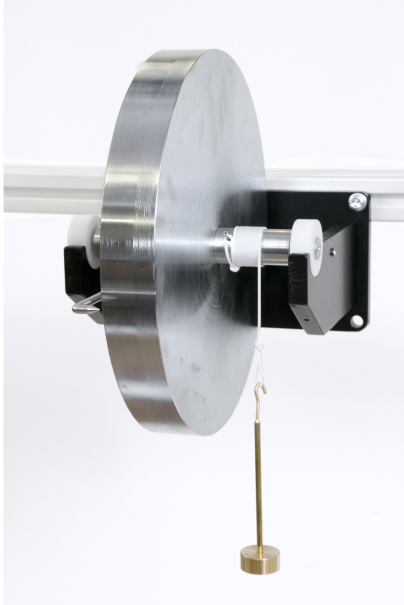




## BEARING FRICTION APPARATUS

### HFN6



Year 2  
study

#### Features

- Sturdy Wall mounted apparatus
- Can be mounted to HST1, HST100, HAC10, HAC14, HVT12f frames
- Compares Sliding and Roller Bearing efficiency
- Four solid bearings supplied as standard
- Can be used for Inertia and energy transfer experiments
- Customer specific bearings can be used
- Full set of weights and hanger supplied

#### Description

The apparatus consists of a flywheel on a horizontal shaft carried in a pair of similar bearings, the flywheel being used to even out small variations in friction. The shaft is of mild steel, and interchangeable bearings in a range of materials are provided.

This experiment provides an opportunity to study journal bearing friction over a range of commonly used materials including a self lubricating sintered bronze. For comparison a ball or roller bearing is available to demonstrate the advantages of rolling rather than sliding contact.

Torque is applied by a loaded cord wrapped round the flywheel shaft. A set of calibrated weights and Load hanger is supplied for loading the flywheel.

#### Related laws

- Automotive
- Friction
- Machines
- Bearing
- Wear
- Torque

- Slip

#### Learning capabilities

- To compare the frictional losses of bearings by measuring the coefficient of sliding friction between pairs of materials
- To measure the reduced losses when a ball or roller bearing is used

#### Technical Specification

- Flywheel: Ø300 x 40mm thick; approximately 24kg
- Journal Bearing materials: Cast Iron, Tufnel, Sintered bronze, ball bearings

#### Recommended Ancillaries

- HAC10
- HAC14
- HST1
- HST100
- HVT12f

#### What's in the Box?

- 1 x HFN6 Flywheel
- 1 x Wall Bracket Assembly
- 2 x Load hanger
- 2 x Cord assemblies
- 1 x 5m Spare cord
- 2 x Tufnol bearing
- 2 x Sintered bronze bearing
- 2 x Cast iron bearing
- 2 x Ball bearing
- 10 x 0.1N; 10 x 0.2N; 1 x 1N; 2 x 2N; 1 x 5N; 2 x 10N
- Instruction manual
- Packing list
- Test sheet

#### You might also like

- HFN6A

#### Weights & Dimensions

- Weight: approximately 30kg

- Length: 200mm
- Width: 300mm
- Height: 400mm

#### Essential Services

- Rigid Vertical Support

#### Ordering information

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

HFN6

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COUNTRY OF ORIGIN - UK WARRANTY PERIOD - 2 YEARS