Premium Laboratory Equipment

Magnetic & Powerful Stirrers

Gentle but powerful

heidolph

research made easy

Don’t compromise

Heidolph Premium Laboratory Equipment stands for reliability, precision, and efficiency. Your demand drives us to provide the fastest service, individual support, and quality without compromise. This allows you to focus purely on your research, your company, and the millions of people worldwide.
In short: research made easy.

For us, “Made in Germany” is far more than just a marketing strategy. It is part of our company philosophy.

Our location in Germany allows us to develop and produce reliable laboratory equipment with an average operational lifespan of 10 years or more. For you, this means that every purchase is an investment in the future.

All Heidolph products are developed and manufactured at our Schwabach headquarters in Nuremberg, where they undergo multi-stage quality checks in development and production. Even in continuous operation, our powerful, no-maintenance motors ensure consistent results and prevent downtimes and expensive repairs.

To us, premium service means cost-free installation and training, the shortest possible repair and delivery times and individual expert advice – simply “research made easy”.

MADE IN
GERMANY

3-year warranty on all devices and an average operational lifespan of **10 years**

Multi-stage quality checks in development and production

Premium service according to the “research made easy” principle

Free product-demo!

You can thoroughly test our devices with a non-binding and free demo to ensure that our products meet all your requirements.

Homogeneous stirring – from gentle to powerful

With or without heating, gentle to powerful stirring, standard applications to reproducible processes; the Hei-PLATE range has all the options you need.
For larger volumes, high viscosity, or use in reactor systems – find the appropriate power class with our Hei-TORQUE models.

Hei-PLATE Magnetic Stirrers

Leading Safety Standards

All models in the Hei-PLATE range are equipped with the following safety features: separate On/Off switch for heating, residual heat indicator, slow ramp-up, and two independent safety circuits that automatically power down the heater in case of unintended temperature increase. In case of heater failure, stirring will not be interrupted to protect the sample.

Superior Ease of Use

The Kera-Disk® top plate for fast heat-up times is extremely resistant to chemicals, scratch-resistant, and easy to clean. A PID controller ensures precise control without overshoot. The powerful stirring magnet also works reliably with greater volumes of up to 20 liters.

Reduced Cost of Ownership

Our robust magnetic stirrers come equipped with corrosion-protected electronics, wear and maintenance-free motors, thermal insulation, and a sealed, fire-resistant, die-cast casing – this almost completely eliminates the risk of damage to the device even at extreme temperatures or when working with dry ice. With an average operational lifespan of 10 years or more, this is a worthwhile investment.

Magnetic stirrers without heating

Hei-Mix S

The Hei-Mix S has a space-saving polyamide housing. The white PVDF top plate is perfect for titration and comes with a diameter of 104 mm. Its speed range of up to 2,200 rpm is sufficient for applications of up to 5 liters.

Hei-Mix L

The big Ø 145 mm Kera-Disk® top plate and the powerful stirring magnet allow operations up to 20 l. Speed range 100 to 1,400 rpm. Robust, chemical resistant an easy to clean.

Hei-PLATE Magnetic Stirrers

Uncompromising quality and simple handling

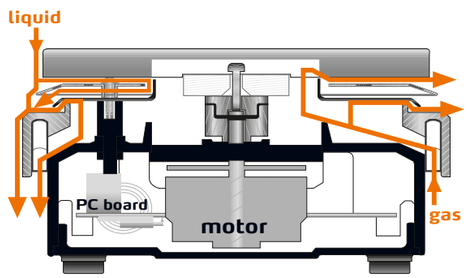
The robust magnetic stirrers of the Hei-PLATE series were developed to optimally mix low-viscosity liquids from smooth to intense. They are perfectly suited for decomposing organic and inorganic substances. The premium devices offer the highest operating safety and comfort standards. 800 W (for 230 V models) heating capacity and the special Kera-Disk® hotplate with aluminum core allow for minimum heat-up phases that result in lasting cost reductions.

Kera-Disk® top plate

Hotplates made of aluminum guarantee the fastest heat-up times. However, they are not chemical-resistant or scratch-resistant. Ceramic hotplates are chemical-resistant and scratch-resistant, but have longer heat-up times.

The Kera-Disk® hotplate combines the benefits of both systems:

- The aluminum top plates allow for immediate heat transfer
- The razor-thin ceramic coating makes the plate resistant to chemicals and scratches



The sealed housing used for the Hei-PLATE series guarantees an extended performance life and reduced maintenance!

Magnetic stirrers without interfaces

Easy to use

Hei-PLATE models without interfaces for standard stirring tasks – with and without a temperature sensor.

- Stepless speed control from 100 to 1,400 rpm and a speed accuracy of ± 2% for gentle stirring
- The 800 W hotplate reaches the maximum temperature of 300 °C quickly
- When combined with the Pt 1000 temperature sensor, the sensor control automatically switches off the heater if the sensor is not submerged in the medium during the heating process
- All models come with overheating protection that turns off the heating function if the set temperature is exceeded by 25 °C

Hei-Tec

For high expectations – with precise control options and device parameter monitoring on the digital display; can also be connected to temperature sensor Pt 1000.

Hei-Standard

For all standard applications – easy to use with two separate control knobs for direct access to parameters.

Precise tempering

The optional Pt 1000 temperature sensor allows for precise temperature control, overshoot protection and reproducible results.

Magnetic stirrers with interfaces

High precision and safety requirements

Hei-PLATE models with interfaces for demanding processes, complete documentation, and reproducible results.

Hei-Connect

For precise process documentation – with precise control options and device parameter monitoring on the digital display due to its compatiblity with the Pt 1000 temperature sensor. With separate timers for rotation and heating, e. g. to keep on stirring the media after heating. Software control is possible via its RS 232 interface. The included Hei-Control software allows for programmable ramps, interval control, and documentation for reproducible results.

The Hei-Control software controls and documents your process for up to four devices simultaneously.

Heat-On Blocks

Safety and efficiency

Replace oil baths in your lab with Heat-On attachments and enjoy the following benefits:

Heat-On blocks are the safest, fastest, and most efficient way for heating and stirring round flasks that range from 10 ml to 5 l.

Leading Safety Standards

Increased workplace and safety: prevent accidents, fires and contamination by completely banning all oil baths from your laboratory. The unique design prevents glass breakages and thereby minimizes the risk of cuts or fluid leaks. The high temperature precision provides maximum safety for applications up to 260 °C.

Superior Ease of Use

Since the Heat-On blocks are designed to fit perfectly around your flask, using oil as a heat conductor is no longer necessary. This eliminates burns and fires from dripping oil. The fluoropolymer coating allows for maximum chemical resistance ensuring an extended lifespan. The temperature can be measured comfortably and precisely in the medium or directly on the vessel.

Reduced Cost of Ownership

Ease of use minimizes processing times and increases your output – 150 ml of water will start to boil in less than 11 minutes. Thanks to 66% shorter heat-up times compared to conventional oil baths, you also save on energy costs.

StarFish Workstations

Make more of your magnetic stirrer

The many possible combinations StarFish attachments allow you to organize your workstation according to your needs. From regular stirring tasks, syntheses, and concentrations as well as extractions with vacuum and inert gas – transform your magnetic stirrer into a multi-functional, space-saving reaction system for up to 45 samples simultaneously.

The base plate fits the magnetic stirrer's top plate exactly and guarantees optimum contact with the heated surface. We recommend using safety handles to prevent burns.

MonoBlocks and PolyBlocks can be combined with up to five individual PolyBlocks in different sizes, or one MonoBlock.

TIP: StarFish reaction systems are perfect for Soxhlet applications.

Please visit www.heidolph.com for more information on all accessories.

Hei-TORQUE Overhead Stirrers

Leading Safety Standards

The Hei-TORQUE range's powerful and sparkless motors are made for safe and unsupervised continuous operation. In the event of continuous overload, the motor shuts down to prevent overheating. Additional safety settings, such as slow ramp-up and speed limits protect you from splashes. The sealed housing with IP 54-class protection protects against short circuiting and corrosion.

Superior Ease of Use

The right model for every application: With the broad power spectrum of 40 to 400 Ncm, you can find the right solution for every application. All models come with a quick-clamping system for immediate and convenient "one-hand" impeller changing without the need for tools. The powerful motors achieve homogeneous results – with exact speed even under changing loads or high viscosity – and produce little noise.

Reduced Cost of Ownership

These powerful and robust overhead stirrers are made for continuous operation: Maintenance-free motors prevent downtimes and repair costs; the sealed housing reliably protects the electronics and mechanisms against corrosion and short circuiting. The high torque ensures maximum efficiency for minimal processing times – even high-viscosity media such as gels can be processed in large quantities.

Reliable and robust

- All devices are suitable for unrestricted, continuous operation, even with high-viscosity media
- Achieve great results even in polymer research: These overhead stirrers excel with particularly powerful motors
- You can use the Hei-TORQUE overhead stirrers in aggressive environments: The sealed housing is IP 54-class protection compliant and guaran-tees years of maintenance-free operation

The Quick-Chuck: fast and easy impeller change with only one hand – without any tools.

The Hei-TORQUE range

The Hei-TORQUE series has a suitable solution for all requirements, including small and light equipment, easy operation with high torque, precise adjustment options, and an interface for documentation.

DESIGN AWARD 2016

1 Hei-TORQUE Core

Lightweight for big task
Compact design with enough power for large volumes. The smallest of the devices can mix up to 25 l at low viscosity with ease. Can be combined with large impellers and the VISCO JET® system.

2 Hei-TORQUE Value

Clear and robust design
Clearly arranged display, easy operation, powerful and robust motor, reliable results. Choose between three performance ranges for the model with the appropriate torque level for your most common viscosities.

3 Hei-TORQUE Precision

Individual and precise
For all applications that must be reproducible and documentable. This model is also available in three performance ranges – choose the one for your application.

Hei-TORQUE Core

Lightweight for big tasks

The compact design allows for integration in closed systems, such as fume hoods, reactors, or production systems. Suitable for low- to medium-viscosity media up to 25 l.

Compact design:

- Lightweight with 2,300 g
- Measurements (W/H/D): 70/282/195 mm

Easy to use:

- Control knob for rotation speed, pushing starts or stops the function
- Timer
- “Max” button for short-term operation at maximum speed

Performance characteristics:

- Torque up to 40 Ncm
- Speed range up to 2,000 rpm
- Viscosity up to 10,000 mPas

The large diameter of the chuck (10 mm) allows you to use even large impellers and VISCO JET® tools. This facilitates a wide variety of applications, such as homogenization, dispersing, the dissolving of agglomerates, and more.

TIP: For reactor systems, the torque can be redirected via the flexible shaft to place the overhead stirrer next to the actual attachment.

Hei-TORQUE Value

Clear and powerful design

Suitable for all standard applications that do not need to be digitally documented. Different performance classes for applications up to 250,000 mPas.

TIP: The telescopic stand almost completely compensates the overhead stirrer’s weight. This enables you to change vessels or impellers in no time.

Easy to use:

- Digital 2.4” display for torque tendences and rotation speed
- Control knob for rotation speed
- Start/Stop slider with touch function

Powerful stirring in three performances classes:

- 100 Ncm for up to 60,000 mPas
  200 Ncm for up to 100,000 mPas
  400 Ncm for up to 250,000 mPas
  (two-stage transmission)
- Speed range up to 2,000 rpm

The high torque ensures stable speed even under changing loads for faster and excellent mixing results.

Hei-TORQUE Precision

Individual and precise

The expert for demanding applications with maximum safety requirements that must be reproducible and digitally documentable. Numerous additional features enable you to adjust the stirring process specifically for the requirements.

Digital 3.2'' display for precise operation:

- Allows for pre-programmed profiles, favorites memory, interval operation
- Graphic representation of process progress and torque display
- Timer/Countdown/Clock

Powerful stirring in three performance classes:

- 100 Ncm for up to 60,000 mPas
  200 Ncm for up to 100,000 mPas
  400 Ncm for up to 250,000 mPas
  (two-stage transmission)
- Speed range up to 2,000 rpm
- Models 100 and 200 allow rotation direction changing

Greater safety through individual performance monitoring:

- Start-up intensity, maximum rotation speed, and torque limit can be adjusted
- Precise documentation via USB or standard RS 232 interface. Includes USB cable and Hei-Control software for reliable automation of all processes and simultaneous operation up to four devices

Optional:
Standard RS 323 cable

Hei-Control Software

For automated and reproducible processes, the simultaneous operation of multiple devices, and applications with high viscosities in conjunction with required heat output (e.g. cosmetics). Combine the fastest heat-up times of the Hei-PLATE magnetic stirrers with the power and precision of the Hei-TORQUE Precision.

Use the free software to

- Program process parameters and ramps
- Read out and save processes in the software
- Load saved settings for reproducible results

Compatible with models
Hei-PLATE Connect
Hei-PLATE End
Hei-TORQUE Precision

Technical Specifications

Magnetic Stirrers

Modell	Hei-Mix S	Hei-Mix L	Hei-Standard	Hei-Tec	Hei-Connect
Speed range	0–2,200 rpm	100–1,400 rpm	100–1,400 rpm	100–1,400 rpm	100–1,400 rpm
Speed accuracy	±5 %	±2 %	±2 %	±2 %	±2 %
Drive	Shaded pole motor	EC-motor	EC-Motor	EC-Motor	EC-Motor
Operating mode	continuous	continuous	continuous	continuous	continuous
Display	–	–	–	digital	digital
Analoge/digital interface	–	–	–	–	digital (RS 232)
Heating power	–	–	800 W*	800 W*	800 W*
Hotplate temperature	–	–	20–300 °C	20–300 °C	20–300 °C
Medium temperature, max.	–	–	250 °C	250 °C	250 °C
Accuracy temperature setting	–	–	–	±1 °C	±1 °C
External temperature sensor	–	–	Pt 1000	Pt 1000	Pt 1000
Temperature accuracy with external temperature sensor	–	–	–	±1 °C	±1 °C
Sensor breakage protection	–	–	with Pt 1000	with Pt 1000	with Pt 1000
Temperature control	–	–	Micro controller	Micro controller	Micro controller
Temperature accuracy hotplate	–	–	±5 °C	±5 °C	±5 °C
Residual heat indicator	–	–	yes	yes	yes
Safety circuit hotplate	–	–	25 °C over hotplate temperature	25 °C over hotplate temperature	25 °C over hotplate temperature
Timer	–	–	–	–	yes
Stirring capacity, max. H_2O	5 l	20 l	20 l	20 l	20 l
Load, max.	6 kg	25 kg	25 kg	25 kg	25 kg
Power consumption	7 W	20 W	820 W	820 W	820 W
Plate diameter Ø	104 mm	145 mm	145 mm	145 mm	145 mm
Plate material	PVDF	Kera-Disk® Aluminum alloy, coated	Kera-Disk® Aluminum alloy, coated	Kera-Disk® Aluminum alloy, coated	Kera-Disk® Aluminum alloy, coated
Weight	1.1 kg	2.9 kg	2.9 kg	2.9 kg	2.9 kg
Dimensions w/d/h	140×126×80 mm	173×277×94 mm	173×277×94 mm	173×277×94 mm	173×277×94 mm
Permissible ambient conditions	5–31 °C at 80 % rel. humidity, 32–40 °C decreasing linearly up to max. 50 % rel. humidity	5–31 °C at 80 % rel. humidity, 32–40 °C decreasing linearly up to max. 50 % rel. humidity	5–31 °C at 80 % rel. humidity, 32–40 °C decreasing linearly up to max. 50 % rel. humidity	5–31 °C at 80 % rel. humidity, 32–40 °C decreasing linearly up to max. 50 % rel. humidity	5–31 °C at 80 % rel. humidity, 32–40 °C decreasing linearly up to max. 50 % rel. humidity
Protection class DIN EN 60529	IP 21	IP 32	IP 32	IP 32	IP 32

Standard supply voltage: 230 V. Other voltages upon request, please specify for order.

* 600 W for 115 V-units

Technical Specifications

Overhead Stirrers

Model	Hei-TORQUE Core	Hei-TORQUE Value 100	Hei-TORQUE Value 200	Hei-TORQUE Value 400	Hei-TORQUE Precision 100	Hei-TORQUE Precision 200	Hei-TORQUE Precision 400
Power rating, motor input/output	105/75 W	90/50 W	120/80 W	150/90 W	90/50 W	120/80 W	150/90 W
Number of speed gears	1	1	1	2	1	1	2
Speed range	20–2,000 rpm	10–2,000 rpm	10–2,000 rpm	10–400 rpm 20–2,000 rpm	10–2,000 rpm	10–2,000 rpm	10–400 rpm 20–2,000 rpm
Direction change of rotation	–	–	–	–	yes	yes	–
Speed indicator	digital	digital	digital	digital	digital	digital	digital
Operating panel	monochrom 2"	monochrom 2.4"	monochrom 2.4"	monochrom 2.4"	color 3,2"	color 3.2"	color 3.2"
Speed control	electronic	electronic	electronic	electronic	electronic	electronic	electronic
Torque, max.	40 Ncm*	100 Ncm	200 Ncm	400 Ncm	100 Ncm	200 Ncm	400 Ncm
Torque indicator	symbol	symbol	symbol	symbol	precise value	precise value	precise value
Overheat protection	automatic cut-out	automatic cut-out	automatic cut-out	automatic cut-out	automatic cut-out	automatic cut-out	automatic cut-out
Motor protection	temperature control software	temperature control software	temperature control software	temperature control software	temperature control software	temperature control software	temperature control software
Viscosity, max.	10,000 mPas	60,000 mPas	100,000 mPas	250,000 mPas	60,000 mPas	100,000 mPas	250,000 mPas
Stirring cap. max. H_2O	25 l	50 l	50 l	100 l	50 l	50 l	100 l
Analog/digital interface	–	–	–	–	USB and RS 232	USB and RS 232	USB and RS 232
Admissible session	continuous operation	continuous operation	continuous operation	continuous operation	continuous operation	continuous operation	continuous operation
Counter/Timer	yes	–	–	–	yes	yes	yes
Shaft diameter max.	10.5 mm	10.5 mm	10.5 mm	10.5 mm	10.5 mm	10.5 mm	10.5 mm
Dimensions w/d/h	70×195×281,5 mm	86×247×350 mm	86×247×350 mm	93×247×350 mm	86×247×350 mm	86×247×350 mm	93×247×350 mm
Stay bar size Ø×w	13×160 mm	13×160 mm	13×160 mm	13×160 mm	13×160 mm	13×160 mm	13×160 mm
Weight	2.3 kg	4.4 kg	5.1 kg	5.3 kg	4.4 kg	5.1 kg	5.3 kg
Permissible ambient conditions	5–31 °C at 80% rel. humidity, 32–40 °C decreasing linearly up to max. 50% rel. humidity,	5–31 °C at 80% rel. humidity, 32–40 °C decreasing linearly up to max. 50% rel. humidity,	5–31 °C at 80% rel. humidity, 32–40 °C decreasing linearly up to max. 50% rel. humidity,	5–31 °C at 80% rel. humidity, 32–40 °C decreasing linearly up to max. 50% rel. humidity,	5–31 °C at 80% rel. humidity, 32–40 °C decreasing linearly up to max. 50% rel. humidity,	5–31 °C at 80% rel. humidity, 32–40 °C decreasing linearly up to max. 50% rel. humidity,	5–31 °C at 80% rel. humidity, 32–40 °C decreasing linearly up to max. 50% rel. humidity,
Protection class DIN EN 60529	IP 42	IP 54	IP 54	IP 54	IP 54	IP 54	IP 54

Standard supply voltage: 230 V. Other voltages upon request, please specify for order.

* temporary overload 65 Ncm

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