# 3B SCIENTIFIC® PHYSICS



# Steam generator U8624650

## **Instruction sheet**

11/08 SF/ALF



- 1 Steam outlet pipe
- 2 Securing clamp
- 3 Cork lid
- 4 Metal container
- 5 Mains connection cable
- 6 Hot plate
- 7 Heater control

# 1. Safety instructions

Safe operation of the equipment is guaranteed, provided it is used correctly. However, there is no guarantee of safety if the equipment is used in an improper or careless manner.

If it may be assumed for any reason that nonhazardous operation will not be possible (e.g. visible damage), the equipment should be switched off immediately and secured against any unintended use.

- Before using the ewipment for the first time, make sure the mains rating is correct for the mains voltage in your country.
- Before using the steam generator, check the container, the hot plate and the mains lead for any damage. In the event of any malfunction/operational defect or visible damage, switch off the equipment immediately and secure it against any unintentional use.
- The instrument may only be connected to the mains via a socket that has an earth connection.

Excess pressure could cause damage to the vessel and, in the worst case, the generator could explode.

Never obstruct or crimp the steam outlet or connecting tubes.

Careless or improper operation of the steam generator can result in scalding or serious burns.

- Set up the steam generator on a heat-resistant surface.
- Connect only heat-resistant tubing (e.g. silicone hose U10146). Make sure that the hose fits perfectly.
- Before removing or connecting a hose and before removing the holder clamp, always allow the equipment to cool.

## 2. Description

The steam generator is used as a source of heat in experiments which require the generation and use of steam (e.g. thermal expansion apparatus).

The steam generator is made up of an adjustable hot plate with a thermal circuit breaker, upon which a metal container has been mounted. The metal container is held in position on the hot plate by a securing clamp and can be shut by means of a cork lid with a steam outlet pipe.

The steam generator is available for two different mains volatages. U8624650-230 is designed for 230 V ( $\pm 10$  %) mains supplies, while the U8624650-115 model is for 115 V ( $\pm 10$  %) supplies.

## 3. Technical data

Mains voltage: See label
Hose connection: 6 mm diam.
Hot plate diameter: 90 mm approx.
Contents: 400 ml approx.

Dimensions: 170 mm x 180 mm dia.

approx.

Weight: 1 kg approx.

# 4. Operation

- Half fill the container with water and close it with the cork cover. Press the lid firmly onto the vessel.
- Secure the container onto the hotplate by means of the retaining clamp.
- Attach the hose and connect it to the experimental apparatus. Make sure that the hose is not obstructed or crimped in such a way as to prevent flow.
- Connect the hotplate to the mains supply and set the heating level using the control knob. Level 4 is sufficient for most experiments.
- Carry out the experiment.
- After completing the experiment, allow the steam generator to cool for about 30 minutes before removing the hose or the retaining clamp.
- If the cork lid is difficult to remove, blow hard down the hose to release it.

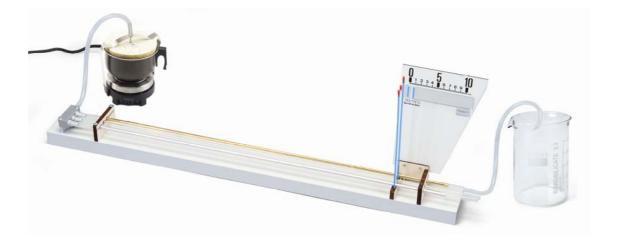


Fig.1 Experimental set-up with the linear expansion apparatus, dilatometer (U8442200)