SLEE medical

OPERATING INSTRUCTIONS

Paraffin Wax Embedding Centre
MPS/P2, MPS/P1, MPS/P
MPS/C, MPS/CX
MPS/W

MPS/P2

MPS/P1

MPS/CX

CE

INS3200GB
2018-08-017.00

CONTENTS

1. INTENDED USE

The paraffin wax embedding centre type MPS/P1 and MPS/P2 are intended for embedding histological tissue specimens in molten paraffin (wax) for use in pathology laboratories. The modular system MPS/P2 consists of the paraffin dispensing element MPS/P, the preheating station MPS/W and the cooling plate MPS/C. All systems can easily be upgraded with additional preheating stations or cooling plates.

MPS/P consists of a heated paraffin container (capacity 5.5 liters; 30 – 80 °C), a heated working area (450 x 300 mm; 30 – 70 °C) and a cooling spot (50 x 50 mm, down to -5 °C). Optionally heated forceps for orientation of the specimen during embedding are available.

MPS/P1 consists of a heated paraffin container (capacity 3.8 liters; 30 – 80 °C), a heated working area (450 x 300 mm; 30 – 70 °C), two heated cassette and mould storage containers for 106 cassettes and 288 embedding molds and a cooled working area. Optionally heated forceps for orientation of the specimen during embedding are available.

MPS/W is a preheating station with heated areas and containers for storage and preparation of approx. 500 (moulds and embedding 150 cassettes.

MPS/C is a cooling plate with a comfortable working area of 370 x 270 mm (capacity of approx. 80 cassettes) made of anodized aluminium. The system easily cools down to -15 °C*.

MPS/CX is a cooling plate with a huge comfortable working area of 570 x 270 mm (capacity of approx. 120 cassettes) made of anodized aluminium. The system easily cools down to -15 °C*.

* All temperature specifications refer to an ambient temperature of + 20 ° C and a relative humidity of 60%.

2. SYMBOLS

Dangers, warnings and cautions are marked by this symbol

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

Hot surfaces are marked by this symbol. Avoid direct contact to prevent risk of burning.

3. SAFETY NOTES

SLEE paraffin wax embedding centre are provided with the following safety features:

	MPS/P	MPS/P1
Hand heat protectors	●	●

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.

Do never fill xylene into one of the MPS devices.
Flammable substances should never be placed near to the instrument.

The instrument may be used by qualified personnel only.

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

Paraffin is flammable and should be handled with care. Spillage should be avoided. Paraffin on the surfaces must not be removed with sharp tools as it would ruin the coating. It should be avoided to allow xylene to react on all surfaces.

Xylene is a flammable organic solvent. Its flash point is between 27 and 32°C. Xylene vapours are heavier than air and can easily catch fire on hot surfaces or sparks even over a greater distance.

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

Prior to any maintenance and service action, the tissue embedding centre MPS must be disconnected from the power supply.

4. COMPONENTS

SLEE paraffin wax embedding centres are provided with the following standard components:

	MPS/P1	MPS/P2		
		MPS/P	MPS/W	MPS/C or MPS/CX
Heated paraffin (wax) container	●	●		
Heated dispenser element	●	●		
Heated cassette/mould storage containers	●		●	
Cooled cassette/mould storage area				●
Heated working area	●	●		
Cooled working area (Cooling spot)	●	●		
Magnifier	●	●		
Paraffin collection tray	●	●		
Working area illumination (Light)	●	●		
Foot switch for paraffin dispenser	●	●		
Operation manual	●	●	●	●
Integrated electronic timer	●	●	●	●

5. SPECIFICATIONS

	MPS/P		MPS/P1		MPS/W		MPS/C		MPS/CX	
	115 V	230 V	115 V	230 V	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 %	115 V AC +/- 10%	230 V AC +/-10 %	115 V AC +/- 10%	230 V AC +/-10 %
Nominal frequency	60 Hz	50 / 60 Hz	60 Hz	50 / 60 Hz	60 Hz	50 / 60 Hz	60 Hz	50 / 60 Hz	60 Hz	50 / 60 Hz
Power draw	400 VA		650 VA		320 VA		150 VA		250 VA	
Protective Class (1)	I									
Power fuses	2xT4 A	2xT2,5 A	2xT10 A	2xT4 A	2xT4 A	2xT2,5 A	2xT10 A	2xT4 A	2xT10 A	2xT4 A
Pollution degree (1)	2									
Overvoltage installation category	II									
Maximum heat emission	400 J/s		650 J/s		320 J/s		150 J/s		450 J/s	
Operating temperature range	+ 10 to + 35 °C									
Temperature range during storage	+ 5 to + 55 °C									
Relative humidity	Max. 80 %, non condensing									
Humidity during storage	< 8%									
Dimensions (L*W*H) [mm]	450 x 570 x 295		450 x 570 x 295		300 x 570 x 295		400 x 570 x 295		600 x 570 x 295	
Weight [kg]	23		23		13		24		30	
Paraffin tank	5.5 liters		3.8 liters							
Cooling spot	Peltier		Peltier							
Forceps holders	2 x 4		2 x 3							
Light	LED		LED							
Temperature range cool plate							up to -15°C programmable		up to -15°C programmable*	

	MPS/P	MPS/P1	MPS/W	MPS/C	MPS/CX
Cooling gas				R 134 a	R 134 a
Work area				270 x 370 mm 80 cassettes, 250 moulds	270 x 570 mm 120 cassettes, 375 moulds
Cassette bath, storage for moulds		Approx. 106 cassettes, approx. 288 moulds 30 – 80 °C	Approx. 150 cassettes, approx. 500 moulds 30 – 80 °C		
Installation requirements	< 2.000 m NN, 15 cm distance to wall				

(1) According to IEC 1010, EN 61010

* All temperature specifications refer to an ambient temperature of + 20 ° C and a relative humidity of 60%.

6. UNPACKING AND INSTALLATION

6.1 UNPACKING THE INSTRUMENT

Remove the upper cover.

Remove the upper supporting foams.

Lift the instrument out of the wooden transportation case. The instruments may only be lifted holding them at the sides of the base plate of the housing.

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

Place the instrument onto the selected bench.

It must be avoided to tilt or turn the cool plate MPS/C and MPS/CX. These positions will inevitably cause damage to the compressor.

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 +/- 5-10 %:

- 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.

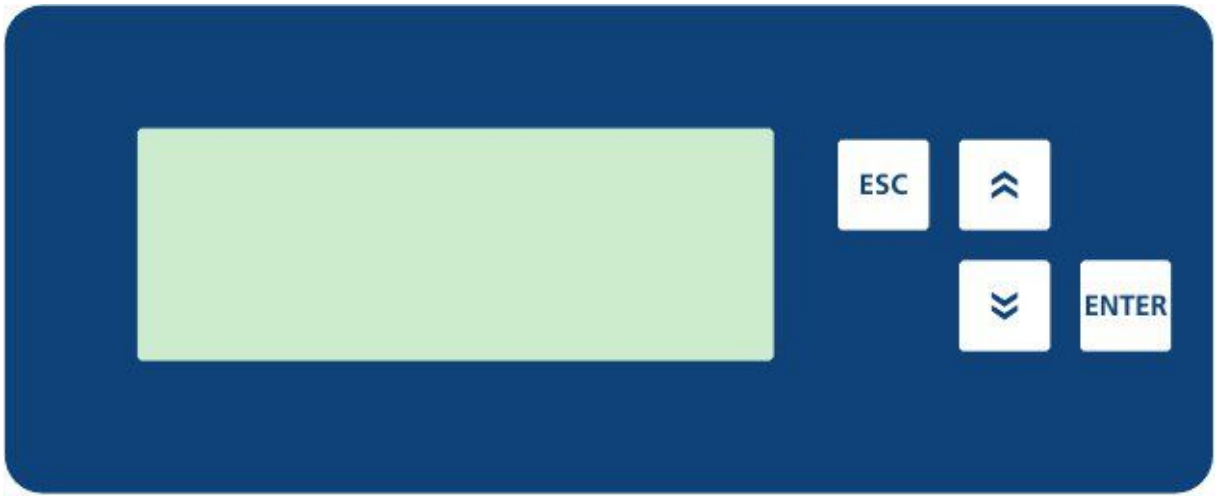
Connect each unit to the mains supply and switch on with mains switch at the rear of each unit.

7. OPERATION

The MPS-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 (light green area) and the integrated buttons are the central interface (Human-Machine Interface, abbr. HMI) for programming the device and setting the respective values. There are two kinds of HMI's First one for MPS/C and MPS/W and the second one for the MPS/P version as shown below. The functions of the buttons are explained later in the respective part of this chapter.



HMI MPS/C, MPS/CX & MPS/W

HMI MPS/P, MPS/P1

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	17.09.10	16:45:00	
Paraffin tank temperature (actual vs. target)	Paraffin	60°C	(65°C)
Surface temperature (actual vs. target)	Surface	38°C	(40°C)
Cooling Spot status	Cooling Spot		Off

Home Screen of the Display: MPS/P

Within this view there are no options for manual settings as it only provides an indication of the actual status of the device.
The names and sequence of the temperature controllers depend on the device:

- MPS/C, MPS/CX → Surface
- MPS/W → Upper / Lower
- MPS/P → Paraffin / Surface / Cooling Spot (only On / Off)
- MPS/P1 → Paraffin / Surface / Bowl / Cooling Spot (only On / Off)

Devices which are not equipped with every single function have an empty line instead of actual and target temperature for the built in feature, e.g. MPS/C only has a line for surface temperature but shows no other information.

7.3 STANDBY MODE

If the 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 / cooling functions are switched off. The standby mode lasts until the next time the device is started by the timer or the user.

Standby display for MPS/P:

Explanation	**Date/Function**	**Settings**	
Actual date / time	17.09.10	20:45:00	
Timer settings for paraffin tank	Paraffin	>>	Fr07:00
Timer settings for surface	Surface	>>	Fr09:00
Cooling Spot status	Cooling Spot		Off

Standby display for MPS/P1:

Explanation	**Date/Function**	**Settings**	
Actual date / time	17.09.10	20:45:00	
Timer settings for paraffin tank	Paraffin	>>	Fr07:00
Timer settings for surface	Surface	>>	Fr09:00
Timer settings for cassette / mould storage	Bowl	>>	Fr09:00

Standby display for MPS/W:

Explanation	**Date/Function**	**Settings**	
Actual Date / Time	17.09.10	20:45:00	
Timer settings for upper heating	Upper	>>	Fr07:00
Timer settings for lower heating	Lower	>>	Fr09:00

Standby display for MPS/C and MPS/CX:

Explanation	**Date/Function**	**Settings**	
Actual date / time	17.09.10	20:45:00	
Timer settings for Surface	Surface	>>	Fr09:00

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 and Peltier element 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 MPS/P and MPS/P1 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 available for technicians authorised by SLEE.

Main Menu display for MPS/P:

Explanation	Cursor	Function	Settings
Manual activation of Standby mode	>	Standby	
Manual activation of Operation mode		Operation	
Timer MPS/P		Timer	
Tank heating function On / Off		Paraffin	On
Adjustment of tank heating temperature		Paraffin Temp.	40°C
Surface heating function On / Off		Surface	On
Adjustment of surface temperature		Surface Temp.	40°C
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 per SLEE authorised technician)		Configuration	

Main Menu display for MPS/P1:

Explanation	Cursor	Function	Settings
Manual activation of Standby mode	>	Standby	
Manual activation of Operation mode		Operation	
Timer MPS/P1		Timer	
Tank heating function On / Off		Paraffin	On
Adjustment of tank heating temperature		Paraffin Temp.	40°C
Surface heating function On / Off		Surface	On
Adjustment of surface temperature		Surface Temp.	40°C
Settings for surface heating timer*		Surface Timer	
Cassette / Mould storage heating function On / Off		Bowl	On
Adjustment of Cassette / Mould storage temperature		Bowl Temp.	40 °C
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 per SLEE authorised technician)		Configuration	

Main Menu display for MPS/W:

Explanation	Cursor	Function	Settings
Manual activation of Standby mode	>	Standby	
Manual activation of Operation mode		Operation	
Timer MPS/W		Timer	
Upper heating On / Off		Upper	On
Adjustment of upper heating temperature		Upper Temp.	40°C
Lower heating On / Off		Lower	On
Adjustment of lower heating temperature		Lower Temp.	40°C
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 per SLEE authorised technician)		Configuration	

Main Menu display for MPS/C, MPS/CX:

Explanation	Cursor	Function	Settings
Manual activation of Standby mode	>	Standby	
Manual activation of Operation mode		Operation	
Timer MPS/C, MPS/CX		Timer	
Cooling function On / Off		Cooling	On
Adjustment of cooling temperature		Cooling Temp.	-15°C
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 per SLEE authorised technician)		Configuration	

With [^] and [v] (for MPS/P and MPS/P1 [*^] and [*v]) you can move the cursor (column *Cursor*) to the appropriate menu item (column *Function*). By pressing [ENTER] (for MPS/P2 [MENU ENTER]) you can activate the setting and the value begins to flash. Now the value can be adjusted by pressing [^] or [v] and must be confirmed with [ENTER].
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 [ESC]. This will not make any changes to the devices current settings.

With the timers, the start of work is determined; the respective start time (already programmed) is included in the calculation. Please enter only the time for starting work!

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 MPS Series.
Go into the *Main Menu* and use [^] or [v] to go to the line showing *Date*. The format of the date is DD/MM/YY.
Pressing [ENTER] will make the digits for the day blinking. Pressing [^] or [v] will raise or lower the figure. Hitting [ENTER] 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 [ESC].
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

All devices of the MPS series and the cooling unit in the MPS / C and MPS / CX can be switched on and off via an automatic time switch. A total of three switch-on and switch-off phases can be defined. The respective time switch intervals can be set via the main menu. The settings are activated when the respective time switch interval has been switched on and the status "On" is displayed.

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 made very easy and user friendly. Just go to the respective line which you want to edit by pressing the [^] or [v] keys and confirm with [ENTER].
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 [v] again. Using [ENTER] 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 [ENTER] 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 [ENTER] will switch through the days which can be turned on and off by using the arrow keys [^] and [v].
Hitting 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.

7.7 HEATED PARAFFIN (WAX) CONTAINER (MPS/P and MPS/P1 module)

For a robust performance of the instrument the flow of molten paraffin is exclusively driven by gravitation. To assure a rapid flow, please refill the paraffin container before it empties completely.

The design of the MPS/P and MPS/P1 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 liquid paraffin in it. Therefore adjust the start time for tank heating with an appropriate lead time.
Another way is starting the heating manually by going to the Main Menu and activate the paraffin heating by pressing ENTER after you went down the menu with ⌄⌄ (see cursor position in table below). After pressing ENTER again the status (On or Off) starts blinking and can be regulated by ⌃⌃ or ⌄⌄.
One line below you can adjust the paraffin tank temperature and another line beneath you will get to the timer menu. These steps are also valid for setting the Surface heating to fulfil your specific requirements.

Explanation	Cursor	Function	Settings
Manual activation of Standby mode		Standby	
Manual activation of Operation mode		Operation	
Timer MPS/P, MPS/P1		Timer	
Tank heating function On / Off	>	Paraffin	On
Adjustment of tank heating temperature		Paraffin Temp.	40°C
Surface heating function On / Off		Surface	On
Adjustment of surface temperature		Surface Temp.	40°C
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 ESC.

Explanation	Date/Function	Time/Settings	
Actual Date / Time	17.09.10	16:45:00	
Paraffin tank temperature (actual vs. target)	Paraffin	60°C	(65°C)
Surface temperature (actual vs. target)	Surface	38°C	(40°C)
Cooling Spot Status	Cooling Spot		Off

7.8 HEATED WORKING AREA (MPS/P and MPS/P1 module)

As mentioned in chapter 7.7 HEATED PARAFFIN (WAX) CONTAINER you can heat the working surface of your MPS/P or MPS/P1 to allow you to place and align your tissue sample while the paraffin keeps liquid. Even the temperature can be influenced in the *Main Menu*.

You only have to go to the *Main Menu* by pressing ENTER and go down to the line *Surface*. 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.

7.9 COOLED WORKING AREA (MPS/P and MPS/P1module)

If the cooling element is switched on, the inbuilt cooling fan is running. The lower and rear airing slots should never be covered.

The actual temperature of the cooled working area may vary dependant on the temperature set for the heated working area and the ambient temperature.

Your new device has a cooling spot which provides a lowered temperature to harden the liquid paraffin earlier than waiting for hardening with your local air temperature.

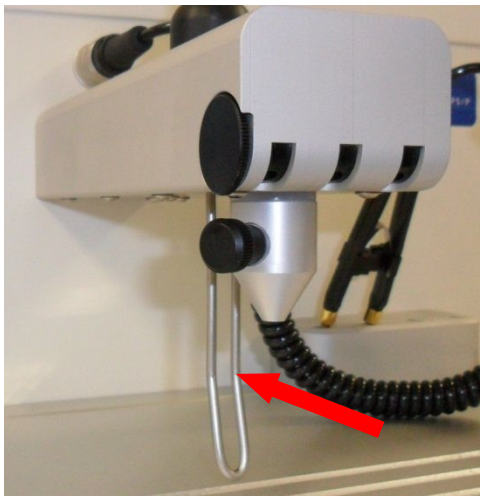
To switch the cooling spot on and off you only have to push . For the MPS/P you will see the status of the cooling spot on the standard screen in the last line.

7.10 ILLUMINATED WORKING AREA (MPS/P and MPS/P1 module)

For optimised visibility of your work there is a light included in the MPS/P and MPS/P1 device which you can switch on and off with . Additionally you can adjust the light module in the front by turning the black tube as shown in the picture below.

7.11 HEATED PARAFFIN DISPENSER (MPS/P and MPS/P1 module)

The heated paraffin dispensing arm can be operated manually or via a footswitch.



Manual operation
The heated paraffin dispensing arm is equipped with a hanger directly behind the dispense outlet.

To open the valve and start the paraffin flow, press the bracket backwards or to the side.

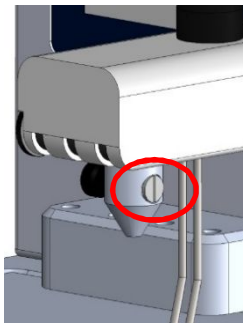
The valve closes automatically when the bracket is released.

Operation with Footswitch
The heated paraffin dispensing arm can be operated with a footswitch.

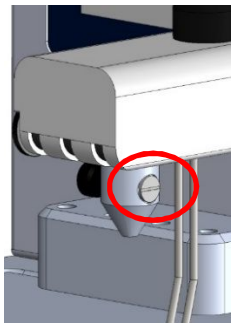
To open the valve and start the paraffin flow, press the foot switch.

The valve closes automatically when the foot switch is released.

The paraffin flow can be regulated by the adjusting screw on the dispense outlet.



open

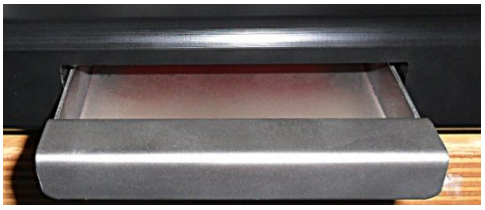


closed

7.12 MAGNIFIER (MPS/P and MPS/P1 module)

Each instrument is equipped with a magnifier that can easily be turned to the right and left if required.
The magnifier will keep its orientation even if turned away temporarily.

7.13 PARAFFIN COLLECTION TRAY (MPS/P and MPS/P1 module)



Overflowing paraffin runs into the outlet integrated into the working area and into the paraffin collection tray. The collection tray should be cleaned every day.

Pull the drawer out of the instrument and empty it.

7.14 HEATED FORCEPS (MPS/P and MPS/P1 module) [if instrument is equipped with this accessory]

Electrically heated forceps are available as accessory and will be activated by plugging into the connection for heated forceps at the front of the paraffin wax dispenser unit.

The temperature of the forceps tips is approx. 55 °C.

7.15 HEATED CASSETTE/MOULD STORAGE AREA (MPS/W module)

The MPS/W has two areas where you can store and preheat your steel and plastic cassettes. Usually the upper area is for preheating the steel cassettes and the lower area is used for the plastic cassettes.
Both areas can be regulated separately in the *Main Menu* by going down to the items *Upper*, *upper Temp.* and *Upper Timer* accordingly *Lower*, *Lower Temp.* and *Lower Timer*. The adjustment of temperature, start and stop time are done in the same manner as the settings for paraffin tank explained in chapter 7.7 HEATED PARAFFIN (WAX) CONTAINER or the heated working as explained in chapter 7.8 HEATED WORKING AREA.

7.16 COOLED STORAGE AREA (MPS/C(X) module)

To store and simultaneously cool down your cassettes your MPS/P2 unit contains the MPS/C or MPS/CX device with a cooling surface.
You can put your prepared cassettes with your tissue samples on this surface to cool them down much faster than under environmental conditions.
The settings for the temperature, start and stop time are programmed in the same way as the settings for heating surface or paraffin tank in the MPS/P.
You only have to go to the *Main Menu* to the items *Cooling, Cooling Temp.* and *Cooling Timer* and adjust the values using ENTER for selecting the item and ⌃ or ⌄ for changing the parameters.

7.17 HOOD FOR COLD PLATE (MPS/C)

The optionally available hood for cold plate MPS/C prevents freezing of condensed water. Thereby the temperature precision is increased and the energy efficiency enhanced by up to 30 %.

Optional hood for cold plate MPS/C

8. MAINTENANCE

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

For cleaning the units only use alcoholic media, not acetone or xylene. For the housing it is best to use a commercially available cleaner for plastics. The housing should not come in contact with alcoholic or other solvents.

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 for paraffin:

Paraffin is flammable and therefore must be handled with care. Avoid spillage of liquid paraffin.

All components of the SLEE embedding centre MPS/P1 and MPS/P2 that come into contact with paraffin and the interior of the instruments are carefully sealed to prevent wax from entering. Nevertheless, if paraffin is spilled, it should always be removed carefully.

The paraffin tank and the cassette bath, if required, should be filled with care. Avoid overfilling.

The paraffin in the cassette bath must be exchanged every day to avoid contamination.

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 paraffin tank it can be lightly warmed up and the paraffin block can be removed. Alternatively, it can be flown out completely through the arm. The reservoir is cleaned inside with a paper tissue. Care should be taken that the reservoir is contaminated. Any dirt inside should be removed.

For cleaning of the forceps holders they can easily removed. They are fixed with magnets onto the housing. They are frequently a source of contamination and are susceptible to dirt. Therefore they should be cleaned thoroughly. They are heated during operation through the placement onto the work area and they are thus very hot (approx. 70°C).

The paraffin collection tray is to be checked daily. The paraffin should be emptied regularly to ensure that excess paraffin can drain to the tray.

9. SERVICE

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

Only original SLEE spare parts must be used. Otherwise this could invalidate the warranty.

If technical service or spare parts are necessary, please contact your local SLEE medical 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 before delivery. It must be returned in its original packing.

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

10. Optional accessories

	MPS/P1	MPS/P2	MPS/C
Heated Forceps #10196000 (2.5 mm) #10196001 (1.25 mm)	●	●	
Anatomic Forceps, 130 mm, stainless steel #30030090 (pointed) #30030091 (blunt)	●	●	
Heated Forceps straight #10196012 (0.5 mm) #10196013 (1 mm) #10196014 (2 mm) #10196015 (4 mm)	●	●	
Heated Forceps curved #10196016 (0.5 mm) #10196017 (1 mm) #10196018 (2 mm) #10196019 (4 mm)	●	●	
Heated Forceps angled #10196020 (0.5 mm) #10196021 (1 mm) #10196022 (2 mm) #10196023 (4 mm)	●	●	
Power supply plug with circular plug connection for electrically heated forceps #10196027	●	●	
Dissection needle #30030095	●	●	
Cooling plate MPS/C (Cooling plate) #10175000	●	●	
Hood for Cooling plate MPS/C #10175100			●
Cooling plate MPS/CX (wide) (Cooling plate) #10175020	●	●	
Preheating unit MPS/W #10180000	●	●	

Base moulds (stainless steel) #30030050 7 mm x 7 mm x 7 mm #30030051 30 mm x 24 mm x 7 mm #30030052 15 mm x 15 mm x 7 mm #30030053 24 mm x 24 mm x 7 mm #30030054 37 mm x 24 mm x 7 mm #30030056 33 mm x 24 mm x 12 mm	●	●	
Metal lids for embedding cassettes #30050100	●	●	
Marking dyes for histological specimens Set of five bottles (Blue, Black, Green, Red, Yellow) and 25 Applicator Sticks #30001102	●	●	
Paraffin (56 – 58 °C) #30010002 25 kg (bag)	●	●	
Paraffin type "paratec premium" (pure paraffin with added polymer) #30010004 – 1 kg bag #30010005 – 2,5 kg bag #30010006 – 10 kg carton	●	●	
Paraffin Typ "paratec" #30010002 - 20 kg bag	●	●	

11. 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 an 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 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.

12. DISPOSAL

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

SLEE medical GmbH
Lise-Meitner-Str. 11
55129 Mainz / Germany
Tel. +(49) 61 31/9 58 71-0
Fax +(49) 61 31/9 58 71-722
mail@slee.de
http://www.slee.de