

LABOSHAKE Laboratory Shaker | THERMOSHAKE Incubator Shaker

POWERFUL LABORATORY SHAKERS



POWERFUL

Easily handle up to 30 kg of shaking media

RELIABLE

Low-maintenance and reliable in continuous operation

PROGRAMMABLE

Controlled and reproducible shaking processes

FLEXIBLE

Comprehensive range of accessories for a multitude of shaking applications

LABOSHAKE AND THERMOSHAKE

C. Gerhardt offers cutting-edge laboratory shakers for all shaking applications in daily laboratory operations. Combined with the extensive range of accessories, the shakers meet the most stringent of requirements in the research fields chemistry, biology and microbiology. All shaker models comply with the currently applicable safety standards.



CLASSIC APPLICATIONS

- + Mixing of liquids
- + Dissolution of antisoluble salts
- + Production of emulsions
- + Homogenisation of suspensions
- + Conduction of liquid-liquid extractions

ENVIRONMENTAL ANALYTICS

- + Elution of soils
- + Solvent extraction from water samples
- + Extraction of pollutants from effluent sludges
- + Extraction of nutrients from substrates
- + Extraction of lingering pollutants from soils

MICROBIOLOGY

- + Even distribution of nutrients
- + Prevention of sedimentation
- + Oxygen enrichment
- + Removal of carbon dioxide
- + Even distribution of temperature
- + Gentle substitute for stirring

"C. Gerhardt shakers meet the most stringent of requirements in the research fields chemistry, biology and microbiology."

Heavy shaking media is handled as easily as temperature and moisture fluctuations. The mechanical components are mounted on a stable, machine-planed base plate to allow the laboratory shakers to effortlessly handle substantial loads under continuous operation.

The extensive range of attachments, plates, tiered consoles and additional accessories makes the laboratory shakers real multi-talents.

STRONG ARGUMENTS

- + Robust, reliable shakers in tried and tested C. Gerhardt quality
- + Can take loads of up to 30 kg, even under continuous operation
- + Programmable shaking processes allow reproducible sequences
- + Flexible applications thanks to variety of accessories
- + Shaker platform borne on multiple ball bearings
- + Shaker speeds up to 200 min⁻¹ infinitely adjustable
- + 9 programs each with 9 program levels for time and shaker speed (rest periods also programmable)
- + Anti-slip feet ensure secure footing

THE SHAKER RANGE

LABOSHAKE

Laboratory shakers with linear or circular motion

THERMOSHAKE

Incubator shakers with linear or circular motion

ACCESSORIES

Attachments and plates for various vessel shapes



LABOSHAKE



LABOSHAKE + HS5 holder (optional)

LABORATORY SHAKERS

with linear or circular motion

LABOSHAKE handles heavy loads without difficulty, including in continuous operation. Stable, precisely machined components securely accommodate the shaking media. The sophisticated design of bearings and transmission parts guarantees a constant shaking speed.

Up to 9 speed/time programs can be programmed, each with up to 9 different program steps, and then retrieved again.

The shaking speed can be programmed continuously from 20 to 200 min⁻¹. For rest periods, speed 0 is available, e.g. to stimulate reactions or allow reactions to subside.

- + Can take loads of up to 30 kg
- + large shaking platform
- + optimum use of space thanks to tiered attachments
- + diverse range of accessories
- + corrosion-resistant plastic housing
- + easy to operate
- + RS-485 interfaces

SCOPE OF DELIVERY

The scope of delivery includes four 150-mm vertical rods for fastening the accessories and a mains cable.

ACCESSORIES

Full range of accessories on pages 6 and 7.

LABOSHAKE	LS 500	RO 500
Order no.	11-0001	11-0002
Shaker motion	linear ↔	circular ↻
Shaker programs	9	9
Time program max. [h, min, s]	99, 59, 59 and endless	99, 59, 59 and endless
Shaker frequency [min ⁻¹]	0 and 20 - 200	0 and 20 - 200
Amplitude/stirring circle [mm]	50	50
Load capacity [kg]	30	30
Rated voltage [VAC]	230*	230*
Frequency [Hz]	50 - 60	50 - 60
Power [W]	80	80
Weight [kg]	28	28
Shaker platform usable dimensions W/D [mm]	540 / 380	540 / 380
Overall dimensions W/D/H [mm]	610 / 510 / 120	610 / 510 / 120
RS-485 interface	2	2

* further voltages upon request

THERMOSHAKE



THERMOSHAKE + EA2 tiered attachment (optional)

INCUBATOR SHAKERS

with linear or circular motion

Cutting-edge incubator shakers based on LABOSHAKE. For homogeneous mixing of organic cultures at a constant temperature and constant speed in continuous operation.

The precise temperature monitoring and thermally insulated temperature chamber guarantee stable temperatures.

The cultures can be monitored at all times thanks to the transparent front door and the interior lighting. The temperature can be set continuously from 5°C above room temperature up to 60°C and remains precisely constant to within < 1°C. The lighting and temperature can be activated separately.

The standard-sized fluorescent lamp can be replaced with a grow light or daylight lamp.

- + Very good equal distribution of temperature
- + High stability of temperature
- + Energy savings thanks to low heat loss
- + Cultures can be observed through transparent front door
- + Interior lighting can be activated separately
- + PLUS: all the benefits of LABOSHAKE

SCOPE OF DELIVERY

The scope of delivery includes four 150-mm vertical rods for fastening the accessories and a mains cable.

ACCESSORIES

Full range of accessories on pages 6 and 7.

THERMOSHAKE	THL 500/1	THO 500/1
Order no.	11-0006	11-0005
Shaker motion	linear ↔	circular ↻
Shaker programs	9	9
Time program max. [h, min, s]	99, 59, 59 and endless	99, 59, 59 and endless
Temperature range	5°C above RT up to 60°C	5°C above RT up to 60°C
Control accuracy [°C]	< 1°C	< 1°C
Shaker frequency [min ⁻¹]	0 and 20 - 200	0 and 20 - 200
Amplitude/stirring circle [mm]	50	50
Max. flask height [mm]	440**	440**
Load capacity [kg]	30	30
Rated voltage [VAC]	230*	230*
Frequency [Hz]	50 - 60	50 - 60
Power [W]	650	650
Weight [kg]	66	66
Shaker platform usable dimensions W/D [mm]	540 / 380	540 / 380
Interior dimensions W/D/H [mm]	690 / 490 / 500	690 / 490 / 500
Overall dimensions W/D/H [mm]	720 / 550 / 825	720 / 550 / 825
RS-485 interface	2	2

* further voltages upon request

** max. flask height with plate = 400 mm

ACCESSORIES

UNIVERSAL PLATES + GLASS HOLDERS



TB50

Stainless steel plates with drill pattern for fastening clip racks, separating funnels and flasks. The plates are simply slid in from the front and fastened at the sides. Suitable for all shaker models.

Order no.	Type	Description
11-0030	TB50	Universal plate for LABOSHAKE and THERMOSHAKE 500 x 375 mm with 19 x 25 = 475 drillings Magnetic stainless sheet steel, also suitable for applying magnetic holders.

CLIP RACKS FOR ERLLENMEYER FLASKS

The universal plates allow attachment of TK clip racks for Erlenmeyer flasks (25 ml to 4,000 ml) in any arrangement.



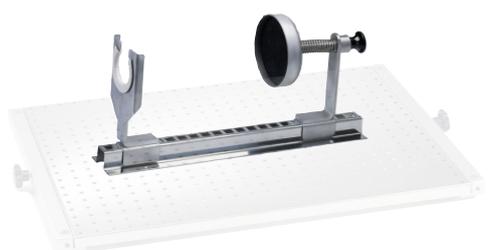
TK50 - TK250 - TK500

Order no.	Type	For flasks	max. quantity on TB50
11-0038	TK25	25 ml	54x
11-0039	TK50	50 ml	48x
11-0040	TK100	100 ml	33x
11-0041	TK250	250 ml	20x
11-0042	TK500	500 ml	12x
11-0043	TK1000	1,000 ml	8x
11-0044	TK2000	2,000 ml	5x
11-0045	TK3000	3,000 ml	4x
11-0046	TK4000	4,000 ml	4x

HOLDERS FOR BOTTLES AND SEPARATING FUNNELS

The universal plates can be used for attaching HS holders for separating funnels or

HF holders for flasks to variably equippable support rails.



HS5

Order no.	Type	Description
11-0036	HS5	Holder for separating funnel 500, 1,000 or 2,000 ml with 490-mm support rail
11-0037	HF5	Holder for bottles with max. Ø 75 mm with 490-mm support rail

FINISHED PLATES

Like universal plates but permanently fitted with pins and stainless steel springs for holding Erlenmeyer flasks. Suitable for all shaker models.



TB52

Order no.	Type	Description
11-0031	TB51	Finished plate for 30 Erlenmeyer flasks 50 - 100 ml
11-0032	TB52	Finished plate for 20 Erlenmeyer flasks 200 - 300 ml



ACCESSORIES

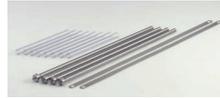
TIERED ATTACHMENTS

Easy-to-assemble kit for space-saving simultaneous shaking of 2 or 3 plates. Can take up either TB51 and TB52 finished plates or TB50 universal plates equipped as desired for shaking Erlenmeyer flasks.



LS500 + EA3 + 3xTB52

Order no.	Type	Description
11-0033	EA3	Three-storey frame for 3 plates as desired, suitable for LABOSHAKE, consisting of: 4 vertical rods, 460 mm, no. 1000631 8 spacer rods, no. 1000424 2 diagonal struts, no. 1000682 incl. fastening materials



Due to the construction height of the incubator chamber, THERMOSHAKE can mount only up to 2 plates.

Order no.	Type	Description
11-0034	EA2	Two-storey frame for 2 plates as desired, suitable for THERMOSHAKE and LABOSHAKE consisting of: 4 vertical rods, 250 mm, no. 1000425 4 spacer rods, no. 1000424 1 diagonal strut, no. 1000682 incl. fastening materials



UNIVERSAL ATTACHMENTS

Easy-to-assemble kits consisting of fastening bars and clamping rollers. These can be fixed to the apparatus's vertical rods at any desired height. For special shaking applications, additional fastening bars can be mounted transversely and clamping rollers can be mounted longitudinally.



LS500 + UA5

UNIVERSAL ATTACHMENTS FOR LABOSHAKE

Order no.	Type	Description
11-0020	UA5	Universal attachment, consisting of: 2x UB 50 fastening bar, longitudinal and 3x US 25 clamping rollers, transverse
11-0022	UA5/3	Universal attachment, as UA5 but fits in EA3 three-storey frame

Additionally available individually:

11-0026	UB25	Fastening bar 375 mm, transverse
11-0027	UB50	Fastening bar 545 mm, longitudinal
11-0028	US25	Clamping roller 375 mm, transverse
11-0029	US50	Clamping roller 545 mm, longitudinal

UNIVERSAL ATTACHMENTS FOR THERMOSHAKE

Order no.	Type	Description
11-0021	UA5/TH1	Universal attachment, consisting of: as for UA5 but with knurled screws instead of rocker arms.
11-0023	UA5/TH2	Universal attachment, as UA5/TH1 but fits in EA2 two-storey frame



UB fastening bars



US clamping rollers

C. Gerhardt – Quality made in Germany

AUTOMATING STANDARD ANALYSES

Completely automated laboratory analysis systems from C. Gerhardt are highly developed special equipment. They automate recurring analysis processes in accordance with national and international standards and norms. They continuously provide precise and reproducible analysis results quickly, at low cost, economically and highly efficiently.



An excerpt from our product portfolio

- + COMPLETELY AUTOMATIC HYDROLYSIS**
 HYDROTHERM – automatic acid hydrolysis system for fat determination according to Weibull-Stoldt. When combined with SOXTHERM®, HYDROTHERM is an ideal system solution for total fat determination.
- + COMPLETELY AUTOMATIC FAT EXTRACTION**
 SOXTHERM® – automatic fast extraction system for fat determination.
- + COMPLETELY AUTOMATIC WATER STEAM DISTILLATION**
 VAPODEST® – fast distillation system for Kjeldahl nitrogen/protein determination and water steam distillation as sample preparation for further analysis.
- + COMPLETELY AUTOMATIC NITROGEN ANALYSIS**
 DUMATHERM® – nitrogen/protein determination of solid and liquid samples according to the Dumas combustion method. A fast and convenient alternative to the classic Kjeldahl method for almost all sample matrices.
- + COMPLETELY AUTOMATIC CRUDE FIBRE EXTRACTION**
 FIBREITHERM® – completely automated processing of the boiling and filtration processes for determining crude fibre, ADF and NDF.



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