

PREMIUM LABORATORY EQUIPMENT

PRODUCT OVERVIEW



Hei-PROCESS Process Solutions

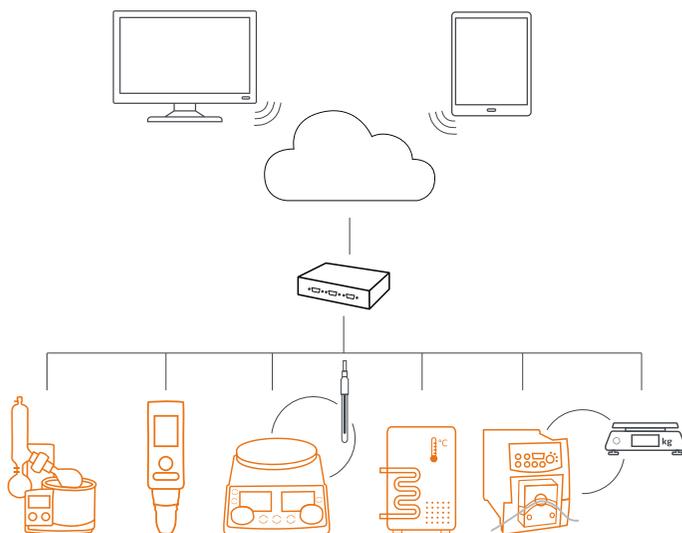
Single laboratory equipment or integrated configured process solutions will be combined with the cloud-based software of our partner OSPIN via the integrated RS 232 connection to build a process sequence. The processes can be independently monitored and seamlessly documented.

Connect your Heidolph devices with each other to create new functions, e.g. a pH controller from a pH sensor coupled with a pump, and control your individual processes via multiple parameters.



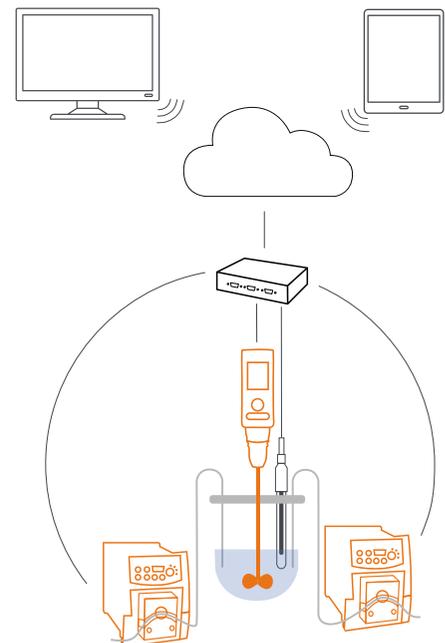
Hei-PROCESS Core

Control individual integrated devices or basic device combinations via any browser and let the OSPIN web app document each sub-step of your process automatically.



Hei-PROCESS Expert

The OSPIN web app controls the functional sequences of devices which are already integrated and permanently connected to each other so that new functions can be created and more process parameters can be controlled.



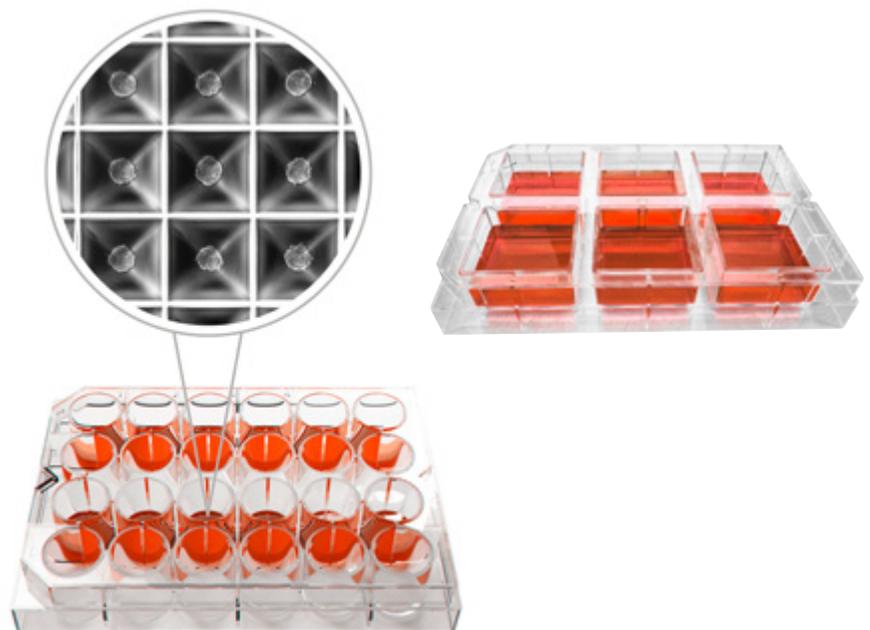
Intelligent Cell Cultivation

Cell cultures are often the basis for biotechnological and clinical researches. With two trend-setting technologies in the area of the cell cultivation, we offer new options within the Life Science Solutions.



Sphericalplate 5D® cell culture plate

The spherical plate 5D (SP5D) is a 3D cell culture plate for forming uniform, standardized, size-controlled spheroids with high quality and yield. It allows you the effortless scaling and a translation into the diagnostic or clinical application. At the same time, the reproducibility of follow-up tests is increased, since the experiments always start under identical initial conditions due to the low size variance of the cultivated spheroids.



Hei-PLATE Magnetic Stirrers

The robust magnetic stirrers of the Hei-PLATE series were developed to mix low-viscosity liquids optimally – from gently to intensively. They are ideally suitable for the homogenization of organic and inorganic materials. The premium devices offer leading safety standards and optimum ease of use. 800 W heating power (for 230-V models) and the special Kera-Disk® plate with aluminum core enable the shortest heating phases and a reduced cost of ownership. The Hei-PLATE Mix 'n'Heat series was created to satisfy the different daily requirements in the laboratories.

Hei-PLATE Mix 20 l

For large stirring tasks. Due to the Kera-Disk® ceramic coating, the top plate with a diameter of 145 mm is chemical-resistant and scratch-proof. Ideal for applications up to 20 l.

Hei-PLATE Mix 'n' Heat Core+

Precise setting options and monitoring of the device parameters via the digital display and connection for the external Pt 1000 temperature sensor. Fast access and activation of the heating and stirring function due to the separate rotary-pressure controller.

Hei-PLATE Mix 'n' Heat Expert

For the preparation of temperature-sensitive liquids. Separate timers for speed and temperature; here, we have combined smart safety functions with different heating functions. With port for double temperature sensor and USB interface for integration into laboratory software.

Hei-PLATE Mix 'n' Heat Ultimate

For integration into completely automated processes. The control can be carried out via a proper laboratory software and connection to the RS 232 interface. With four additional interfaces for absolute process control. Double temperature sensor for even more control



Hei-TORQUE Overhead Stirrers

Small and light, easy to use, high torque, precise setting options and an interface for documentation purposes: The Hei-TORQUE series offers a suitable solution for any requirement. Ideal for mixing larger quantities, high viscosities or also for applications in reactor systems. Available in different performance classes depending on the model. Hei-TORQUE Expert and Hei-TORQUE Ultimate models are each available in three performance classes: 100 Ncm, 200 Ncm and 400 Ncm.

Hei-TORQUE Core

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

Hei-TORQUE Expert¹

Ideal for quick and reliable stirring tasks for standard applications that do not need to be documented. With start/stop slider and clear display.

Hei-TORQUE Ultimate¹

Optimized for demanding applications thanks to a torque display, additional flexible functions and individual settings options. The USB and RS 232 interfaces allow exact documentation and reproducibility of all processes.



¹ All 400 models offer two-stage operation for various torque ranges, each according to the viscosity of the material.

Hei-SHAKE Shakers

Suspending in a flash, homogeneously emulsifying, gently mixing or incubated shaking – the right solution for any requirement. The Hei-MIX series offers numerous options with different mixing types of motion, loading capacities and versatile accessories for shaking and mixing.

Overhead Shakers

Robust devices for applications in biochemistry up to water and sediment analysis according to DIN EN 12457-4.

Test Tube Shakers/Vortexers

Whether in test tubes or centrifuge tubes, even with different diameters and tubes: The strong shaking movement guarantees excellent mixing results without exception.

Platform Shakers²

The wide range of platform shakers offers the right solution for many vessels and applications – whether powerful and fast or quiet and gentle. Even for highly sensitive samples, such as in cell research: The temperature-insulated drive prevents heating of the platform and thus thermal harm to the sample.



² All 1,000 models can be combined with an incubator hood and heating module to create a space-saving incubation system.



Hei-FLOW Peristaltic Pumps

Whether simple pumping or precise dosing. Even in interval mode, with pauses to fill small vessels – the Hei-FLOW series fulfills all your requirements. Thanks to the large selection of pump heads, the peristaltic pumps can be individually configured. Whether efficiently pumping high volumes with flow rates of over four liters per minute or precise dosing of up to 12 samples at the same time: The modular design of the Hei-FLOW series makes individual configuration possible.

Hei-FLOW Core

for simple pumping tasks, without display and interface.

Hei-FLOW Expert³

With analogue interface for Hei-FLOW control system of speed and direction of rotation as well as On/Off function.

Hei-FLOW Ultimate³

For highest demands – the precise pump for exact dosing. With digital display and analogue and digital interface. Individual calibration procedure of flow rate and volume possible.



³ With an optional footswitch, these models can also be controlled in an enclosed extraction hood.

Hei-VAP Rotary Evaporators

The Hei-VAP series rotary evaporators combine the highest safety requirements with maximum reliability. Well thought-out details, such as a detachable operator panel with protection class IP 42, make everyday work easier. The intelligent evaporator concepts offer the right solution for every requirement and budget.

Hei-VAP Core

Focused on the essentials: clear digital display and, due to separate knobs, direct access to the basic parameters' rotation speed and heating bath temperature at any time.

Hei-VAP Expert/Ulimate

Precise setting of rotation speed and heating bath temperature on the clear 5" and 7" digital touch display or – for quick access during an active process – directly via the knobs on the operating panel. With timer, limitation of max. temperature, multilingual menu and text display for error messages.

Hei-VAP Expert Control/ Ultimate Control

Central control panel with 5" or 7" touch display for direct regulation of any vacuum source – in conjunction with a Hei-CHILL recirculation chiller also the cooling temperature. With solvent library, favorites, individual ramps and smart program automations for uncompromising precision.



Hei-VAP Large-scale Rotary Evaporator

The Hei-VAP Industrial large-scale rotary evaporators distill large volumes – even unattended. The automatic water bath feed and the level sensor ensure a sufficient amount of fluid in the heating bath at any given time. Via the intuitive touch panel, all of the parameters can be set individually and the programs can be used for process control. Intelligent details, such as drain valves on the heating bath and receiving flask, the unique EASY-LOCK flask fixing system and the optional mobile base, ensure that the premium devices can also be operated by a single person. In addition to this, the large-scale rotary evaporators have vacuum controllers and boiling temperature sensors.

Hei-VAP Industrial

A large-scale rotary evaporator for the most demanding situations and safety requirements. Combines superior ease of use with sustainable cost reduction by means of intelligent technology.

Hei-VAP Industrial B

Ideal for smaller budgets. All the benefits of the Hei-VAP industrial, but without additional safety equipment, such as the protective hood and screen.

Hei-VOLUME Distimatic Pro Industrial

Saves time. Increases throughput. Reduces costs. The Hei-VOLUME Distimatic module allows you to fully automate the filling and emptying of your Hei-VAP Industrial large-scale rotary evaporator.



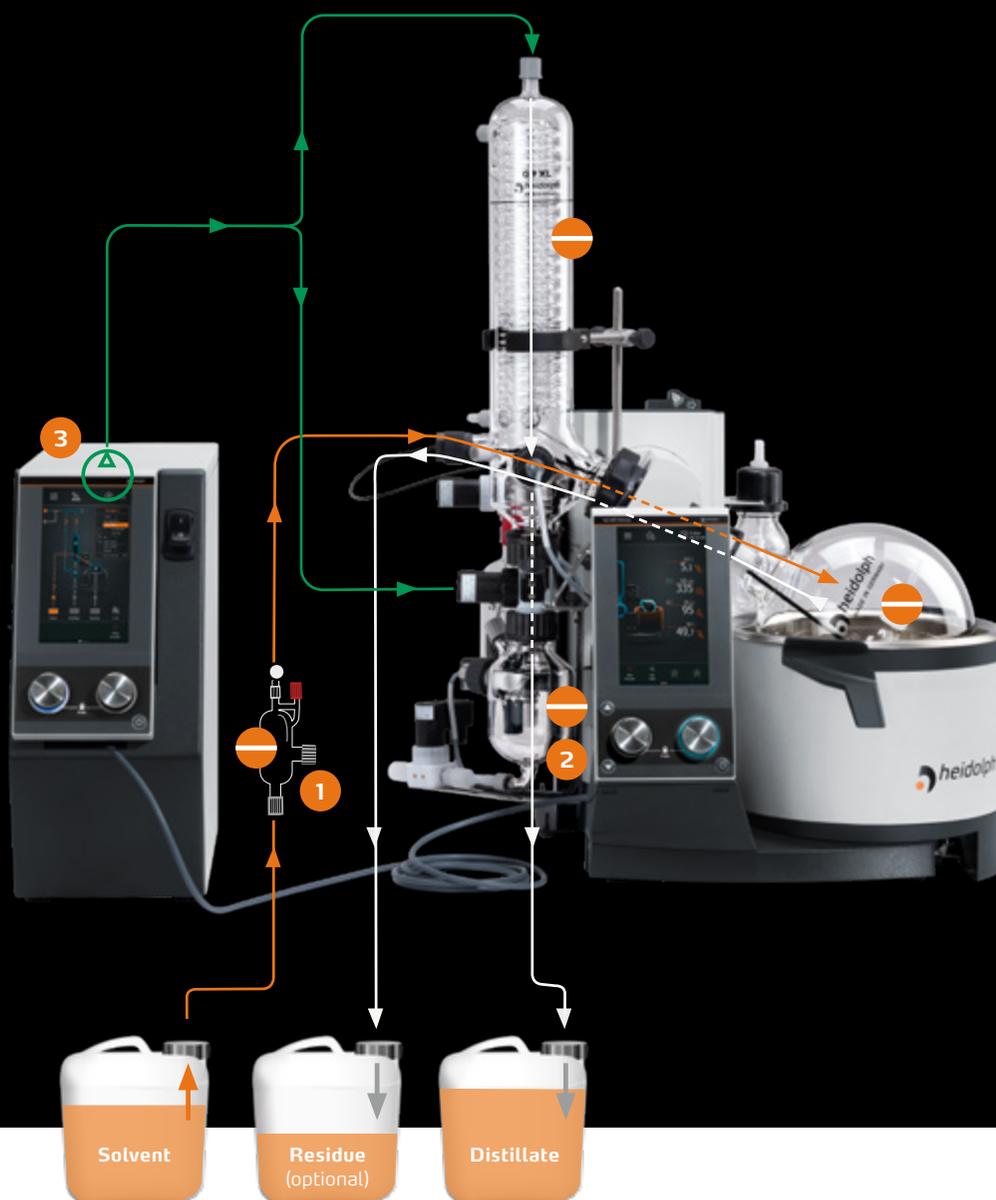
Hei-VOLUME Distimatic Pro Automatic Module

With the unique automatic residue drainage of the Hei-VOLUME Distimatic Pro automatic module, unlimited quantities can be automatically distilled in unattended, continuous operation. 24 hours a day, 7 days a week – turning rotary evaporators into automated stations.

Simple process optimization in terms of efficiency and precision:

- Automatic supply and removal of initial mixture, distillate and residue drainage (optional)
- Individual determination of the concentration of the end product, to prevent drying, crystallization and formation of powder
- Automated feeding of small volumes to prevent foaming
- The stock and product containers can also be replaced while the process is running
- Permanent process monitoring by sensors including complete system shutdown in an emergency situation
- With the residue drainage, process unlimited quantities fully automatically in unattended and continuous use: 24/7

- 1 Educt sensor vessel
- 2 Collector
- 4 Control box with compressor
- Sensor



IQ-OQ Certification

We offer IQ-OQ certification, bookable on a modular basis, for all Hei-VAP rotary evaporators, large-scale rotary evaporators and the automatic module Distimatic Pro. The individual blocks are bookable as documentation or implementation.

Application Consultation

Our application specialists perform feasibility tests of the application and will advise you on the configuration and the individual process analysis.

Excellent research requires exceptional partners

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. So that you can keep your head clear to successfully drive forward the research work for your company, organization or institution. **Briefly: "research made easy".**

"Made in Germany" for successful research worldwide

That's why "Made in Germany" is much more than a marketing strategy for us: It's part of our corporate philosophy.

Our location in Germany enables us to develop and manufacture reliable laboratory equipment for years of continuous use with an average service life of more than 10 years. This makes your purchase a worthwhile investment in the future.

All Heidolph products are developed and manufactured at our Schwabach headquarters in Nuremberg; they go through a multi-stage quality checks. Powerful, maintenance free motors ensure constant results even in continuous operation, preventing downtime and costly repairs.

For us, premium service means: individual and application-related advice, competent and professional installation and instruction as well as the shortest possible repair and delivery times – "research made easy".

**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**

**Seek advice before
you decide!**

**Schedule an appointment for
an online demo presentation
from our showroom.**



**MADE IN
GERMANY**



Seek advice before you decide!

Find the premium lab equipment that will provide you with optimal support in your research and contact us at sales@heidolph.de or by phone at **+49 9122 9920-67**

Further information on all Heidolph equipment, accessories and our on-service offerings is available on our website at www.heidolph.com