# **CRYOSTATS**



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A cryostat is a device that is used to maintain the low temperature of the samples or products. They use liquid cryogens such as helium or nitrogen or a mechanical cooler to lower the temperature of the product. The electrical heater element applies the voltage across the cooler to control the temperature. These are used in infrared detector assemblies, thermal imaging systems, optoelectronic instrumentation, etc. In histology, they are used for cutting or slicing the tissue under cryogenic conditions.

Used in Tissue biopsy, Slice tissue slide, Magnetic Resonance Imaging (MRI), Pathological diagnosis, Analysis and Research in Hospital and Medical colleges..

Also known as Ultrafine "deli-slicer".

## LTHIS8-1 AUTOMATIC CRYOSTAT MICROTOME

Fully automatic trimming and sectioning along with manual trimming and sectioning available. Has 5 points refrigeration namely freezing head, freezing knife, freezing chamber, double freezing tables. Machine is assembled with an anti-curl plate, so sectioning is smooth and reliable. Heat absorption device for tissues it will be mated with freezing table, meanwhile the upper and the lower will be refrigerated at same time so that freezing speed is fast. Speed of sample feed and withdrawal there are quick and slow gears.



**Product Image Coming Soon** 

#### **SPECIFICATIONS**

Model	LTHIS8-1
Refrigerating range to set	room temperature ~ - 60 °C
Section thickness	0 ~100 μm
Minimum division value	0.5 μm
Trimming range	0 ~ 600 μm
Specimen horizontal shifting distance	25 mm
Specimen vertical shifting distance	60 mm
Sectioning angle adjustable	10°
Freezing positions	10 ~15
Temperature reachable freezing head	-50°C
Temperature reachable freezing table -45°C	freezing table -45 °C
Temperature reachable freezing knife	-35 ℃
Temperature reachable freezing chamber	- 25 ℃ ± 5
Voltage	220 V
Power	800 VA
Weight	120 kg

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## LTHIS8-2 SEMI AUTOMATIC CRYOSTAT

Defrost automatically / manually , Each defrost time is 15 minutes by default, or the box temperature rises to -5°C during the defrosting process. UV sterilization, Semiconductor refrigerant, Slice number and thickness calculation ;

2 movement speeds of specimen clamp. light and smooth handwheel with locking device on it. Specimen clamp enables to adjust triaxially with a block in the centre to go back.

High precision guide rails made in Germany make transmission smooth durable and be able to cut hard sample.



### **SPECIFICATIONS**

Model	LTHIS8-2
Security type	l category ,B type
Voltage frequency	AC 220 V , 50 Hz (± 10 % ) Or AC 110 V , 60 Hz (± 10 % )
Input power	650 VA
Range of temperature setting	- 35 ℃ to - 10 ℃
Defrost	Manual / Auto
Refrigerating capacity	690 W
Refrigerate	R 404a ,300 g ± 5 g
Minimum temperature	- 45 ℃
Number of specimen holder freezing points	20
Number of semi-conductor freezing points	(switchable) 2
Setting range of section thickness	0 um - 100 um
Specimen's horizontal stroke 25 mm	25 mm
Specimen's vertical stroke	60 mm
Specimen's max size	55x55 mm
Specimen clamp 's max adjustable angle	12 °
Specimen fast moving speed	0.7 mm/s
Dimensional W x T X H	780 (650 without handwheel)x700x1152 mm
Net weight	145 kgs

## LTHIS8-3 SEMI AUTOMATIC CRYOSTAT

Adjustable cool plate temperature with -45°C minimum. Super large, may hold 28 chucks at meantime. New designed hammer make the tissues platter than the traditional one. Adjustable temperature with -50 °C minimum. Cutting angle is12°universally adjustable to meet varieties of needs. Retraction function to avoid scratches on specimen. Freezing chamber adjustable temperature with - 40 °C minimum. The handwheel can be locked at any position. Injection moulding shell with mild feeling is durable and easy to clean. 40 decibel silent freezing system with duel compressors made in Germany. Blade holder auto pump-blade device may avoid incised wound. Anti-fog glass window.



#### **SPECIFICATIONS**

Model	LTHIS8-3
Freezing chamber temperature range	- 40 °C $\sim$ -10 °C
Freezing shelf minimum temperature	- 45 ℃
Chuck holder minimum temperature	- 50 ℃
Minimum temperature of Peltier element on freezing shelf	- 60 ℃
Number of Peltier element cooling spot	2
Maximum specimen size	50×80 mm
Chuck hold maximum adjustable angle	12 °
Specimen vertical stroke	70 mm
Specimen horizontal stroke	20 mm
Rough feeding speed	(0.9 mm/s; 0.3 mm/s)
Section thickness range 1 $\mu$ m $\sim$ 100 $\mu$ m adjustable	1 $\mu$ m $\sim~$ 20 $\mu$ m, in 1 $\mu$ m increments
Section thickness range 1 $\mu m \sim 100 \ \mu m$ adjustable	50 $\mu m{\sim}100$ $\mu m$ , in 5 $\mu m$ increments.
Trimming thickness range 10 $\mu m \sim 400 \ \mu m$ adjustable	50 $\mu m \sim~100~\mu m$ , in 10 $\mu m$ increments
Trimming thickness range 10 $\mu m \sim 400 \ \mu m$ adjustable	100 $\mu m \sim $ 400 $\mu m$ , in 50 $\mu m$ increments
Retraction range $0\mu m\sim 80\mu m$ adjustable, in $5\mu m$ increment	0 μm $\sim~$ 80 μm adjustable, in 5 μm increment
Voltage and frequency	AC 220 V $\pm$ 10 %, 50 Hz (Standard) or AC 110 V $\pm$ 10 %, 60 Hz
Power	800 W
Net weight	125 kg
Dimensions(W×D×H)	660×640×1130 mm



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