

## MICROTOMES



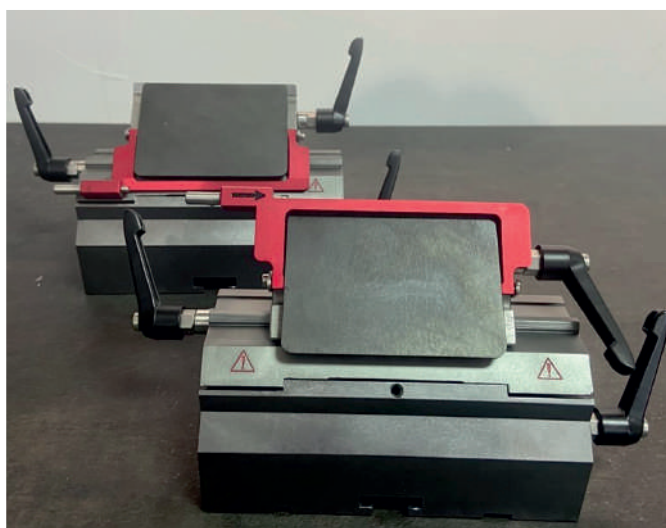
## Manual Microtome (New Modular Design) SMI-325M

Stability of manual microtome is vital and Jindal new modular design manual microtome successfully meets the workload requirements of demanding laboratories. The superior precision of new accessories adds up expediency to block to knife approach as well as specimen point of reference.

Microtome is the instrument of choice for clinical histology and histopathology applications.

These are used to produce thin sections of specimens of different hardness in both routine and research applications in biology, medicine and industry.

Manual sectioning in the high Precision manual microtome provides efficient operation with utmost section reproducibility.



### Well Located Storage Area:

An incorporated storage tray makes sure that certain subsidiary tools are in hand at all times.

### Safety during Sectioning:

Protection is assured by incorporated black finger protection guard of the knife holder that exceptionally safeguards the blade edge. When used correctly the integrated finger protection guard rules out potential injuries because it can even remain on the blade edge during sectioning.



### Trouble Free Operation:

Ergonomics and user comfort are key concern for the placement of coarse feed wheel, which is located close to the operator. The mechanical trimming function, conveniently positioned next to coarse feed wheel, purge the need to turn coarse feed during trimming.

### Spacious Section Waste Tray:

The spacious section waste tray consistently gathers sectioning wreckage.

## Knife Holder Adjustment:

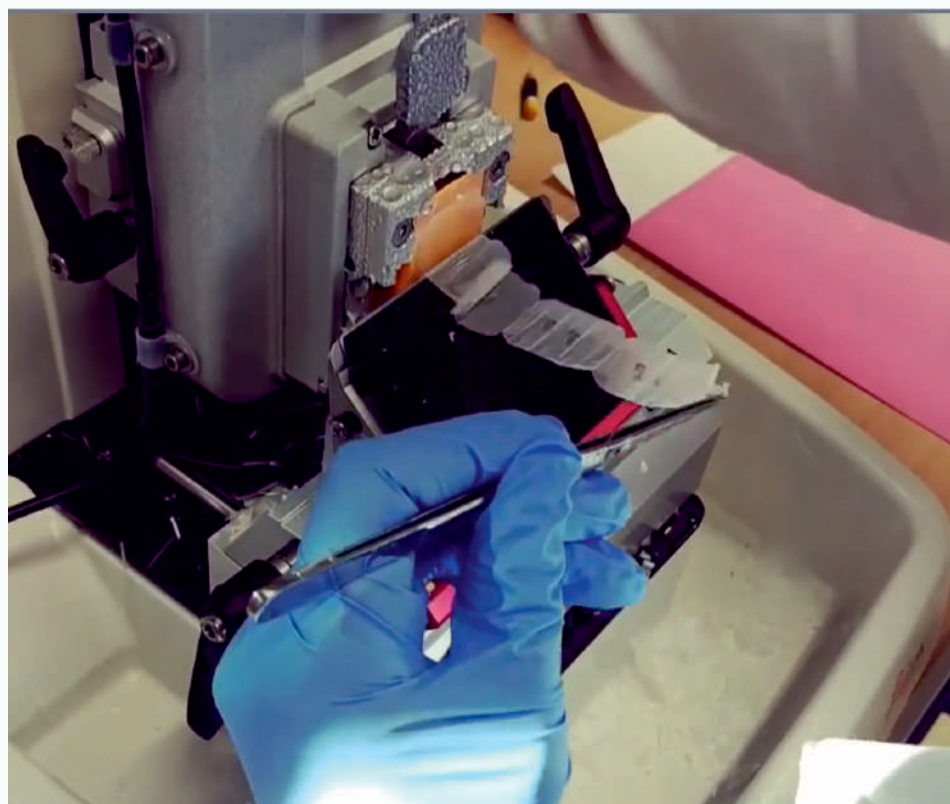
The complete width of the knife can be used by using straight forward blade fastening mechanism. Using the entire knife edge is cost effective, particularly in laboratories with high specimen throughput.

Product Specifications	
Section Thickness Indication	Accurately Calibrated Viewing window
Trimming Setting	1µm to 60µm
Specimen Retraction	60 µm
Specimen Orientation	Horizontal 8°, Vertical 8°
Horizontal Stroke	28mm
Vertical Stroke	70mm
Maximum Specimen Size	(LXHXW) 50mmX60mmX40mm

## At a glance

- Low maintenance linear roller slides
- Compact, Ergonomic Overall Design
- User safety incorporated into overall design
- Convenient multipurpose specimen holder
- Balanced hand wheel for smooth rotation with locks
- Reduces hand stress via smooth-running hand wheel
- Easy to use universal Microtome Knife & Disposable Blade
- A heavy and rigid base to render a shake proof operation
- Precise guide way and clamping device for knife holder with optimum sliding capability

- Elevating, Levelling movements of knife and lateral movements for the sturdy Knife Holder to use complete knife edge





## Semi Automatic Microtome (New Modular Design) SMI-325S

The Jindal semi automatic microtome characterizes a great combination of cost effective competence and user comfort. Semi Automatic microtome is the instrument of choice for clinical histology and histopathology applications.

These are used to produce thin sections of specimens of different hardness in both routine and research applications in biology, medicine and industry.

Manual sectioning is enhanced by the high precision motorized specimen feed which provides efficient operation with utmost section reproducibility.



### Spacious Section Waste Tray:

The spacious section waste tray consistently gathers sectioning wreckage.

### Knife Holder Adjustment:

The complete width of the knife can be used by using straight forward blade fastening mechanism. Using the entire knife edge is cost effective, particularly in laboratories with high specimen throughput.



### Well Located Storage Area:

An incorporated storage tray makes sure that certain subsidiary tools are in hand at all times.

### Safety during Sectioning:

Protection is assured by incorporated black finger protection guard of the knife holder that exceptionally safeguards the blade edge. When used correctly the integrated finger protection guard rules out potential injuries because it can even remain on the blade edge during sectioning.



## User Friendly Operation:

All functions are controlled via soft touch buttons located on the side of the block holder.

## Product Specifications

Section Thickness Indication	Bright LCD
Horizontal Specimen feed	30mm
Vertical Specimen Feed	70mm
Forward & backward speed	Slow : 300µm/sec ; Fast : 900µm/sec
Sectioning Mode	1 Semi Automatic
Specimen Orientation	Horizontal 8°, Vertical 8°
Maximum Specimen Size	(LXHXW) 55mmX60mmX40mm
Operating Voltage	220V Single Phase AC supply (Model with 110V also available)
Specimen Retraction	Automatic Motorized specimen retraction 5-100µm in 5 µm increment & can be turned off

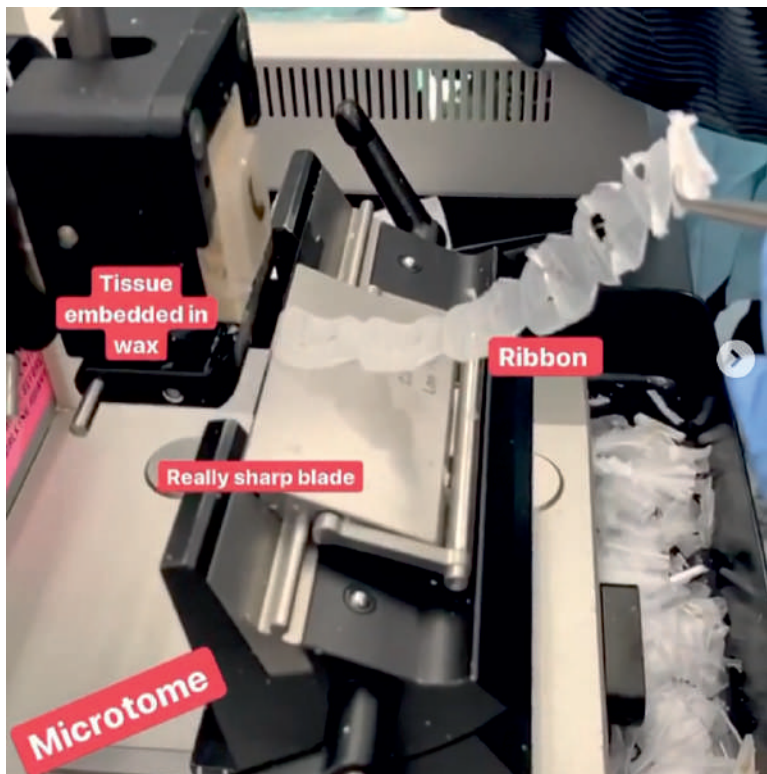
Range of section thickness	
0.5 - 100 µm from 0.5 µm - 5 µm	in 0.5 µm increment
from 5 µm - 20 µm	in 1 µm increment
from 20 µm - 60 µm	in 5 µm increment
from 60 µm - 100 µm	in 10 µm increment

Range of Trimming Section	
1 - 600 µm from 1µm - 10 µm	in 1µm increment
from 10µm - 20 µm	in 2µm increment
from 20µm - 100 µm	in 10µm increment
from 100µm - 600µm	in 50µm increment



## Optional Feature

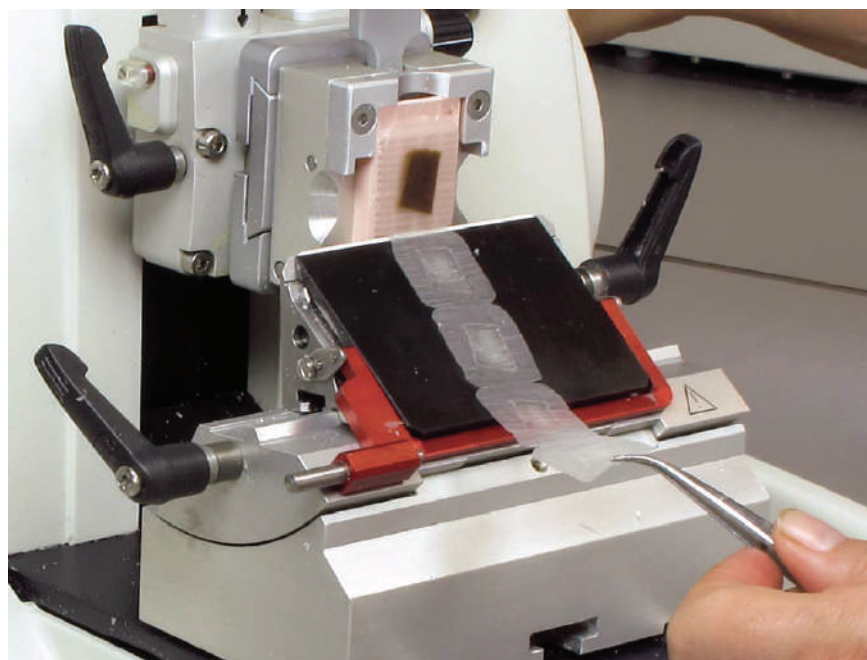
A wireless remote having keys for the operator to set the various parameters easily.



## At a glance

- LED visual limit indicators
- Compact, Ergonomic Overall Design
- Low maintenance linear roller slides
- User safety incorporated into overall design
- Convenient multipurpose specimen holder
- Soft touch key operated micron settings
- A heavy and rigid base to render a shake proof operation

- Balanced hand wheel for smooth rotation with locks
- Touch key operated trimming, forward & reverse
- Reduces hand stress via smooth-running hand wheel
- Easy to use universal Microtome Knife & Disposable Blade
- Section settings (section cutting/trimming) are displayed on a bright LCD
- Precise guide way and clamping device for knife holder with optimum sliding capability
- Elevating, Levelling movements of knife and lateral movements for the sturdy Knife Holder to use complete knife edge





## Fully Automatic Microtome(New Modular Design) SMI-325F

The Jindal fully automatic microtome satisfies all of your laboratory's requirements. The fully automatic motorized microtome is designed to provide superior sections of multitude of the specimen types with ease.

Its outstanding technology allows it to be used for semi thin to thick sectioning of soft or hard specimens routine as well as special biomedical applications.

Fully Automatic microtome characterizes a great combination of cost effective competence and user comfort. It is the instrument of choice for clinical histology and histopathology applications.

It includes a combination of automatic motorized hand wheel movement & high precision motorized specimen feed which provides efficient operation with utmost section reproducibility.

### Well Located Storage Area:

An incorporated storage tray makes sure that certain subsidiary tools are in hand at all times.

### Spacious Section Waste Tray:

The spacious section waste tray consistently gathers sectioning wreckage.

### User Friendly Operation:

All functions are controlled via soft touch buttons located on the sides of the block holder.

### Safety during Sectioning:

Protection in Fully Automatic microtome is assured by incorporated black finger protection guard of the knife holder that exceptionally safeguards the blade edge. When used correctly the integrated finger protection guard rules out potential injuries because it can even remain on the blade edge during sectioning.



### Knife Holder Adjustment:

The complete width of the knife can be used by using straight forward blade fastening mechanism. Using the entire knife edge is cost effective, particularly in laboratories with high specimen throughput.



## Product Specifications

Section Thickness Indication	Bright LCD
Horizontal Specimen feed	30mm
Vertical Specimen Feed	70mm
Sectioning Mode	3 Total : 1 Semi Automatic ; 2 Fully Automatic (Multiple & Single Cut)
Specimen Orientation	Horizontal 8°, Vertical 8°
Maximum Specimen Size	(LXHXW) 55mmX60mmX40mm
Operating Voltage	220V Single Phase AC supply(Model with 110V also available)
Specimen Retraction	Automatic Motorized specimen retraction 5-100µm in 5 µm increment & can be turned off

Range of section thickness	
0.5 - 100 µm from 0.5 µm - 5 µm	in 0.5 µm increment
from 5 µm - 20 µm	in 1 µm increment
from 20 µm - 60 µm	in 5 µm increment
from 60 µm - 100 µm	in 10 µm increment

Range of Trimming Section	
1 - 600 µm from 1µm - 10 µm	in 1µm increment
from 10µm - 20 µm	in 2µm increment
from 20µm - 100 µm	in 10µm increment
from 100µm - 600µm	in 50µm increment

## Optional Feature

A wireless remote having keys for the operator to set the various parameters easily.



## At a glance

- LED visual limit indicators
- Compact, Ergonomic Overall Design
- Low maintenance linear roller slides
- User safety incorporated into overall design
- Convenient multipurpose specimen holder
- Soft touch key operated micron settings
- A heavy and rigid base to render a shake proof operation



- Balanced hand wheel for smooth rotation with locks
- Touch key operated trimming, forward & reverse
- Reduces hand stress via smooth-running hand wheel
- Easy to use universal Microtome Knife & Disposable Blade
- Section settings (section cutting/trimming) are displayed on a bright LCD
- Precise guide way and clamping device for knife holder with optimum sliding capability
- Elevating, Levelling movements of knife and lateral movements for the sturdy Knife Holder to use complete knife edge

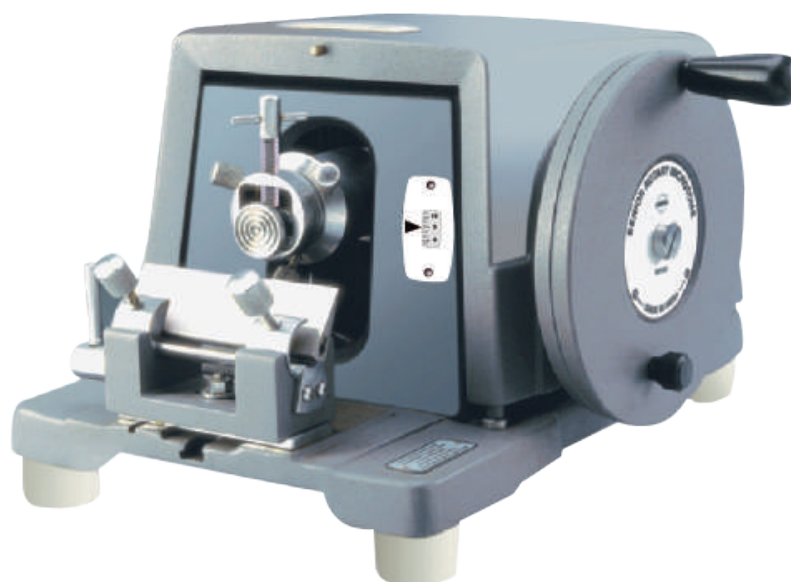
## Manual Rotary Microtome SMI-325

Jindal precision manual rotary microtome is the most advanced sectioning equipment for medical colleges, universities, research laboratories, hospitals and educational institutions.

The internal mechanism and knife holder rest on a heavy and rigid base to render a shake proof operation.

The latest designed light weight protective cover is hinged to the base and swings back so that the interior parts will be completely exposed for convenient cleaning, lubrication & setting etc. The feed mechanism is dependent on the vertical movement of the object block. With every complete revolution of the counter balanced drive wheel, the feed pawl engages precisely on to the teeth of the ratchet gear which moves forward and advances the object holder through a cone, inclined plane mechanism in such a precise increments that tissues can be sectioned even in one micron thickness. Well designed features for precise and accurate serial sectioning, with feed setting visible from front, improved locking device and counter balanced wheel. Feed is adjustable from 1 to 50 microns in steps of 1 micron. Free up and down movement of object clamp. Automatic restricted total excursion of 28 mm by disengaging the feed mechanism to prevent jamming.

Ball and flange object clamp provides flexible orientation of object piece. It takes specimen up to 32×27 mm on stem of block holders. Knife holder allows for 120 mm on 180 mm long knife. Cutting angle is adjustable through 30 degrees. Two levers release knife holder for resetting angles and a third lever releases the entire assembly for movement on slide way to adjust horizontal distance from object. Latest cam system eliminates the conventional cord system for feeding, resulting in better section cutting and improved efficiency of the machine.



Supplied complete with one knife 120 mm long with back and handle in wooden box, 2 block holders, One bottle of lubrication oil, dust cover



## Spare Accessories

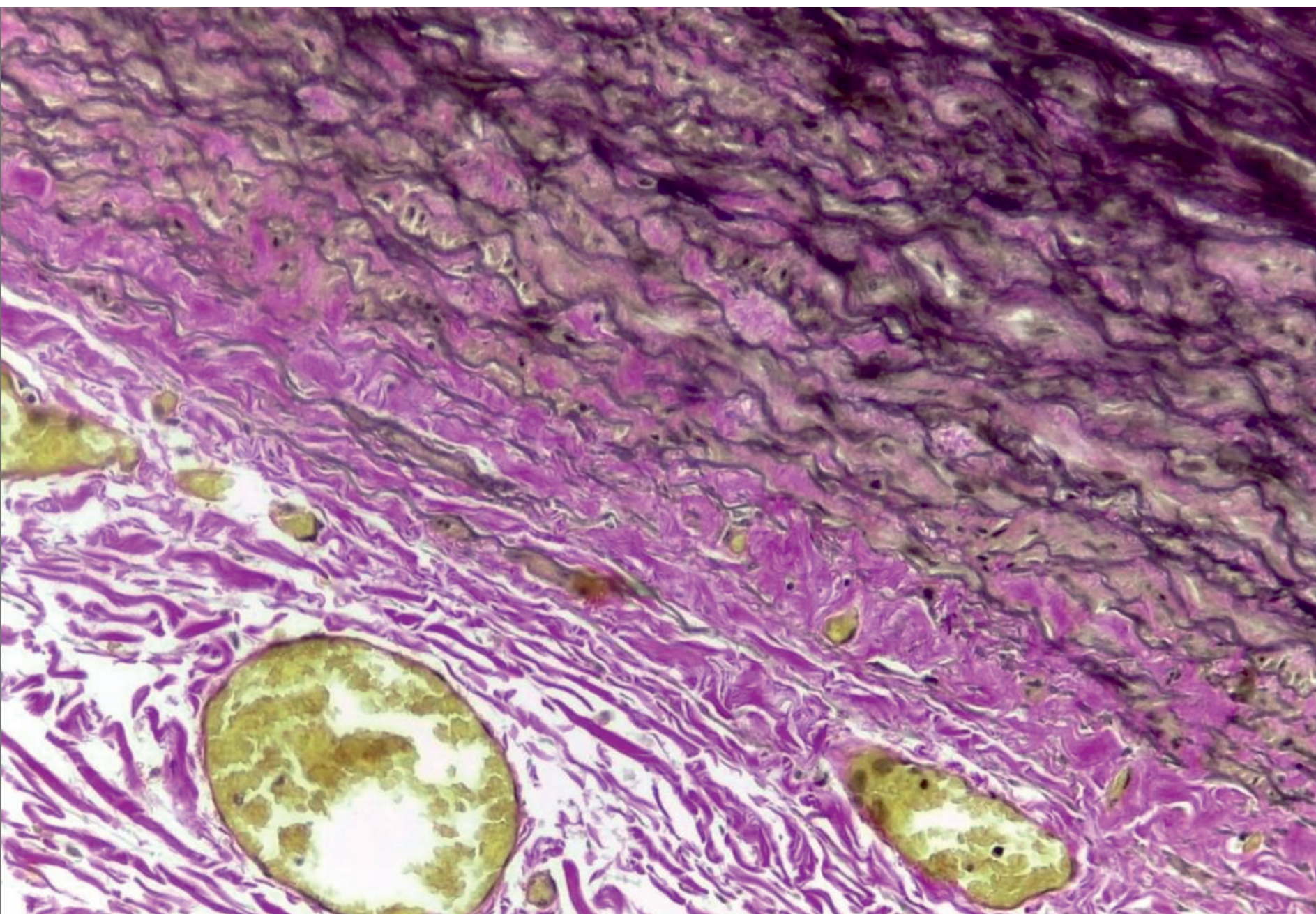
- L-Moulds made of brass
- Special Alloy Steel Knife
- Disposable Embedding Ring
- Stainless Steel Back for Knife
- Block Holder/Specimen Holder
- Embedding Moulds made of S.S.
- Size :- (Dia) 37 mm, 25 mm, 20 mm
- Size: - 120 mm, 150 mm, 180 mm, 200 mm

### L × W × D Size

- a. 16 × 16 × 12 mm
- b. 22 × 22 × 12 mm
- c. 32 × 25 × 12 mm

### Size

- a. 37 × 25 × 15 mm pair
- b. 50 × 25 × 15 mm pair
- c. 75 × 30 × 19 mm pair





## Sledge Cutting Microtome SMI-325SM

JINDAL sledge cutting sliding microtome is designed for cutting large blocks of paraffin & resin embedded material for life microscopy.

Sliding Microtome is having the advantage of vertical object feed by Micrometer Screw and Cylinder so rigidly held that perfect immobility under the knife is ensured, even when cutting relatively large, hard and in homogeneous specimens.

The heavy knife block is mounted on slideways & it can be actuated by hand. The Microtome comprises of a stable heavy cast base stand on a precise sliding track over which slides a sturdy knife holder. It's smooth and efficient operation has a great advantage of vertical object feed. The object holder has rapid vertical adjustment by means of a lever mechanism.

It's knife holder rigidly supports a 120mm knife made from imported fine grain hard tool steel, which ensures accurate sectioning not only of soft tissues but also harder materials such as stem, root and other objects etc.



### Technical Data

<b>Manual feed</b>	<b>1 - 30</b>
<b>Automatic feed</b>	<b>1 - 25</b>
<b>Overall Dimensions</b>	<b>41 x 35 x 28 cms.</b>
<b>Max. vertical object displacement</b>	<b>32 mm</b>
<b>Net Weight</b>	<b>25 Kgs</b>
<b>Feed adjustments</b>	<b>0-50 mm micron in steps of one micron</b>
<b>Object - Holders size</b>	<b>40 x 40 mm, 55 x 55 mm and 60 x 55 mm</b>

## Freezing Microtome SMI-325FM

JINDAL freezing microtome is designed for the purpose of accurate and quick diagnosis in surgery.

The microtome consists of a table clamping device. The specimen rises accurately and automatically by a handle. The CO2 freezing attachment is provided with a hard rubber non-conducting plate between the corrugated surface to which the object is frozen and the rest of the apparatus, which prevents the conduction of heat from the other parts of the apparatus to the specimen; thus saving time and CO2.

The automatic feed mechanism can be thrown out of action by turning the Index finger to the extreme left or it may be set to cut sections of any desired thickness. Each division of the graduated scale marks 5  $\mu$ m, the microtome range is 5-40  $\mu$ m. The sturdy Knife Holder can be tilted to a convenient angle of the Knife suitable to the object.

Technical Data	
Freezing Stage	34mm
Weight	14 kg. approx.
Feed Range	5 - 40 $\mu$ m in steps of 5 $\mu$ m each
Size (in case)	39 x 34 x 30 cm
Total Excursion of Feed	25mm
High pressure flexible tubing	150 cm. (approx.)





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