

behr
Labor-Technik

KOL Compact Apparatus

for determination of etheric oils
according to DAB V.4.5.8

User's Manual



Danger caused by hazardous vapors!
Follow carefully all safety guidance in the current safety data sheets.
Always operate the apparatus in a fume hood.



Glass can break and cause injury! In working with glass components, observe all appropriate safety precautions.



Danger of electric shock! Make sure that no liquids get into the cable connections or the inside of the heating unit.



Caution: vessels get hot and can cause burns! Do not touch the glassware with bare hands during and immediately after a distillation.

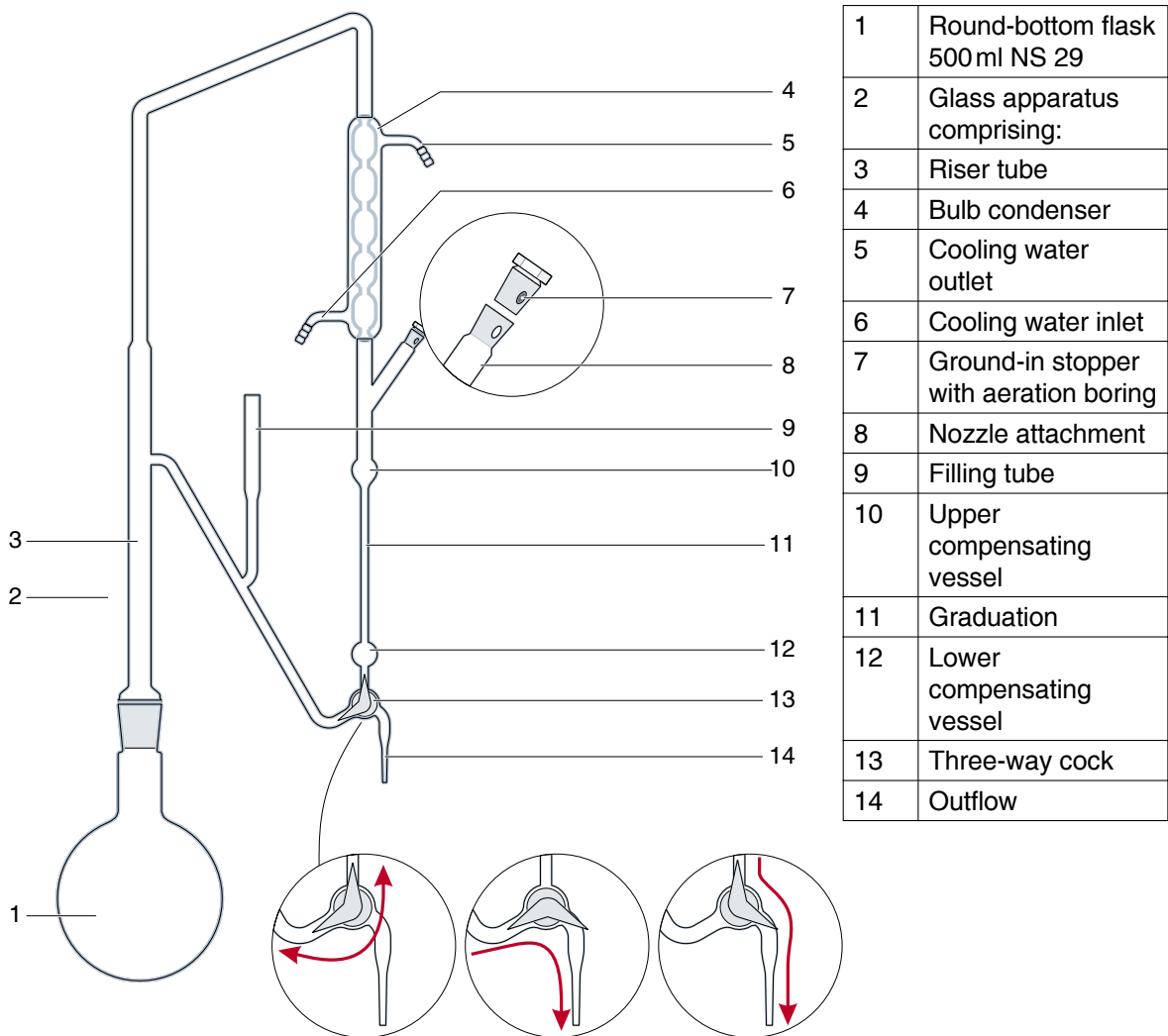


Caution: if the flask is inserted without the distance part directly into the adapter it might break on heating. Before inserting the round-bottom flask always make sure the distance part is laid out properly and smoothly in the flask adapter.



Caution: pressure might build up in the apparatus. Always insert the ground-in stopper in such a way that the aeration boring is free. Use boiling chips to prevent bumping.

Overview of the Glassware



Parts List

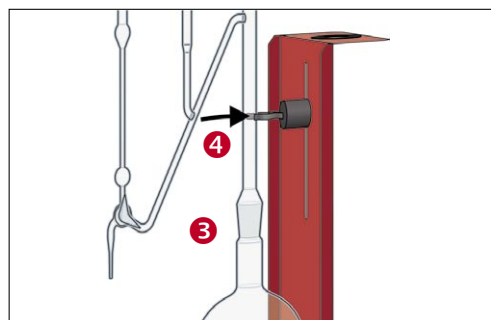
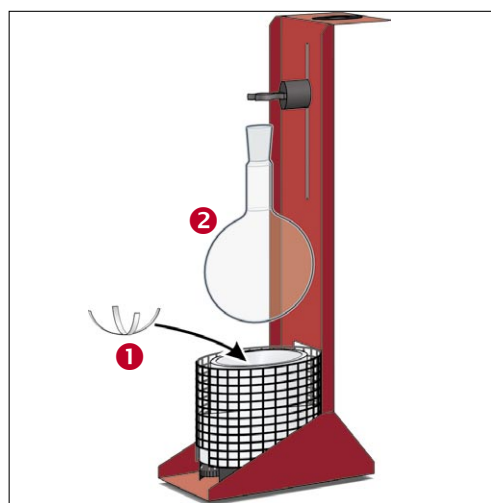
- Stand, complete with heating element, flask adapter and distance part
- *behrotest® glassware kit, consisting of:*
 - Round-bottomed flask with NS 29 std. taper neck, 500 ml
 - Glass apparatus according to DAB V.4.5.8
 - Silicone hose, 4 m

Setting Up and Connecting

- Place the stand on a flat level surface.
- Remove the shipping protection from the heating unit.
- Verify that the power dial on the heating unit is set to the "0" off position.
- Insert the power plug into a mains socket.

Inserting the Glassware

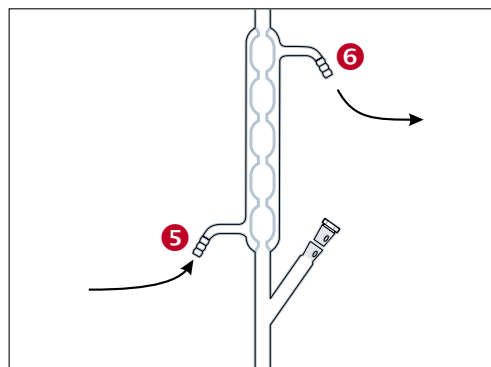
- ① Make sure the distance part is laid out properly and smoothly in the flask adapter.
- ② Fill water, boiling chips and, if applicable, your sample into the round-bottomed flask, and place the flask in the flask adapter.
- ③ Insert the Glass apparatus into the mouth of the round-bottom flask.
- ④ Carefully push the riser pipe of the glass apparatus into the mounting clamp of the stand.



Connecting the Water Hoses

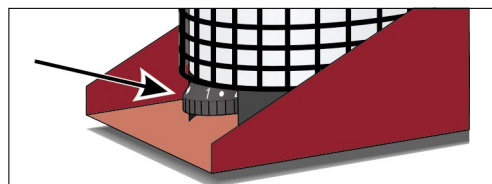
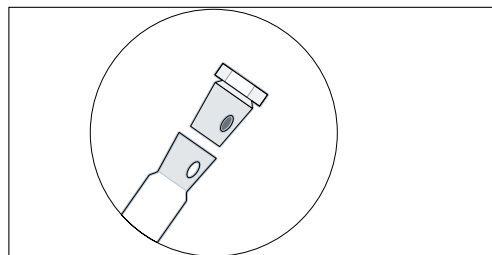
The lower nozzle of the bulb condenser is the cooling-water inlet, the upper one is the cooling-water outlet.

- ⑤ Push a piece of hose on the lower nozzle, and connect the hose to a water-tap.
- ⑥ Push a piece of hose to the upper nozzle, and run the hose to a sink.



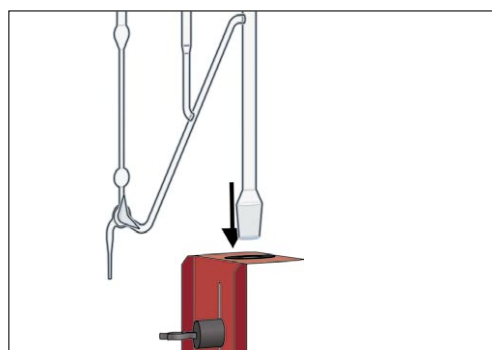
Turning the Apparatus On

- ▶ Prepare the apparatus as described in the DAB standard.
- ▶ Make sure the ground-in stopper is inserted in the nozzle attachment in such a way that the aeration boring is free.
- ▶ Open the cooling-water supply.
- ▶ Switch the heating unit on by turning the thumb-wheel at the bottom of the unit.



Switching Off and Opening the Apparatus

- ▶ Turn the heating off by turning the thumb-wheel into 0 position.
- ▶ Let the apparatus cool down.
- ▶ Carefully pull the glass apparatus out of the mounting clamp.
- ▶ Grasp the flask by the ground socket.
- ▶ Take the glass apparatus out of the flask mouth and place it in the boring in the stand.
- ▶ Take the round-bottom flask out of the heating unit.



Spare Parts

Description	Art. Spec.	Art. No.
ZZ420-00029	HALTER	Distance part, cross-shaped
804881024	RK500	Round-bottomed flask, NS 29 neck, 500 ml
145950229		Glass apparatus according to DAB V.4.5.8
ZZ118-00014		Silicone hose

Technical Data

Nominal voltage	230 / 115 V~, 50 / 60 Hz
Current	at 230 V: 3 A; at 115 V: 6 A
Power consumption	450 W
Weight	approx. 7,5 kg
Dimensions (WxHxD, mm)	approx. 230 x 330 x 800

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