

# Tissue Embedding & Cooling System

## EBD-1&CL1



EBD-CL1



EBD-1



EBD-1&CL1

## Features



Fully programmable computer controls allow automatic system start and stop anytime (weekly);



Temperature is controlled by microprocessors made in the USA and they are displayed using color-changing LEDs to enable clear visibility of working status;



Flexible module configuration options through a design which separates the Cryo Module from Embedding Module;



Flexible heating mechanism overcomes the shortcomings of traditional technology that can result in excessive temperature differences. System provides fast heating and precise temperature control. In addition, the dual-protection from overheating is safe, reliable and energy-saving;



Five heated areas, including Paraffin Chamber, Paraffin Dispenser, left and right Thermal Storage Compartments, and heating plate (working area), are individually controlled and work independently without interference from each other;



Safe and reliable low-voltage illumination system;



Heated working plate and forceps wells make tissue embedding more convenient;



Large granite working area eases the cleanup of excessive paraffin.



Automatic memory and restoration functions: After startup, all preset temperature data are automatically stored in the system;

## Specifications

Model	EBD-1&CL1
The paraffin-heating maximum temperature	70 °C
Paraffin Chamber Capacity	3L
Temperature Range of Forceps Wells	55 – 70 °C
Temperature Range of Paraffin-melting Chamber	55 – 70 °C
Temperature Range of Thermal Storage Compartments	55 – 70 °C
Temperature Range of Heated Working Areas	55 – 70 °C
Temperature Range of Paraffin Dispenser	55 – 70 °C
Temperature Control Precision	±1%
Paraffin Flow Control	Paraffin flow control via finger touch plate and foot pedal
Fully Programmable ON/OFF Control	Allows automatic system start and stop anytime weekly
Working Temperature of Cryo-Module	≤ -20 °C , as low as -30 °C
Working Voltage	AC 220V±10% 50Hz (standard model); AC110V±10% 60Hz
Power	650W (EBD-1), 300W (EBD-CL1)
Dimensions(W×D×H)	525×550×385 mm (EBD-1) 590×345×385 mm (EBD-CL1)
Net weight	26kg (EBD-1), 27kg (EBD-CL1)











# Tissue Embedding & Cooling System






## EBD-3&CL3



EBD-3&CL3

### Features

-  Fully programmable computer control allows automatic system start and stop anytime (weekly);
-  Temperature is precisely measured by temperature-sensing integrated blocks made in USA, and is LCD-displayed with icons demonstrating current working status;
-  Five heated areas, including Paraffin Chamber, Paraffin Dispenser, left and right Thermal Storage Compartments, and heating plate (working area), are individually controlled and work independently without interference from each other.
-  Flexible module configuration options through a design which separates the Cryo Module from Embedding Module, enabling easy maintenance;
-  The temperature of the cryo plate equipped with this system is controlled independently and can be used to freeze tissue more conveniently, particularly for small specimens;
-  The use of new silicon rubber heating elements achieves rapid even, reliable, energy saving heating;
-  Five temperature-control channels and multiple overheating protection mechanisms provide safe, reliable, and energy-saving protection;
-  Automatic memory and restoration functions: After startup, all preset temperature data are automatically stored in the system;
-  Freezing temperature can be adjusted due to the use of a new-type inverter compressor;
-  Paraffin Chamber with super large capacity enables embedding a large number of specimens at same time;

-  Safe and reliable low-voltage illuminating system with two ON/OFF control options (finger or foot-operated);
-  Heated working plate and forceps wells make tissue embedding more convenient;
-  High-precision clock makes time setting more convenient and accurate.
-  There is an automatic actuation, can make sure the unit will continue working after a power-down.
-  Using the imported solenoid valve to help the Paraffin Dispenser to adjust the flow rate;



EBD-3



EBD-CL3

### Specifications

Model	EBD-3&CL3
Paraffin Chamber Capacity	4L
Temperature Range of Forceps Wells	RT - 99 C
Temperature Range of Paraffin Chamber	RT - 99 C
Temperature Range of Thermal Storage Compartment	RT - 99 C
Temperature Range of Paraffin Dispenser	RT - 99 C
Temperature Range of Thermal Storage Plate	RT - 99 C
Temperature Control Precision	±1%
Paraffin Flow Control	Paraffin flow control via finger touch plate and foot pedal
Temperature Range of Storage Plate	RT~99 C
Temperature Range of Cryo Module	+5~ -20 C (Temperature control mode)
The lowest temperature	-28 C (Super cooling mode)
Temperature of Small Cold Plate	< -5 C
Dimensions of working plate ( EBD-3 )	155×90mm
Dimensions of small cold plate (EBD-3 )	60×50mm
Dimensions of Cryo Module ( EBD-CL3)	340×322mm
Working Voltage	AC 220V±10% 50Hz (standard model); AC110V±10% 60Hz
Power	1000W (EBD-3); 300W (EBD-CL3);
Dimensions (W×D×H)mm	670×590×445(EBD-3); 685×380×430(EBD-CL3);
Net weight	33kg (EBD-3); 26kg (EBD-CL3);

# Tissue Embedding & Cooling System

## EBD-4&CL4

### Features

Integrated embedding and freezing design: It can work online to achieve automatic dual control online operation, meeting the requirements of automation control.

Fully automatic program control: You can preset the on and off times for any day of the week. Intelligent monitoring of operating status and information prompts.

New silicone rubber heating element: rapid and uniform heating, energy-saving and reliable.

Strong paraffin tank heating function: shortens the paraffin melting time and can be turned on as needed.

Paraffin tank normally-open function: Maintains paraffin in a liquid state during non-working hours, preventing agitation or boiling. It can be turned on or off as needed.

Paraffin tank: Features convenient one-touch ON/OFF heating control.

Small cooling table refrigeration: semiconductor rapid refrigeration, independent control of start and stop, convenient for small tissue positioning.

Adjustable and quantifiable paraffin dispensing: Adjustable and controllable paraffin flow rate and volume.

Double control paraffin flow switch: manual control or foot control can be selected and can be turned off at will.

Separate large-capacity double storage compartment: left, right, inner and outer double compartments, compatible with a variety of dehydration baskets, features left and right independent temperature control.

Variable frequency controlled freezing table: Adjustable and controllable cooling temperature with ultra-low temperature cooling mode.

Large cooling plate control mode: supports online control with embedding machine, can start and stop with time or delay, and can also be controlled separately.



Large 7-inch Full-view color capacitive touchscreen: clear writing, modular graphics and text working status display aesthetic design, adjustable screen brightness, and a screen off function. The screen off time can be set by the user. Dynamic graphics display working status, real-time monitoring of working temperature, and the operating status are clear at a glance.

Low-voltage LED lighting and Magnifier: Adjustable brightness with multi-angle magnifier for tissue manipulation of extremely small specimens.



Heating mode: Six independently controlled heating zones, each equipped with dual temperature control and overheat protection devices.

Large multifunctional heating worktable: Includes paraffin dispensing points, paraffin block repair, slanted drainage channel, and independent temperature control.



### Specifications

Model	EBD-4
Paraffin Chamber Capacity	6L
Independently Controlled Heating Zones	6
Forceps Heating Wells	6
Temperature Range of Paraffin Tank	RT.~85℃
Temperature Range of Left Storage Compartment	RT.~85℃
Temperature Range of Right Storage Compartment	RT.~85℃
Temperature Range of Paraffin Dispenser Nozzle	RT.~85℃
Temperature Range of Working Plate	RT.~85℃
Temperature Range of Forceps Plate	RT.~85℃
Flow Adjustment Range of Paraffin Dispenser Nozzle	0~400mL/min
Paraffin Dispensing Duration Range	0.1s~10s
Paraffin Drainage Holes of Working Table	4 holes
Working Temperature of Small Cooling Table	≤-5℃
Lighting Brightness Adjustment	Level 0~100, stepless control
Display Screen Brightness Adjustment	Level 0~100, stepless control
Memory Function	Automatically retains set temperature after operation
Clock	High display accuracy, convenient time calibration
Heater Temperature Control Accuracy	±1℃
Dimensions of Storage Compartment	2pcs. (240*160*55mm)
Dimensions of Embedding Worktable	540*93 mm
Dimensions of Small Cooling Table	60*50mm

Model	EBD-CL4
Large Cooling Plate Linkage Delay Range	0~150mins
Dimensions of Freezing Table	315*380mm
Temperature Range of Freezing Table	+5~-20℃, lowest temperature can reach -28℃ (super cooling mode)

Model	EBD-4	EBD-CL4
Electricity	AC110~120V/ AC 220~240V, 50Hz/60Hz	
Power	1000W	300W
Dimension	575*675*395mm	350*710*395mm
Net Weight	38kg	25kg