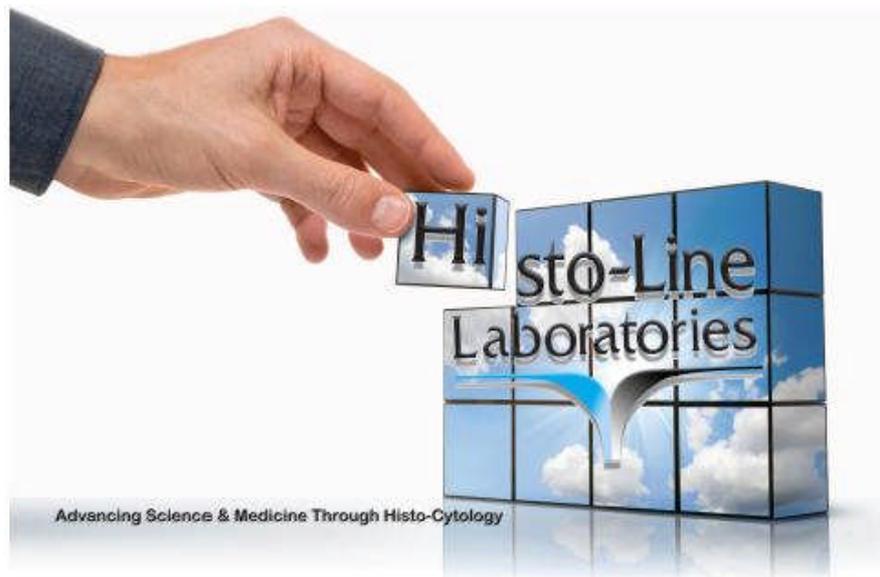




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## Technical Sheet ARM 3600 Fully Motorized Rotary Microtome



CE

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<h1>INDEX</h1>
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<b>1.Features .....</b>	<b>3</b>
1.1 Information and specified use.....	4
1.2 Safety and operator comfort.....	4
1.3 Reliability and precision of the cut.....	5
<b>2.Technical specifications .....</b>	<b>7</b>
2.1 Electrical data .....	7
2.2 Thickness section and advancement.....	7
2.3 Control features and functionality .....	8
2.4 Dimensions and weight .....	8
2.5 Instrument equipment .....	8

## 1.Features



## 1.1 Information and specified use

The microtome Histo-Line ARM 3600 model is an automatic rotary microtome particularly suitable for cutting of paraffin sections, for normal use in histology, but also to the finer cuts used in the research field. The microtome if necessary can also be used in modes: manual and semi-automatic.

The microtome is coated by a body in a special plastic material resistant to solvents and free of edges thus minimizing the risk of danger to the operators.



## 1.2 Safety and operator comfort

The flywheel is equipped with ergonomic handle for ease of cutting. To the left of the cutting wheel is placed the security key to immediately block the operation of the instrument.

The blocking of the rotation flyer is easily operated and can be accommodated in any position the arm sample holder. It also comes with a mechanical safety catch located under the flying shear.

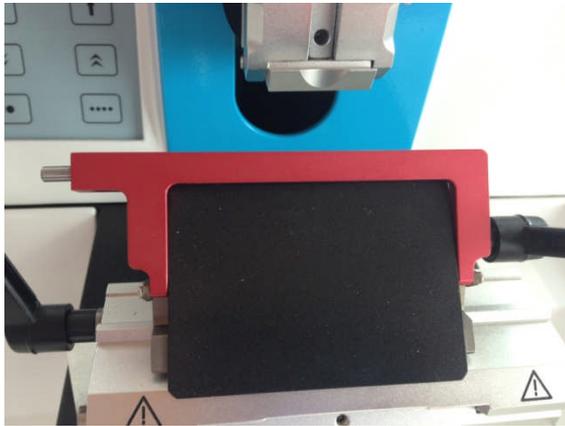
The upper space of the microtome is equipped with a large area of work surface, covered with a sheath slide that allows the operator to support the accessories needed for cutting (the package of disposable blades, the brush collect slice, etc. )

The orientation of the samples is possible in a simple and precise; if the red lights are visible, then the guidance plan is in zero position. The steel clamp is equipped with a device to "clamp" for quick change of the sample and sample holder fixed tilt.



The clamp is suitable for all types of standard biocassettes, and is interchangeable by the operator with the clamp to the biocassettes ring (optional). The sample holder arm is equipped with a mechanism that allows a precise and quick orientation along the axes x and y. Through the housing port disk sample it is possible to use the clamp for the super mega cassettes, equipped with a dovetail for insertion.

### 1.3 Reliability and precision of the cut



The microtome ARM 3600 has the ability to adjust the cutting thickness and roughing. The holder is universal suitable for disposable blades, features the tilting protection. The knife holder has the possibility of lateral translation to use the entire edge of the blade without removal of the same.

The translation of the knife holder is possible in the three positions corresponding to the length of a standard biocassetta (left, right, center), so as to allow the use of all the microtome knife without loosen the lock.

The section thickness and roughing are controlled electronically by a chip.

The automatic feeding of the sample is under electronic control with high precision. The left side steering wheel, allows you to set four speed of section: 25 circle/minute, 35 circle/minute, 45 circle/minute, 55 circle/minute, to allow the success of the most difficult and most precision-cut slices.

The progress and the automatic retraction of the sample can be excluded by the operator.

The cut high precision for any type of section included in paraffin, resin, suitable for routine activities and laboratory research between 0,25 microns and 100  $\mu\text{m}$  by stepper motors and roller bearings without play and low maintenance.

The microtome is also designed for cutting executions extremely fine increments of 0,25  $\mu\text{m}$  from 0,25 to 2  $\mu\text{m}$ .



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The display, located on the left side of the operator, gives an indication of the most important working parameters, including:

- Cutting thickness
- Trimming thick
- Switching the operating mode "Cutting / trimming"
- Partial and total counting of sections

The control display is easy to use even when wearing protective gloves and can be easily cleaned.

The structure of the microtome is extremely stable, and is equipped with a powerful motor also for execution of particularly hard cuts.

Equipped with tray for collecting scrap sections surrounding the front area of work, including the underside of the blade, ergonomic for the operator and removed from the instrument for easy cleaning.

The tray lock is provided at the precise interlocking between the tray itself and the front structure of the microtome.

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## 2. Technical specifications

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### *2.1 Electrical data*

Certification: CE, IVD

Protection class: I

Fuses type Fst: 2 x 1 A

Pollution class: 2

Over-voltage Category II Installation

Power supply: 220V ~ 50Hz and 110V ~ 60Hz

Maximum power draw: 150 V/A

### *2.2 Thickness section and advancement*

The minimum thickness of cut is set to 0.25  $\mu\text{m}$ .

For the setting "cutting" the setting range is from 0.25 to 100  $\mu\text{m}$  The allowable values and cutting increases are:

- 0,25 to 2,5  $\mu\text{m}$  in 0,25  $\mu\text{m}$  increments;
- 2,5 to 5  $\mu\text{m}$  in 0,5  $\mu\text{m}$  increments;
- 5 to 10  $\mu\text{m}$  in 1  $\mu\text{m}$  increments;
- 10 to 30  $\mu\text{m}$  in 2  $\mu\text{m}$  increments;
- 30 to 60  $\mu\text{m}$  in 5  $\mu\text{m}$  increments;
- 60 to 100  $\mu\text{m}$  in 10  $\mu\text{m}$  increments

The minimum thickness of trimming is set to 1,0  $\mu\text{m}$ .

For the setting "trimming" the setting range is from 1-600  $\mu\text{m}$ . The allowable values and cutting increases are:

- 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 50  $\mu\text{m}$  in 5  $\mu\text{m}$  increments;
- 50 to 150  $\mu\text{m}$  in 10  $\mu\text{m}$  increments;
- 150 to 600  $\mu\text{m}$  in 50  $\mu\text{m}$  increments

Retraction specifications:

- Specimen retraction: 20  $\mu\text{m}$ ;
- Max. sectioning area w/o retraction: 65 mm (without specimen orientation)
- Max. sectioning area with retraction: 60 mm

### *2.3 Control features and functionality*

Horizontal Specimen feed:  $26 \pm 1$  mm stepper motor  
Vertical stroke: 52 mm  
Maximum sample size (WxHxD): 50 X 60 X 40 mm  
Sample orientation: Axes X and Y: 0 to +/- 8 °, with the zero point.  
Z axis: 90 ° rotation  
Cutting speed: variable speed up 1500  $\mu\text{m/s}$  to 3500  $\mu\text{m/s}$

### *2.4 Dimensions 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  
Working height (knife edge): 100 mm (measured from the base plate)  
Working height (knife edge): 168 mm-(measured from the stage)  
Height (total): 305mm (with storage area on the housing)  
Weight (without accessories): app. 32 kg

### *2.5 Instrument equipment*

#### *Standard accessories*

1 collection tray sections  
1 holder blades  
1 clamp for standard samples  
Power cable  
Manual instructions

#### *Optional accessories*

1 bottle (50 ml) of microtome oil  
1 box of 50 disposable blades type S35