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Data Sheet

## Ultra-Thin Semiautomatic Microtome MRS3500



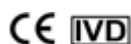
Version 1.2

Histo-Line Laboratories s.r.l.

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Manufacturer: Histo-Line Laboratories s.r.l

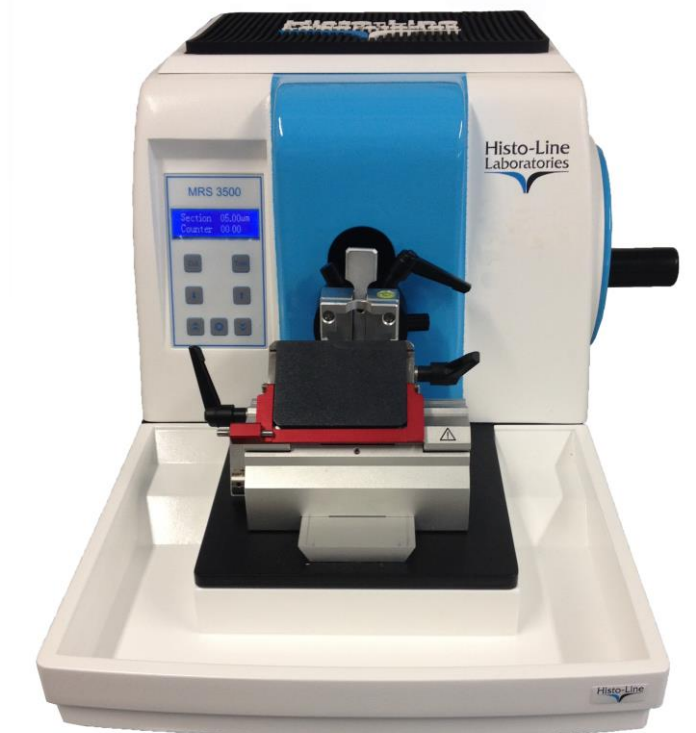


In Vitro Diagnostic Medical Device

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## 1.Features



## *1.1 Information and specified use*

The microtome Histo-Line MRS 3500 model is an Semi-motorized 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.

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. )

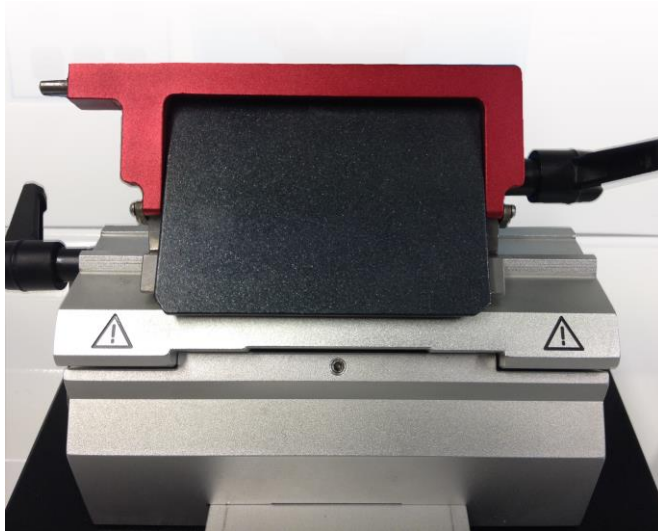


The orientation of the samples is possible in a simple and precise; if the red lights are visible, then the guidance plan is in zero position. The steel clamp is equipped with a device to "clamp" for quick change of the sample and sample holder fixed tilt.

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 MRS 3500 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 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 it self 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: 10 A

Pollution class: 2

Over-voltage Category II Installation

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

Maximum power draw: 100 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 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;
- 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 1-900  $\mu\text{m}$ . 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 100  $\mu\text{m}$  in 5  $\mu\text{m}$  increments;
- 100 to 900  $\mu\text{m}$  in 50  $\mu\text{m}$  increments;

### *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

Specimen retraction: 50  $\mu$ m

### *2.4 Dimensions 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

### *2.5 Instrument equipment*

1 collection tray sections

1 holder blades

1 clamp for standard samples

1 bottle (50 ml) of microtome oil

1 box of 50 disposable blades type S35

Power cable

Manual instructions