



AutoPoli-250

Touch Screen Single-Plate Automatic Grinding Polishing Machine



Contact us

Mikrosize Precision Instrument Co.,Ltd

A-4035 RuiFeng Business Expo, Wuhu City, China , 241000.

Web: www.mikrosize.com

Email: mikrosize@mikrosize.com



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Feature and Application

Product Feature

- Equipped with 7-inch high-definition color touch screen for intuitive parameter display.
- Physical buttons for frequent operations to facilitate manipulation.
- Servo motor driven design featuring low noise, high energy efficiency and stable operation.
- All-in-one equipment for coarse grinding, fine grinding, rough polishing and final polishing of test specimens.
- Two compression loading modes: single-force pneumatic loading & central force loading.
- Standard platen dimension: 254 mm; optional size: 304 mm.
- Magnetic platen design enabling rapid abrasive disc replacement.
- The grinding platen undergoes grinding and surface treatment to ensure a perfectly planar specimen surface.
- Electromagnetic locking for grinding head with manual/automatic dual locking, safe and convenient.
- Supports fully automatic grinding or independent manual operation of the polishing platen.
- Soft start-stop control with progressive load rise/fall to avoid specimen damage.
- Equipped with a precise quantitative grinding function.
- User-defined storage for 20 sets of custom grinding & polishing process recipes.
- Adjustable-angle LED illumination for real-time specimen observation.
- Optional automatic dispensing system with 4~6 different abrasive grain size fluid.
- Compliant with standards: ASTM E3; ISO/TR 20580; ISO 6507.

Product Application

- Metallographic analysis & component failure analysis testing.
- Semiconductor industry: wafer thinning & surface polishing.
- Mold machining & surface process optimization.
- Precision surface treatment for mechanical metal components.



Product Details



1.Screen

2.Buttons

3.Emergency Stop Button

4.Water Tap

5.Grinding Platen

6.Water Retaining Ring

7.Specimen Holder

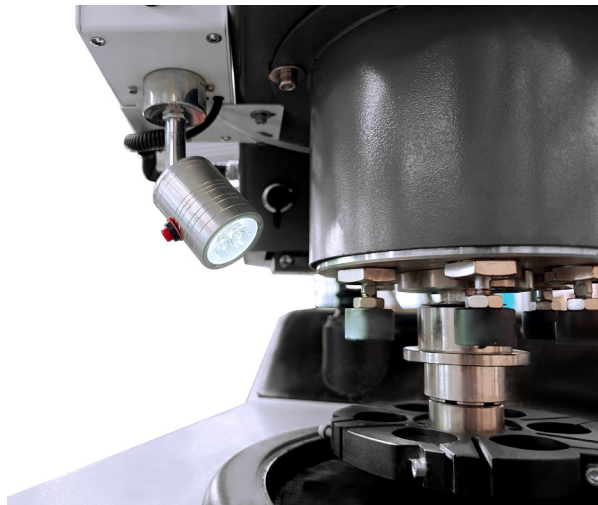
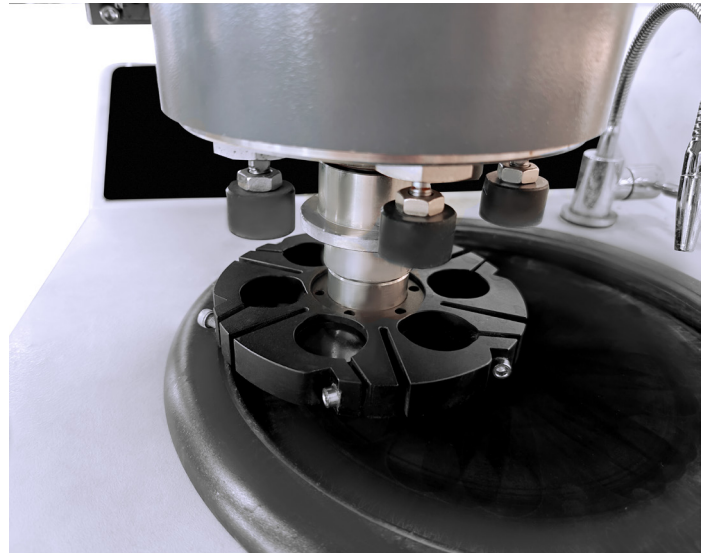
8.Illumination

9.Illumination Switch

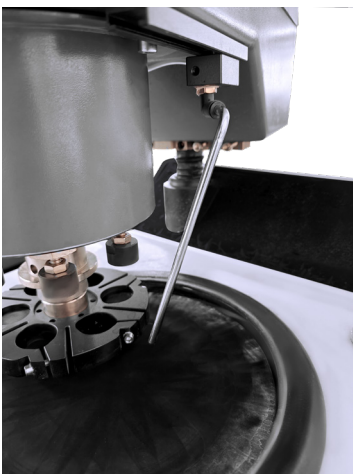
Product Details

Detailed Description

- Specimen holder accommodating six Ø30 mm specimens; custom sizes available on request.
- Pneumatically driven vertical lifting structure for grinding head.
- Self-adaptive platen structure ensures consistent close contact between specimen and abrasive surface.



- Angle-adjustable LED illumination for specimen viewing.



- Optional automatic dispensing system for 4–6 grit grades of polishing suspension.

Operation Interface

Screen Interface



1.Grinding Head Up
4.Illumination

2.Grinding Head Down
5.START

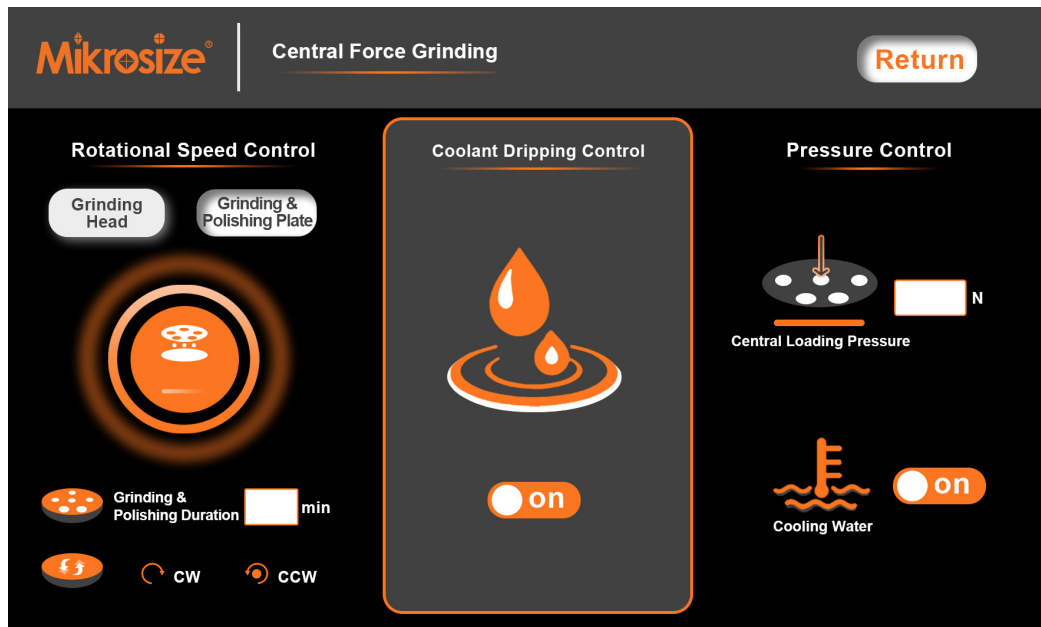
3.Lock Grinding Head
6.STOP

Operation Interface

Screen Interface



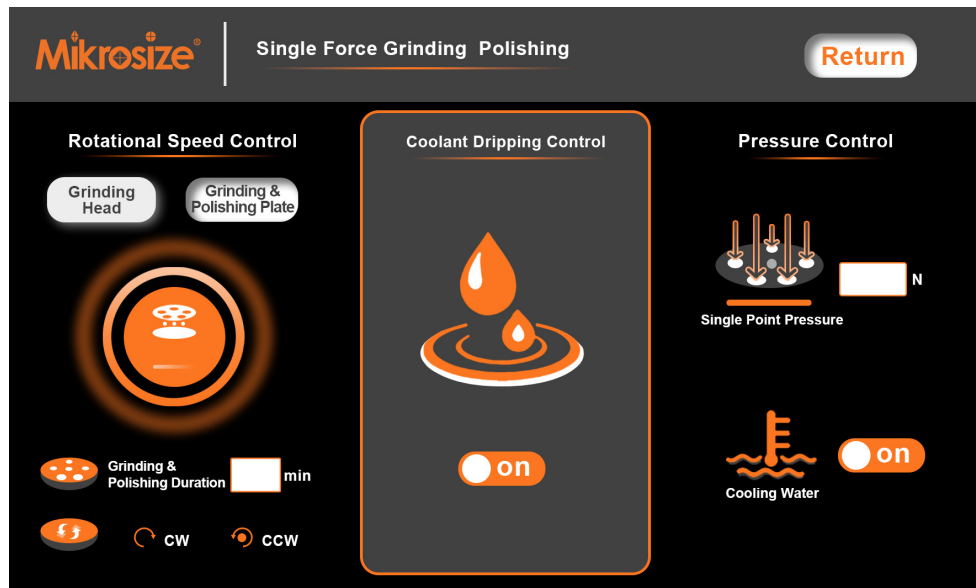
Central Force Grinding



- Rotation direction of the platen, grinding & polishing pressure, and rotational speeds of the platen and clamping disc can be set
- Central force loading range: 10N~200N

Operation Interface

Single Force Grinding Polishing



- In this mode, the single-point cylinder pops out with pressure to press the specimen.
- Single force adjustable range: 5N~100N.

Quantitative Grinding



- Grinding quantities can be set; the equipment stops automatically when reaching the set value.
- Built-in high-precision grating displacement sensor to ensure processing accuracy.
- Grinding accuracy: 0.05mm, starting from 0.01mm.

Operation Interface

Process Grinding



- Select process steps, consumable parameters and compression loading mode; set air pressure parameters, rotation direction and speed of the grinding head, rotation direction and speed of the platen; liquid dispensing method; cooling water and grinding duration.
- After completion of a single step, replace specimens and consumables in sequence, press "Confirm" to proceed to the next grinding step until all steps are completed.

Process Grinding



- In manual mode, only the lower platen can be operated, and the grinding head does not work.

Technical Specification

Name	Touch Screen Single-Plate Automatic Grinding Polishing Machine
Model	AutoPoli-250
Platen Diameter	Standard: 254mm (304mm optional)
Platen Rotational Speed	100-1000rpm, Custom Rotational Speeds Available
Number of Platens	1
Motor Power (Platen)	Servo motor, 750W
Grinding Head Rotational Speed	50~200rpm
Rotation Direction	Clockwise/Counterclockwise Adjustable
Display & Operation	7-inch LCD Touch Screen
Specimen Diameter	Φ30mm*6, Custom Sizes Available
Compression Loading Mode	single force Loading And Central Force Loading
Loading Force	5N~100N (Single Force)/10N~200N (Central Force)
Motor Power (Grinding Head)	120W
Power Supply	110/220V 50/60Hz
Air Supply	Required
Overall Dimension	70CM*50CM*75CM
Weight	125kg

Standard Delivery

Name	Qty
Main Unit	1 set
φ254mm Grinding Platen	1 pc
Φ250mm Self-adhesive Abrasive Paper	25 pcs
Φ250mm Polishing Cloth	2 pcs
Abrasive Paper Retaining Ring	1 pc
Water Retaining Ring	1 pc
Dust Cover	1 pc
Water Inlet Pipe	1 pc
Water Outlet Pipe	1 pc
Instruction Manual	1 copy
Qualification Certificate	1 copy
Warranty Card	1 copy

Optional Delivery

Optional

Metallographic Abrasive Paper

Diamond Grinding Platen

Metallographic Polishing Cloth

Diamond Spray Polishing Agent

Diamond/Alumina/Silica Polishing Fluid

Polishing Powder

Grinding Paste

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