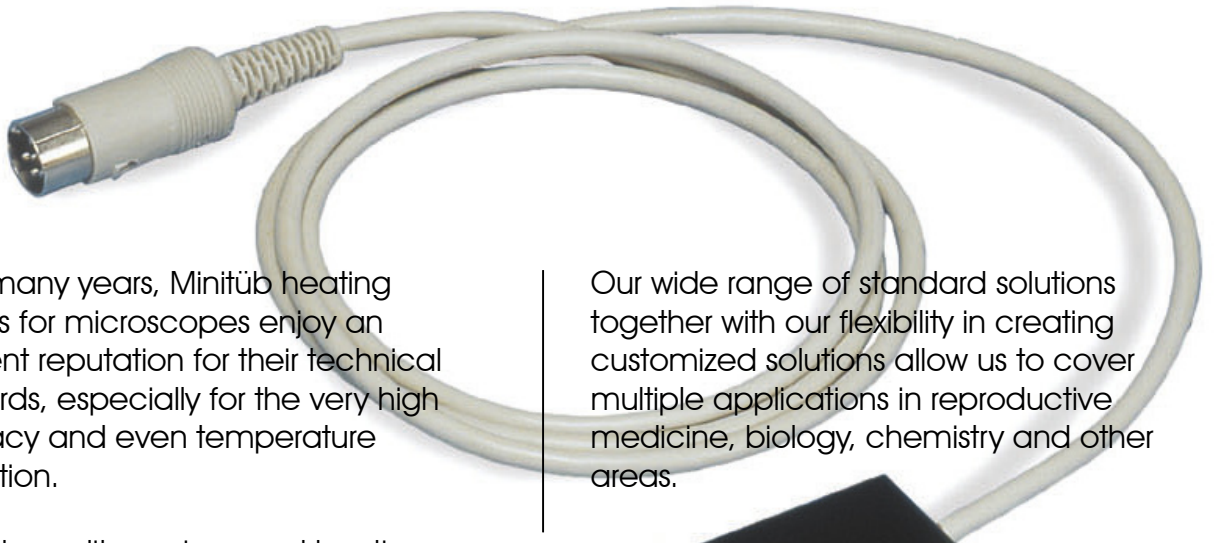


# Heating Systems for Microscopes



Since many years, Minitüb heating systems for microscopes enjoy an excellent reputation for their technical standards, especially for the very high accuracy and even temperature distribution.

The high quality casings and heating surfaces of the temperature control units combine with an outstanding user friendliness.

Our wide range of standard solutions together with our flexibility in creating customized solutions allow us to cover multiple applications in reproductive medicine, biology, chemistry and other areas.



# Heating Systems for Transmitted Light Microscopes

Original microscope stages of all leading brands can be equipped with the Minitüb 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.

If the installation of a heating system in the original stage is not an option, we offer a clamp-on heating stage with a very thin plate and the possibility to reinstall the cross moving guide through a slot of the clamp-on stage.

Both solutions, the original stage with built-in system and the clamp-on stage have to be combined with one of the control units HT 50, HT 200, HT 300 or HT 400. On these control units, the user can choose a temperature between ambient and +55°C. With an accuracy of  $\pm 0,2^{\circ}\text{C}$ , the control of Minitüb heating systems is extremely precise.



▲ Heating System for original stage of transmitted lightmicroscope, includes installation, to be combined with one of the control units HT  
**Ref. No. 12055/0015**



▲ Clamp-on heating stage, 130 x 130 x 2,8 mm, central hole 30 mm  
**Ref. No. 12055/0002**

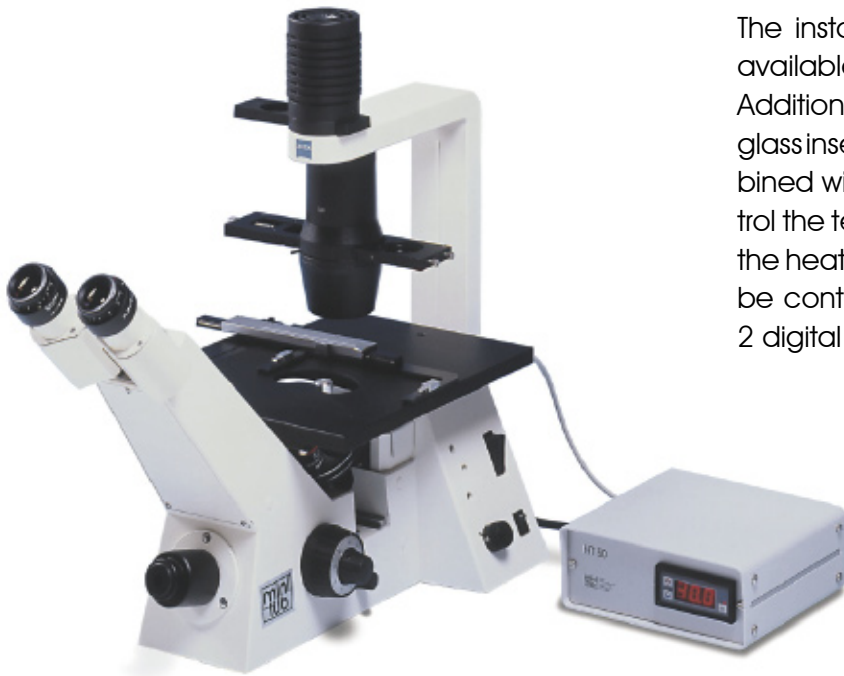


▲ Control unit HT 50  
**Ref. No. 12055/0050**



▲ Control unit HT 200  
**Ref. No. 12055/0200**

# Heating Systems for Inverted Microscopes



The installation of a Minitüb heating system is also available for original stages of inverted microscopes. Additionally, we offer heated circular aluminum and glass insert plates in various diameters, which are combined with the heated original stage in order to control the temperature of the area of observation. Both, the heated stage and the additional insert plate may be controlled by the same control unit HT 300, with 2 digital temperature displays.

Heating System for original stage of inverted microscope, includes installation, to be combined with one of the control units HT  
**Ref. No. 12055/0004**

Heated insert plate for inverted microscope, glass ▶

for Nikon **Ref. No. 12055/0032**  
for Olympus **Ref. No. 12055/0033**

Control unit HT 30 for heated glass insert plate **Ref. No. 12055/0230**



◀ Heated insert plate for inverted microscope, aluminum

for Nikon **Ref. No. 12055/0031**  
for Olympus **Ref. No. 12055/0034**

for Leica **Ref. No. 12055/0150**

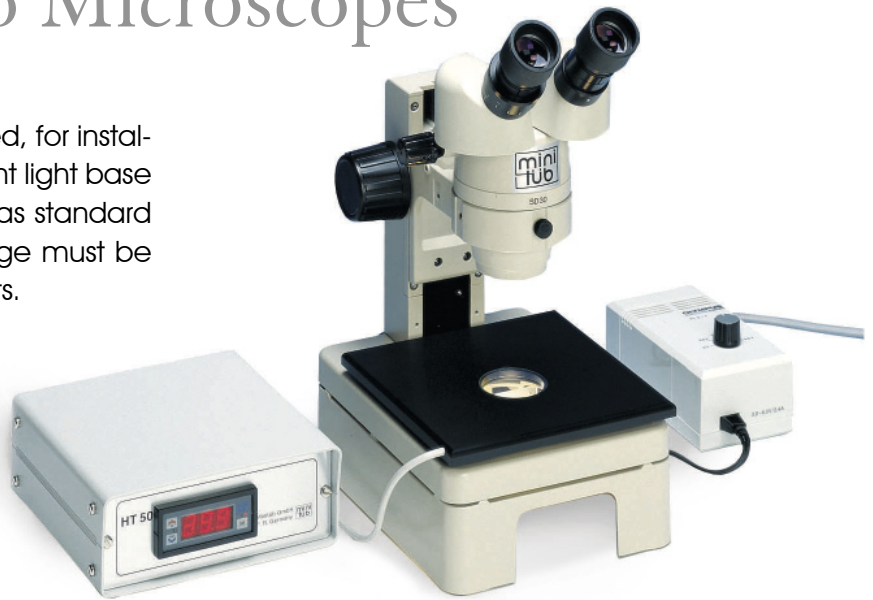
▲ Control unit HT 300 for temperature control of microscope stage and aluminum insert plate  
**Ref. No. 12055/0300**



underside

# Heating Systems for Stereo Microscopes

Heated stages in any dimensions required, for installation on top of the transmitted or incident light base of all stereo microscopes are available as standard or customized solutions. The heated stage must be combined with one of the HT control units.



▲ Heated stage for stereo microscope, standard 180 x 180 x 10 mm  
**Ref. No. 12055/0003**



◀ Heated stage for Nikon SMZ-U or Olympus SZH stereo microscopes, 265 x 180 x 10 mm  
**Ref. No. 12055/0039**

Heated stage for Nikon SMZ 1000 ►  
**Ref. No. 12055/0040**

Heated stage for Olympus SZ 40  
**Ref. No. 12055/0045**

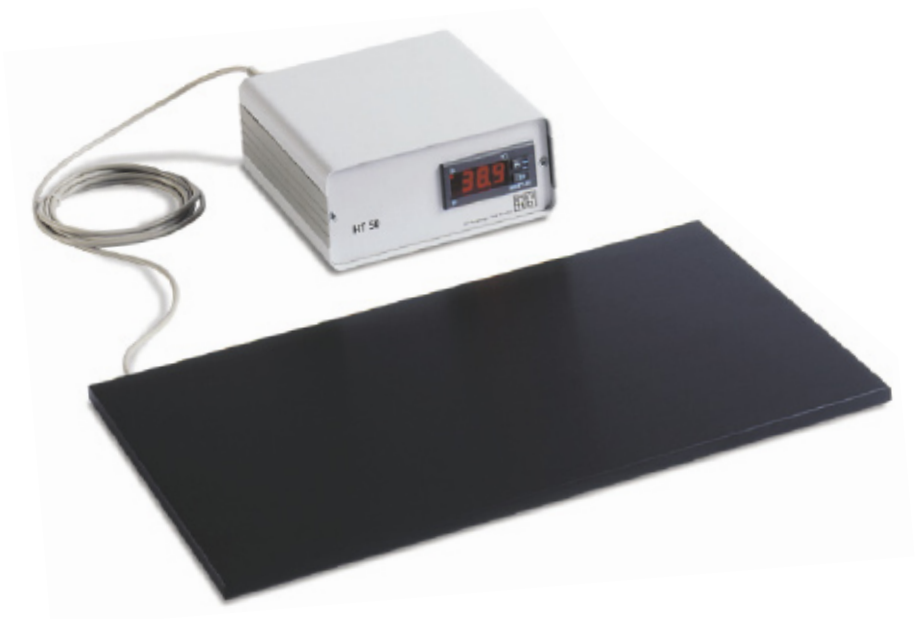


# Laboratory Warming Plates

Warming plates with exact temperature control can be offered in standard and customized sizes. The anode treated aluminum surface is extremely resistant. Warming plates require a control unit with high heating capacity, like the HT 50 S.



Warming plate, size 600 x 400 x 10 mm ►  
**Ref. No. 12055/0009**



Warming plate, size 470 x 263 x 10 mm ►  
**Ref. No. 12055/0450**

Control unit HT 50 S  
**Ref. No. 12055/0205**

Warming plate, size 180 x 180 x 10 mm, ►  
control unit included  
**Ref. No. 12055/0202**

Warming plate, size 180 x 180 x 10 mm,  
requires control unit  
**Ref. No. 12055/1200**



# The Control Units

The Minitüb control units are protected by a durable metal casing with functional design. Digital displays help to select the desired temperature. The control units HT 200 and HT 400 are equipped with an additional heated plate for prewarming of slides, cover slips, counting chambers, Petri dishes etc. The units HT 300 and HT 400 can control 2 heated microscope stages simultaneously.

The control units described on this page can be combined with the before mentioned heating stages and warming plates. The temperature range is between ambient and +55°C. Control accuracy is +/- 0.2°C. All control units can be supplied by 200-240 V/50 Hz or 100-120V / 60 Hz.



Control unit HT 50, for one heated microscope stage. Heating capacity: 50 VA, dimensions: 185 x 180 x 75 mm, weight: 1.8 kg

**Ref. No. 12055/0050**

HT 50 S: 160 VA

**Ref. No. 12055/0205**



Control unit HT 200, for one heated microscope stage. With warming plate 180 x 180 mm, heating capacity: 50 VA, dimensions: 185 x 180 x 84 mm, weight: 2.8 kg

**Ref. No. 12055/0200**



Control unit HT 400, for one to two heated microscope stages. With warming plate 470 x 263 mm, heating capacity: 160 VA, dimensions: 470 x 263 x 116 mm, weight: 7.2 kg

1 output

**Ref. No. 12055/0400**

2 outputs

**Ref. No. 12055/0409**



Control unit HT 300, for two heated microscope stages. Heating capacity: 160 VA, dimensions: 200 x 245 x 90 mm, weight: 3.3 kg

**Ref. No. 12055/0300**

# High Temperature Heating Systems

A heating stage for very high temperatures (up to +100°C) is available in 2 standard dimensions. It requires the control unit HT 300 H which is specially suited for very high temperatures.

Stage 180 x 180 mm  
Stage 130 x 120 mm  
Control unit HT 300 H

**Ref. No. 12055/0550**

**Ref. No. 12055/0555**

**Ref. No. 12055/0350**

# The Bead Bath

The Bead Bath is a temperature controlled incubator for sample tubes or straws of different sizes (up to 15 mm diameter), with steel balls inside for secure fixation and it needs no water. The temperature range lies between ambient and +55°C.

It requires a control unit HT 50 S or HT 400. If combined with control unit HT 400, it can share the controller with a heated microscope stage and with the heated platform on top of the control unit.

Bead bath with control unit HT 50 S

**Ref. No. 12055/5000**

Bead bath with control unit HT 400

**Ref. No. 12055/5400**



# Heated Incubation Chamber



The incubation chamber can be mounted on the stage of an inverted microscope, for the long term observation of cells under incubation conditions. It consists of a temperature controlled aluminum chamber with heated gas inflating system and heated moistening system. It is completely equipped with sterile filter, waterbath, controlled CO<sub>2</sub>-measurement system, control unit HT 300 and accessories.

◀ **Ref. No. 19300/0120**

# Cooling Stage

The Minitüb cooling system for all kinds of microscopes consists of a cooled stage or plate for the microscope and a cooling thermostat with built-in temperature control. The dimensions of the cooled microscope plate is variable and will be custom made. Circular and rectangular plates can also be provided. The system can cool or heat with a very high precision of +/- 0.5°C. It allows for the presetting of 2 temperatures and has an integrated maximum and minimum temperature safety control. Temperature range: 0°C to +100°C.

**Cooled insert plate** for inverted microscope,  
circular shape  
for Nikon  
for Olympus

**Ref. No. 12055/0710**

**Ref. No. 12055/0720**

**rectangular shape**, 150 x 150mm  
for Leica

**Ref. No. 12055/0730**

**Thermostat** for Cooling Stage with integrated temperature controller

**Ref. No. 12055/0700**

# HT 007 - the simple solution

The heating system HT 007 consists of a simple control unit with LED's to show the actual temperature of the heating stage.

The user can choose any temperature between +35°C and +42°C. Control accuracy:  $\pm 0.5^\circ\text{C}$ . Stage dimensions: 120 x 120 x 5 mm



HT 007 heating stage with control unit, to be placed on top of the microscope stage, without cross moving guide

**Ref. No. 12055/2007**

HT 007 warming plate with control unit

**Ref. No. 12055/3007**

Distributor for Human Medicine / Medical Technology

## MTG Medical Technology Vertriebs GmbH

Opalstraße 32  
84032 Landshut  
Germany

Tel.: +49 (0)871 9 75 19 0  
Fax +49 (0)871 9 75 19 70  
E-Mail: mail@mtg-de.com  
Internet: www.mtg-de.com

## Minitüb

Abfüll- und Labortechnik GmbH & Co. KG

Hauptstrasse 41  
84184 Tiefenbach  
Germany  
Tel.: +49 (0) 87 09 92 29 0  
Fax +49 (0) 87 09 92 29 39  
E-Mail: minitube@minitube.de  
Internet: www.minitube.de



Our knowledge - Your success