

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, 60°, 90° and 120°.

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.

**Experimental content**

- ▶ 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

**Related laws**

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

**Technical specification**

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

**Recommended accessories / equipment**

- ▶ SV100 Bench Mounted Frame

**Features / benefits**

- ▶ The wall mounted unit consists of a flywheel Ø300mm x 40mm (W) (approx.) on a horizontal steel shaft. Interchangeable bearing materials house the shaft
- ▶ Bearings are cast iron, Tufnol, sintered bronze and ball bearings
- ▶ Torque is provided by a load hanger and loaded cord wrapped around the flywheel shaft
- ▶ Can be mounted to the SV100 Bench Mounted Frame

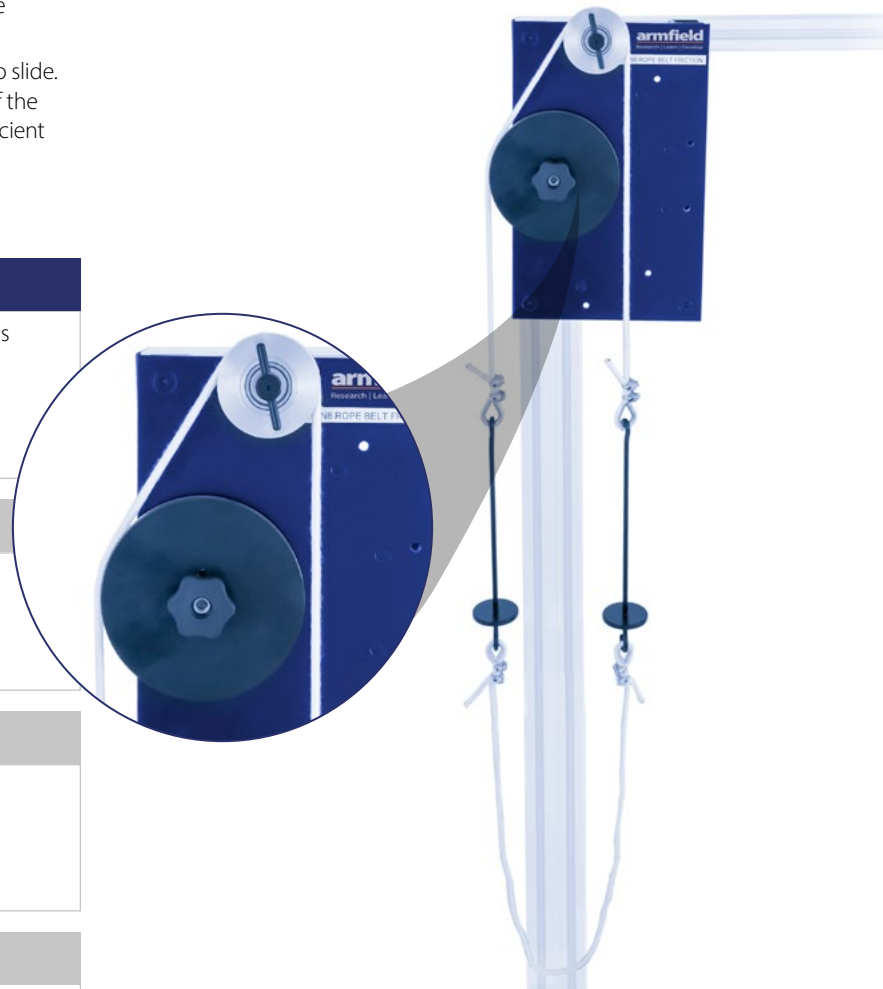
**Overall dimensions**

Length	0.250m
Width	0.150m
Height	0.370m

**Packed and crated shipping specifications**

Volume	0.01m <sup>3</sup>
Gross weight	26kg

**WALL OR FRAME MOUNTED APPARATUS FOR ROPE BELTS**



**Requirements Scale**

▶ Rigid vertical support

**Ordering specification**

- ▶ SV905 Rope Belt Friction Apparatus
- ▶ 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

**Ordering codes**

- ▶ SV905 Rope Belt Friction Apparatus
- ▶ SV100 Bench Mounted Frame