



CORIOLIS FORCE APPARATUS HFC29



Year 2
study

Features

- Very visual demonstration of Coriolis Force
- Visual deflection of water jet
- Fully enclosed under guarded dome
- Protection against water ingress
- Speed controlled motor with digital speed display
- Coloured dye for improved visual effect
- Battery operated pump
- Two directions of rotation of water jet

Description

This bench top unit gives excellent visual demonstration to the Coriolis Force on a jet of water. A horizontal boom sits on top of the main base unit and rotates in a horizontal plane. Attached to the boom is a water tank which projects a jet of water into the tank. The jet is directed towards the centre of rotation of the boom. An electronically controlled motor rotates the boom at different rotational speeds. As the speed of boom rotation is changed, the jet of water deflects under the Coriolis affect (force). The amount of deflection can be seen on increments on the water tank for recording purposes. The speed of rotation of the boom is digitally displayed on the front panel of the base unit and controlled using the front panel mounted knob. The boom is counter balanced to ensure smooth, stable running of the boom at high speeds. All rotating components are protected within a clear safety dome.

Related Laws/Applications

- Coriolis Force
- Coriolis Effect
- Meteorology
- Ballistics
- Satellites
- Rotating coordinate system
- Rossby Number
- Angular Velocity
- Right Hand Rule
- Vectors

Learning capabilities

- To observe the Coriolis Force on a jet of water being rotated in a horizontal plane
- Affect of jet deflection as a function of boom rotational speed and the direction of boom rotation

Technical Specification

- 12Vdc operating voltage
- Adjustable water jet travel
- Rechargeable battery pack for pump: 4-5 hours operation between charges
- Boom speed: Up to approx. 55rpm
- Clockwise or anticlockwise boom rotation
- Jet speed: 1.55m/s approximately
- Jet distance: 110mm approximately
- Deflection scale: 0...85 mm

What's in the Box?

- 1 x HFC29
- 1 x Protective dome
- 1 x Screwdriver
- 3 x spare seal
- 1 x Water colourant
- 1 x Power supply
- Locking handle
- Instruction manual
- Packing list
- Test sheet

You might also like

- HFC21

Weights & Dimensions

- Weight: 14 kg
- Length: 480mm
- Width: 480mm
- Height: 500mm

Essential Services

- Sturdy Bench Top
- 110/120V, 60Hz or 220/240V, 50Hz, single phase, live neutral and earth
- Cold water supply

Ordering information

To order this product, please call PA Hilton quoting the following code: HFC29

All brand and/or product names are trademarks of their respective owners. Specifications and external appearance are subject to change without notice. The colour of the actual product may vary from the colour shown in the brochure.

Copyright © 2018 P.A. Hilton Limited. All rights reserved. This technical leaflet, its contents and/or layout may not be modified and/or adapted, copied in part or in whole and/or incorporated into other works without the prior written permission of P. A. Hilton Limited. Hi-Tech Education is a registered trade mark of P. A. Hilton Limited.

COUNTRY OF ORIGIN - UK WARRANTY PERIOD - 5 YEARS