Free-Fall Tube 1000801

Instruction sheet

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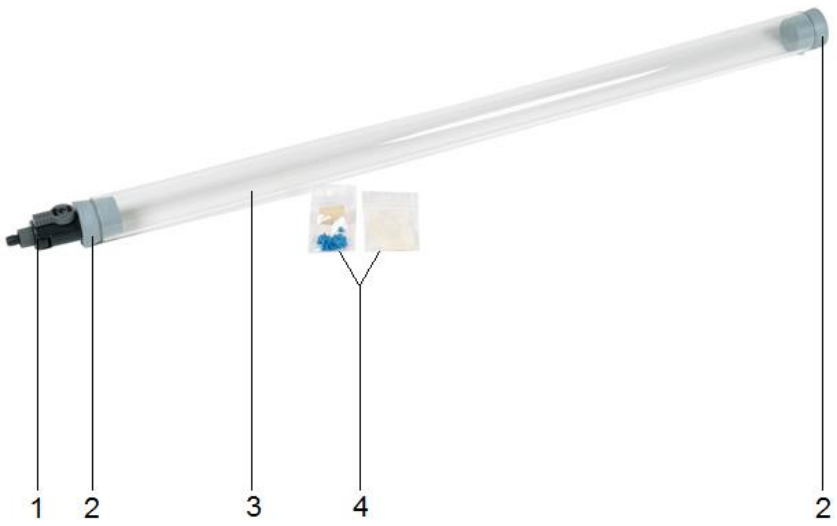

1 Cock with hose nipple
2 Rubber stopper
3 Glass tube
4 Falling bodies

1. Safety instructions

Use caution when dealing with an evacuated free-fall tube. There is a serious danger of implosion in the event of shock or fall.

- Handle the glass tube with care. Danger of breakage and possible injury.
- Do not expose the tube to any mechanical stress.

2. Description

The free-fall tube is used to demonstrate that all bodies in a vacuum have an equal gravitational acceleration and require the same amount of time to drop, given that there is no air resistance or upthrust (replicating Newton's guinea and feather experiment).

The apparatus consists of a glass tube with two rubber stoppers and a cock with a hose nipple which can be connected to a vacuum pump.

Duck feathers and plastic parts serve as bodies to demonstrate free fall.

3. Contents

1 Free fall tube
2 Rubber stoppers
1 Cock with hose nipple
Falling bodies (duck feathers, plastic parts)

4. Technical data

Dimensions (glass tube):	750 mm x 36 mm diam.
Hose nipple:	10 mm diam.
Weight:	1000 g approx.

5. Operation

In order to perform the experiment, the following equipment is additionally required:

1 Vacuum pump
e.g. Rotary-Vane Vacuum Pump, One-Stage 1012855

1 Vacuum Hose, 8 mm 1002619

- Insert the falling body into the tube.
- Seal off the tube properly.
- Connect the vacuum pump to the hose nipple. The cock must be open.
- Evacuate the tube.
- Close the cock.
- Disconnect the tube from the vacuum pump.
- Hold the tube in a vertical position and observe the characteristics of the falling bodies.
- After completing the experiment, open the cock and let air into the tube.