3B SCIENTIFIC® PHYSICS



Vacuum Experiment Plate 1003166 Vacuum Bell Jar 1020809

Instruction sheet

09/16 ALF





- 3 Power feed using connection cables and safety sockets
- 4 Centre bore hole with M12 thread
- 5 Rubber sealing disc
- 6 4-mm safety plug
- 7 2 cocks for hose connection and for ventilation
- 8 Metal plate mounted on tripod stand

1. Safety instructions

 Protect the surface of the vacuum experiment plate from moisture, chemicals and mechanical affects to guarantee that the system remains vacuum-tight. Defective vacuum bell jars could implode.

 Before conducting experiments check the vacuum bell jar for any damage (entrapped air does not endanger operating safety).

2. Description

Vacuum experiment plate and vacuum bell jar are used to set up a vacuum chamber for experiments in the coarse (low) and fine vacuum range.

2.1 Vacuum Experiment Plate

The vacuum experiment plate comprises a metal plate with rubber sealing disc mounted on a tripod and two cock valves used for hose connection on the pump side as well as for ventilation. A center bore hole with M12 thread is used to secure experiment equipment. A vacuum-tight power feed with 4-mm safety sockets and two cables with 4-mm safety plugs are available for the power supply.

2.2 Vacuum Bell Jar

Vacuum bell jar made of glass with grip knob and polished flange to be set on top of the vacuum experiment plate

3. Technical data

Vacuum experiment plate

Diameter: 250 mm Height: 90 mm

Current feed-through: 2-pole with 4-mm safety

sockets

Power feed: via 2 cables approx. 1 m

in length with 4-mm

safety plugs

Electrical limit specs.: max. 48 V, max. 12 A

Vacuum connection: 2 hose nozzles

12 mm and 8 mm Ø

Vacuum bell jar

Inner diameter:: 190 mm Height: 220 mm

4. Operation

To perform experiments the following equipment is also required:

1 Rotary-Vane Vacuum Pump, Two-Stage

1003317

1 Vacuum Hose 8 mm

1002619

- Before performing the experiment check for any damage to the vacuum bell jar.
- Make sure that the sealing disc as well as the polished edge of the bell jar are dust-free.
- At the start of the experiment, press the vacuum bell jar against the plate until air pressure provides sufficient force against the rubber seal, then let the bell jar go.
- If the handle of the valve points downwards, both cocks are closed.
- If the handle of the valve points in the direction of one cock, that cock is open and the opposite cock is closed.
- After performing the experiment ventilate the chamber with the pump switched off and the evacuation valve closed.