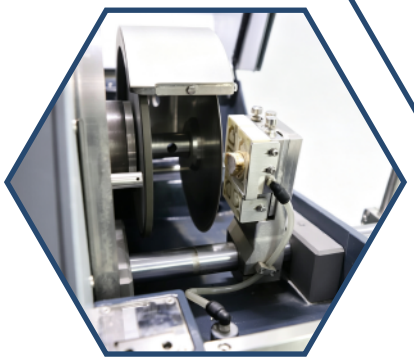
TROJAN
Discover the Truth of Material

# Micro Thin Precision Sectioning & Thinning Machine

SECTIONING





2026
08 / 10

TROJAN (SUZHOU) MATERIAL TECHNOLOGY CO.,LTD

# Micro Thin Precision Sectioning & Thinning Machine

MicroThin is a versatile benchtop cutting and grinding machine designed for precision thin-section preparation. It combines diamond cutting with cup-wheel grinding for rapid sectioning and precise thickness reduction. An integrated vacuum system securely holds specimen slides during cutting and grinding, while the precision servo system provides motorized control of cutting and grinding thickness. MicroThin is ideal for precise thinning of petrographic, medical, ceramic, concrete, and other material specimens.



## Features:

- Diamond Cutting Wheel: Ø200×22×1.2mm;
- CBN Grinding Wheel: Ø200×28×10 mm;
- Accommodates up to three 46×27mm specimen slides;
- Integrated cutting and grinding for rapid sectioning and precision thinning;
- Precision servo system with motorized thickness control;
- Integrated vacuum system for secure holding of slide-mounted specimens;
- 7-inch touchscreen with digital thickness setting and display;
- Custom parameter storage for repeatable preparation;
- Optional manual cutting stage for rapid manual sectioning.



## Technical Data:

| Model | | MicroThin |
|---|---|---|
| Cutting | Cut-off Wheel Diameter | Ø203mm |
| | Arbor Diameter | Ø22mm |
| | Wheel Speed | 500–2800rpm |
| | Maximum Specimen Thickness | 15mm |
| Grinding | Grinding Wheel Diameter | Ø203mm |
| | Arbor Diameter | Ø28mm |
| | Wheel Speed | 500–2800rpm |
| | Maximum Specimen Thickness | 5mm |
| Motor | Spindle Motor | 750W，2800rpm |
| | Feed Motor | 400W, control accuracy: ±5μm |
| Specimen | Glass Slide Size | 46×27mm |
| Manual Cutting | Cutting Stage Size | 140×370mm |
| | Maximum Specimen Size | 140×160mm See cutting stage dimensional drawing |
| | Maximum Cutting Cross-section | 60×60mm |

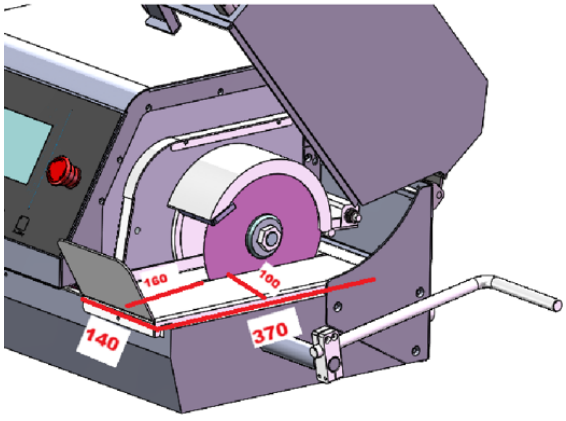
| | | |
|---|---|---|
| Vacuum System | Vacuum Pump | 375W, 0 to −80kPa, adjustable vacuum level |
| | Filtration | Manual drainage |
| Water Supply & Drainage | Water Supply | Ø8mm O.D. push-in fitting, pressure <0.3 MPa |
| | Drainage | Ø32mm I.D. corrugated hose |
| Dimensions/ Weight | Dimensions (W×D×H), Door Closed | 680×460×400mm |
| | Dimensions (W×D×H), Door Open | 680×460×650mm |
| | Weight | 65kg |

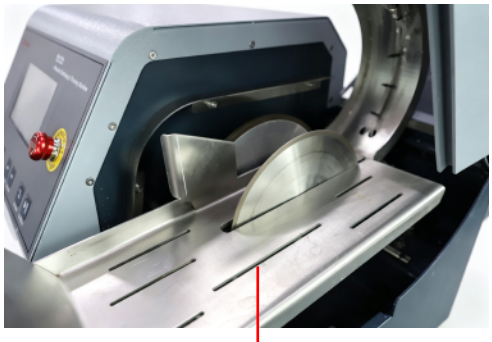
## Machine Configuration and Functional Requirements:

### Machine Configuration:



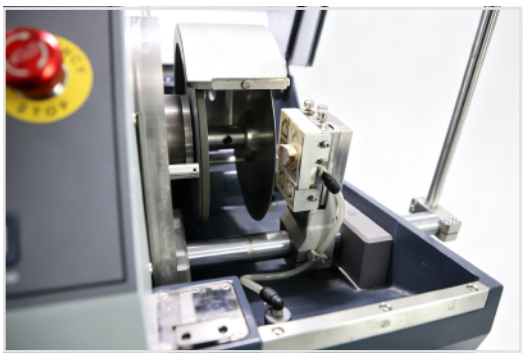

### Manual Cutting Stage Dimensions:



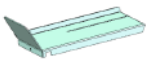



## Functions:

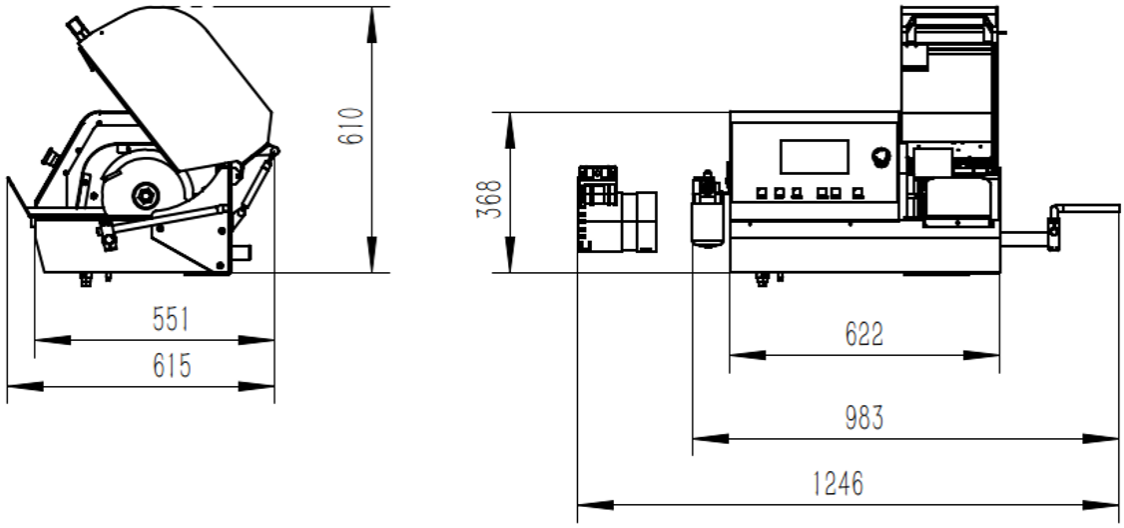
- Enclosed Design：Fully enclosed design with a transparent safety hood for clear visibility. The vertically opening hood provides easy access while minimizing space requirements;
- Control System：Programmable motorized control of cutting and grinding removal for precise specimen preparation;
- Feed System：Motorized feed with 5 μm control accuracy;
- Control Mode：Manual control;
- Cooling System：External water supply with independent cooling control for cutting and grinding;
- Worktable：Removable worktable for convenient manual sectioning during preliminary preparation of slide-mounted specimens,304 stainless steel worktable for durability and corrosion resistance.



## Standard Accessories:

| | | | | |
|---|---|---|---|---|
| 1 | MicroThin Main Unit | 1 unit |  | Single-phase, 220 V |
| 2 | Oil-Free Vacuum Pump | 1 unit |  | Single-phase, 220V, 370W |
| 3 | Specimen Holder-2 | 3 pcs. |  | For 46×27mm specimen slides |
| 4 | Manual Cutting Stage | 1 pc. |  | |
| 5 | Dial Indicator Set | 1 set |  | |
| 6 | Diamond Cut-off Wheel | 1 pc |  | Ø203xØ22x1.0mm |
| 7 | Diamond Grinding Wheel | 1 pc. |  | Ø203xØ28x6.0mm |
| 8 | Dressing Stone | 2 pcs. |  | White fused alumina, 150×12×12mm, 180 grit |
| 9 | Cut-off Wheel Wrench Set | 1 set |  | Custom auxiliary rod; standard 30 mm offset box-end wrench |
| 10 | Specimen Slide Size | 20pcs. | | 46×27mm |
| 11 | Adhesive | 1 set | | 100ml |
| 12 | Water Inlet and Drain Hoses | 1 set | | |
| 13 | Operating Manual | 1 set | | |

## Overall Dimensions:




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