







## AST 500 SEMI-AUTOMATIC CRYOSTAT MICROTOME

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## **Design Features**

- It is designed under overall engineering and ergonomic concept. All the components are processed by computer numerical controlled machine.
- Retraction function prevents specimen damage from blade.
- Total thickness calculation.
- The low temperature refrigeration system with environment friendly refrigerant R404.
- Adopt UV and O3 sterilize for 30 minutes every time.
- Peltier specimen clamp refrigeration can be turn On or Off manually.
- Two defrosting methods: automatic and manual.
- The high precision unit is enclosed outside the cryostat chamber to prevent it from thermal expansion and contraction, and keeps minimum maintenance requirement.
- Artificial intelligent interface is easy for user to learn and operate.
- LCD screen can display all information including thickness, thickness sum, controlling time, temperature, timed on/off and so on.
- Sleep Function. After activating this function, the temperature in cryostat chamber can be kept between −1°C and −10°C; After stopping this function, the temperature in freeze chamber will arrive to working temperature within 30 minutes.
- Control panel with locking function could avoid wrong operation.
- Handwheel locking function.
- Wide freezing shelf can load 8 specimen cassettes simultaneously, and two of them are equipped with peltier to meet different temperature.

## **Technical Specifications**

- Freeze chamber minimum temperature : −35°C ± 2°C
- Freeze shelf minimum temperature: −45°C ± 5°C
- Lowest temperature of Peltier unit on freeze shelf: -55°C ± 5°C
- Lowest temperature of Peltier unit on Specimen Clamp:  $-50^{\circ}$ C ±  $5^{\circ}$ C(working time of Peltier is 15 minutes.)
- Maximum specimen size: 35 x 35mm
- Specimen vertical stroke: 48 ± 1mm
- Specimen horizontal stroke: 15 ± 0.2mm
- Coarse feeding speed: 300μm/s (slow) or 900μm/s(rapid)
- Section thickness range: 0μm ~ 100μm adjustable;

 $0\mu m \sim 3\mu m$ , in  $0.5\mu m$  increments;

 $3\mu m \sim 10\mu m$ , in  $1\mu m$  increments;

10μm ~ 20μm, in 2μm increments;

20μm ~ 100μm, in 5μm increments;

Trimming thickness range:

10μm ~ 600μm adjustable;

10μm ~ 50μm, in 5μm increments;

 $50\mu m \sim 100\mu m$ , in  $10\mu m$  increments;

100μm ~ 600μm, in 50μm increments;

Retraction range: 0~80μm adjustable, in 5μm increments

Voltage and frequency: 220 V ± 10%, 50 HZ / 110 V ± 10%, 60 HZ

 Nominal Power: 1000 W Weight: about 130 KG

• Dimensions(W  $\times$  D  $\times$  H): 805  $\times$  715  $\times$  1210mm



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