

O P E R A T I N G  
M A N U A L

**slee** solutions  
for  
pathology

WATER BATHS  
& SLIDE WARMERS  
**Slidetec** Water / Heat  
**Slidetec** Heat  
**Slidetec** Water

DESIGN &  
MANUFACTURING  
MADE IN GERMANY



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## 1. INTENDED USE

The tissue floating bath and stretching table combination Slidetec Water / Heat is intended for post processing histological tissue specimens after sectioning with a microtome for professional use in pathology laboratories. The system consists of the floating bath with removable glass trough and the stretching table. The system is also available as single floating bath Slidetec Water and single stretching table Slidetec Heat.

**Slidetec Water** consists of a heated bath (capacity 2 litre; 30 – 60 °C) with integrated temperature controller and indirect illumination for a better detection of the tissue samples.

**Slidetec Heat** is a stretching table (up to 80 °C) with a heated area for drying and baking the paraffin sections on the microslides. It's capacity is for approx. 30 slides and for optimized recognition of the samples its heating areas are formed as a tribune.

## 2. SYMBOLS



Dangers, warnings and cautions are marked by this symbol



Special instructions regarding the operation of the instrument are marked by this symbol



Serial number of device



XXXX

Manufacturer and year of production



Device reference number



Disposal of electric and electronic devices



Setting of OFF-, ON-switch (O = off, I = off)



Fuses



Caution: hot surfaces

### 3. SAFETY NOTES

The Slee floating bath and stretching table Slidetec Water / Heat, Slidetec Water, Slidetec Heat are provided with the following safety features:

	<b>Slidetec Water / Heat</b>	<b>Slidetec Water</b>	<b>Slidetec Heat</b>
Microprocessor thermostat control	●	●	●

The institution which owns the unit and the persons working with the unit, servicing or repairing it have the responsibility for a hazard-free use.



Certain surfaces of the instrument are hot during operation and can cause burns if touched.

The instrument is intended for professional use only.

To avoid any operating mistakes from the beginning, it is necessary to read the operating instructions to familiarize with the technical details.

To clean the device, switch the instrument off with the main switch and disconnect it from mains.

Prior to any maintenance and service action, the tissue floating bath and stretching table Slidetec Water / Heat must be disconnected from the power supply.

## 4. COMPONENTS

Slee floating bath and stretching table are provided with the following standard components:

	<b>Slidetec Water / Heat</b>	<b>Slidetec Water</b>	<b>Slidetec Heat</b>
Removable glass trough	●	●	
Integrated indirect illumination	●	●	
Inclined slide drying area	●		●
Operation manual	●	●	●
Mains cable	●	●	●

## 5. SPECIFICATIONS

	Slidetec Water / Heat		Slidetec Water		Slidetec Heat	
	115 V	230 V	115 V	230 V	115 V	230 V
Nominal supply voltage	115 V AC +/- 10%	230 V AC +/- 10%	115 V AC +/- 10%	230 V AC +/- 10%	115 V AC +/- 10%	230 V AC +/- 10%
Nominal frequency	50 / 60 Hz	50 / 60 Hz	50 / 60 Hz	50 / 60 Hz	50 / 60 Hz	50 / 60 Hz
Power draw	600 VA	600 VA	300 VA		300 VA	
Protective Class (1)	I					
Power fuses	2*T6,3A	2*T4,0A	2*T4,0A	2*T2,5A	2*T4,0A	2*T2,5A
Pollution degree (1)	2					
Overvoltage installation category	II					
Maximum heat emission	600 J/s	600 J/s	300 J/s		300 J/s	
Operating temperature range	+10 to +35 °C					
Operating humidity	max. rel. 80 % non-condensing					
Storage temperature range	+5 to +55 °C					
Storage humidity	max. rel. 80 % non-condensing					
Dimensions (L*W*H)	560 x 370 x 230 mm		370 x 350 x 230 mm			
Weight	18 kg		10 kg		15 kg	
Capacity floating bath	2 litres		2 litres		N/A	
Capacity slides	30 slides		N/A		30 slides	
Light	LED		LED		N/A	
Temperature range	Waterbath up to 60°C Stretching table up to 80°C		up to 60°C		up to 80°C	
Work area	Approx. 260 x 150 mm (Water bath) Approx. 320 x 200 mm (Slide Dryer)		Approx. 260 x 150 mm		Approx. 320 x 200 mm	
Installation requirements	< 2.000 m NN, 15 cm distance to wall					

(1) According to IEC 1010, EN 61010

## 6. UNPACKING AND INSTALLATION

### 6.1 UNPACKING THE INSTRUMENT

Open the card box carefully.

Remove the upper supporting foam.

Lift the instrument out of the card box. The instruments may only be lifted holding them at the front and the back end of the base plate of the housing.

For repacking use the original cases. Keep the packing material.

Place the instrument onto the selected bench.



While unpacking take care that the glass trough is not damaged

### 6.2 INSTALLATION

The site for installation should meet the following requirements:

- The unit should be positioned onto a plane, vibration-free surface. Please ensure that there is no air condition vent nearby.
- A free ventilation of fresh air from underneath the instrument should be guaranteed. The back of the instrument must be at least 15 cm away from the wall.
- The vicinity of the work area must be free of oil and chemical vapours.

### 6.3 ELECTRICAL POWER CONNECTION

Make sure that electric power is constant:



- This should be examined during installation of the unit by a competent person.
- Use a dedicated fuse for the unit.
- Before turning on the instrument, check if the voltage of the mains supply is identical with the name plate of the unit.



## 7. PROGRAMMING INTERFACE

The Slidetec series provides a programmable interface, which helps the user to configure this device for the appropriate usage within your preferred circumstances.

### 7.1 DISPLAY AND USER INTERFACE

The display and the integrated buttons are the central interface (Human-Machine Interface, abbr. HMI) for programming the device and setting the respective values. The functions of the buttons are explained later in the respective part of this chapter.



HMI Slidetec Water / Heat, Slidetec Water



HMI Slidetec Heat

## 7.2 INITIAL STATE OF THE DISPLAY

While the device is in standard working mode, the display shows the home screen (actual date, time and the temperatures), including the target temperature in brackets.

Explanation	Date/Function	Time/Settings	
Actual date / time	16.01.15	16:45:00	
Floating bath temperature (actual vs. target)	Water bath	44°C	(45°C)
Stretching table temperature (actual vs. target)	Slidedryer	49°C	(50°C)
Temperature sensor misplacement <sup>1</sup>	Water bath error		

Home Screen of the Display Slidetec Water / Heat

Within this view there are no options for manual settings as it only provides an indication of the actual status of the device.

Devices which are not equipped with every single function, e.g. Slidetec Water and Slidetec Heat have an empty line instead of actual and target temperature for the built in feature.

1: Only appears if temperature sensor is not placed correctly (see chapter "8.2 WATER BATH TEMPERATURE CONTROL")

## 7.3 STANDBY MODE


If standby mode is activated, the display indicates date, time and the starting time for the following operation cycle, if the timer is programmed. If no timer program is set, the device shows that the heating functions are switched off. The standby mode lasts until the next time the device is started by the timer or the user.

Explanation	Date/Function	Settings	
Actual date / time	16.01.15	20:45:00	
Timer settings for floating bath	Water bath	>>	Mo07:00
Timer settings for stretching table	Slidedryer	>>	Mo07:15







Within this view there are no options for manual settings as it only provides an indication of the actual status of the device.

While the device is in standby mode, the display illumination is switched off and all functions, even light are set inactive. To reactivate the apparatus the second menu item in the *Main Menu*, named *Operation* must be selected. Alternatively, the device will be switched on by the timer, if it is programmed.


## 7.4 MAIN MENU

The table *Main Menu* provides the possible settings of the Slidetec software. The columns *Cursor*, *Function* and *Settings* are a representation of the characters shown on the display. As the display only shows 4 lines you can navigate to the other positions listed in the following tables by pressing . The menu will roll down to all included items. The item *Configuration* is only accessible for technicians authorised by SLEE medical GmbH.

Explanation	Cursor	Function	Settings
Manual activation of Standby mode	>	Standby	
Manual activation of Operation mode		Operation	
Water bath heating function On / Off		Water bath	On
Adjustment of bath heating temperature		Water Temp.	40°C
Settings for bath heating timer*		Water Timer	
Stretching table heating function On / Off		Slidedryer	On
Adjustment of slidedryer temperature		Dryer Temp.	40°C
Settings for slidedryer heating timer*		Dryer Timer	
Set actual date		Date	16.01.15
Set actual time		Time	16:45:00
Change language (English, German)		Language	English
Setting of Contrast for the display		Contrast	14
Software Version and Date		Version	
Switch to configuration menu		Configuration	








With  and  you can move the cursor (column *Cursor*) to the appropriate menu item (column *Function*). By pressing  you can activate the setting and the value begins to flash. Now the value can be adjusted by pressing  or  and must be confirmed with .

The items marked with an asterisk (\*) guide the user to the submenu *Timer*, which is explained in chapter 7.6 TIMER.

To leave the menu and get into the next higher level just push . This will not make any changes to the devices current settings.

## 7.5 ACTUAL DATE AND TIME

Before you can use the timer function as explained in chapter 7.6 TIMER you need to adjust the actual time and date to match your current location. Following explanation is valid for all devices out of the Slidetec series.

Go into the *Main Menu* and use  or  to go to the line showing *Date*. The format of the date is DD/MM/YY. Pressing  will make the digits for the day blinking. Pressing  or  will raise or lower the figure. Hitting  will change from day to month and also to year which can be adjusted in the same manner as the day. Leaving the adjusting mode is always possible by pushing . After leaving the date settings you are returning to the *Main Menu*. The next line below the *Date* is the *Time*. The *Time* adjustment works even like the *Date* setting.












## 7.6 TIMER

Following explanation is valid for all devices out of the Slidetec series.

The devices offer the option to switch the heating / cooling function on and off automatically assisted by an internal timer. The selection of the units which will be switched on and off can be defined in the *Main Menu*. If a selection is made by the user, e.g. timer is *On*, the menu beneath will appear and is ready to be configured.

Explanation	Cursor	Turn-On Time		Turn-Off Time				
First of three On/Off Time settings	>	On	07:00	Off	12:00			
Second of three On/Off Time settings		On	13:00	Off	18:00			
Third of three On/Off Time settings		On	20:00	Off	22:00			
Weekdays		Mo	Tu	We	Th	Fr	Sa	S

Timer Settings






Setting the timer is very easily and user friendly. Just move to the respective line which you want to edit by pressing the  or  keys and confirm with . The first two digits start to flash and signalize that they are ready to be adjusted. Now you can edit the start time when the function should be switched on by pressing  or  again. Using  will make the next two digits flashing. Here you can adjust the minutes for the start time. After you set the start time settings you push  to get to the stop time and adjust the stop time equivalent. The above described procedure is even valid for assigning the weekdays for which you want the timer settings to work. Pressing  will switch through the days which can be turned on and off by using the arrow keys  and . Pushing the arrow buttons once will apply a change of one unit, e.g. pressing  will change the start time (hours) from 05:00 to 06:00. Holding the arrow keys will raise or lower the setting until you stop pressing the buttons.

## 8. WATER BATH




For a reliable performance of the instrument the water bath needs to be filled with at least 2 litres of tap water or distilled water.

The design of the Slidetec allows two ways of working with your device. The first common one is using the timer, which is explained in chapter 7.6 TIMER. This allows you to have a ready to use unit in the morning with warm water in it. Therefore adjust the start time for water bath heating with an appropriate lead time.

Another way is starting the heating manually by going to the Main Menu and activate the water bath heating by pressing  after you went down the menu with  (see cursor position in table below). After pressing  again the status (On or Off) starts blinking and can be regulated by  or .

One line below you can adjust the water bath temperature and another line beneath you will get to the timer menu. These steps are also valid for setting the stretching table heating to fulfil your specific requirements.


Explanation	Cursor	Function	Settings
Manual activation of Standby mode		Standby	
Manual activation of Operation mode		Operation	
Water bath heating function On / Off	>	Water bath	On
Adjustment of tank heating temperature		Water bath Temp.	40°C
Settings for tank heating timer*		Water bath Timer	
Surface heating function On / Off		Dryer	On
Adjustment of surface temperature		Dryer Temp.	40°C
Settings for surface heating timer*		Dryer Timer	
Set actual date		Date	17.09.10
Set actual time		Time	16:45:00
Change language (English, German)		Language	English
Setting of Contrast for the display		Contrast	14
Software Version and Date		Version	
Switch to configuration menu		Configuration	


The regular screen will show you the actual and the target temperature (in brackets). To go back to the standard screen press .

Explanation	Date/Function	Time/Settings	
Actual Date / Time	17.09.10	16:45:00	
Water bath temperature (actual vs. target)	Water bath	60°C	(60°C)
Slide dryer temperature (actual vs. target)	Slidedryer	38°C	(40°C)

## 8.1 WATER BATH LIGHT (LED)

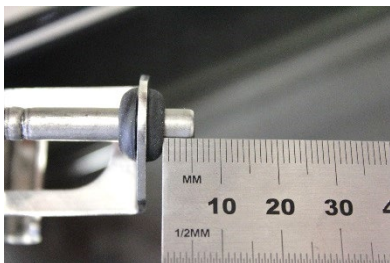
Your new device has a water bath illumination in white and blue which allows for improved selection of paraffin sections for further staining and microscopy.

To switch the white water bath light on and off you only have to push .

To switch the blue water bath light on and off you only have to push .

## 8.2 WATER BATH TEMPERATURE CONTROL


The water bath is equipped with a flexible temperature sensor that can be removed for cleaning and refilling of the glass trough. Upon restart of the system after cleaning or refilling, the temperature sensor needs to be placed inside the water bath to enable appropriate temperature measurement.



In case of misplacement of the temperature sensor (e.g. temperature sensor outside the glass trough) and activated heating, the system will display an alarm message "Water bath error" after five minutes. The system will not restart automatically. Please place the temperature sensor inside the filled water trough and reactivate the water bath heating.

## 9. STRETCHING TABLE

The slide dryer surface of your Slidetec is heated to allow drying and baking paraffin sections onto microslides. Even the temperature can be influenced in the *Main Menu*.

You only have to go to the *Main Menu* by pressing  and go down to the line *Dryer*. As you adjusted the tank settings you are able to set the working conditions to fit your specific needs.

The function surface heating can be switched on and off manually and by the timer, the temperature can be regulated in single degree steps.

## 10. MAINTENANCE

Besides regular cleaning, the instrument is basically maintenance-free.



For cleaning the units only use alcoholic media, not acetone or xylene.

Never spray or use cleaning medium directly onto operating foils.

Please take note of the safety aspects of the instrument.

Wear protective clothing and disposable gloves according to Good Laboratory Practices.

Some general instructions:

All components of the Sleeve water bath and stretching table that come into contact with water and residues of paraffin and the interior of the instruments are carefully sealed to prevent any fluid or particle from entering. Nevertheless, if water is spilled, it should always be removed carefully.

The water bath, if required, should be filled with care. Avoid overfilling.

The water in the water bath needs to be exchanged every day to avoid cross-contamination of following patient samples.

Solid paraffin particles on the surface of the work area must not be removed with sharp tools, as this could damage the finish. A soft plastic spatula is ideal for paraffin removal. Alternatively, solid paraffin can be lifted off easily by lightly warming it.

To clean the water bath, please remove the glass trough from the unit and clean it thoroughly.

## **11. SERVICE**

Internal components should only be serviced by technicians authorised by SLEE medical GmbH.

If technical service or spare parts are necessary, please contact your local SLEE medical GmbH distributor. Please have the following information available:

- Complete contact details
- Type of instrument and serial number
- Place of instrument and name of user
- Purpose of service call
- Delivery date of the unit

If it is necessary to return the instrument, it must be cleaned and disinfected before delivery. It must be returned in its original packing.

If the instrument or parts thereof are sent back in a dirty or non-disinfected condition, SLEE medical GmbH reserves the right to return the parts to the debit of the customer.

## **12. WARRANTY**

SLEE medical GmbH guarantees that the product delivered has been subjected to a comprehensive quality control procedure, and that the product is faultless and complies with all technical specifications and/or agreed characteristics warranted.

SLEE medical GmbH guarantees that the instrument is manufactured under ISO 9001:2015 and ISO 13485:2016 quality management system.

Unauthorized modification or repair by third party persons will void the warranty.

Only original SLEE medical GmbH spare parts must be used.

Guarantee claims can be put forward only if the instrument is used according to this manual and for the purpose described.

Mistakes and errors which occur because of improper use cannot be accepted.

## **13. DISPOSAL**

The instrument or parts of the instrument must be disposed of according to existing local applicable regulations.



**Notes**

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