

# Histo-Line Laboratories



Innovative life science solutions

## Anatomy Pathology Catalog Histology Equipment



*made in italy*



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## Company

The Histo-line Laboratories S.r.l. were founded in Milan in 1987.

Main activities of the company are the production and distribution of diagnostic reagents, consumables, instruments dedicated to diagnosis, in the field of pathological anatomy.

Our mission is to provide 360° specialist help to the pathologists and technicians of anatomy pathology lab to achieve the best results by presenting a wide range of products and instruments for the preparation of histological and bioptic histological samples (human or animal tissue) from fixation, through embedding, processing, cutting and staining of slides.

The company supports in addition to the medical sector of cytopathology, including the broad spectrum of diagnostics and research, and in particular: immunohistochemistry, cell biology, molecular biology, hematology and veterinary medicine.

Focusing mainly on product valorization as antibodies, hybridization probes, detection systems, microspheres and nanoparticles.

In an effort to offer an even better service we have recently relocated in V.le Giuseppe di Vittorio, 30 Pantigliate. We have expanded our previous structure and have created a Conference Center able to host up to 100 people.

We offer a variety of ECM courses as well as courses on the theoretical and practical aspects of the applications of differing methodologies.



## Equipment



## Reagents and consumable



## Immunohistochemistry



## Mission

Our objective is to support pathologists and lab technicians throughout the histological process, by fixing of tissue sample to the storage of slides.

TISSUE PROCESSING  
EMBEDDING  
SECTIONING  
STAINING  
CYTOLOGY

## ISO Certification

Histo-Line Laboratories has been steadily investing in quality since 1987 by improving its production processes to obtain products and tools that meet the needs of customers.

Through the implementation of Quality Management Systems attesting to this strong focus on the production of products with high qualitative characteristics and in accordance with internationally recognized requirements, it has obtained the certificates ISO 9001 and obtained ISO 13485.





## Histology Equipments

### TISSUE PROCESSING

8	Histo-Pro 300 Vacuum Tissue Processor	12	ATP 1000 Automatic Tissue Processor
10	Histo-Pro 200 Vacuum Tissue Processor	14	STP 250-V Spin Vacuum Tissue Processor

### EMBEDDING

20	TEC 2900 Tissue Embedding Center	26	TEC 2900T-1 Main console - Embedding module Touch Screen
22	TEC 2900-1 Main Console	27	TEC2000 Paraffin Dispenser
23	TEC 2900-2 Cryo Console	28	TEC3000 Histo Trimmer
24	TEC 2900-3 Thermal Console	29	Histo Clip Heated forceps
25	TEC 2900-4 Thermal Console Double Floor		

### SECTIONING

#### ROTARY MICROTOMES

34	ARM 3750 Fully Motorized Rotary Microtome with keypad	40	MR 3000 Manual Rotary Microtome
36	ARM 3600 Fully Motorized Rotary Microtome	42	MR 2258 Manual Rotary Microtome
38	MRS 3500 Ultra-Thin Semiautomatic Microtome		

#### MICROTOMES CRYOSTAT

44	MC 5050 Microtome Cryostat with retraction	48	MC 4000 Microtome Cryostat Dual Compressor
46	MC 5000 Microtome Cryostat clinical dual compressor	50	MC 3000 Microtome Cryostat

### SECTIONING ACCESSORIES

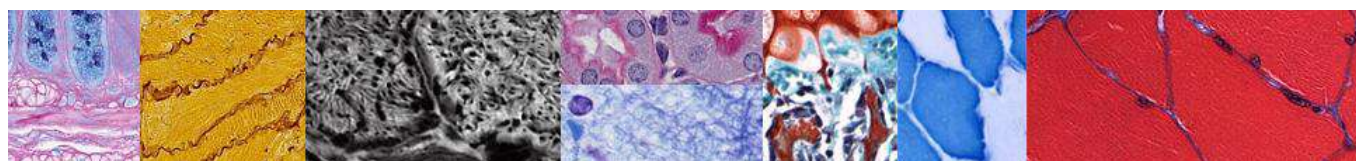
56	HL 2500 Water Bath-Slide Dryer	58	WB 2800 Water Bath
57	WB 2900 Tissue Floating Bath	59	SD 2800 Slide Dryer

### STAINING

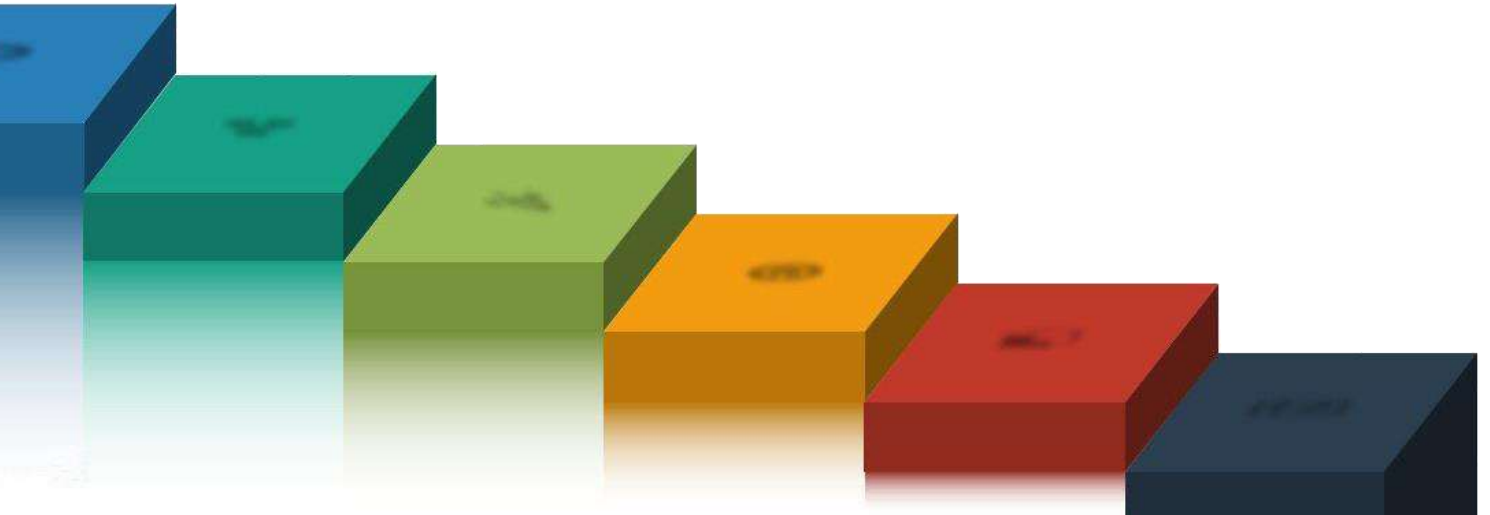
64	ATS 200 Automatic Multiple Slide Stainer	68	Histo-24 Histo Stainer
66	ATS 2010 Automatic Slide Stainer		

### CYTOLOGY

74	SP-100 Cytological Centrifuge
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# Tissue Processing



Automatic Tissue Processor  
Histo-Pro 300 Vacuum  
Histo-Pro 200 Vacuum  
ATP 1000 Linear  
STP 250-V Spin





## HISTO-PRO 300 VACUUM TISSUE PROCESSOR

IVD CE

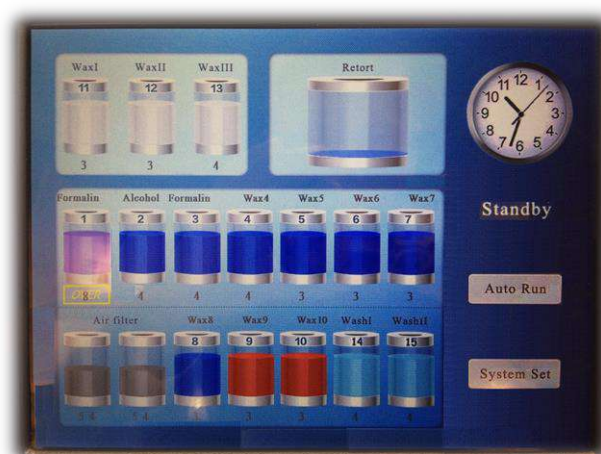


### The Instrument

- Histo-Pro 300 set a new standard in vacuum tissue processing.
- Its unique reagent monitoring and management delivers significant reagent cost savings.
- Superior process control, functional design, and precise temperature control ensure optimum specimen quality.
- An active extraction process ensures efficient paraffin cleaning, which extends paraffin life, improves tissue quality, and reduces operating and reagents costs.
- User safety is enhanced by a fully enclosed fume system and improved reagent bottle and cabinet design.
- Through the control panel all the operating parameters like programs, temperatures, vacuum and levels can be freely modified.
- Three different reagent level according to sample quantity processed.
- Histo-Pro 300 is available with automatic fill/drain reagent system to prevent the risks of reagents contact. (optional).

### Display and Software

- Large touch-screen color liquid crystal display (LCD).
- User-friendly, smart icons software.
- Alarm system for wrong.
- Operation and troubles.
- Multiple specimen protection system.
- The operator can set the different programs varied in duration, temperature.
- Freely customized programs for retort cleaning cycle.







Capacities

- Maximum processing capacity: 300 cassettes.
- 20 programs that consist of up to 10 reagent and 3 paraffin wax steps.
- Time for program step: 0 to 99 hours, 59 minutes
- Wax clean program.
- 10 reagent bottles.
- 3 wax baths a temperature: 50°C - 65°C.
- 2 cleaning solution bottles.
- 1 condensate bottle.
- 1 carbon filter bottle.
- Maximum bottle volume: 6.0 lt.

Retort

- Reagent volume: 6.8 Lt.
- Temperature (paraffin): 50°C - 65°C.
- Temperature (reagents): ambient or 35°C.
- Temperature (cleaning reagents): 50°C -65°C.
- Temperature accuracy: + 1°C.
- Filling / Drain time: up to 5 min.
- Impregnation vacuum: -70 kPa (g).
- Impregnation pressure: 35 kPa (g).
- Fill vacuum: -70 kPa (g).
- Drain pressure: 35 kPa (g).



Technical Data



- Nominal voltage and : frequency AC 220 V /60 Hz.
- Main fuses: 10 A.
- Nominal power: 1500 V/A.
- Operating temperature range: 15 °C to 35 °C.
- Relative humidity: 10 to 80 %.
- Recirculation (pump in/out): ON/OFF.
- Time between cycles: 15 min.
- Dimension: 62X68X123 (WxDxH) cm.
- Dry weight, unpacked: approx. 100 kg.
- Weight, packed: 120 kg.

Programmable

Alarm System

Management

Savings costs

Top quality

Product	Size	Packaging	Code
Histo-Pro 300 Vacuum Tissue Processor	Unit	1 pc	Pro300



## HISTO-PRO 200 VACUUM TISSUE PROCESSOR

IVD CE



### The Instrument

- Histo-Pro 200 set a new standard in vacuum tissue processing.
- Its unique reagent monitoring and management delivers significant reagent cost savings.
- Superior process control, functional design, and precise temperature control ensure optimum specimen quality.
- An active extraction process ensures efficient reagents quality, which extends paraffin life, improves tissue quality, and reduces operating costs.
- User safety is enhanced by a fully enclosed fume system and by the improved reagent bottle and cabinet design to prevent the risk of contact and reagent carry-over.
- Through the control panel all the operating parameters like programs, temperatures, vacuum and levels can be freely modified.
- Three different reagent level according to sample quantity processed.
- Histo-Pro 200 is available with automatic fill/drain reagent system to prevent the risks of reagents contact. (optional).

### Display and Software

- Large Touch-screen color Liquid Crystal Display (LCD).
- User-friendly, smart icons software.
- Alarm system for wrong operation and troubles.
- Multiple specimen protection system.
- The operator can set the different programs varied in duration, temperature.
- Freely customized programs for the cleaning of the reagents retort.







## Capacities

- Maximum processing capacity: 200 cassettes.
- 20 programs that consist of up to 10 reagent and 3 paraffin wax steps.
- Time per program step: 0 to 99 hours, 59 minutes.
- Up to 200 cassettes can be processed.
- Wax clean program.
- 10 reagent bottles.
- 3 wax baths a temperature: 50°C - 65°C.
- 2 cleaning solution bottles.
- 1 condensate bottle.
- 1 Carbon filter bottle.
- Maximum bottle volume: 4.0 lt.

## Retort

- Reagent volume: 6.1 lt.
- Temperature (paraffin): 50°C - 65°C.
- Temperature (reagents): ambient or 35°C.
- Temperature (cleaning reagents): 50°C - 65°C.
- Temperature accuracy: + 1°C.
- Filling / Drain time: up to 5 min.
- Impregnation vacuum: -70 kPa (g).
- Impregnation pressure: 35 kPa (g).
- Fill vacuum: -70 kPa (g).
- Drain pressure: 35 kPa (g).



## Technical Data

- Nominal voltage and : frequency AC 220 V /60 Hz.
- Main fuses: 10 A.
- Nominal power: 1500 V/A.
- Dry weight, unpacked: approx. 100 kg.
- Weight, packed: 120 kg.
- Operating temperature range: 15 °C to 35 °C.
- Relative humidity: 10 to 80 %.
- Recirculation (pump in/out): ON/OFF.
- Time between cycles: 15 min.
- Dimension: 62X68X123 (WxDxH) cm.



Programmable



Alarm System



Management



Savings costs

Product	Size	Packaging	Code
Histo-Pro 200 Vacuum Tissue Processor	Unit	1 pc	Pro200



## ATP 1000 AUTOMATIC TISSUE PROCESSOR

IVD CE



### The instrument

- ATP 1000 is a bench-top linear closed tissue processor, a compact instrument designed with latest technology for complete automatic dehydration and infiltration of biological samples, up to final paraffin bath.
- Includes 14 stations for simultaneous processing of two samples baskets programmable separately.
- All the reagent and paraffin containers are closed to prevent evaporation.
- Active carbon filter prevent solvent odors and pollution.
- ATP 1000 can be programmed for immediate or delayed start, immersion time can be set from 1 minute to 99 hours and 59 minutes.





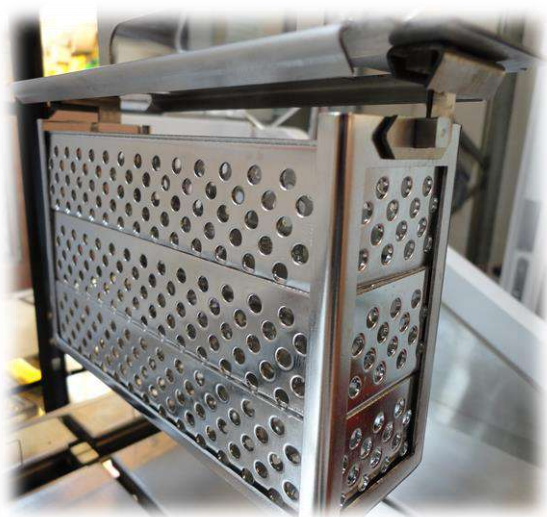


Specifications

- All the operating parameters, like station time, temperatures, dripping time, can be easy set by the touch-screen panel, as well as daily, weekend and weekly programming.
- Temperatures are regulated via electronic thermostat with microprocessor.
- User can set up to 6 the different programs.

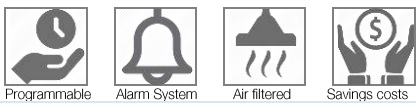
Capacities

- Number of stations 14.
- Number of reagent stations 10.
- Number of paraffin stations 4.
- Number of storable programs 6.
- Total samples capacity 150 (75 each basket).
- Station capacity 1500 ml.
- Programmable infiltration time for station: from 1 min. to 99 h 59 min.
- Paraffin temperature range: from 50°C to 75°C increments 1°C.
- Agitation: 4 times every 5 min.
- Delayed start: 99h 99 min.
- Dripping time: 0 sec. to 99 sec.
- UPS: (optional).
- Nominal supply voltage: 220 V/50 Hz 110 V/60 Hz.
- Maximum power draw: 1000 V/A.



Dimension

- Width: 140 cm
- Depth: 50 cm
- Height: 55 cm
- Weight:142 Kg



Product	Size	Packaging	Code
ATP 1000 Automatic Tissue Processor	Unit	1 pc	ATP1000





## STP 250-V SPIN VACUUM TISSUE PROCESSOR

IVD CE



### The instrument

- Histo-Line STP250 automatic spin tissue processor and STP250-V automatic vacuum spin tissue processor are equipment that perform tissue infiltration, through the combination of an efficient and well-tested technology.
- It is widely applied in pathologic laboratories, medical colleges and universities, animal and plant scientific research institute and food inspection department.
- The combination of a silent and robust precision mechanism, plus new software, enable the user to attain the highest degree of flexibility, as all function can be programmed.

### Specifications

Through this versatility, each user can adjust the unit to the specific requirements:

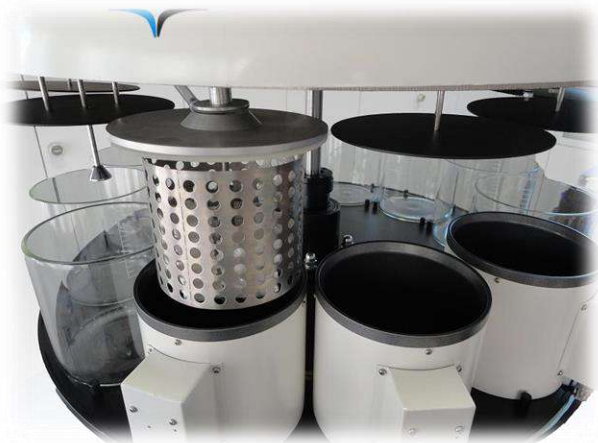
- Microprocessor operating control to ensure operating convenience and working stability.
- Tissue basket relocating controlling enabling the tissue to be put in any tank
- Electricity protection and obstacle protection functions.
- Agitation mode to guarantee the complete mix and contact with the tissue, solvent and paraffin so as to achieve good dehydrate effect.
- Large touch-screen LCD screen shows every step of processing and easy for monitoring.
- Timing:
  - a. Delay timing up to 30 days
  - b. Tank process timing up to 10 hours
  - c. Timing increment: 1 min





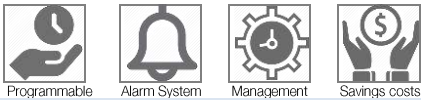
Specifications

- Constant temperature controlling system adopted on the paraffin tank to ensure high precision of temperature controlling, nonstick Teflon coating painted on the internal surface that provide the good condition for tissue protection.
- The individual covers for each one of the vessel reduce the emission of vapors to a minimum.



Technical features

<b>Capacities</b> <ul style="list-style-type: none"><li>▪ Number of programs: 10</li><li>▪ Tank processing time: 0 ~ 10 hour</li><li>▪ Delay time: 0 ~ 30 days</li><li>▪ Environmental temperature: + 5 °C to + 40 °C</li><li>▪ Environmental humidity: &lt;85% (20°C ± 5 °C)</li><li>▪ Number processing tank: 12</li><li>▪ Tissue basket stir: ≥10 times / hour</li><li>▪ Reagent tank quantity: 9</li><li>▪ Reagent tank capacity: 2.3 lt</li><li>▪ Paraffin tank quantity: 3</li><li>▪ Paraffin tank capacity: 1.8 lt</li><li>▪ Temperature setting: 45° ~ 85° C</li><li>▪ Standard tissue basket: 1 (2 optional)</li><li>▪ Capacity: ~ 100 cassettes</li></ul>	<b>Vacuum device</b> <ul style="list-style-type: none"><li>▪ Pressure difference: max. 500 hPa (approx. 0.5 bar)</li></ul> <b>Electrical data</b> <ul style="list-style-type: none"><li>▪ Power supply: AC 220 V, 50/60 Hz</li><li>▪ Power: 1000 W</li></ul> <b>Size and weight</b> <ul style="list-style-type: none"><li>▪ Net weight: 70 Kg</li><li>▪ Overall dimension: 780 Ø × 700 ~ 570 (height) mm</li></ul>
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Product	Size	Packaging	Code
STP 250-V Spin Vacuum Tissue Processor	Unit	1 pc	STP 250-V
STP 250 Spin Tissue Processor	Unit	1 pc	STP 250



## Tissue processors comparison table

Histo-Line tissue processors help you simultaneously increase quality and throughput with built-in quality, reliability and tissue protection. So, choose the right instrument for your workload to maximize efficiency and protect critical patient tissue.

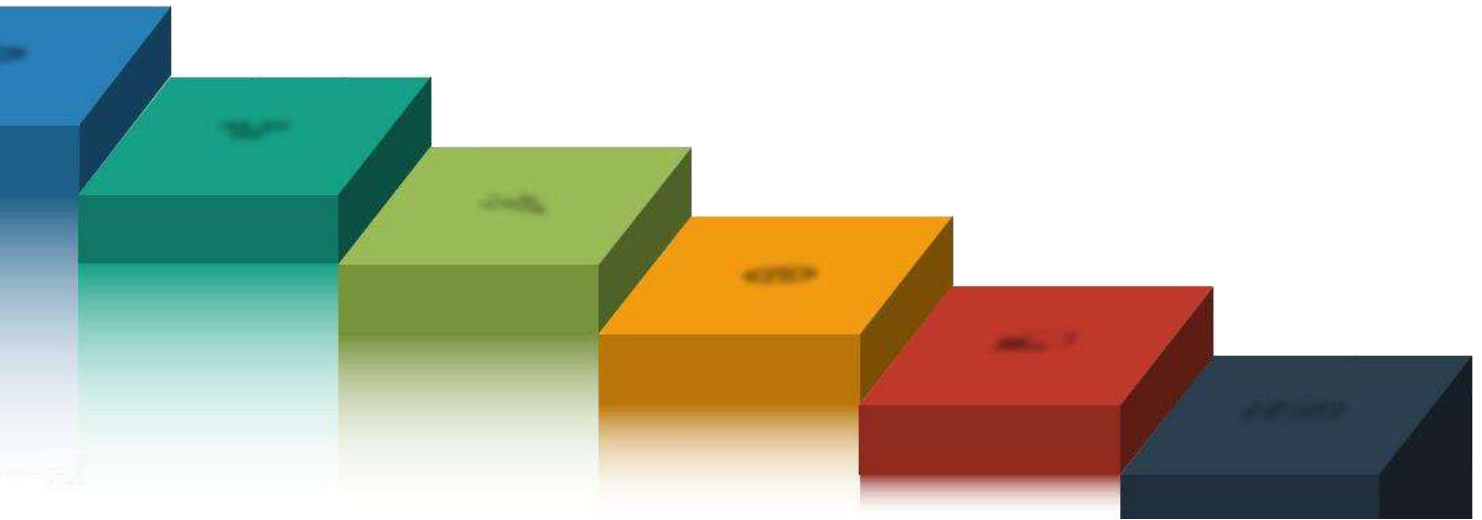


Peculiarity	Histo-Pro 300	Histo-Pro 200	ATP1000	STP250-V	STP250
Capacities of sample	~300	~200	~150	~100	~100
Program	20	20	6	10	10
Underfloor	X	X			
Bench			X	X	X
Vacuum	X	X		X	
Monitor touch screen	X	X	X	X	X
Agitation mode	X	X		X	X
Microprocessor control	X	X	X	X	X
Tank carbon filter	X	X			
Active Carbon filter			X	X	X
Programmable	X	X	X	X	X
Alarm system	X	X	X	X	X
Reagent level control	X	X		X	X





# Embedding



TEC 2900 Tissue Embedding Center

TEC 2900-1 Main Console

TEC 2900-2 Cryo Console

TEC 2900-3 Thermal Console

TEC 2900-4 Thermal Console Double Floor

TEC 2900T-1 Main console - Embedding module Touch Screen

TEC 2000 Paraffin Dispenser

TEC 3000 Histo Trimmer

Histo Clip Heated forceps



# EMBEDDING

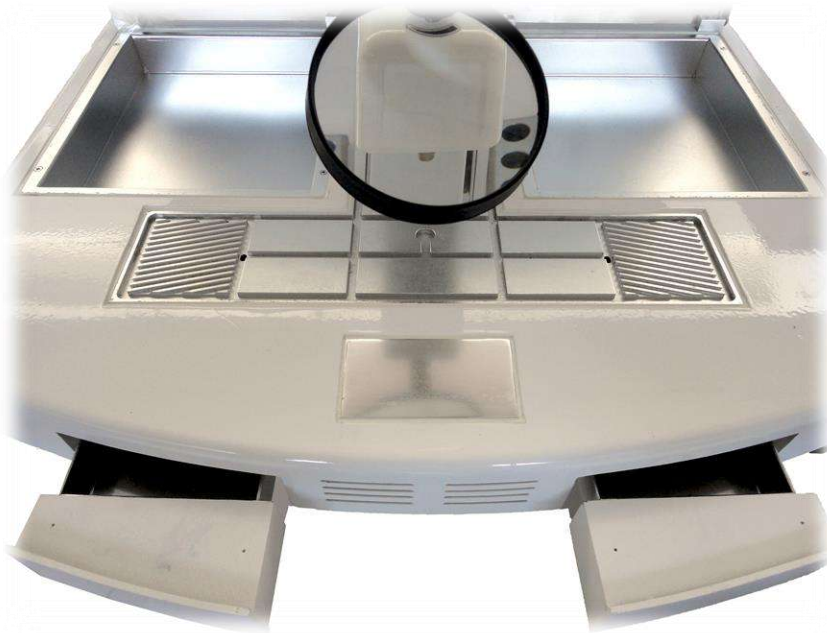
## TEC 2900 TISSUE EMBEDDING CENTER

IVD CE



### The instrument

- TEC 2900 tri-modular embedding center incorporates three separate components; dispensing console, cryo console and thermal console in a modular design.
- The independent units offer the flexibility to ensure embedding workflow in either direction to suit the user's needs.



### Specifications

- TEC 2900 integrates the latest technology for convenient and efficient workflow in the histology laboratory.
- The ideal modular tissue-embedding center for the discerning customer.
- The large mold and cassette warming trays are located at the same level and interchangeable to accommodate individual workflow requirements.
- The model is to meet all the embedding requirements of the modern histology laboratory.

# EMBEDDING



## Technical features

- Separate modules: Cryo console, Paraffin dispenser and Thermal console.
- Large removable magnifier.
- All functions are controlled via an easy-to-read display, including the temperature settings for left and right warming trays, paraffin reservoir, and working surface.
- Double strip light-blue LED anti-glare.
- Large, simple and robust design.
- Bright display.
- Large capacity paraffin reservoir (more than 6-liter wax capacity)
- Good ergonomic layout.
- Easy-to-use controller.
- Large cold spot allows tissue orientation even with super mega cassette.
- Socket for heated forceps.
- Working days and times can be set for automatic weekly/daily on/off.

## Capacity

- Paraffin reservoir: 6,0 lt
- Cassette/mold trays: 1,8 lt

## Dimension

- Width: 60 cm
- Depth: 65 cm
- Height: 46 cm
- Weight: 30 Kg



Product	Size	Packaging	Code
Embedding center complete Complete with three modules	Unit	1 pc	TEC2900
Main Console	Unit	1 pc	TEC2900-1
Cryo Console	Unit	1 pc	TEC2900-2
Thermal Console	Unit	1 pc	TEC2900-3





## TEC 2900-1 MAIN CONSOLE

IVD CE



### The instrument

- Paraffin dispensing module with 6 Lt liquid paraffin capacity.
- Large heated working surface and storage capabilities for both cassettes and molds. Uniquely designed with microprocessor temperature sensors, each single console which maximizes space utilization, multifunctional workstations.
- The entire unit is encased in a durable housing.

### Technical features

#### Working surface

- The tissue embedding cassettes and base molds trays are removable to accommodate in embedding workflow and can be set at different temperatures.
- The heated forceps wells can be set at the preferred temperature. 6 holes easy accessible.
- The ergonomic large working surface allows processing many samples at the same time.
- The paraffin flow can be easily adjusted by turning the knob.
- Paraffin dispensing nozzle controllable via hand switch or foot pedal.
- The large work surface allows draining of the excess paraffin into two large waste trays and allows processing many cassettes at the same time.
- It can be set heating automatically from monday to sunday as user requirement timing.
- The display panel allows convenience, quick operation.
- New functions: switch off time set as user's need.

#### Cold spot

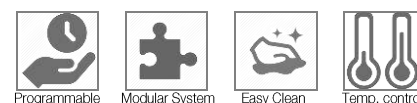
- The cold spot is designed to accommodate even small and big cassettes. Allows rapid chilling of paraffin and precise orientation of the specimen.
- The temperature range is from room temperature to -10° C. approx.
- Very rapid cooling.

#### Technical parameter

- Nominal supply voltage: 220 V/50Hz or 110 V/60Hz
- Maximum power draw: 1000 W/A
- Working temperature (increments 1°C):
  - Paraffin Tank: from ambient to 80°C
  - Cassettes/molds tray: from ambient to 80°C
  - Working table: from ambient to 80°C.
- Capacity: paraffin reservoir: 6 liter, cassettes/molds tray: 1.8 Liter.

#### Dimensions

- Width: 60 cm, Depth: 65 cm, Height: 46 cm.
- Net Weight: 30 kg



Product	Size	Packaging	Code
Main Console	Unit	1 pc	TEC2900-1

# EMBEDDING



## TEC 2900-2 CRYO CONSOLE

IVD CE

### The instrument

- The Cryo console is composed of a compressor cooled work surface held to chill the paraffin blocks rapidly.
- Used in combination with TEC 2900-1 dispensing console as well as a stand-alone unit near microtome station.
- Best fits the needs of the laboratory.
- The large Teflon coated refrigerate surface can hold up to 80 standard cassettes, is equipped with anti-drip edge. It has a system of cooling cycle gas compressed, CFC-free.
- It equipped with Plexiglas cover to keep the temperature constant and to avoid the formation of ice on the surface in high humidity ambient.



### Technical features

#### Working Surface

- It can be placed 80 cassettes.
- Large teflon coated surface for cooling embedded tissues.
- Stand alone unit. May be placed beside microtome up to user operating habit.
- New improved: used new design to ensure the best stability cooling performance.

#### Technical Parameter

- Nominal supply voltage: 220 V/50 Hz or 110 V/60 Hz
- Maximum power draw: 200 V/A
- Working temperature: from ambient to -20°C increments 1°C.

#### Dimensions

- Width: 41 cm, Depth: 63 cm, Height: 44 cm
- Weight: 24kg



Product	Size	Packaging	Code
Cryo Console	Unit	1 pc	TEC2900-2



### The instrument

- Paraffin dispensing module with 6 Lt liquid paraffin capacity.
- Large heated working surface and storage capabilities for both cassettes and molds. Uniquely designed with microprocessor temperature sensors, each single console which maximizes space utilization, multifunctional workstations.
- LCD touch screen control panel and vapor treatments with activated charcoal filter.

### Technical features

#### Working surface

- The tissue embedding cassettes and base molds trays are removable to accommodate in embedding workflow and can be set at different temperatures.
- The heated forceps wells can be set at the preferred temperature. 6 holes easily accessible.
- The ergonomic large working surface allows processing many samples at the same time.
- The paraffin flow can be easily adjusted by turning the knob.
- Paraffin dispensing nozzle controllable via hand switch or foot pedal.
- The large work surface allows draining of the excess paraffin into two large waste trays and allows processing many cassettes at the same time.
- It can be set heating automatically from Monday to Sunday as user requirement timing.
- Vapor treatments system
- The LCD display panel touch screen allows convenience, quick operation.
- **New functions:** automatic switching on and off daily or weekly.

#### Cold spot

- The cold spot is designed to accommodate even small and big cassettes. Allows rapid chilling of paraffin and precise orientation of the specimen.
- The temperature range is from room temperature to -10° C. approx.
- Very rapid cooling.

#### Technical parameter

- Nominal supply voltage: 220 V/50Hz or 110 V/60Hz
- Maximum power draw: 1000 V/A
- Working temperature (increments 1°C):
  - Paraffin Tank: from ambient to 80°C
  - Cassettes/molds tray: from ambient to 80°C
  - Working table: from ambient to 80°C.
- Capacity: paraffin reservoir: 6 liter, cassettes/molds tray: 1.8 Liter.

#### Dimensions

- Width: 60 cm, Depth: 65 cm, Height: 46 cm.
- Net Weight: 30 kg



Automatic ON/OFF



Touch screen



Programmable



Modular System



Easy clean



Temp. control

Product	Size	Packaging	Code
Main console- Embedding module touch screen	Unit	1 pc	TEC2900T-1





## TEC 2000 PARAFFIN DISPENSER

IVD CE



### The instrument

- The paraffin dispenser is a unit designed for paraffin of different melting points and purpose.
- The upper reservoir can contain up to 5 lt of paraffin.
- The particular structure of the reservoir allows homogeneous heat dissipation and prevents thermal shock to the molecular structure of the paraffin, which retains its characteristics over time.
- Three different areas with settable temperature: wax, tap and working area.
- Easy-to read display allows viewing of the parameters at a glance.
- Economic, reliable, ideal for small labs.

### Technical features

- Nominal supply voltage: 220 V/50 Hz or 110 V/60 Hz
- Maximum power draw: 600 V/A
- Working temperature: from 30° to 90°C increments 1°C
- Heat plate: width: 31 cm, depth: 15 cm

### Dimensions

- Width: 31 cm,
- Depth: 35 cm,
- Height: 41 cm
- Weight: 13 kg



Product	Size	Packaging	Code
Paraffin Dispenser	Unit	1 pc	TEC2000





### The instrument

- TEC3000 Wax Trimmer is a smart, practical device designed to remove excess of paraffin from the embedding cassettes after inclusion of specimens.
- Scraping the embedded block on the “grooved” plane heated surface, excess paraffin will be removed leaving the cassette clean and ready to be set properly on the clamp of the microtome.
- The excess of melted paraffin is collected in a practical removable drawer.
- No more residual paraffin curls on workbench!

### Technical features

- Temperature range: from 30° to 90°C increments 1°C
- Precision in the control of temperature:  $\pm 1^\circ\text{C}$
- Nominal supply voltage: 220 V  $\pm 10\%$  50 Hz  
or 110 V  $\pm 10\%$  60 Hz

### Dimensions

- Width: 22 cm
- Depth: 16 cm
- Height: 17,5 cm
- Weight: 2,5 Kg



Product

Size

Packaging

Code

Histo trimmer

Unit

1 pc

TEC3000

## HISTO CLIP HEATED FORCEPS

IVD CE



### The instrument

- The Histo-clip are electrically heated forceps designed to assist in the preparation of histological slides. Orientation of a specimen during wax embedding has traditionally been completed using stainless steel forceps. To prevent their cold tips from solidifying the liquid wax medium, it is necessary to repeatedly remove the forceps from the work and heat them by external means - in a flame or embedding centre. Insufficient heating results in sticking, while excessive temperatures will damage the specimen.
- The Histo-clip incorporate safe, low-voltage, energy-controlled heating elements which constantly maintain their tips at the optimum temperature for manipulation of specimens in histological wax. They may be used continuously, without adjustment, and without influencing the temperature of the medium or tissue.
- Eliminating the task of keeping the forceps at a usable temperature enables the operator to concentrate on orientation of the tissue, and results in a significant increase in productivity.



Product	Size	Packaging	Code
Histo Clip heated forceps	Unit	1 pc	HL2043
Heated forceps red 1 mm	Unit	1 pc	HL4057
Heated forceps yellow 2 mm	Unit	1 pc	HL4058
Heated forceps blue 4 mm	Unit	1 pc	HL4059



# EMBEDDING



## Embedding Center comparison table

Great sections rely on careful embedding. Histo-Line embedding solutions help you ensure correct tissue orientation, avoid heat damage, and create the ideal block shape. Setup a Histo-Line embedding center to match your workflow, choose productivity enhancing accessories and select base molds that match your cassettes.



### Main Cosole Modules

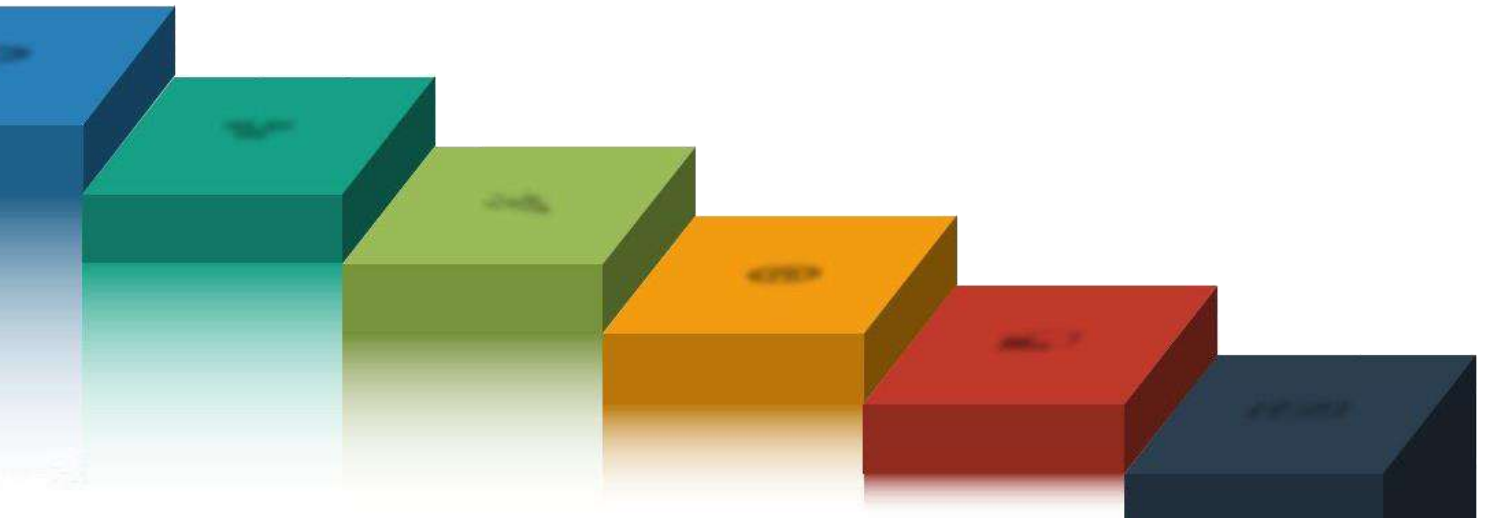
Peculiarity	TEC2900-1	TEC2900T-1
System Vapor treatments		X
Module separable	X	X
Automatic switching on and off daily or weekly		X
Capacity paraffin reservoir (Lt)	6	6
Light-blue LED	X	X
Programmable intensity LED		X
Magnifying glass	X	X
Cold spot for Super Mega Cassette	X	X
Cold spot autonomous	X	X
Foot Switch	X	X

### Embedding Center Modules

Peculiarity	TEC2900-1 TEC2900T-1	TEC2900-2	TEC2900-3	TEC2900-4	TEC2000	TEC3000
Adjustable temperature	X	X	X	X	X	X
Programmable	X					
Teflon surface		X	X			
Microprocessor control	X	X	X	X	X	X
Parts removable	X		X	X		



# Sectioning



## ROTARY MICROTOMES

ARM 3750 Fully Motorized Rotary Microtome with external keypad  
ARM 3600 Fully Motorized Rotary Microtome  
MRS 3500 Ultra-Thin Semiautomatic Microtome  
MR 3000 Manual Rotary Microtome  
MR 2258 Manual Rotary Microtome

## MICROTOMES CRYOSTAT

MC 5050 Microtome Cryostat with retraction  
MC 5000 Microtome Cryostat Clinical Dual Compressor  
MC 4000 Microtome Cryostat Dual Compressor  
MC 3000 Microtome Cryostat





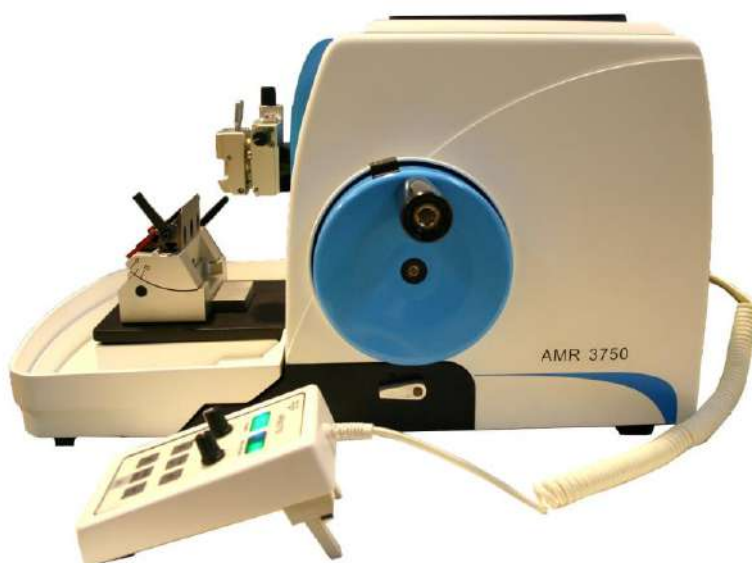
## ARM 3750 FULLY MOTORIZED ROTARY MICROTOME WITH EXTERNAL KEYPAD

IVD CE



### The instrument

- ARM 3750 is a full-automatic microtome with complete function of automatic sectioning, slice counting, microns counting, fast trimming.
- It's the ideal microtome in histopathology. ARM 3750 incorporates a refined design with a precise electronic, controls and stable performance.
- Driving feed system is controlled by smart procedure, quick rotary-switch or automatic slicing.
- Automatic sectioning speed can be adjusted, with safe quick braking system; precise electronic mechanic design and manufacture to ensure precision of tissue sections.
- Separate panel and footswitch for comfortable cutting operations.
- Hand wheel can lock at any position.
- Both steel knife (optional) and disposable low- or high-profile blades can be used.
- Stable in performance with automatic protection system, interchangeable specimen clamp system, LCD display and separate keypad.
- Easy to operate.





# SECTIONING



## Characteristics

- The automatic feed of the sample is controlled precisely by the side electronic panel.
- The hand wheel allows to set the automatic speed of execution of cutting through a speed variator from 0 to 55 rpm, to allow an excellent and more precisely automatic section results even for difficult tissues.
- The sample retraction can be set in value by user.
- Sample orientation is simple and precise; when the red spot is visible, the orientation plane is at zero.
- The steel quick-clamp is equipped with a device for quick change of cassettes without altering the inclination of the sample.
  - The clamp is suitable for all types of standard cassettes, and is interchangeable by the operator with the ring holder (optional).
  - The sample holder arm is equipped with a mechanism that allows a quick and precise orientation along the x and y.



## Technical features

**Cut thickness range:** 0,25 - 100µm

**Cut thickness adjustment:**

- 0,25 to 2,5µm in 0,25µm increments
- 2,5 to 5µm in 0,5µm increments
- 5 to 10µm in 1µm increments
- 10 to 30µm in 2µm increments
- 30 to 60µm in 5µm increments
- 60 to 100 µm in 10µm increments

**Trim thickness range:** 1 - 600µm

**Trim thickness adjustment:**

- 1 to 10µm in 1µm increments
- 10 to 20µm in 2µm increments
- 20 to 50µm in 5µm increments
- 50 to 150µm in 10µm increments
- 150 to 600µm in 50µm increments

**Horizontal Specimen feed:** 25 ± 1 mm (stepper motor)

**Specimen orientation:** X and Y axis: from 0 to +/- 8°, with zero point. Z axis: rotation of 90°

**Cutting speed:** variable speed up 1500µm/s to 3500µm/s

**Stroke length:** 70 mm

**Max size of specimen (LxHxD):** 70 X 70 X 40 mm

**Retraction:**

- Manual mode: 0 to 50µm in 5µm increments
- Automatic mode: speed based, selectable

**Size and weight**

- Total length: 475 mm
- Total depth: 580 mm
- High: 340 mm
- Net Weight: 40 kg

**Electrical data**

- Working voltage: 220/230V
- Frequency: 50/60 Hz
- Power: 150 W



Pedal wireless



Programmable



Top Quality



Automatic

Product	Size	Packaging	Code
Fully Motorized Rotary Microtome with keypad	Unit	1 pc	ARM3750



## ARM 3600 FULLY MOTORIZED ROTARY MICROTOME

IVD CE



### The instrument

- Histo-Line ARM 3600 is fully automatic rotary microtome, designed for routine and research in histology and research laboratories.
- Fast, easy to use, the section and trimming thickness are selectable between 0,5 and 100  $\mu\text{m}$  and are easily set through the control panel.
- Cutting and trimming function can be finished by the control system.
- The hand wheel can be locked at any position, to ensure the safety of the operation.
- The large waste tray can be easily removed for cleaning.
- Two kinds of the specimen clamp can be changed conveniently; cassettes or block.
- Two section mode: manual and automatic, the user can switch arbitrarily.
- Four speed of section: 25 circle/minute, 35 circle/minute, 45 circle/minute, 55 circle/minute.
- Switch arbitrarily between section and trimming.



# SECTIONING



## Characteristics

- The display, located on the left side of the operator, gives an indication of the working parameters of the most important, including:
  - Cutting thickness and trimming thickness
  - Switch modes "Cutting / Trimming"
  - Total and partial sections counting
  - Single cut mode and continuous cut mode



- Motorized drive



- Compatible embedding material paraffin, plastic
- The cutting and trimming function are finished by the control system
- The hand wheel can be locked at any position, so as to ensure the safety of the operation
- Two kinds of the specimen clamps, standard block and universal cassette
- Two section mode: manual and automatic, the user can switch arbitrarily
- Switch arbitrarily between section and trimming
- Speed control through the knob for enhanced efficiency
- Intuitive control panel
- New blade holder with finger safe
- Wide range of accessories
- Foot switch control and large waste tray

## Technical features

**Cut thickness range:** 0,25 - 100µm

**Cut thickness adjustment:**

- 0,25 to 2,5µm in 0,25µm increments
- 0,5 to 2µm in 0,5µm increments
- 2 to 10µm in 1µm increments
- 10 to 20µm in 2µm increments
- 20 to 100µm in 5µm increments

**Trim thickness range:** 1 - 600µm

**Trim thickness adjustment:**

- 1 to 10µm in 1µm increments
- 10 to 20µm in 2µm increments
- 50 to 100µm in 10µm increments
- 100 to 600µm in 50µm increments

**Specimen retraction:** 20µm

**Object feed:** 26 mm ± 1 mm, feed motion via step motor

**Vertical stroke:** 52 mm

**Max. specimen size (DxHxW):** 50 x 60 x 40 mm

**Max. sectioning area w/o retraction:** 65 mm (without specimen orientation)

**Max. sectioning area with retraction:** 60 mm

**Size and weight**

- Width (with hand wheel): 413 mm
- Width (without hand wheel): 300 mm
- Depth (with waste tray): 618 mm
- Depth (without waste tray): 520 mm
- Weight (without accessories): app. 32 kg

**Electrical data**

- Working voltage: 220/230V
- Frequency: 50/60 Hz
- Power: 150 W



Selectable



Automatic



Savings costs

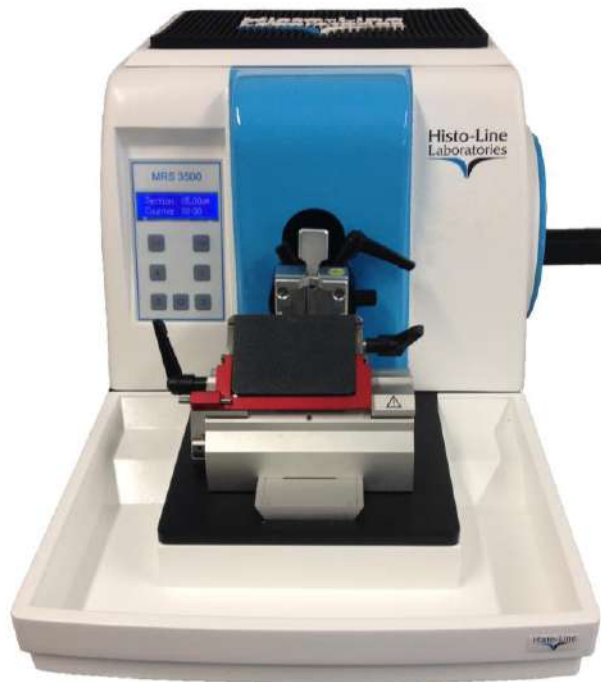
Product	Size	Packaging	Code
Fully Motorized Rotary Microtome	Unit	1 pc	ARM3600





## MRS 3500 ULTRA-THIN SEMIAUTOMATIC MICROTOME

IVD CE



### The instrument

- Histo-Line MRS 3500 Ultra-Thin, semi-motorized rotary microtome, designed for routine and research applications in histology, research and industrial quality assurance laboratories.
- High-precision motorized specimen feed allows an efficient operation and maximum section quality during manual sectioning.
- The section thickness is selectable between 0.25 and 60/100  $\mu\text{m}$ . Trimming and cutting thickness can be easily set through the control board.
- Choose between “**Standard**” version for full-handwheel rotation manual sectioning or “**Ultra**” version for experience **Rocking cutting mode** (back and forth turn handwheel over a short distance) with smart features like selectable retraction fast “trim-to-cut” switch mode.

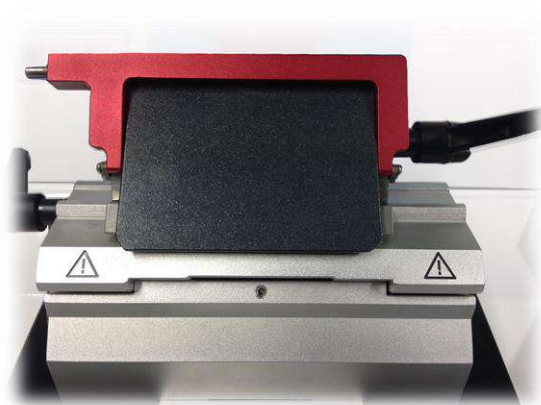


# SECTIONING



## Characteristics

- Precision cutting for paraffin or resin embedded samples. Suitable for routine and research laboratories.
- High precision specimen feeding provides consistent section quality between 0,25  $\mu\text{m}$  and 60  $\mu\text{m}$ .
- Designed for the executions of cutting extremely fine, with increments of 0,25  $\mu\text{m}$  from 0 to 1 micron, for sensitive staining method.
- Step motor and roller bearing without play and low maintenance.
- The display, located on the left side of the operator, gives indication of the working parameters:
  - Cutting and trimming thickness
  - Operating modes "Cutting / trimming"
  - Partial and total section counter



- Motorized drive.
- Two kinds of the specimen clamps, standard and universal cassette can be changed easily.
- The cutting and trimming function are finished by the control system.
- Hand wheel lock in any position, so as to ensure the safety of the operation.
- Easy to remove large waste tray.
- Compatible for paraffin or resin embedded samples.
- Intuitive control panel.
- Partial and total section counter.
- New blade holder with finger safe.
- Wide range of accessories.

## Technical features

**Section thickness setting:** 0 - 60 $\mu\text{m}$   
**Section thickness adjustment (cut/trimming):**

- 0,25 to 1 $\mu\text{m}$  in 0,25 $\mu\text{m}$  increments
- 1 to 10 $\mu\text{m}$  in 1 $\mu\text{m}$  increments
- 10 to 20 $\mu\text{m}$  in 2 $\mu\text{m}$  increments
- 20 to 60 $\mu\text{m}$  in 5 $\mu\text{m}$  increments

**Horizontal specimen feed:** 26 mm  $\pm$  1 mm  
**Vertical stroke:** 52 mm  
**Specimen orientation:** optional  
**Horizontal:** 8 °  
**Vertical:** 8 °  
**Rotability**  $\pm$  90 mm  
**Trimming thickness selection:** 0,25 to 60 $\mu\text{m}$

### Size and weight

- Width (with hand wheel): 413 mm
- Width (without hand wheel): 300 mm
- Depth: 618 mm
- Height: 305 mm
- Working height (knife edge): 100 mm
- Weight (without accessories): 30 kg

### Electrical data

- Working voltage: 220/230V
- Frequency: 50/60 Hz
- Power: 100 W



Semi automatic



Two version



Ultra-Thin

Product	Size	Packaging	Code
Ultra-Thin Semiautomatic Microtome	Unit	1 pc	MRS3500



## MR 3000 MANUAL ROTARY MICROTOME

IVD CE



### The instrument

- Histo-Line MR 3000 microtome: all you can get from a manual microtome.
- Precision, with advanced guide rail.
- Durability, internal maintenance-free mechanical structure.
- Comfort, with mechanical trimming function, balanced handwheel and selectable retraction.
- This model has professional design, solid structure, high-precision and stable performance.
- It's perfectly suited for those who expect precision sectioning.



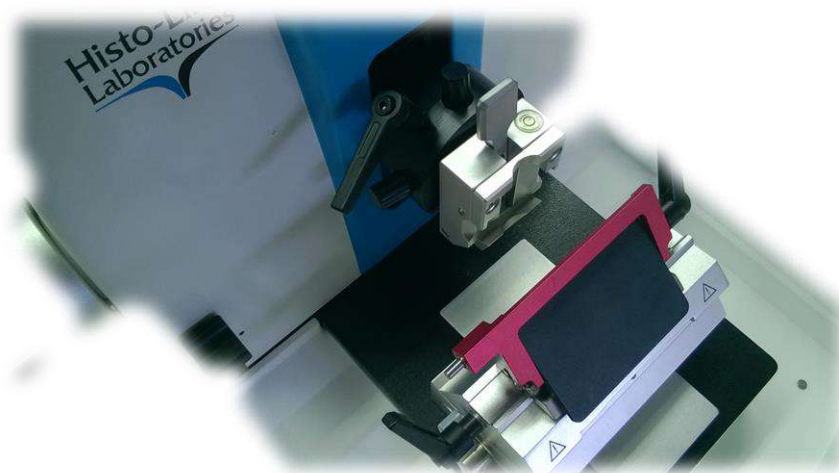


# SECTIONING



## Characteristics

- The handwheel is equipped with ergonomic handle for ease and comfort cutting operation.
- The rapid trimming function, conveniently placed next to the coarse feed, help the operator during trimming operation.
- The handwheel can be locked in any position, or use the one-thumb device for locks the specimen head in uppermost position, for an easy and safe specimen or blade change.
- Unit is equipped with a "quick-clamp" for quick samples change.
- The clamp is suitable for all types of standard cassettes, and is interchangeable by the operator with the ring holder (optional).



- Ergonomic and compact design, fatigue-free for routine operation.
- Excellent section results using both steel knife or disposable blade
- Specimen clamp positioned at 8° X/Y precision orientation system.
- Handwheel locked at any position.
- Specimen retraction function (selectable On/Off).
- Course feed hand wheel systems, closer to user to protect fatigue-free section.
- Exact zero position precise orientation systems, easy to operate.
- Red knife guard to avoid any damage to user, and easy to change disposable blade.
- An integrated storage tray (optional) ensures that ancillary tools are on hand at all times.
- Large waste tray, easy to clean and remove.

## Technical features

**Section thickness range:** 0 ~ 60µm

**Section thickness adjustment (cut/trimming):**

- 0,5 to 2µm in 0,5µm increments
- 2 to 10µm in 1µm increments
- 10 to 20µm in 2µm increments
- 20 to 60µm in 5µm increments

**Minimum setting value:** 1µm

**Precision error:** ± 1%

**Trimming setting mode:**

- First step 15µm
- Second step 35µm

**Maximum specimen size:** 60 x 50 mm

**Specimen retraction range:** 90µm can be off

**Object feed:** 28 mm

**Vertical stroke:** 70 mm;

**Specimen Orientation System:** 8° X/Y

**Size and weight**

- Width (with hand wheel): 500 mm
- Depth (including tray): 570 mm
- Depth (excluding tray): 500 mm
- Height: 300 mm
- Weight (without accessories): 37 kg



Manual



Savings costs

Product	Size	Packaging	Code
Manual Rotary Microtome	Unit	1 pc	MR3000



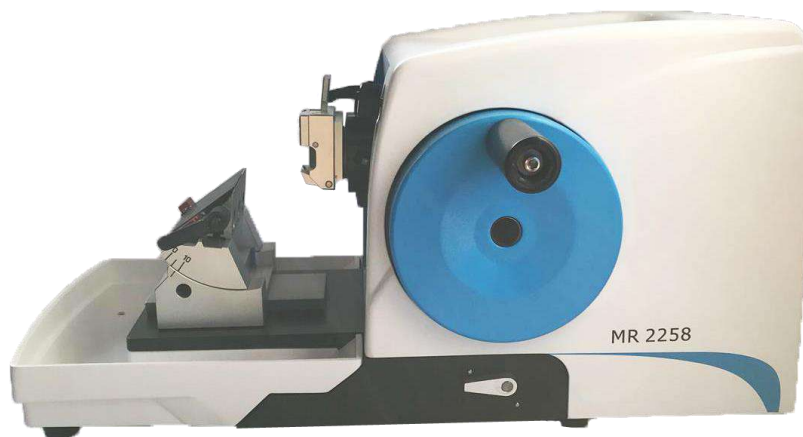
## MR 2258 MANUAL ROTARY MICROTOME

IVD CE



### The instrument

- Simple, reliable, essential, inexpensive. MR 2258 is a manual rotary microtome particularly suitable for cutting of paraffin sections, for normal use in histopathology, but also for the cuts finer used in research.
- No extra features but all you need for safe and highly productive sectioning.
- The microtome is equipped with a precise feed mechanism, vibration-free metal base, advanced blade holder and specimen clamp.

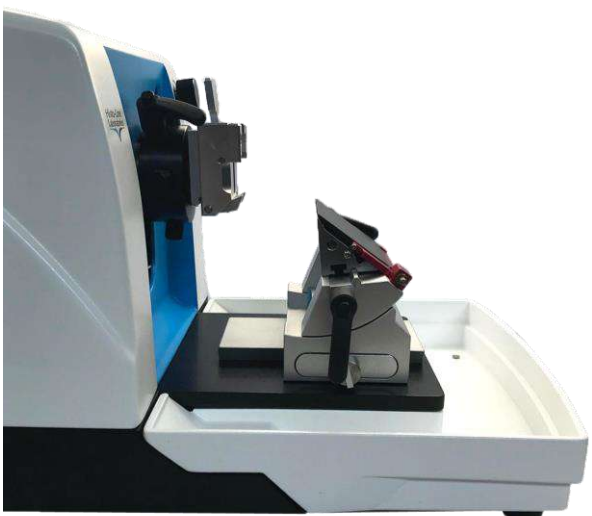


# SECTIONING



## Characteristics

- The handwheel is equipped with ergonomic handle for ease of cutting.
- The rapid advance handwheel is placed on the left side of the instrument; ergonomic and easy accessibility by the operator.
- Block of the handwheel in any position.
- Unit is equipped with a "quick-clamp" for quick samples change.
- The clamp is suitable for all types of standard cassettes, and is interchangeable by the operator with the ring holder (optional).
- Ergonomic and compact design, fatigue-free for routine operation.
- Excellent section results using both steel knife or disposable blade.
- Specimen clamp positioned at 8° X/Y precision orientation system.



- Handwheel locked at any position.
- Course feed hand wheel systems, closer to user to protect fatigue-free section.
- Precise orientation systems, easy to operate.
- Red knife guard to avoid any damage to user, and easy to change disposable blade.
- An integrated storage tray (optional) ensures that ancillary tools are on hand at all times.
- Large waste tray, easy to clean and remove.

## Technical features

<b>Range of the slice thickness:</b> 0 - 60µm	<b>Size and weight</b>
<b>Section thickness adjustment (cut/trimming):</b>	Width: 400 mm
▪ 0,5 to 2µm in 0,5µm increments	Depth (including tray): 540 mm
▪ 2 to 10µm in 1µm increments	Depth (excluding tray): 500 mm
▪ 10 to 20µm in 2µm increments	Height of cutting edge: 105 mm
▪ 20 to 60µm in 5µm increments	Height: 290 mm
<b>Movable range for the blade holder basal</b>	Weight (without accessories): 25 kg
Forward/Backward: ±65 mm	
Left / Right: ±40 mm	



Manual



Savings costs

Product	Size	Packaging	Code
Manual Rotary Microtome	Unit	1 pc	MR2258







## MC 5050 MICROTOME CRYOSTAT WITH RETRACTION

IVD CE



### The instrument

- Model MC5050 is semi-automatic cryostat with fully encapsulated microtome, is used for rapid freezing of pathological sections of human and animal tissues.
- It can be widely used for pathological diagnosis, analysis and research in hospitals, medical colleges, and legal medical institutes.
- Ergonomic, attractive and modern design features rounded corners and easy-to-use joystick.
- Convenient working height.
- The touch-screen display gives all unit status in a glance.
- UVC disinfection to minimize contamination risks by infectious material.



# SECTIONING



## Characteristics

- The instrument consists of 4 major parts:
  - The touch-screen control panel is in top area. Displays the temperature, the settings and the general working conditions of the instrument.
  - The cryochamber, wide and spacious with constant low temperature, ergonomic storage and flat freezing shelf.
  - In the cryochamber is located the fully encapsulated microtome with stepper motor feed-in.
  - The lower area is the heart of the refrigeration system, with the compressor unit.
- The freezing chamber is wide and spacious.
- The sliding window is anti-fog and anti reflection and when open, the UV lamp is automatically disabled.
- The holder disks are located on left side of chamber and can be stored on shelf area in 20 refrigerated places on frontal touch-screen display, it's possible to check and regulate all necessary parameters for excellent cut like thickness, temperature, sample retraction and so on.
- On frontal left side, a useful joystick allow an easy control for sample forward and backward and further sets for cutting operations.
- All these operations can be easily performed with eyes on cut operations.



## Technical features

### Microtome:

**Section thickness range:** 0-100µm

**Adjustable Increment:**

Value	Move value/step
▪ 0µm–10µm	1µm
▪ 10µm–20µm	2µm
▪ 20µm–50µm	5µm
▪ 50µm–100µm	10µm

**Trimming thickness range:** 0-500µm

**Adjustable Increment:**

Value	Move value/step
▪ 0µm–20µm	2µm
▪ 20µm–50µm	5µm
▪ 50µm–100µm	10µm
▪ 100µm–500µm	50µm

**Specimen retraction:** 20µm

**Horizontal stroke:** 25 mm

**Vertical stroke:** 59 mm

**Specimen's max size:** 55 mm X 55 mm

**Specimen orientation:** 12°(X,Y,Z three directions)

**Specimen fast moving speed:** 0,7 mm/s

### Cryostat

- Refrigerating capacity: 690 W
- Chamber temperature: -10°C ~ -35°C Adjustable
- Freezing shelf temperature: -45°C
- Number of freezing station: 20
- Peltier number: 2
- Refrigerant: R404a, 300g±10g
- Compressor oil: 0.6L EMKARATE RL-22S, ICI

### Size and weight

- Width: 780 mm (650 mm without hand wheel)
- Thickness: 700 mm
- Height: 1152 mm
- Net weight: 145 kg
- Gross weight: 190 kg

### Electrical data

- Working voltage: 220/230V
- Frequency: 50/60 Hz
- Power: 650 V/A



## Product

Microtome Cryostat with retraction

## Size

Unit

## Packaging

1 pc

## Code

MC5050



## MC 5000 MICROTOME CRYOSTAT CLINICAL DUAL COMPRESSOR

IVD CE



### The instrument

- Histo-Line MC 5000 Semi-automatic Microtome Cryostat, is used for rapid freezing tissue sectioning.
- Widely used for pathological diagnosis and research in hospitals, medical colleges and legal medicine institutes.
- MC 5000 combine a high precision fully encapsulated microtome with high stability refrigeration system and exceptional reliability.
- Equipped with **double cooling circuit** that allows user to set temperature of specimen differently from cryochamber and shelter temperature.
- **UVC disinfection** to minimize contamination risks by infectious material.



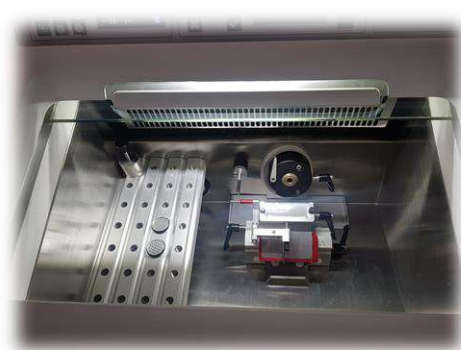


# SECTIONING



## Characteristics

- The instrument consists of 4 major parts:
  - The control panel. This area displays the temperature and the general working conditions of the instrument.
  - The center body is the constant low temperature chamber used to rapidly freeze the tissue and cutting operations.
  - In the cryochamber is located the fully encapsulated microtome with stepper motor feed-in.
  - The lower area is the heart of the refrigeration system, with the compressor unit and waste liquid container.



- Motorized drive, and anti-roll device. New blade holder with finger safe.
- Chamber temperature down to  $-35^{\circ}\text{C}$ , with automatic and manual defrosting.
- Double Peltier unit for rapid freezing down to  $-50^{\circ}\text{C}$
- Cutting and trimming function checked by the control system.
- Holder for disposable blades with adjustable cutting angle
- The hand wheel can be locked at any position, so as to ensure the safety of the operation.
- The specimen clamp can be oriented on the X – Y axis
- Section and trimming fast switch mode, thickness and section counter.

## Technical features

### Microtome:

Section thickness range: 0-100 $\mu\text{m}$

Adjustable Increment:

- 0 $\mu\text{m}$ –10 $\mu\text{m}$  1 $\mu\text{m}$
- 10 $\mu\text{m}$ –20 $\mu\text{m}$  2 $\mu\text{m}$
- 20 $\mu\text{m}$ –50 $\mu\text{m}$  5 $\mu\text{m}$
- 50 $\mu\text{m}$ –100 $\mu\text{m}$  10 $\mu\text{m}$

Trimming thickness range: 10-500 $\mu\text{m}$

Adjustable Increment:

- 10 $\mu\text{m}$ –50 $\mu\text{m}$  5 $\mu\text{m}$
- 50 $\mu\text{m}$ –100 $\mu\text{m}$  10 $\mu\text{m}$
- 100 $\mu\text{m}$ –500 $\mu\text{m}$  50 $\mu\text{m}$

Specimen retraction: 20 $\mu\text{m}$

Horizontal stroke: 25 mm

Vertical stroke: 72 mm

Specimen's max size: 55 mm X 55 mm

Specimen orientation:  $8^{\circ}$  (X,Y,Z three directions)

Specimen fast moving speed: 0,7 mm/s

### Cryostat

- Refrigerating capacity: 690 W
- Chamber temperature:  $-10^{\circ}\text{C}$  ~  $-35^{\circ}\text{C}$  adjustable
- Sample temperature:  $-10^{\circ}\text{C}$  ~  $-35^{\circ}\text{C}$  adjustable
- Freezing shelf temperature:  $-45^{\circ}\text{C}$
- Number of freezing stations: 26
- Peltier number: 2
- Refrigerant: R404a, 300g $\pm$ 10g
- Compressor oil: 0.6L EMKARATE RL-22S, ICI

### Size and weight

- Width: 850 mm (700mm without hand wheel)
- Thickness: 750 mm
- Height: 1170 mm
- Net weight: 145 kg

### Electrical data

- Working voltage: 220/230V
- Frequency: 50/60 Hz
- Power: 650 V/A



UVC Lamp



Double compressor



Easy clean



Temp. control



Programmable

Product	Size	Packaging	Code
Microtome Cryostat Dual Freezing System	Unit	1 pc	MC5000



## MC 4000 MICROTOME CRYOSTAT DUAL COMPRESSOR

IVD CE



### The instrument

- This unique **dual compressor** semiautomatic cryostat, is equipped with double cooling circuit that allows user to set temperature of specimen differently from cryochamber and shelter temperature.
- UVC lamp decontamination and automatic defrosting included.
- MC 4000 is provided with disposable blade holder with adjustable cutting angle and anti-roll device.
- Easy to operate, all function is settable through keyboard.
- The motorized feed control is accessible through a separate control panel.
- The microtome mechanism is located outside the cryochamber, with access from back panel, for a very easy service, no need to switch off unit, and reduced maintenance.



# SECTIONING



## Characteristics

- Feed system of the sample with the motor step by step.
- Feed system, stepper motor and mechanical located outside cryochamber.
- Double compressor for independent set of chamber and specimen temperature.
- Blade holder with adjustable cutting angle to the use of any type of disposable blades.
- Anti-roll integrated.
- Orientable head.
- Allows uniform orientation and perfect alignment of the sample.
- 4 different temperatures. Cryochamber, specimen, shelter and Peltier.
- Peltier unit for rapid cooling down to -50°C.
- Easy and intuitive control panel.
- Automatic Daily Standby for reduce power consumption.



## Technical features

### Microtome:

**Section thickness range:** 1 - 80µm, adjustable

**Adjustable Increment:**

Value                      Move value/step

- 0µm-20µm            1µm
- 20µm-40µm        2µm
- 40µm-80µm        10µm

**Trimming thickness range:** 10 - 400µm, adjustable

**Adjustable Increment:**

Value                      Move value/step

- 10µm-50µm        5µm
- 50µm-100µm      10µm
- 100µm-400µm    50µm

**Specimen retraction:** 0-95µm, adjustable

**Increment:** 5µm

**Horizontal stroke:** 20 mm

**Vertical stroke:** 60 mm

**Chamber temperature:** -10°-30°C, adjustable

**Freezing shelf temperature:** ≤40°C

**Number of freezing stations:** 10

**Peltier station:** 1

### Cryostat

- Temperature setting range: 0°C to -30°C
- Cooling down time to -35°C: appr. 4 hours
- Chamber defrosting: programmable or manual-1 automatic defrosting cycle / 24-hour duration 9 min.
- Freeze shelf temperature: -40°C
- Number of freezing stations: 10
- Peltier number: 1
- Refrigerant: R404a, 300g±10g
- Compressor oil: 0.6L EMKARATE RL-22S, ICI

### Size and weight

- Width: 760 mm (705 mm without hand wheel)
- Depth: 640 mm
- Height: 1150 mm
- Net weight: 130 kg

### Electrical data

- Working voltage: 220/230V
- Frequency: 50/60 Hz
- Power: 850 V/A



Product	Size	Packaging	Code
Microtome Cryostat Dual Compressor	Unit	1 pc	MC4000





## MC 3000 MICROTOME CRYOSTAT

IVD CE



### Instrument

- Histo-Line MC 3000 microtome cryostat high quality sections while controlling costs.
- UVC lamp decontamination and automatic defrosting included.
- MC 3000 is provided with disposable blade holder with adjustable cutting angle and anti-roll device.
- Easy to operate, all function is settable through keyboard.
- The motorized feed control is accessible through a separate control panel.
- The microtome mechanism is located outside the cryochamber, with access from back panel, for a very easy service, no need to switch off unit, and reduced maintenance.



# SECTIONING



## Characteristics

- Feed system, stepper motor and mechanical located outside cryochamber.
- 3 different temperatures: cryochamber, shelter and peltier
- Blade holder with adjustable cutting angle to the use of any type of disposable blades.
- Anti-roll integrated.
- Orientable head, allows uniform orientation and perfect alignment of the sample.
- Peltier unit for rapid cooling down to -50°C.
- Easy and intuitive control panel.
- Automatic daily standby for reduce power consumption.



## Technical features

### Microtome:

**Section thickness range:** 1 - 80µm adjustable

**Adjustable Increment:**

Value                      Move value/step

- 0µm–20µm            1µm
- 20µm–40µm        2µm
- 40µm–80µm        10µm

**Trimming thickness range:** 10 - 400µm adjustable

**Adjustable Increment:**

Value                      Move value/step

- 10µm–50µm            5µm
- 50µm–100µm        10µm
- 100µm–400µm       50µm

**Specimen retraction:** 0-95µm adjustable

**Increment:** 5µm

**Horizontal stroke:** 20 mm

**Vertical stroke:** 60 mm

**Chamber temperature:** -10°-30°C adjustable

**Freezing shelf temperature:** ≤40°C

**Number of freezing station:** 10

**Peltier station:** 1

### Cryostat

- Temperature setting range: 0°C to -35°C
- Cooling down time to -35°C: appr. 4 hours
- Chamber defrosting: programmable or manual-1 automatic defrosting cycle / 24 hour duration 9 min.
- Freeze shelf temperature: -40°C
- Number of freezing station: 9
- Peltier number: 1
- Refrigerant: R404a, 300g±10g
- Compressor oil: 0.6L EMKARATE RL-22S, ICI

### Size and weight

- Width: 720 mm (660 mm without hand wheel)
- Depth: 640 mm
- Height: 1140 mm
- Net weight: 125 kg

### Electrical data

- Working voltage: 220/230V
- Frequency: 50/60 Hz
- Power: 650 V/A



Product	Size	Packaging	Code
Microtome Cryostat	Unit	1 pc	MC3000



## Microtomes and cryostats comparison table

Cut each block carefully and maintain critical diagnostic detail. Histo-Line rotary microtomes and cryostats give skilled microtomists the precision, control and comfort they need to get the best from every block.



So place a Histo-Line rotary microtome and cryostats on your bench and consistently get the best possible sections from any block, for each patient, on every day.

### Rotary microtome equipment

Peculiarity	ARM3750	ARM3600	MRS3500	MR3000	MR2258
Motorized drive	X	X	X		
Manual				X	X
Programmable	X	X			
Keypad control	X				
Retraction	X	X		X	
Ultra-Thin Cut	X	X	X		
LCD display	X	X	X		
Blade holder with finger safe	X	X	X	X	X
Clamp" for quick change	X	X	X	X	X
All types of biocassettes standard	X	X	X	X	X
All types of microtome blade	X	X	X	X	X
Wheel locked at any position	X	X	X	X	X

### Cryostat equipment

Peculiarity	MC5050	MC5000	MC4000	MC3000
Number of freezing station	20	26	9	9
Number of Peltier	2	2	1	1
LCD display touch-screen	X			
Joystick control	X			
Compressors number	1	2	2	1
Section counter	X	X		
Automatic and manual defrosting	X	X	X	X
Anti roll device	X	X	X	X
Anti-fog glass window	X	X	X	X
All types of microtome blade	X	X	X	X
UVC Lamp	X	X	X	X





# SECTIONING



## Want more information?

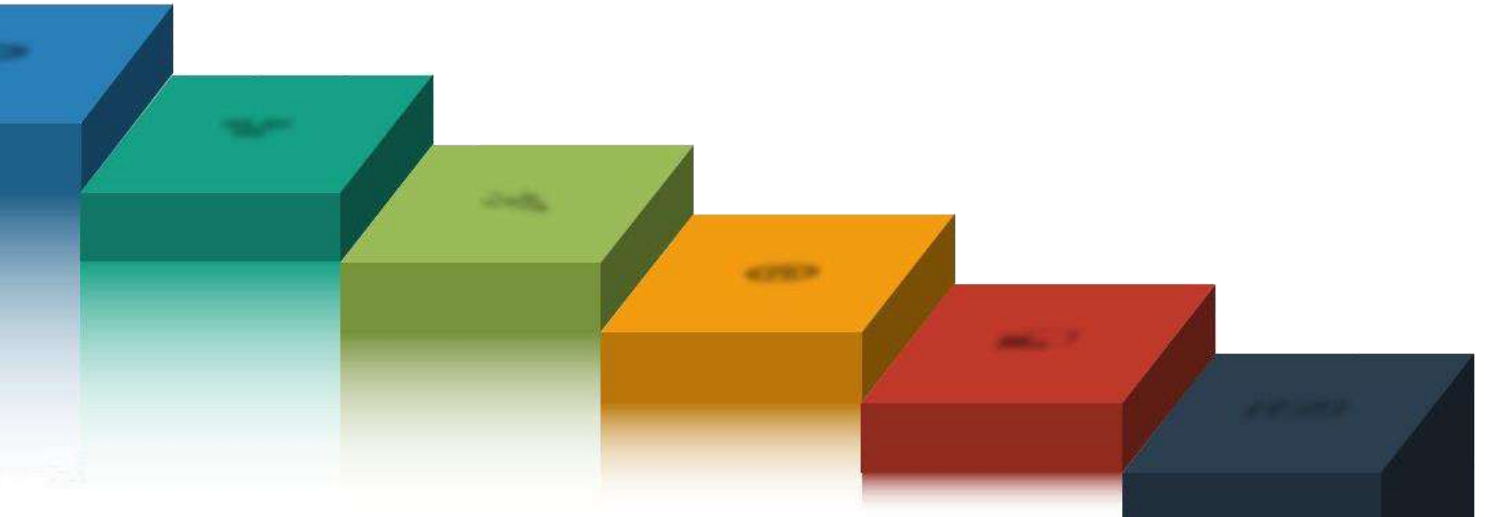
If you need products for cutting section, please refer to the *Histo-Line Reagents & Consumable* catalog. You can find the complete list useful special accessories that can help you.



Want to see all the available products? Look it in the *Histo-Line Reagents & Consumable* or visit the website.



## Sectioning accessories



HL 2500 Water Bath-Slide Dryer  
WB 2900 Tissue Floating Bath  
WB 2800 Water Bath  
SD 2800 Slide Dryer





## HL 2500 WATER BATH-SLIDE DRYER

IVD CE



### The instrument

- HL 2500 is a practical device, designed to provide in a single, compact instrument a water bath, a slide dryer and a small oven.
- All temperatures can be set separately. A useful timer allows turning off the power of the areas.
- Easy-to read display allows viewing of the parameters at a glance.
- Value are stored by a backup memory system.

### Technical features

#### Temperature range

- Water Bath: 30°C ~ 90°C increments 1°C
- Oven: 30°C ~ 90°C increments 1°C
- Warmer: 30°C ~ 90°C increments 1°C

#### Capacity

- Water Bath: W 180 x D 130 x H 80 mm
- Oven: W 210 x D 100 x H 105 mm
- Slide Dryer: W 230 x D 150 x H 50 mm
- Slides Number: 40

#### Dimensions and weight

- Width: 510 mm
- Depth: 335 mm
- Height: 225 mm
- Weight: 13,6 kg

#### Electrical data

- Power voltages: 220V/50 Hz
- Maximum power draw: 500 V/A



All in one



Easy clean



Temp. control



Savings coast

Product	Size	Packaging	Code
All In One Water Bath-Slide Dryer	Unit	1 pc	HL2500



# SECTIONING ACCESSORIES



## WB 2900 TISSUE FLOATING BATH

IVD CE



### The instrument

- New design for this tissue floating bath for histology.
- Large, removable **Pyrex bowl** and **immersion probe**.
- Slide heater plate enclosed with settable temperature. Water temperature is monitored by an electronic thermostat and microprocessor. Automatic heater Off for a safe remove of the Pyrex tank.
- Intuitive and easy-to-read digital display for temperature and time set.
- Shows both actual and set temperature. Four led allow good lighting of water surface without glare.
- Easy to clean and service.

### Technical features

#### Temperature range

- Water Bath: ambient ~ 75°C increments 1°C

#### Capacity

- Pyrex bowl: 350 x 220 x 45 mm

#### Dimensions and weight

- Width: 420 mm
- Depth: 510 mm
- Height: 160 mm
- Weight: 9,5 kg

#### Electrical data

- Power voltages: 220 V/50 Hz; 110 V/60 Hz
- Maximum power draw: 500 V/A



Easy clean



Temp. control



Top quality

Product	Size	Packaging	Code
Tissue Floating Bath	Unit	1 pc	WB2900

# SECTIONING ACCESSORIES



## WB 2800 WATER BATH

IVD CE



### The instrument

- The Water Bath WB 2800 is a simple, economical tissue flotation bath.
- Designed to lay sections of histological samples.
- The teflon coating allows easy cleaning.
- The instrument is provided with a control panel to set and monitor the desired water temperature.
- Overheating protection.
- The water temperature is microprocessor controlled.

### Technical features

#### Temperature range

- Water Bath: ambient °C ~ 75°C increments 1°C

#### Capacity

- Internal dimensions of the bath.
  - Width: 230 mm
  - Depth: 180 mm
  - Height: 55 mm

#### Dimensions and weight

- Width: 305 mm
- Depth: 335 mm
- Height: 100 mm
- Weight: 2,4 kg

#### Electrical data

- Power voltages: 220 V/50 Hz; 110 V/60 Hz
- Maximum power draw: 300 V/A



Easy clean



Temp. control



Savings coast

Product	Size	Packaging	Code
Water Bath	Unit	1 pc	WB2800

# SECTIONING ACCESSORIES



## SD 2800 SLIDE DRYER

IVD CE



### The instrument

- The SD 2800 is a heated inclined plate designed to dry histological slides.
- The Teflon coating allows easy cleaning.
- The SD 2800 is provided with a control panel to set and monitor the temperature of the heating surface.
- Is equipped with overheating protection.
- The area temperature is maintained by a microprocessor.
- You can dry up to 60 slides.

### Technical features

#### Temperature range

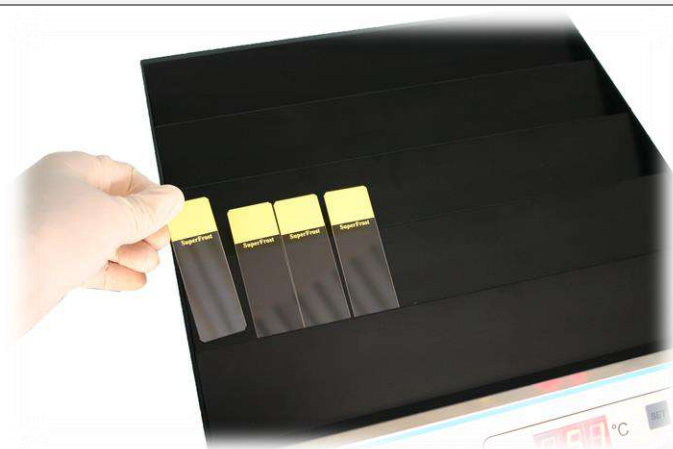
- Heated plate: ambient ~ 75°C increments 1°C

#### Dimensions and weight

- Width: 305 mm
- Depth: 335 mm
- Height: 115 mm
- Weight: 2,75 kg

#### Electrical data

- Power voltages: 220V/50 Hz;
- Maximum power draw: 300 V/A



Product	Size	Packaging	Code
Slide Dryer	Unit	1 pc	SD2800







## Differences between instruments

Through a wide range of accessories for the Histo-Line sectioning it is possible to equip the pathology laboratories in different ways depending on the space available and the operators' requests.



### Sectioning Accessories

Peculiarity	HL2500	WB2900	WB2800	SD2800
Adjustable temperature	X	X	X	X
Programmable	X			
Teflon surface	X	X	X	X
Microprocessor control	X	X	X	X
Parts removable	X	X		



# SECTIONING ACCESSORIES



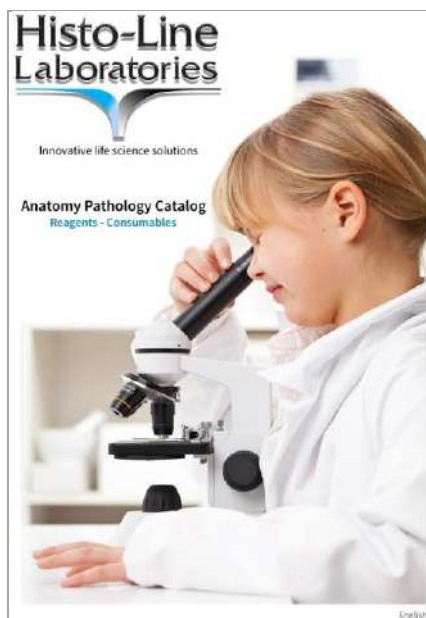
## Want more information?

If you need more products for the embedding procedure, please refer to the *Histo-Line Reagents & Consumable* catalog.

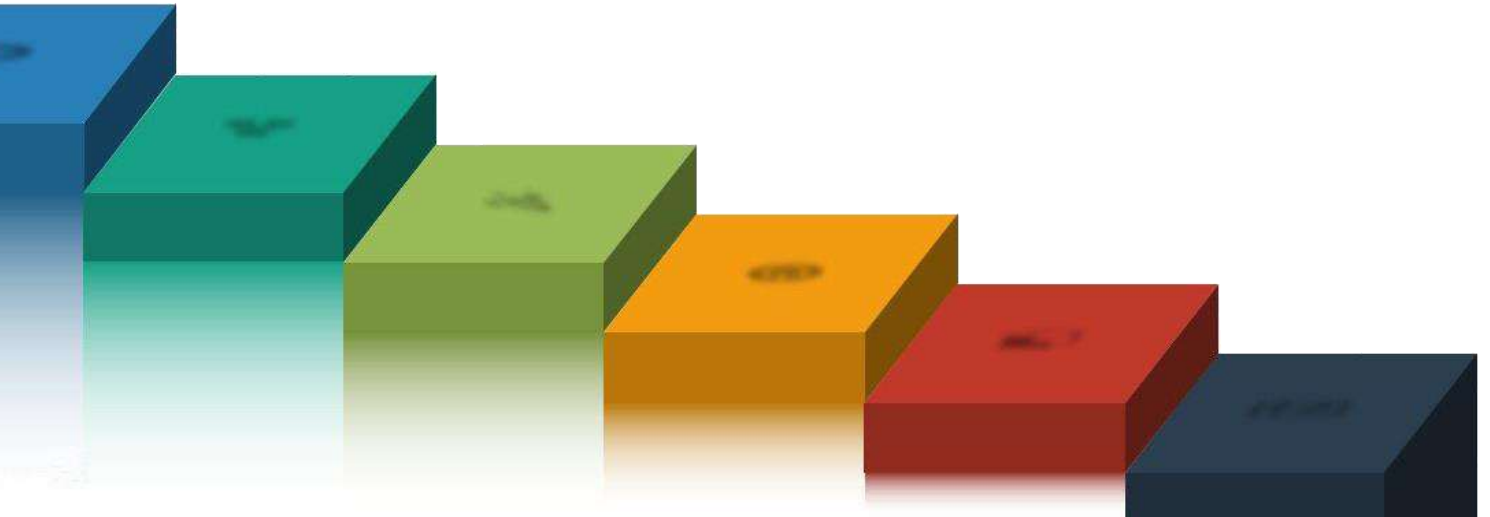
You can find the complete list useful special accessories that can help you.



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# Staining



ATS 200 Automatic Multiple Slide Stainer  
ATS 2010 Automatic Slide Stainer  
HISTO-24 Histo Stainer





## ATS 200 AUTOMATIC MULTIPLE SLIDE STAINER

IVD CE



### The instrument

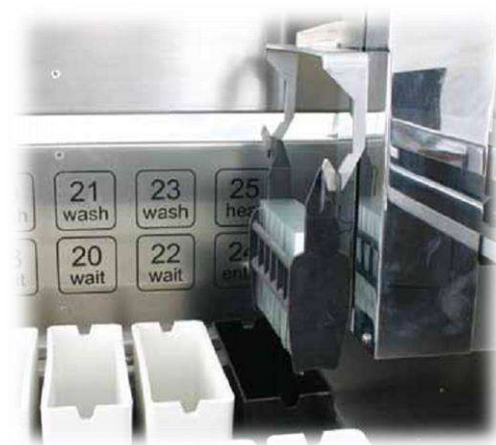
- ATS200 Automatic Slide Stainer is the necessary equipment for pathology workflow.
- Designed for staining applications in pathology and research, ATS200 can perform simultaneous process of different staining protocols, allows continuous unload & reload without interrupting staining cycle.
- All functions, menu-driven programming, incubation times and sequence of use of reagent stations are freely programmable and controlled by the touch screen panel.
- Ergonomic design, integrated oven for slides drying, digital electronic temperature control, movement parts are in bearing linear guide for high precision on axis.
- Total flexibility of open consumables and reagents for a superior staining quality.



# STAINING

## Specifications

- Histo-Line ATS200 is provided with a control system of the PLC and functions
- Freely programmable functions like immersion and incubation times, agitation and the station sequence.
- Large, easy-to-read LCD touch screen panel.
- Precise high performance stepping motor with transmission belt, in order to ensure a balanced stroke, and noise reduction.
- Equipped with a photoelectric switch in a fixed position, able to memorize the position and automatically restores functions.
- Ergonomic design, integrated heating station for drying the slides, and digital temperature control.
- Ability to store and run up to 8 different user defined staining protocol.
- Can be attached to a UPS backup (optional), in order to carry out the work during power failure.
- ATS200 has 26 stations available, among which 18 stations for reagents, 3 tanks for water rins, 3 waiting stations, 1 loading station; 1 output station for unloading the rack of slides, 1 heating station.



## Technical features

### Capacities

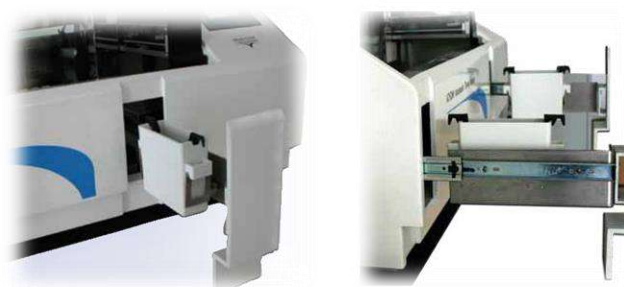
- Specimen slide throughput: at least 200 specimen slides for hour (depend on the selected program)
- Loading: 5 slides rack
- Slide rack capacity: 30 specimen slides
- Number reagent stations: 18
- Total number stations: 26
- Reagent container volume: 600 ml
- Number of wash stations: 3
- Number of wait stations: 3
- Oven: 1
- Oven chamber temperature: from ambient temperature to 85 °C
- Load/unload stations: 1 each
- Incubation time setting: from 0 sec. up to 9999 sec
- Permanent memory capacity: 8 programs up to 32 programs steps each

### Size and weight

- Width: 120 cm
- Depth: 50 cm
- Height: 60 cm
- Weight: 110 kg

### Electrical data

- Working voltage: 110V, 220V
- Frequency: 50/60 Hz
- Power: 300 V/A



Programmable



Alarm System



Management



Savings costs

### Product

Automatic Multiple Slide Stainer

### Size

Unit

### Packaging

1 pc

### Code

ATS200



### The instrument

- ATS 2010 is a bench top automatic slides stainer for the pathology and research labs.
- Compact design and precision in staining, versatility, operator safety and maximum cleaning of the instrument.
- ATS 2010 allows a adaptability to any type of consumer product in place, along with the ability to use reagents, consumables and protocols of the Histo-Line Laboratories.
- The ATS 2010 is specially designed for the simultaneous process of different staining protocols, allows continuous operation and recharge without interrupting the staining.





# STAINING

## Specifications

- ATS2010 is equipped with a control system of the PLC and electronic.
- All functions, menu-driven programming, incubation times and the sequence of use of the reagent stations are freely programmable and controlled by reliable and simple software.
- Precise and high performance stepper and transmission belt, in order to ensure a balanced stroke, and a noise reduction.
- Ergonomic design, integrated heating station for drying the slides, and digital temperature control.
- Has 9 programs that can be set to fully meet the different requirements of staining protocols.
- UPS backup (optional), in order to carry out the work during power failure.
- 18 stations available, among which 15 stations for reagents; 1 water rinse station; 1 loading /heating station; 1 output station for unloading the slide rack.
- 47 slides per basket, and work simultaneously with 2 baskets with a maximum capacity of 94 slides.
- All the reagent and paraffin containers are closed to prevent evaporation.
- Active carbon filter prevents solvent odors and pollution.
- Alarm to remind the operation and errors.



## Technical features

### Capacities

- Specimen slide throughput: at max 94 slides
- Loading: 2 slides rack
- Slide rack capacity: 47 specimen slides
- Number reagent stations: 15
- Total number stations: 18
- Reagent container volume: 1000 ml
- Number of wash stations: 1
- Heat tank set temp.: 1 +15°C ~+70°C
- Run mode for continuous loading
- Time in each tank: 1 sec. to 99 min. and 59 sec.

### Size and weight

- Width: 140 cm
- Depth: 50 cm
- Height: 55 cm
- Weight: 110 kg

### Electrical data

- Working voltage: 110V, 220V
- Frequency: 50/60 Hz
- Power: 400 V/A



Programmable



Alarm System



Air filtered



Savings costs

Product	Size	Packaging	Code
Automatic Slide Stainer	Unit	1 pc	ATS2010

## HISTO-24 HISTO STAINER

IVD CE



### The instrument

- HISTO-24 Histo Stainer is a compact, space saving automatic slides stainer designed for histology and research laboratories as well as extemporaneous staining.
- This unit combines the simplicity of use with the maximum safety and reliability, for the histological staining, cytology and special staining.
- Flexible programming makes Histo-24 ideal for many sample types.
- Ease to operate, Histo-24 helps laboratory to maintain consistent diagnostic quality while reducing waste and cutting reagent costs.



# STAINING

## Specifications

- Touch screen control panel to view and modify the operating parameters, like programs, station time, dripping time, agitation, water rinse and oven temperature.
- The adjustment of the working parameters is carried out via electronic thermostat with microprocessor.
- The operator can set 25 different programs, diversified by duration, and for a succession of different baskets.
- The stainer can handle up to 30 programmable steps for stroke. The basket can "jump" from one tank to another without following the strict numerical.



## Technical features

### Capacities

- Specimen slide throughput: At max 24 slides
- Loading: 1 slides rack
- Slide rack capacity: 24 specimen slides
- Number reagent stations: 13
- Total number stations: 15
- Reagent container volume: 350 ml
- Number of wash stations: 1
- Heating tank temp.: 1 +15°C ~+80°C
- Shaking frequency: 0 min. to 6 times per minute
- Dripping time: 0 min. to 59 seconds
- Run Mode Run the baskets continuous
- Tank time: 1 second to 99 Min. and 59 Sec

### Size and weight

- Width: 92 cm
- Depth: 25 cm
- Height: 26 cm
- Weight: 26 kg

### Electrical data

- Working voltage: 110V, 220V
- Frequency: 50/60 Hz
- Power: 400 V/A



Programmable



Alarm System



Fast work

Product	Size	Packaging	Code
Histo-24 Histo Stainer	Unit	1 pc	Histo-24



## Automatic slide stainer comparison table

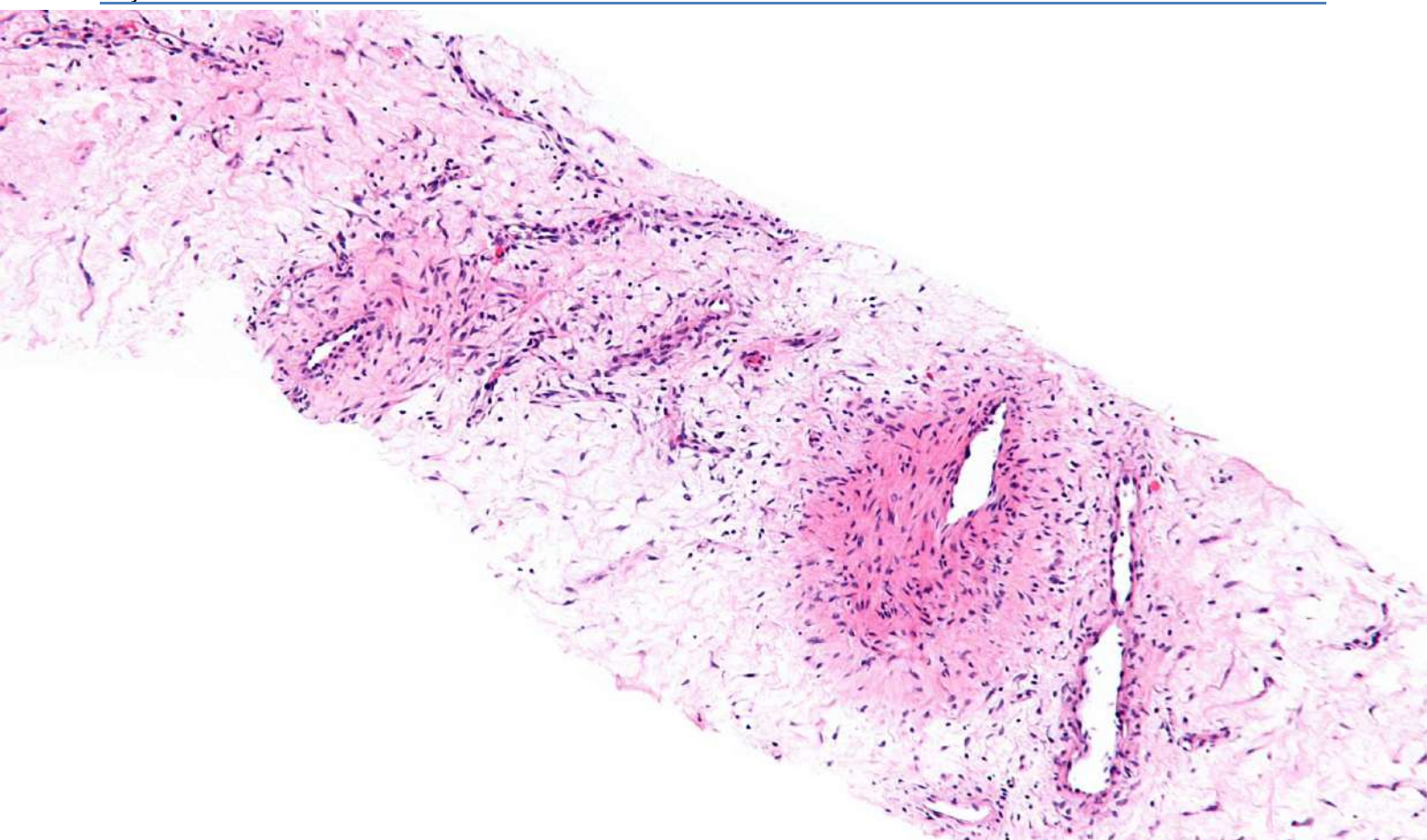
Pathologists use your slides to make life-changing diagnostic decisions. Make sure they have the clear detail they need for every patient. Histo-Line understands that high-clarity stains depend on great reagents, precision stainers and good practice. So a Histo-Line routine staining solution integrates stain, stainer and expert advice.

Choose a Histo-Line staining solution for a high-efficiency path to consistent staining, and diagnostic confidence.

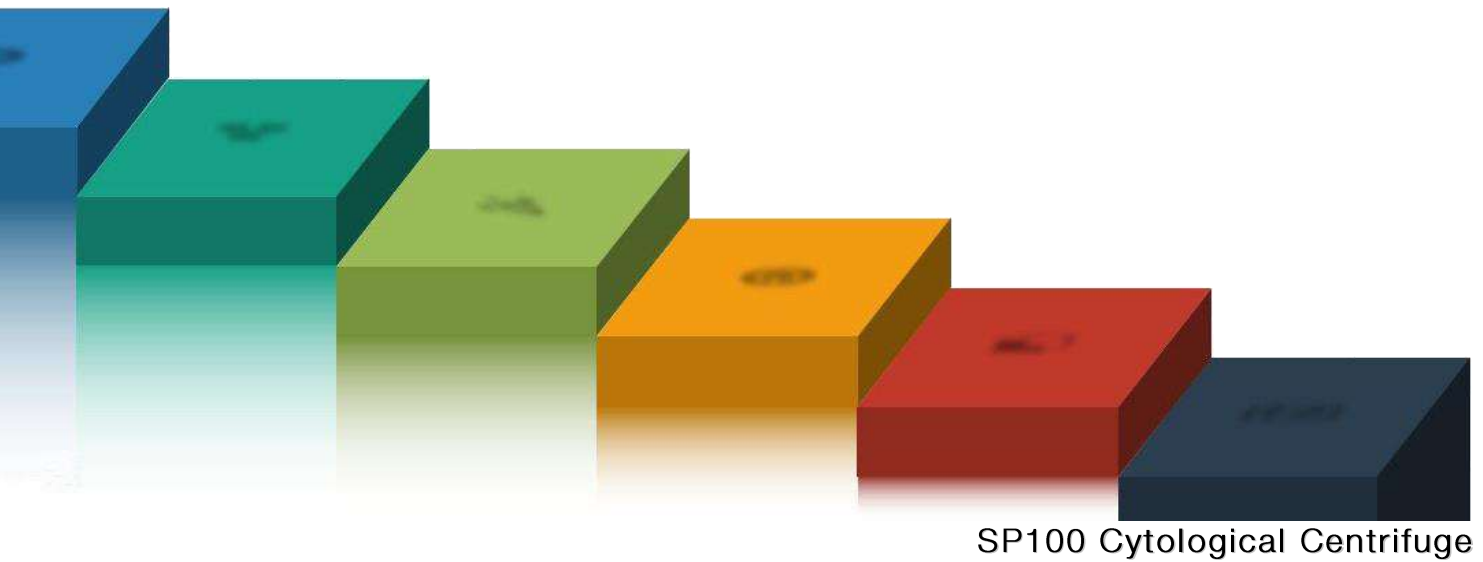


### Automatic slide stainer equipment

Peculiarity	ATS200	ATS2010	HISTO-24
Different staining protocols	X		
Continuous unload & reload	X	X	
LCD touch screen panel	X	X	X
Number of program	5 programs up to 24 programs steps each	6	25
Number of slide	At least 200 specimen slides for hour	94 specimen (47 color slides for basket)	24 specimen
Number of stations available	26	18	15
Loading	5 slides rack	2 slides rack	1 slides rack
Oven	X	X	X
Microprocessor control	X	X	X
All types of slide standard	X	X	X
Active carbon filter	X	X	
System alarm	X	X	X



# Cytology





### The instrument

- Centrifuge microprocessor controlled
- Program save and recall up to 10 protocols
- Gentle stop and fast braking: pre-select 10 braking rates
- Warning indicators for imbalance, over speed, door open, setting failure
- Rotor imbalance is detected and immediately signaled to operator
- Rotor easy to clean
- Watertight lid to prevent the escape of aerosols
- Numeric keypad with programmable keys and intuitive menu
- Excellent quality of cytological samples.



### Methods

- The general method to extract the sample in a jar with existing equipments
  - Pre centrifugation with another centrifuge is recommended if the sample volume is big enough for one clip assembly
  - Fixation and drying of the sample on a slide after centrifugation can minimize loss of cells





## Technical features

- Maximum RPM: 2,000
- Maximum RCF: 550 G
- Maximum capacity: 12 Slide x 6cc
- Specimen range: 0,5 to 6 cc
- Timer: 99min 59sec or "free" for long run
- Braking rates: 10 setting
- Acceleration speed: 10 settings
- Programmability: 10 memory
- Digital display: Speed, Time, Brake, Program
- Drive motor: High torque DC Motor

## Size and weight

- Width: 325 mm
- Depth: 470 mm
- Height: 275 mm
- Weight: 21,8 kg

## Electrical data

- Working voltage: 110V, 220V
- Frequency: 50/60 Hz
- Power: 175 W



## Accessories



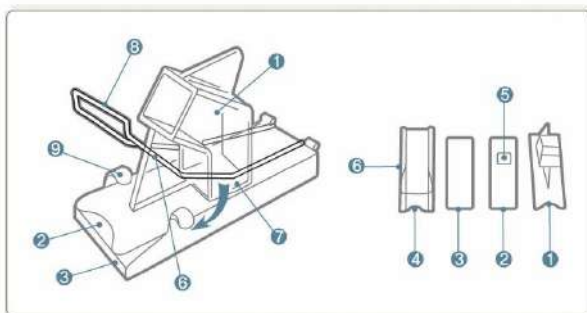
### Standard Accessories

- |               |                                      |
|---------------|--------------------------------------|
| Cell (0.5 cc) | 12 pieces of PVC 14×14 mm            |
| Rubber plate  | 12 pieces of Silicon Rubber 14×14 mm |
| Cell holder   | 12 pieces Stainless Steel            |



### Optional Accessories

- |               |                                      |
|---------------|--------------------------------------|
| Cell (0.5 cc) | 12 pieces of PVC 14×30 mm            |
| Rubber plate  | 12 pieces of Silicon Rubber 14×30 mm |
| Cell holder   | 12 pieces Stainless Steel            |



### Specifications

- 1 Specimen chamber
- 2 Rubber plater
- 3 Slide
- 4 Chamber opening
- 5 Hole
- 6 Slide Holder
- 7 Chamber retaining plate
- 8 Knob
- 9 Hitching part



Programmable



Alarm System



Management

## Product

Cytological Centrifuge

## Size

Unit

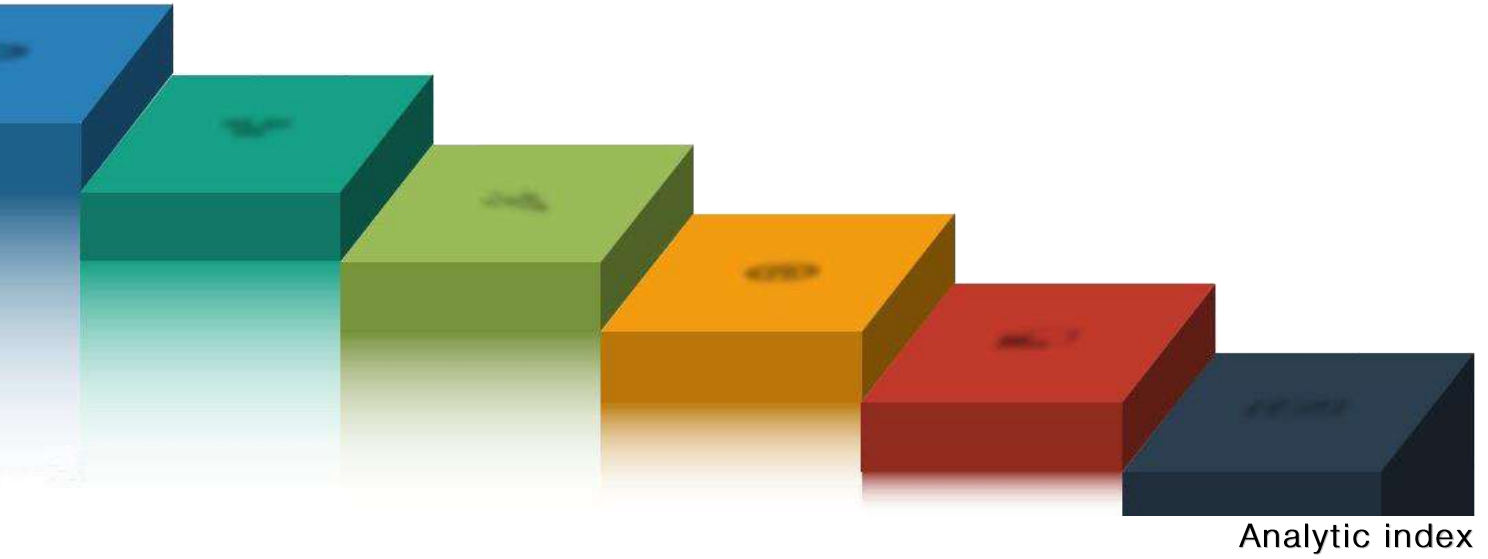
## Packaging

1 pc

## Code

SP-100

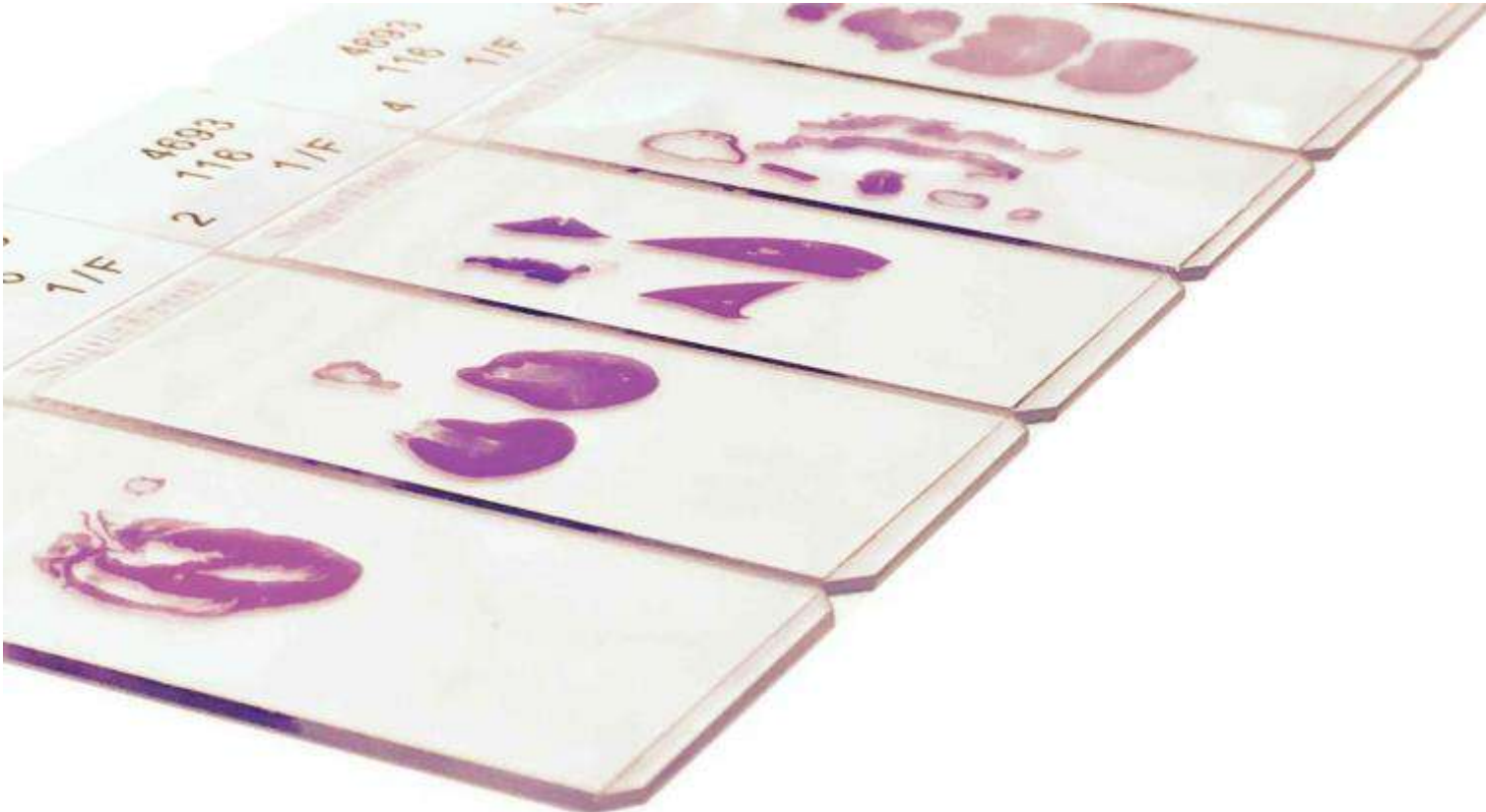
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