



# ROPE BELT FRICTION APPARATUS HFN8



Year 2 study

### **Features**

- · Wall mounted apparatus for ROPE belts
- Can be mounted to HST1, HST100, HAC14, HVT12f frames
- · Coefficient of Friction, angle of lap for different belts
- · Four different 'V' angled pulleys supplied
- · Single rope with metal ends
- · Customer specific rope can be used

#### **Description**

The apparatus consists of a wall mounted fixed pulley with a loaded belt. Four different pulleys are supplied with different vee groove angles; flat rim, 120°, 90°, and 60°.

A load is added to one of two hangers until the rope just begins to slide. This is the datum condition. Loads are now added to both sides of the rope to cause very slow sliding of the rope. This enables the coefficient of friction to be obtained.

The angle of lap can be easily varied.

# **Related laws**

- Automotive
- Friction
- Machines
- Wear
- Torque
- Slip
- Belt drives
- · Angle of lap

# Learning capabilities

• To investigate the ratio of belt tensions when a rope passes over pulleys of different Vee angle



- To determine the coefficient of friction between the steel pulley and cotton rope.
- To assess the variation of belt tension ratio with lap angle

#### **Technical Specification**

- 4 x Fixed pulleys
- Flat; 60°; 90°; 120° pulleys
- Double hooked hangers
- · Rope assemblies
- Pulley: 150mm effective diameter

#### **Recommended Ancillaries**

- HAC14
- HST1
- HST100
- HVT12f

#### What's in the Box?

- 1 x HFN8
- 4 x Pulley
- 2 x Double hooked Load hanger
- 2 x Rope assemblies
- 1 x Bearing pulley assembly
- 2 x 0.1N; 4 x 0.2N; 2 x 1N; 4 x 2N; 2 x 5N; 3 x 10N; 4 x 20N
- Instruction manual
- · Packing list
- Test sheet

# You might also like

• HFN9

# Weights & Dimensions

· Weight: approximately 19kg

Length: 250mmWidth: 150mmHeight: 370mm

#### **Essential Services**

• Rigid Vertical Support

#### **Ordering information**

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

HFN8

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