

Reflux distillation



KRD 100

Single reflux distillation apparatus

Complete apparatus for reflux distillation, consisting of

- Complete frame with condenser support panel and condenser bracket
- Positioning cradle
- Reaction flask
- behr high-performance glass cooler
- Tubing

Single reflux distillation apparatus

Type	Item description	Item no.
KRD 50	1 heating position for 50 ml round-bottomed flasks, complete	B00602400
KRD 100	1 heating position for 100 ml round-bottomed flasks, complete	B00602401
KRD 250	1 heating position for 250 ml round-bottomed flasks, complete	B00602402
KRD 500	1 heating position for 500 ml round-bottomed flasks, complete	B00602403
KRD 1000	1 heating position for 1,000 ml round-bottomed flasks, complete with magnetic stirrer	B00602404



RH 254

Reflux distillation apparatus

Complete apparatus for reflux distillation, consisting of

- Hot bar, 4 heating positions
- Positioning cradles
- Support rods
- Cooling water distribution with condenser support panel and condenser brackets
- Reaction flask
- behr high-performance glass coolers

Series reflux distillation apparatus

Type	Item description	Item no.
RH 104	4 heating positions for 100 ml round-bottomed flasks, complete	B00602394
RH 106	6 heating positions for 100 ml round-bottomed flasks, complete	B00602397
RH 254	4 heating positions for 250 ml round-bottomed flasks, complete	B00602395
RH 256	6 heating positions for 250 ml round-bottomed flasks, complete	B00602398
RH 504	4 heating positions for 500 ml round-bottomed flasks, complete	B00602396
RH 506	6 heating positions for 500 ml round-bottomed flasks, complete	B00602399



RH 256 M

Series reflux distillation apparatus with magnetic stirrer

Type	Item description	Item no.
RH 256 M	6 heating positions for 250 ml flat bottom reaction vessel, complete, block with integrated magnetic stirrer	B00696821
RH 506 M	6 heating positions for 500 ml flat bottom reaction vessel, complete, block with integrated magnetic stirrer	B00726590
RH 1006 M	6 heating positions for 1000 ml flat bottom reaction vessel, complete, block with integrated magnetic stirrer	B00726591

Technical data for reflux distillation apparatus

	4 sample positions	6 sample positions	6 sample positions with magnetic stirrer
Voltage	230 VAC		
Frequency	50/60 Hz		
Power consumption	1500 W	2250 W	2050 W
Power consumption	7 A	10 A	9 A
Weight (without glass)	approx. 15 kg	approx. 20 kg	approx. 48 kg
Dimensions in cm (W x D x H) (without glass)	approx. 53 x 32 x 74	approx. 76 x 32 x 74	approx. 75 x 40 x 100

Saponification value

The method for the determination of saponification value in animal and vegetable fats and oils is effected in accordance with DIN EN ISO 3657. With an excess of ethanolic potassium hydroxide solution the tested sample is saponified by boiling under reflux and later titrated with standard hydrochloric acid solution until reaching the end point.

behrotest® distillation unit for the determination of saponification value

The complete programmable distillation unit consists of:

- 6 or 12 round digestion vessels SR 2, 250 ml, with standard ground joint NS 29 and container ring made of PVDF
- compact rack with cooler frame and holders
- behr high performance glass coolers
- cooling water distribution strip ensures uniform cooling at sample positions
- 25 freely configurable programs for block temperature and distillation time
- high-quality quartz infrared heaters (1500 W)
- integrated magnetic stirrer with the separate control unit
- Tubing



VFZ 12

Reflux distillation apparatus for the determination of saponification value

Type	Item description	Item no.
VFZ 6	behrotest® reflux distillation apparatus for the determination of saponification value, 6 positions simultaneously	B00696815
VFZ 12	behrotest® reflux distillation apparatus for the determination of saponification value, 12 positions simultaneously	B00696816

Optionally available in the behr program is the manual titration station HTI 9.

The HTI 9 consists of a burette with digital display and a magnetic stirrer with fitting holder for SR2 reaction vessels.

Type	Item description	Item no.
HTI 9	behrotest® manual titration station with digital burette, magnetic stirrer	B00707777



HTI 9

Determination of Vitamin A and E



VAE 6 together
with KW 6

behrotest® saponification apparatus for determination of vitamin A and E

The method for the determination of vitamin A and vitamin E in foodstuffs by high-performance liquid chromatography (HPLC) is effected in accordance with DIN EN 12823-1 and DIN EN 12822. The sample preparation takes place in the behrotest® saponification apparatus. Since the samples are sensitive to atmospheric oxygen, the samples are saponified under reflux preferably under a nitrogen atmosphere.

The complete apparatus consists of:

- Reaction vessels
- behr high performance glass coolers
- Cooling water distribution strip ensures uniform cooling at sample positions
- Precision heating block with integrated magnetic stirrers
- Separate control unit with very precise temperature control
- Flowmeter for nitrogen

Saponification apparatus

Type	Item description	Item no.
VAE 6	behrotest® saponification apparatus for the determination of vitamin A and E in the heating block with integrated magnetic stirrers, 6 positions with 250 ml vessels	B00707766

Optional: behrotest® cooling trough

Type	Item description	Item no.
KW 6	behrotest® cooling trough for smple rack EG 6/RF	B00726596

Determination of sulfite



KSO 2N

The determination of sulfite (sulfurous acid) in food is carried out in accordance with DIN EN 1185 and DIN EN 1988-1 (optimized Monier-Williams method). The apparatus is for the release and distillation of sulfurous acid.

- reaction flask 500 ml or 1000 ml
- Systems available with one or two absorption vessels.
- Heating hood with an integrated magnetic stirrer for even mixing
- 1 or 6 sample positions possible
- The injection volume flow is set with a precision flow meter

Type	Item description	Item no.
KSO 2N	Compact system for the determination of sulfurous acid in accordance with DIN EN 1185, 2 absorption vessels, magnetic stirrer.	B00604572
SO 2-6	Devices for the determination sulfurous acid in up to 6 sample positions simultaneously in accordance with DIN EN 1185. 2 absorption vessels. Magnetic stirrer.	B00218429
SU 1000	Compact system for the determination of Sulfite in accordance with DIN EN 1988-1 (Optimized Monier-Williams method)	B00652910

Determining hydroxyproline content

Classic behrotest® digestion apparatus for determining hydroxyproline content

Apparatus for digestion testing when determining hydroxyproline content in meat, meat products and sausage products according to Sec. 64 LFGB (German Feed and Food Act). After acidic digestion, hydroxyproline is photometrically determined at 558 nm.

The equipment consists of:

- Serial heating block with 6 sample positions
- Each sample position individually adjustable
- Deposit pit
- Support rods
- Cooling water distribution with condenser console and holders
- Digestion vessels with a volume of 250 ml.
- for high-performance condensers

Digestion apparatus

Type	Item description	Item no.
RH 4	behrotest® series heating block for determining hydroxyproline content with 4 sample positions, for 250 ml digestion vessels	B00218449
RH 6	behrotest® series heating block for determining hydroxyproline content with 6 sample positions, for 250 ml digestion vessels	B00218426



RH 6

Modern behrotest® digestion apparatus for determining hydroxyproline content

Apparatus for digestion testing when determining hydroxyproline content in meat, meat products and sausage products according to Sec. 64 LFGB (German Feed and Food Act). After acidic digestion, hydroxyproline is photometrically determined at 558 nm.

Modern infrared heating units from behr are equipped with high-quality quartz infrared heaters, built-in inductive magnetic stirrers and a temperature control.

- Apparatus with high-quality non-corrosive block casing made of stainless steel
- Insertable frame for 6 or 12 spaces
- Digestion vessels with a volume of 250 ml.
- Firmly sealing vessels with high temperature screw caps made of PP (GL 32) with welded PTFE membrane for pressure compensation, suitable for autoclaving
- 25 freely configurable programs for block energy and digestion time
- Even heating on all sample positions
- 6 or 12 digit integrated inductive magnetic stirrer
- behr one-button operation for extremely easy and quick programming
- Menu navigation in country language

Digestion apparatus for determining hydroxyproline content

Type	Item description	Item no.
HDP 6	behrotest® digestion apparatus for determining hydroxyproline content with 6 sample positions, for 250 ml digestion vessels	B00696810
HDP 12	behrotest® digestion apparatus for determining hydroxyproline content with 12 sample positions, for 250 ml digestion vessels	B00696811



HDP 6



HDP 12

Recirculating cooler

The UK series



UK 12/1030

behrotest® UK recirculating cooler

behrotest® UK series recirculating coolers are ideally suited for use with the behr separation and distillation systems. The new and improved successor models of our UK 12 series are just as reliable and suitable for everyday use as their predecessors, but their performance has improved by 20%.

They are also generally suited

- as replacements for condensing systems that are cooled using domestic water
- for the dissipation of process heat
- for the thermostatic control of apparatus such as centrifuges, microscopes, spectrometers, analysers, distillation apparatus, rotary evaporators, electrophoresis, reaction vessels

All recirculating coolers can be used as a closed or open system

Features:

- Electronic temperature control with LED display
- Float switch to monitor the coolant level
- Limit alarm if the permitted field of activity is exceeded
- Cooling unit: quiet, fully hermetic, air-cooled, low-maintenance
- 12 mm internally threaded tube connections (M10 x 1)
- 3/4" filler spout with vent valve on the surface of the device
- Stainless steel housing parts
- Non-ferrous metal heat exchanger
- Circumferential skirting protection rings both top and bottom
- UK 2020 has a cooling unit with two separately operating cooling circuits. This provides better setting options and the opportunity of emergency operation with the second machine if a compressor fails.

Type	Item description	Item no.
UK 12/1030	1200 watt cooling capacity with circulating pump and digital temperature control for regulating the temperature and cooling individual or several apparatus	B00692940
UK 12/2020	2200 watt cooling capacity with circulating pump and digital temperature control for regulating the temperature and cooling several apparatus	B00602389

behrotest® cooling water monitor:

The behrotest® WD 30 Coolant Monitor with emergency shut-off function is a user-friendly device for monitoring cooling circuits in the laboratory. If there is a leak in the system, it deactivates the water supply as well as the electric heating device and prevents water damage in the laboratory.

The behrotest® WD 30 is position independent, i.e. it can be operated in any position. An acoustic warning signal provides additional security.

The delivery scope of the behrotest® cooling water monitor WD 30 includes:

- Monitoring unit with two flow sensors and solenoid valve, as well as cables to connect it to the controller (1.5 m)
- Controller with Schuko-type plug to connect heating devices, etc.
- Hose set with connections
- Adapter set for connecting water lines and behrotest® recirculation coolers UK

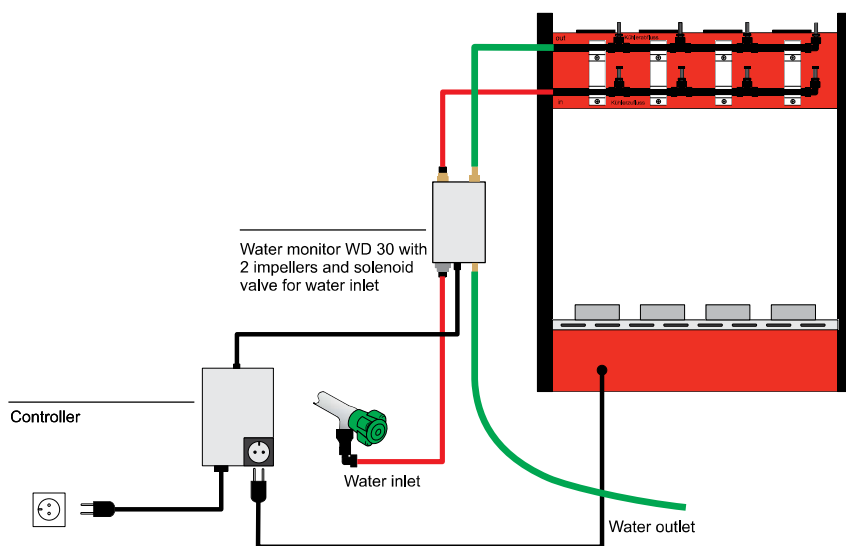
Type	Item description	Item no.
WD 30	Monitoring unit with two flow sensors and solenoid valve, as well as cables to connect it to the controller (1.5 m)	B00645358

Technical data WD 30

Power supply	230 VAC, 50/60 Hz
Minimal through-flow quantity	5 l/min
Maximum through-flow quantity	30 l/min
Pre-pressure	0,2 to 10 bar



Use WD 30



Suitable for through-flow quantities of 5 to 30 l/min. Ideal for monitoring systems with central supply of several parallel coolers (e.g. behrotest® serial extraction units, cyanide distillation unit, heavy metal digestion units, etc.).

Through the simultaneous measurement of infeed and outfeed, the behrotest® cooling water monitor WD 30 is far less susceptible to faulty triggering in the event of pressure fluctuations in water supply than conventional devices with just one flow sensor.

At the same time, the dual measurement ensures that even the most minute deviations are detected.

This may also interest you



Extraction units for extracting liquids

Determination of the nitrogen content according to Kjeldahl:

- Infrared digestion devices with manual operation and also programmable
- Block digestion unit, also with fully-automatic lift
- Steam distillation units for (almost) any requirement
- Titration devices

The complete range for the CSB titration method:

- Dosing units for sulphuric acid, manual and also programmable
- Digestion units with fully-automatic time/temperature profile for standardised CSB determination
- Titrators, manual and fully-automatic, also as dosing-titrating combination

Further determinations

- Crude fiber
- Determination of fibers
- Cyanide
- Heavy metal digestion systems



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