

Experts in Thermostatics



**Operating Instuctions** 

Shaking device SV 14 / 22 SV 29 / 45



General notes, safety notes, notes on electrical equipment and electromagnetic compatibility, as well as notes on maintenance of the unit are to be found in the Operating Instructions for the waterbath.

# Brief technical description

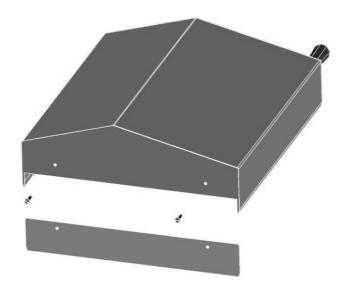
The shaking device permits controlled shaking of beakers or test tubes in a waterbath.

The shaking device performs a reversing linear movement with a frequency of approx. 35 to 160 strokes per minute. The shaking speed is controlled electronically and can be adjusted in 10 speed steps. The stroke is approx. 15 mm.

The ambient conditions for its operation are the same as for the basic units.

# Inserting and removing

The bath can be operated without shaking device if required. After the shaking device and the support basket has been removed, the side panel supplied should be secured to the gable cover by means of the two screws in orded to ensure optimum sealing of the cover. Fitting the shaking device has to take place in the reverse order.



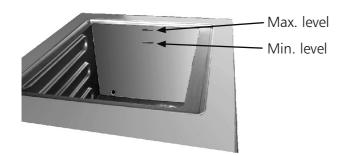
# Safety note

If the shaking device has to remain in a waterbath that is switched on, it has to remain switched on as well! The shaking speed can be set to a standstill! When being switched off, the overpressure steam blockage is out of action and condensate may pass into the housing of the shaking device!

# Starting up

#### Mains supply

The mains cable must be arranged so that it can not come anywhere into contact with hot surfaces of the unit. Filling the waterbath



In order to protect the stainless steel shaking device it is necessary to use deionised water as the thermofluid. The bath must be filled so that the liquid level is between the two level marks on the right inside the tank (with the shaking device carrying its load)!

#### Note!

Depending on the loading of the shaking device and the shaking speed selected, it is possible for the bath liquid or the (possibly noxious) shaken liquid to slop over. In that case the shaking speed or the liquid level have to be suitably adjusted but without going below the minimum liquid level.

### Switching on and setting the shaking speed

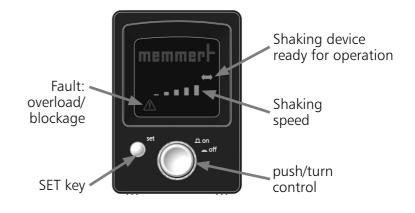
The unit is switched on by pressing the push/turn control. The symbol indicates that the unit is ready for operation.



Unit is switched on.



Unit is switched off.



After the shaking device has been switched on, the setpoint for the shaking speed is always set to 0 strokes per minute. The shaking speed is selected by rotating the push/turn control while holding down the SET key.



Bar bright approx.: 50 80 105 130 160 strokes per minute

#### Quick stop on overload

The unit incorporates a quick stop on overload as a safety device.

Operation of this safety device can be recognised by the symbol  $\triangle$  lighting up.

In this case it is necessary to check whether there is any overloading or whether some object has been trapped in the system.

After the overload has been removed, the shaking device can be restarted by briefly pressing the SET key and setting the shaking speed again.





# **EC Declaration of Conformity**

Manufacturer's name and address: MEMMERT GmbH + Co. KG

Äußere Rittersbacher Straße 38

D-91126 Schwabach

Product: Shaking device Type: M00 / M01

 Sizes:
 SV 14-22 / SV 29-45

 Nominal voltage:
 AC 230 V 50/60 Hz

alternative AC 115 V 50/60 Hz

The designated product is in conformity with the European EMC-Directive

#### 2004/108/EEC

including amendments

Council Directive of 03 May 1989 on the approximation of the laws of the Member States relating to electromagnetic compatibility.

Full compliance with the standards listed below proves the conformity of the designated product with the essential protection requirements of the above-mentioned EC Directive:

DIN EN 61326:2004-05

EN 61326:1997 EN 61326/A1:1998 EN 61326/A2:2001 EN 61326/A2:2003

The designated product is in conformity with the European Low Voltage Directive

## 2006/95/EEC

including amendments

Council Directive on the approximation of the laws of the Member States relating to Electrical equipment for use within certain voltage limits.

Full compliance with the standards listed below proves the conformity of the designated product with the essential protection requirements of the above-mentioned EC Directive:

DIN EN 61 010-1 (VDE 0411 part 1):2002-08 DIN EN 61 010-2-010 (VDE 0411 part 2-010):2004-06

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EN 61 010-1:2001 EN 61 010-2-010:2003

Schwabach, 03.07.08

(Legally binding signature of the issuer)

This declaration certifies compliance with the above mentioned directives but does not include a property assurance. The safety note given in the product documentation which are part of the supply, must be observed.

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