

# MICROTOMES



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Microtome is laboratory equipment that is used to slice or cut tissue into uniform sections repeatedly for laboratory processing and imaging. There are different types of microtomes used for slicing different types of tissue according to their size, embedding medium, and preparation method. A sample is fed towards a fixed knife which cuts tissue into sections further sample holder advances by a small step to generate a new section and the cycle repeats itself.

Used in Histopathology, Traditional Histology Technique, Cryosectioning Technique, Microscopy.

Also known as Histomes, Cryostats.

## LTHIS9-1 FULLY AUTOMATIC MICROTOME

Full-automatic sectioning with adjustable speed and three sectioning modes continuous, step and single. LED display. Electronic trim function makes it easy to switch from trim and section mode. Specimen retraction mechanism protects specimen from unintended blade damage. Section counting function counts total section pieces and total thickness.

Unit contains a precise micro motion specimen feeding system which uses a micro computer, optical signal and stepper motor to control specimen feeding resulting in more precise specimen feeding. Internationally accepted slide mechanism and groove ensures the precision of specimen movement while making the unit free from lubrication and maintenance requirements.

Unit contains a handwheel force balancing system for adjusting the balancing force during sectioning, making rotation even and smooth. Two safety locking mechanisms on the handwheel; one locks on the top; the other locks at any position. The disposable blade can move horizontally to avoid the dangers of unintended contact with the blade. Every blade cuts specimen into three equal parts, which ensures the entire use of blade Edge. The waste tray collects sectioning debris are easily removed for cleaning. Cassette clamp and C clamp are optional. Specimen orientation on X/Y axes 8°. Alarm to warn of forward or backwards limitation. Self-diagnostic prompt. Emergency stop and foot switch (optional)



## SPECIFICATIONS

| Model  | LTHIS9-1   |
|--|--|
| Section thickness range 0.5 $\mu$ m~100 $\mu$ m (3~5 $\mu$ m is the best slicing effect) | 0.5 $\mu$ m ~ 100 $\mu$ m (3 ~ 5 $\mu$ m is the best slicing effect) |
| Section thickness setting  | 60 ~ 100 $\mu$ m, in 10 $\mu$ m increments                           |
| Trimming thickness   | 1 ~ 600 $\mu$ m  |
| Trimming thickness setting   | 100 ~ 600 $\mu$ m, in 50 $\mu$ m increments                          |
| Specimen retraction  | 10 ~ 150 $\mu$ m (Can be closed), in 1 $\mu$ m increments            |
| Specimen vertical stroke   | 60 mm  |
| Specimen horizontally stroke   | 25 mm  |
| Max specimen size with C clamp (H×W)   | 55×45 mm   |
| Dimensions (W×D×H)   | 560×470×300 mm   |
| Package Dimension  | 695×525×480 mm   |
| Package Weight   | 45 kg  |

## LTHIS9-2 SEMI AUTOMATIC MICROTOME

It adopted the advanced import actuation system so that can slice the tissues more precisely ,more reliable and quiet.

The LCD display show the slice and trimming thickness ,section counter in Chinese or English version.

It have special function of sample retraction .it can avoid the damage due to the attrition between sample and the back of knife so that the slice is more smooth and the life of the knife is more longer. The hand wheel can be locked in any position to make the section as safe and convenient as possible. The waste bath can be disassembled easily. It has safety alarm system.



### SPECIFICATIONS

|                            |   |
|----------------------------|---|
| Model                      | LTHIS9-2  |
| Slice thickness range      | 0.5 μm ~ 100 μm (3 ~ 5 um is the best slicing effect) |
| Section thickness setting  | 60 ~ 100 μm, in 10 μm increments                      |
| Trimming section range     | 1 ~ 600 μm  |
| Trimming thickness setting | 100 ~ 600 μm, in 50 μm increments                     |
| Horizontal specimen stroke | 20 mm   |
| Vertical specimen stroke   | 55 mm   |
| Specimen retraction        | 20 μm   |
| Maximal slice section      | 50 × 45 mm  |
| Dimension                  | 520x450x300 mm  |

## LTHIS9-3 ROTARY MICROTOME

It have clipper –built case , the user can put blade , wax block ,or other consumable one the top of case. It do not need to lubricate and maintain the microtome frequently. The handwheel in the right can be locked in any position, and the handle can be locked in highest

position, it is double safe for changing blade or tissue block. The specimen Orienting system axes X and Y 8°, axis 180°. It adopt the special blade holder , it is more safe and convenient to use the disposable blade

Directly. It also can to longer the user life of disposable blade.



### SPECIFICATIONS

|                            |                               |
|----------------------------|-------------------------------|
| Model                      | LTHIS9-3                      |
| Slice thickness range      | 0 μm ~ 60 μm                  |
| Section thickness setting  | 20-60 um in 5 um – increments |
| Horizontal specimen stroke | 20 mm                         |
| Vertical specimen stroke   | 50 mm                         |

|                                     |  |
|-------------------------------------|--|
| Slip precision                      | ± 5 %  |
| Maximal slice section               | 50×45 mm                                       |
| Specimen adjustment direction       | Horizontal 8°, Vertical 8°, Rotating 360°      |
| Movement range of blade holder base | Front and Back ± 25 mm, Left and Right ± 25 mm |
| Blade holder angle                  | 0~10 °   |

## LTHIS9-4 VIBRATING MICROTOME

Widely used in biological,teaching,scientific institute research etc. It is used to cut fresh or specific specimen from animals or plants,specimen can be cut immediately in no case of embedding,cooling progress. Therefore,specimen doesn't broke at all,and cell keep very good and active.It provide good condition for immunocytochemistry research and spinal&celebrum disorder's neurobiology. This model is very good choice for fiields in electro microscope,dissect, cyemology,physiology,biology,scientific research.



### SPECIFICATIONS

|                                    |                         |
|------------------------------------|-------------------------|
| Model                              | LTHIS9-4                |
| Speed of Specimen Sectioning       | 0-1.3 mm/s (adjustable) |
| Vibrating range                    | 0 ~ 1 mm                |
| Lifting range of specimen platform | 20 mm                   |
| Section thickness setting range    | 10-300 um               |
| Minimum setting value              | 1 um                    |
| Angle of blade                     | 15 degrees              |
| Working Voltage AC 220 V           | 50 Hz                   |
| Working Voltage AC 110 V           | 60 Hz                   |
| Power Draw                         | 200 VA                  |
| Dimension                          | 250x210x110 mm          |
| Net Weight                         | 12 kg                   |



**Labtare Analytical Instruments**

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