

**Mikrosize**<sup>®</sup>

# AutoPoli-250

## Touch Screen Single-Plate Automatic Grinding Polishing Machine



### Contact us

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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**

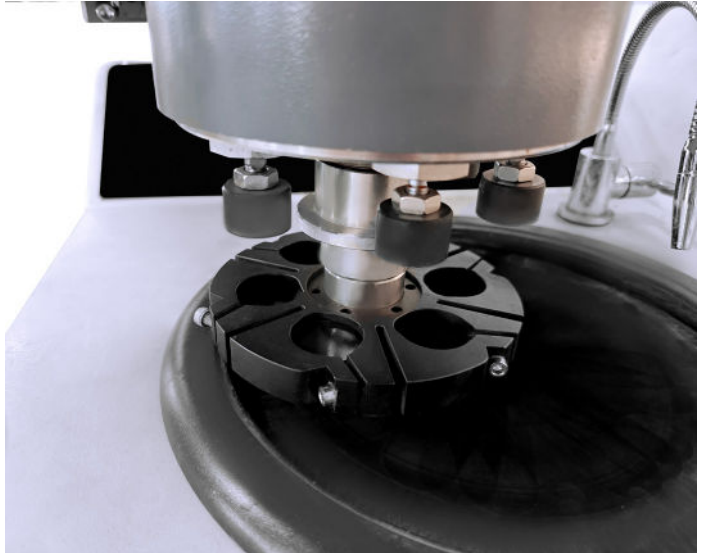
**8.Illumination**

**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**

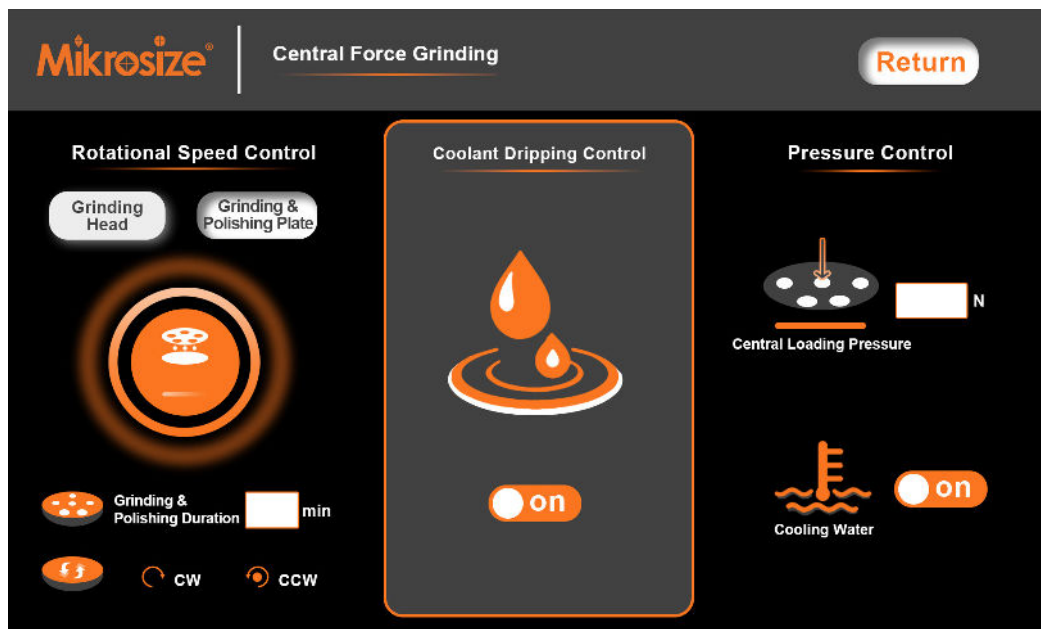
**3.Lock Grinding Head**  
**6.STOP**

## 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

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