Heating systems for microscope stages, warming plates

Minitube microscope heating systems have a longstanding reputation for their excellent technical standard, **high accuracy, and uniform temperature distribution**.

The Minitube temperature control units are both high quality, and user friendly. The warming plates, offered in an array of sizes, are particularly robust and easy to clean.

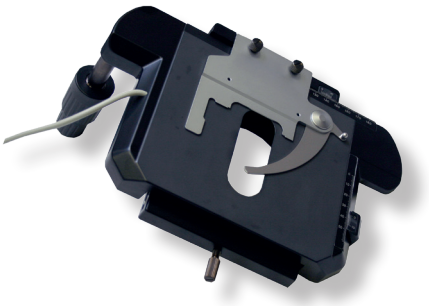
A wide range of standard products offers a modular approach, enabling **customized solutions for multiple applications** in reproductive medicine, biology, chemistry and other areas.

Your benefits

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

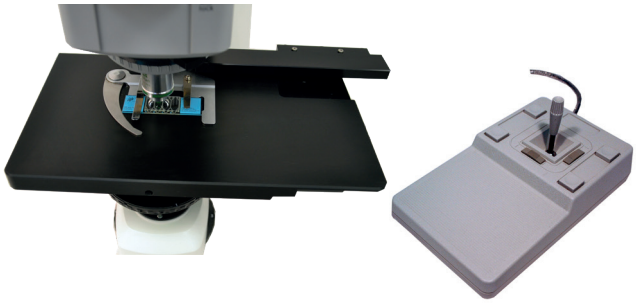
Heating systems for upright microscopes

Original microscope stages of all leading brands can be equipped with the Minitube heating system. This technique combines exact temperature control of the object on the stage with the user friendliness of the original microscope design. For the installation of the heating system, the original stage has to be sent to our premises.



Heating system for the stage of an upright microscope
including installation REF.: 12057/0700

The automated microscope stage has an integrated heating system and can be used with a variety of different microscopes. Analysis points within a counting chamber are automatically approached using the selected path of the microscope stage. Thus, the analysis time is reduced. The ScanStage can also be used with slide and cover glass.



ScanStage, automatic stage for microscope,
heating installed, with joystick (82 W) REF.: 12048/002x

If the installation of a heating system in the original stage is not an option, we offer a clamp-on heated stage with a very thin plate. Through a slot on the clamp-on heated stage, a transversely movable specimen holder is attached.

Clamp-on heated stage
130 x 130 x 3 mm, opening 30 mm (34 W) REF.: 12057/0625

Heated microscope stages have to be combined with a suitable control unit. With an accuracy of ± 0.1°C, the Minitube HTi control units regulate heating systems precisely. With these control units, you can choose a temperature between ambient and +55°C.

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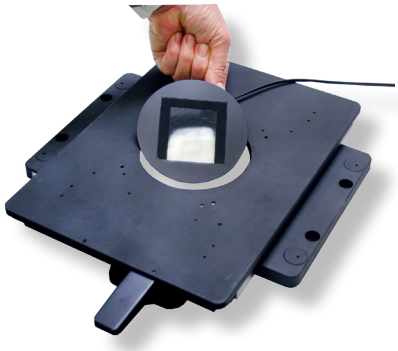
Heating systems for inverted microscopes

In addition to the installation of a Minitube heating system in original stages of inverted microscopes, we offer heated aluminum and glass insert plates in various dimensions. These are combined with the original heated stage in order to control the temperature of the area under observation.

Both, the heated stage and the additional insert plate, may be controlled by the same control unit with two output jacks (e.g. HTi 200).



Heating system for an original stage of an inverted microscope including installation REF.: 12057/0705

Heated insert plate, glass (13 W)

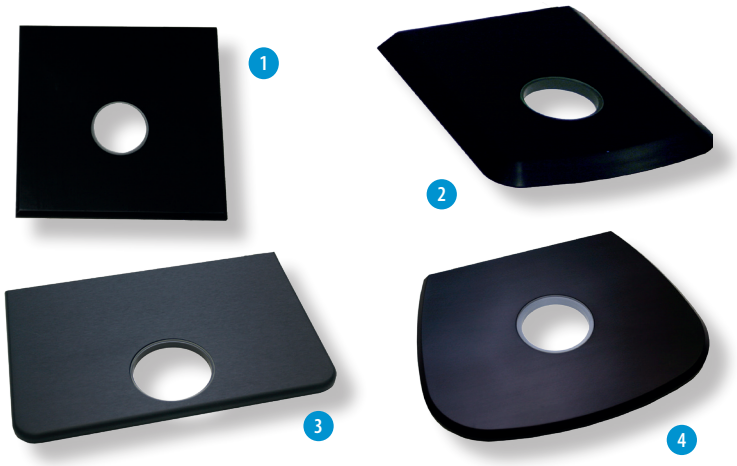
(1) for Nikon, Ø 108 mm REF.: 12057/0033
(2) for Nikon, 128 x 86 mm REF.: 12057/0032
(1) for Olympus, Ø 110 mm REF.: 12057/0052

Heated insert plate, aluminum (45 W)

(3) for Nikon, Ø 108 mm REF.: 12057/0820
(3) for Olympus, Ø 110 mm REF.: 12057/0825

Heating systems for stereo microscopes

Minitube provides standard or customized heated stages in all dimensions required for installation on top of the transmitted or incident light bases of any stereo microscope. The heated stage is combined with an HTi control unit (HTi 50 for sole operation; HTi 200 or HTi 400 if additional consumers are to be connected).



Heated stage for stereo microscope (23 W)

(1) 180 x 180 x 10 mm REF.: 12057/0600

Heated stage for Olympus SZ2-Series (22 W)

(2) 153 x 178 x 10 mm REF.: 12057/0605

Heated stage for Nikon SMZ-U (22 W)

(3) 265 x 180 x 10 mm REF.: 12057/0615

Heated stage for Nikon SMZ 1000 (22 W)

(4) 250 x 230 x 10 mm REF.: 12057/0610

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HTi series - the new generation of control units

The HTi is a multichannel control unit with **touch display** and **data recording**. Depending on the version, up to 4 heating systems or warming plates can be connected and controlled.

HTi control units and warming plates are available separately, allowing the user **maximum flexibility** in designing the workplace.

The devices are microprocessor controlled and provide very **high temperature stability**.

Alarm limits can be set separately for each connected device. Temperature deviations are indicated visually or via optional, acoustic alarm.

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		
Ambient temperature	+5°C to +40°C		
Control range	Ambient temperature up to +55°C/+131°F. User can select °C or °F for the display.		
Deviation	±0.1°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
Application	Temperature control of a heated microscope stage **or** a warming plate	Temperature control of a warming plate **and** a heated microscope stage (2 consumers)	Up to 4 consumers are connected to the HTi 400.

Your benefits

- **Easy-to-read touch screen display**
  Providing a good view of the actual temperature, also from a distance
- **Ideal size**
  Small footprint to fit in the smallest laboratory
- **Data logging**
  Measurement data can be logged and stored as the device is equipped with an SD-card that records temperature values over a long time period
- **Extended options for combination**
  All HTi versions can be combined with any Minitube heated microscope stage, Minitube warming plate and bead bath
- **Maximum connection safety**
  Control units from Minitube are equipped with a 9-pole SUB-D connection system
- **Easy to keep clean**

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Control unit HT 10 - The simple solution

The control unit HT 10 is preset to +37°C. Temperatures between +35° and +42°C can be set alternatively. An LED signals the reaching of the setpoint temperature.

Control unit HT 10 (28 W)
230 V REF.: 12055/0023
115 V REF.: 12055/0024

(1) **Warming plate** (18 W), 120 x 120 x 5 mm REF.: 12055/0026

(2) **Heated stage to be placed on existing microscope stage** (18 W), 120 x 120 x 5 mm, opening 25 mm REF.: 12055/0025

Bead bath

The bead bath is a temperature controlled incubator for sample tubes of varying sizes (up to 25 mm diameter), with steel balls inside for secure fixation. No water is required. The temperature range lies between ambient and +55°C. The bead bath requires an HTi 50 controller.

Bead bath (144 W) REF.: 12057/5000

Warming plates

Stand alone warming plates with exact temperature control are available in standard and customized sizes. The anode treated aluminum surface is extremely resistant. Different combinations of warming plates and heated microscope stages can be connected to an HTi controller. Feel free to contact us, we will be happy to advise you.

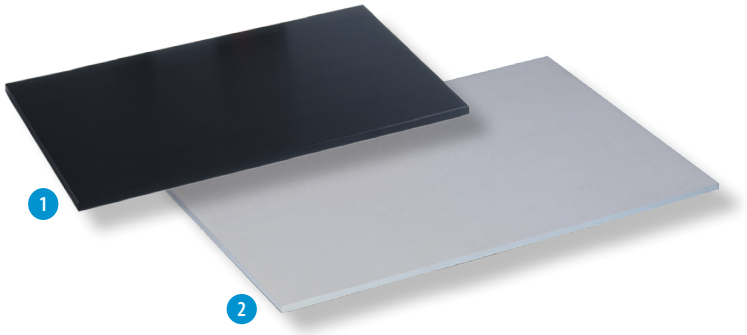
Small warming plates

Warming plate, 180 x 180 x 6 mm (23 W) REF.: 12057/0500
Warming plate, 245 x 200 x 8 mm (29 W) REF.: 12057/0510

Large warming plates

(1) **Warming plate**
470 x 263 x 10 mm (130 W) REF.: 12057/0520

(2) **Warming plate**
600 x 400 x 10 mm (122 W) REF.: 12057/0530



Warming plate with integrated control unit

Warming plate with integrated control unit, 470 x 260 x 10 mm temperature preset to +37°C REF.: 12055/0010