# 3B SCIENTIFIC® PHYSICS



## Vacuum Experiment Plate 1003166 Vacuum Bell Jar 1020809

#### Instruction sheet

09/16 ALF



- 1 Polished flange
- 2 Grip knob
- 3 2 cocks for hose connection and for ventilation
- 4 4-mm safety plug
- 5 Centre bore hole with M12 thread
- 6 Power feed using connection cables and safety sockets
- 7 Rubber sealing disc
- 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 sa-

fety 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 dustfree.
- 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.
- After performing the experiment ventilate the chamber with the pump switched off and the evacuation valve closed.