



# Heating systems for microscopes



Minitube microscope **heating systems** are known for their exceptional technical quality, precision, and uniform temperature distribution. The **warming plates**, available in various sizes, are especially durable and easy to clean. The **temperature control units** are designed to be both high quality and easy to use.

With a wide range of standard products, Minitube offers a modular system that allows for customized solutions for various applications in reproductive medicine, biology, chemistry, and more.

## (+ Your benefits

- + Complete solutions from a single supplier
- + Modular system for different needs
- + Custom stage modification: integration of digitally controlled and monitored heating systems into an existing stage

## Heating systems for upright microscopes

Original microscope stages from all leading manufacturers can be equipped with the Minitube heating system. This technology combines precise temperature control of the object on the stage with the ease of use of the original microscope design. The original microscope stage must be sent to us for installation of the heating system.

Heating system for upright microscope, including installation **12057/0700**

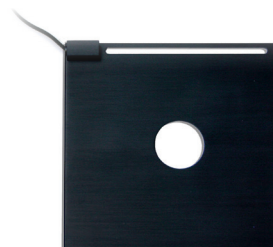


When installing a heating system in the original stage is not an option, we offer a clamp-on heated stage with a very thin plate. A transversely movable stage holder is attached through a slot in the clamp-on heated stage.

Clamp-on heated stage, 130 x 130 x 3 mm **12057/0625**  
(W x D x H), opening 30 mm, 34 W

The automated microscope stage has an integrated heating system and keypad and can be connected to a variety of microscopes. Analysis points within a counting chamber are automatically approached using the same path of the microscope stage. This reduces analysis time and measurement variability.

ScanStage, automatic stage for microscope, heating installed **12048/003x**





## Heating systems for inverted microscopes

In addition to installing a Minitube heating system in the original stages of inverted microscopes, we offer heated aluminum and glass insert plates in various sizes. These can be combined with the original heated stage if the temperature of the whole stage surface is to be controlled. Both the heated stage and the additional insert plate can be operated by the same controller with two output jacks (HTi 200).

Heating system for an original stage of an inverted microscope, including installation [1] [12057/0705](#)

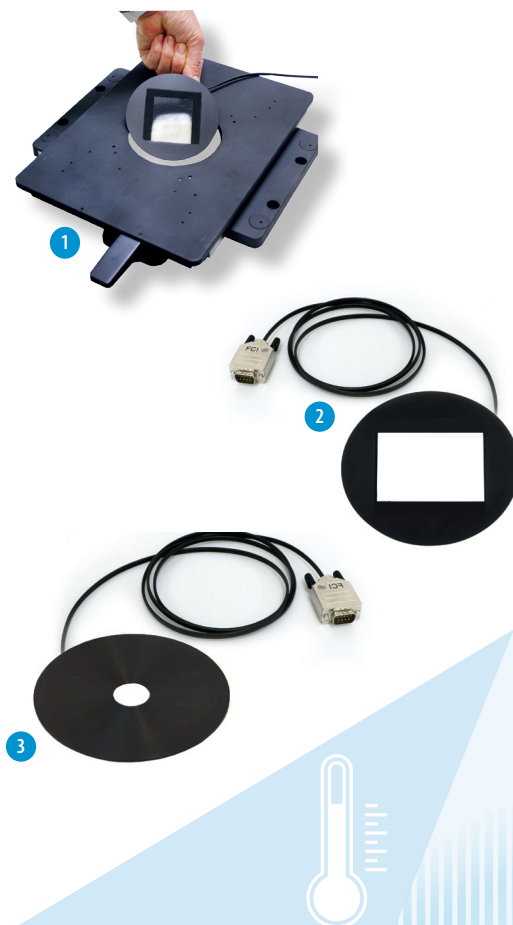
Heated insert plates for inverted microscopes

Nikon, Ø 108 mm, with glass 66 x 66 mm, 9 W [2] [12057/0033](#)

Nikon, Ø 108 mm, 38 W [3] [12057/0820](#)

Olympus, Ø 110 mm, with glass 66 x 66 mm, 9 W [2] [12057/0052](#)

Olympus, Ø 110 mm, 38 W [3] [12057/0825](#)



## Heating systems for stereo microscopes

Minitube offers standard or customized heated stages in all dimensions required for installation on top of the transmitted or incident light base of any stereo microscope. The heated stage is combined with a HTi control unit. The opening of the stage is covered by a glass insert.

Universal, 180 x 180 mm, 23 W [1] [12057/0600](#)

Nikon SMZ-U, 265 x 180 mm, 27 W [2] [12057/0615](#)

Nikon SMZ 1000, 250 x 203 mm, 22 W [3] [12057/0610](#)

Olympus SZ-Series, 153 x 178 mm, 27 W [4] [12055/0605](#)



## Control units

Heating systems and warming plates must be paired with a compatible control unit. Control units are sold separately, providing users with maximum flexibility in workplace design. The Minitube HTi control units ensure precise temperature regulation with an accuracy of  $\pm 0.1^\circ\text{C}$ . Depending on the model, they can manage up to four heating systems or warming plates simultaneously.



### ★ Product features

- Freely adjustable temperature range (ambient to  $+55^\circ\text{C}$ )
- Fully independent control of channels
- Control accuracy:  $\pm 0.1^\circ\text{C}$
- Temperature display in  $^\circ\text{C}$  or  $^\circ\text{F}$
- Data logging and readout via SD card (included)
- Visual/acoustic alarm in case of temperature deviation
- Alarm limits can be set for each connected device
- Weight: approx. 3 kg

### + Your benefits

- + Easy, intuitive operation via touch screen
- + Graphically animated user interface
- + Highly accurate temperature control, high temperature stability
- + Compact footprint, maximum flexibility in designing the workplace
- + Logging function for quality control and traceability
- + Easy to keep clean

Control unit	HTi 50	HTi 200	HTi 400
Ref.	12057/0100	12057/0200	12057/0400
Dimensions (W x H x D)	155 x 100 x 150 mm		
Control range	Ambient temperature up to $+55^\circ\text{C}/+131^\circ\text{F}$ ; user can select $^\circ\text{C}$ or $^\circ\text{F}$ for the display		
Deviation	$\pm 0.1^\circ\text{C}$		
Power supply	230 V/50 Hz - 115 V/60 Hz		
Display	4.3" touch screen display		
Output jacks	1 output jack	2 output jacks	4 output jacks
Power output total	160 W	220 W	220 W
Temperature control of	1 consumer, heated microscope stage <b>or</b> warming plate	2 consumers, heated microscope stage <b>and</b> warming plate	Up to 4 consumers

Shelf system to organize the laboratory working bench and optimize space usage. In addition to the HTi control unit, a small warming plate with heating block, additional HTis or even a 3 liter heated extender vat can be placed on the shelves.

Shelf system for HTi control units

12057/0080





## Small heating solutions

The HT 10 control unit is preset to +37°C. Temperatures between +35° and +42°C can be set alternatively. An LED indicates when the set temperature is reached.

Control unit HT 10, 230 V, 28 W [1] [12055/0023](#)

Control unit HT 10, 115 V, 28 W [1] [12055/0024](#)

Warming plate, 120 x 120 mm, 18 W [2] [12055/0026](#)

Heated stage to be placed on existing microscope stage, 120 x 120 mm, opening 25 mm, 18 W [3] [12055/0025](#)



## Bead bath

Temperature controlled incubator for a variety of vial sizes (up to 25 mm diameter) with steel balls inside for secure fixation. No water is required. Temperature range between ambient and +55°C. Operates with HTi 50 controller.

Bead bath, 144 W [12057/5000](#)



## Warming plates

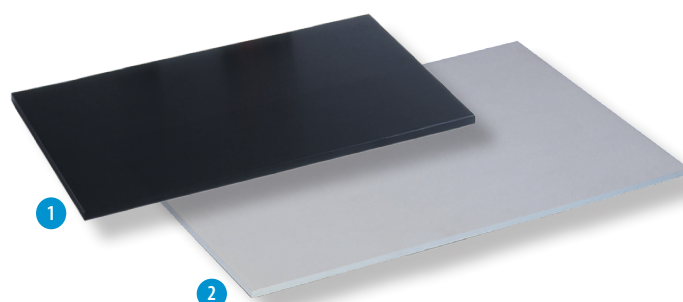
Stand-alone warming plates with precise temperature control are available in five standard sizes. The anode treated aluminum surface is extremely durable. Various combinations of warming plates and heated microscope stages can be connected to an HTi controller. Please contact us and we will be happy to advise you.

180 x 180 x 6 mm (W x D x H), 23 W [12057/0500](#)

245 x 200 x 8 mm (W x D x H), 29 W [12057/0510](#)

470 x 263 x 10 mm (W x D x H), 72 W [1] [12057/0520](#)

600 x 400 x 10 mm (W x D x H), 122 W [2] [12057/0530](#)



## Warming plate with integrated control unit

470 x 260 x 10 mm (W x D x H), temperature preset to +37°C [3] [12055/0010](#)

