Premium Laboratory Equipment

Shakers, Mixers & Peristaltic Pumps

# Robust acrobats



# 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.

# Always in motion: Shakers, Mixers and Peristaltic Pumps

Quickly suspend, homogenously emulsify, carefully mix, temperately move, steadily pump, or precisely measure – the right solution for every requirement. The Hei-MIX range offers countless options with different movement types, load capacities, and versatile accessory attachments for shaking and mixing. Whether it's for simple pumping or reproducible measuring: Hei-FLOW devices can be individually configured using a varied selection of pump drives.



# Hei-MIX Shakers & Mixers

# Leading Safety Standards

All models have a low center of gravity for secure footing, and an overheat control that turns the device off in an emergency. All platform shakers come equipped with a rubber mat on the platform so that your vessels do not slip or shift. The motor is insulated to prevent the platform from heating up and thermolabile samples becoming damaged.

# Superior Ease of Use

Limitless combinations: Test tube shakers, platform shakers with six different movement types (from one- to three-dimensional), and overhead shakers for a variety of vessel sizes. For specific tasks, you can select the desired amplitude and tilt angle from several options for many movement types. You can also choose between three different load capacities.

# Reduced Cost of Ownership

Reliable and robust with an average lifespan of more than 10 years, thanks to maintenance-free, sparkless motors for unlimited continuous operation, and sealed housing for corrosion protection. The modular concept of the Incubator 1000 reduces processing times even further and expands your platform shaker with an incubation system at low cost.



#### Incubator 1000 the modular incubation system

- Allows simultaneous tempering of your individual application
- Use valueable laboratory space more efficiently: The modular concept requires significantly less space than other comparable systems
- You can quickly and easily integrate your platform shaker in a low-cost incubation system
- Be flexible! The size of the vessels does not matter: with three different incubator hoods, you have all the options available

#### 6 movement types: from one- to three-dimensional



# Test Tube Shakers – Vortexer

## Fast and powerful

Ideal for quickly mixing the contents of test tubes, centrifuge tubes, and similar vessels with various diameters and lengths. Without exception, the powerful shaking motion guarantees excellent mixing results.

# Vibrating/Vortexing



Multi Reax – the allrounder For mixing 12 or 26 samples simultaneously

- Package includes two attachments: Device for 26 test tubes with 10 to 16 mm Ø, and for 12 test tubes with 16 to 32 mm Ø
- The vibration orbit of 3 mm delivers excellent mixing results even for large liquid samples with suspended solids
- Digital, stepless speed control with speeds from 150 to 2,000 rpm
- Process timer up to 999 minutes for automatically ending the shaking function

### Reax top

The standard model Fast and dependable dispersion even for media with suspended solid or high viscosity – perfect for temporary operation.







#### **Reax Control**

The precision model The electronic speed governor keeps speeds consistent even at low speeds and changing loads.

# **Platform Shakers**

## Multifunctional and all-purpose

This product range has the right solution for all vessels and applications from fast and powerful to slow and gentle. Even highly sensitive samples for cell research can be processed: The motor is insulated to prevent the platform from heating up and causing thermal damage to the sample.



### Titramax 100/101/1000

Compact, powerful and temperature-controlled Excellent mixing results the powerful or gentle way with microtiter plates – even for liquid samples with suspended solids.

#### Vibramax 100/110

For gentle to powerful mixing Varied options possible through combining tension rollers, clamps, or attachment for up to 49 test tubes.

#### Rotamax 120

The compact one The 20 mm orbit keeps samples in optimal motion. Especially suited for culture plates.

#### Unimax 1010/2010

Perfect for Erlenmeyer flasks in different sizes Combine model 1010 with the Incubator 1000 for additional tempering options, or with the Unimax 2010 for an increased load capacity of up to 10 kg.

- Powerful or gentle mixing even for liquid samples with suspended solids
- Consistency and time move cell cultures evenly and constantly
- Versatile attachments for use with different vessels



### Duomax 1030

The temperature controllable Two different tilt angles to choose from and compatible with the Incubator 1000 for gentle tempering.

# **Platform Shakers**

Strong and customizable

## For applications such as phase separations or staining electrophoresis gels, you need specialists: Temperature control, high load capacity, two different tilt angles, and attachments for use with separatory funnels, Erlenmeyer flasks, bottles, or culture plates.

# Inkubator 1000

# Make more of your platform shaker

The unique, modular system lets you do it all: mixing, shaking, and tempering - all without the need for an additional steaming cabinet. Suitable for the 1000-series models of the platform shakers Duomax 1030, Polymax 1040, Titramax 1000, Unimax 1010, and Promax 1020.



#### Promax 1020

The temperature controllable Compatible with the Incubator 1000 for tempering. The 32 mm stroke is perfect for separating funnels.

#### Promax 2020

The sturdy one Large model with 10 kg load capacity and 20 mm stroke for larger amounts.

### Polymax 1040

The temperature controllable

Models with 5° or 10° tilt angles for gentle or more powerful movement amplitude. Compatible with the Incubator 1000.

### Polymax 2040

#### The large scale model

Comes with a large usable area of 39×34 cm for increased sample throughput and with stepless speed control.



# Incubator hood in three sizes

Flat: 163 mm height for small vessels ranging from 25 ml to 100 ml High: 267 mm height for medium-sized vessels and 500 ml Erlenmeyer flasks XL: 428 mm height for large vessels and 2,000 ml Erlenmeyer flasks

Customizable or as a package (Unimax/Titramax) – find out more at www.heidolph.com



# **Overhead Shakers**

# For small to large tasks

The work horse for different vessels and volumes – even water, wastewater, and silt tests pursuant to DIN 38414 part 4.

# Accessory adapter for up to 20 test tubes

in one work stage.

# Accessories

# Limitless combinations with the greatest range of accessories

Various attachments and adapters for numerous applications. Perforated platforms in different sizes make it possible to equip clamps or separatory funnel clamps, or even allow for a multilevel assembly as needed.

# Overhead

With quick-clamping system for easily swapping and using different vessels.



#### Stepless speed control

- Quick-clamping system for easy swapping
- Can be used with different vessels



### Reax 2

For 2 vessels or up to 20 test tubes with optional accessory. Load capacity: 1 kg.

### Reax 20 for 4, 8, or 12 flasks

In accordance with DIN 38414 part 4. Also suitable for graduated cylinders or wide-neck bottles with a height up to 270 mm and a diameter up to 136 mm.



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# Hei-FLOW **Peristaltic Pumps**

# Leading Safety Standards

Contamination-free transport is particularly important for aggressive, corrosive, or sterile media. The device ramps up slowly to protect from spatters, an optional foot-pedal also allows for operation outside of closed laboratory hoods. Sparkless motors, overheating protection that shuts down the motor in case of overloading, and IP 55-class protection prevent outages, accidents or short circuiting.

# Superior Ease of Use

Great flexibility with different single-channel pump heads and refittable models for optimum use of multi-channel pump heads. Space-saving design, stackable, and intuitive operation. Whether it's for pumping or dosing – the powerful Hei-FLOW range offers stable revolution speeds under changing loads and all options for flow rates from 0.005 to 4,151 ml per minute.

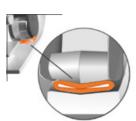
# Reduced Cost of Ownership

The self-priming pumps do not require seals or valves and do not come into direct contact with the media. Complete with maintenance-free motors and corrosion-protected housing. This ensures a long product lifespan, reliability, and robustness while maintaining minimal maintenance and repair costs.



#### Continuously pump, precisely dose YOUR BENEFITS

- Whether it's for simple pumping or measuring dosages precisely during interval operation with pauses for filling small vessels – the Hei-FLOW range meets all your needs
- The medium remains in the tube; contact to the pump drive or you is impossible, thereby increasing your safety
- The pump drives usually do not need cleaning, as they work without risk of contamination. For you, this means saving time between two applications
- Hei-FLOW pumps are self-priming and do not need seals or valves



For cellular research, you should use a pump drive with convex rolls that squeeze the tube in an unconventional manner.

# Hei-FLOW Value

# Your intuitive companion for easy pumping

Choose between two models depending on your demands concerning flow rate:

### Value o6

with a high speed range for flow rates ranging from 4.0 to 4,151 ml/min\*

#### Value o1

with a low speed range for flow rates ranging from 0.83 to 861 ml/min\*

\* With single-channel pump drive



- Analogue flow speed control from 10 to 600 rpm
- Stable speed even under changing loads
- Hei-FLOW Value devices pump with an accuracy of ± 2%
- You can change the flow direction: clockwise or counter-clockwise

Flow rates of 0.83 to 861 ml/min are not precise enough? Use multi-channel pump heads to achieve flow rates between 0.005 and 364 ml/min by simply refitting with an adapter and the relevant pump drive. Compatible with Hei-FLOW Value or.

Reconfigurable for multi-channel operation with adapter

More information on page 19



# Hei-FLOW Advantage

# For reproducible pumping

With analogue interface for regulating speed and direction, as well as an On/Off feature.

- Analogue flow speed control from 5 to 600 rpm
- Consistent speed even under changing loads, thanks to electronic speed governor
- Pump with an accuracy of ±0.5%
- Flow direction can be changed: clockwise or counter-clockwise
- Button for maximum speed accelerates the filling and emptying of hoses
- Compatible with optional foot-pedal for operation when using in closed laboratory hoods

#### Advantage o6

High speed range for high flow volumes (2.0–4,056 ml/min)

### Advantage o1

Low speed range for small volumes (0.38–813 ml/min)

#### Advantage o1 Multi

For even greater precision – with adapter for operating with multi-channel pump heads

# Hei-FLOW Precision

# Meets even the highest standards: Your precise pump for pumping and dosing

With digital display and RS 232 interface as well as options for calibrating the flow rate.

### Precision o6

High speed range (2.0-4,056 ml/min)

Precision on More precision in low speed range (0.38–813 ml/min)

Precision o1 Multi

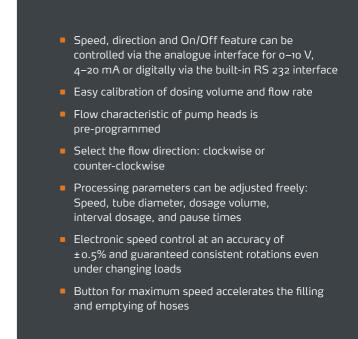
Complete with adapter for multi-channel pumps for maximum precision of 0.005 to 364 ml/min



Multi-channel cassettes in three sizes for flow rates ranging from 0.005 to 364 ml/min.







TIP: For peak concentration when precise doses in small vessels, you can start or stop the process using the optional foot-pedal.

# Single-Channel Pump Heads

# Individually customize your Hei-FLOW model

Pumping and dosing for all applications, even for specialized tasks such as pumping organic cell cultures. The sealed ball bearings protect against corrosion and ensure reliable continuous operation. The varied selection of pump drives for single-channel operation allows customization perfectly suited to individual applications:



### SP Standard

All-purpose for regular pumping tasks

With rollers made of stainless steel and polyamide. Two models are available for tubes with a wall thickness of 1.6 mm or 2.5 mm. Depending on drive and tubing, the flow rate ranges from 2.0-4,151 ml/min. Convex rollers prevent damage to organic cell cultures.



# SP Vario

### Flexible for multi-purpose use

A rotor with adjustable roller distance allows for tubes with a wall thickness ranging from 1.6 to 2.5 mm. The rollers are made of stainless steel and coated aluminum. Depending on drive and tubing, the flow rate ranges from 2.0-4,151 ml/min. Convex rollers prevent damage to organic cell cultures.

For cellular research, you should use a pump drive with convex rolls that squeeze the tube in an unconventional manner.





### SP Quick

For when you need to change tubes quickly

The convenient lever allows tubes to be changed in seconds. The rollers are made of stainless steel. Two models are available for tubes with a wall thickness of 1.6 mm or 2.5 mm. Depending on drive and tubing, the flow rate ranges from 0.38–3,436 ml/min. Precise measuring: the five rollers ensure low pulsation.

# Tubes & Accessories

### Tygon<sup>®</sup> tube

For standard laboratory applications, food industry applications, or for hydrocarbons. Good resistance to acids, alkalis, and inorganic media – high durability. Thermoplastic and suitable for temperatures from -78 °C to +75 °C.

### Tygon<sup>®</sup> standard

For standard laboratory applications. Non-toxic and non-oxidizing

### Tygon<sup>®</sup> 2001 for food products

Ideal for products with a high fat content. Does not contain plasticizers or oils

#### Tygon<sup>®</sup> for hydrocarbons

Specially for hydrocarbons, mineral oil products and distillates. Ozone and UV resistant



### Coupling

For tube sizes from 0.2–2.8 mm for connecting stop and extension tubes.





### Other tube types

PharMed®-, tubes made of silicone and Viton® for applications in pharmacy, medicine, biology, or at high temperatures of up to +205 °C.

#### PharMed<sup>®</sup>

Ideal for medical, lab and research uses

#### Silikon

Platinum-coated silicone hose for use in pharmaceuticals and biology

#### Viton®

Excellent acid resistance at high temperatures

You can find an overview of all our tubes online at www.heidolph.com or in our catalog.

# Multi-Channel Pump Heads

# Increased efficiency, even more options

The cassettes are easy to change and thus can increase the flow capacity of your Hei-FLOW multi-channel pump to up to 12 channels in simultaneous operation.

The following pump drives can be configured for multi-channel operation:

Hei-FLOW Value o1 Hei-FLOW Advantage o1 Hei-FLOW Precision o1



# Multi-Channel Pump Heads

# Easy to configure or upgrade

Simply select the adapter and the multi-channel pump head for the compatible Hei-FLOW model (O1 drive) and add compatible cassettes and tubes.



# Precise dosing

Thanks to the 8-roller system, you can use the multi-channel pump heads C4 and C12 for low pulsation pumping and, depending on the utilized tubes, high-precision dosing. The C12 model with integrated reduction gear is perfect for even the smallest volumes of flow rates from 0.005 to 37 ml/min. Use of two-stop tubing is required for the secure fastening of tubes.





Multi-channel pump head C4 Assembly with 4 x cassette small

Assembly with 12 x cassette small

# Customized pumping

Choose your assembly depending on the desired flow rate: Cassette medium for 0.24 to 27 ml/min or cassette large for 1 to 364 ml/min. The multi-channel cassettes medium and large are suitable for tubes of different diameters with a wall thickness of 1.6 mm.





Cassette medium

Assembly with 8 x cassette medium or 4 x cassette large

Multi-channel pump head C8







Multi-channel pump head C12 Cassette small

Two-stop Tubing





**Cassette large** 

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Heidolph Instruments GmbH & Co. KG Walpersdorfer Str. 12 • 91126 Schwabach Phone: +499122/992019 Fax: +499122/992065 E-Mail: sales@heidolph.de

