
- Length: 500mm
- Width: 130mm
- Height: 90mm

Essential Services

- Sturdy vertical support

Ordering information

To order this product, please call PA Hilton quoting the following code: HSM8

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