

# Mikrosize®

## iPoli-1/2S

### Auto Metallographic Grinding Polishing Machine



Video



### Contact us

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## Product Features and Application

### Product Features

- The direction of rotation of the grinding and polishing disc can be selected arbitrarily, and the grinding and polishing disc can be quickly replaced;
- Four-level constant speed;
- Adopting advanced microprocessor control system, the speed of grinding and polishing disc and grinding and polishing head can be adjusted steplessly, and the sample preparation pressure and time setting are intuitive and convenient;
- Equipped with multi-sample clamp and pneumatic single-point loading function, it can handle multiple samples at the same time;
- The cast aluminum base increases the rigidity of grinding and polishing to ensure the grinding and polishing effect;
- With water cooling device to prevent the sample from over-heating and damaging the metallographic structure;
- Made according to international standards, the sample preparation process is automated, and the grinding and polishing of metallographic samples can be completed accurately;
- Equipped with an automatic control system, it can realize the automation and intelligent control of the grinding and polishing process.

### Product Application

- It is suitable for enterprises, scientific research institutions and college laboratories to carry out rough grinding, fine grinding, rough polishing to fine polishing and other automatic sample preparation processes for metallographic samples.
- It is an ideal equipment for metallographic sample preparation.



iPoli-1S-250A

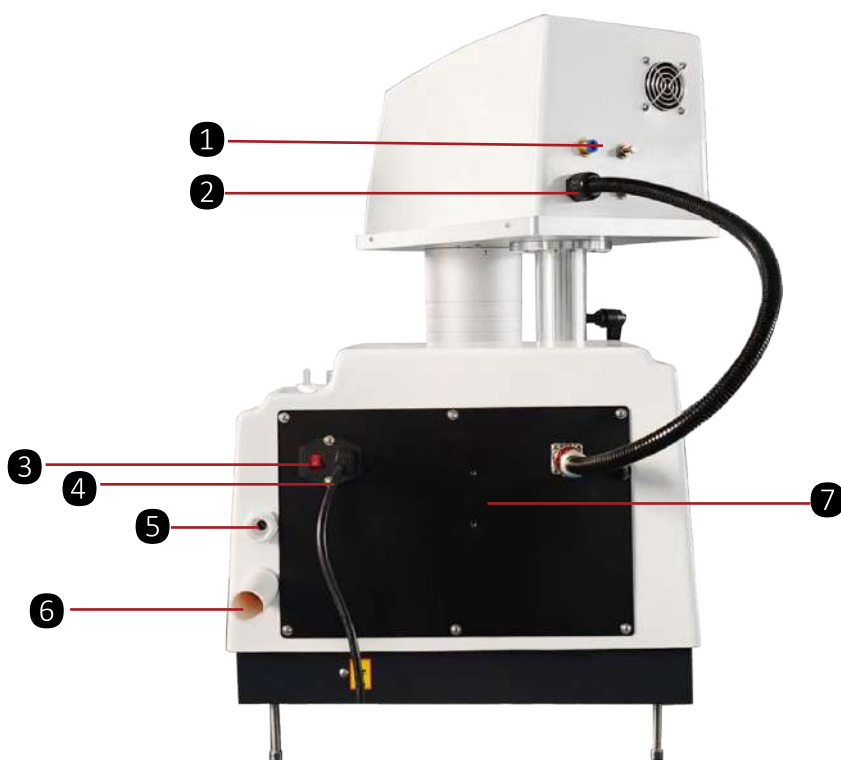


iPoli-2S-250A

## Instrument Appearance



1. Grinding and polishing head: contains mechanical and electrical control, and is an important part of the whole machine.
2. Grinding and polishing head control panel: adjusts pressure control parameters.
3. Grinding and polishing head locking device: manual locking.
4. Rotating water nozzle: can rinse the sample during grinding and polishing; can be turned on or off or rotated as needed.
5. Sample holder: fix the sample, and can generate 0-0.7Mpa pressure through the pressure head.
6. Grinding and polishing disc: an important part of the grinding and polishing test, fix consumables such as sandpaper and flannel on it, and grind and polish the sample.
7. Grinding and polishing machine control panel: set the speed direction and grinding and polishing time of the working disc; start and stop control of the whole machine.
8. Adjustable shock-absorbing foot: adjust the machine body level and stability.
9. Emergency stop button.



1. Grinding head air inlet: connected to external pressure air source (user-provided) through pressure-resistant pipe.
2. Control line interface: connect grinding and polishing head and grinding and polishing machine host.
3. Switch.
4. Power cord.
5. Water inlet.
6. Drain outlet.
7. Oil-water separator installation port: This is the installation location of the oil-water separator, and the oil-water separator is not installed in the picture.

Screen Interface



Interface 2

- After the device is turned on, first enter this interface, which includes the following functions:
- 1. Grinding time display and setting: The range of grinding time is 0-3000s. Click the time number to pop up the numeric keyboard and enter the required grinding time.
  - 2. Grinding and polishing disc speed and grinding and polishing head speed: Users can infinitely adjust the speed of the grinding and polishing disc and grinding head through the "+" and "-" buttons on the left and right sides.
  - 3. Forward and reverse buttons: Control the forward and reverse rotation of the grinding and polishing disc.
  - 4. Four-level fixed speed: The machine is equipped with four fixed speed values (400, 600, 800, 1000) quick adjustment buttons. These four speed values cannot be set. If the user needs other fixed speed values, they can be customized before leaving the factory.
  - 5. Grinding and polishing head lifting button: Control the rise and fall of the grinding and polishing head.
  - 6. Start and stop buttons: Control the start and stop of the equipment.

Grinding polishing machine				
No.	GrindingDisc	ClampingPlate	Time	
1	400	40	3000	
2	0	0	0	
3	0	0	0	
4	0	0	0	
5	0	0	0	
6	0	0	0	
7	0	0	0	

Interface 1

The function of this interface is to set multiple groups of parameter data of grinding and polishing disc and head speed, grinding time, up to 7 groups of parameter data can be set, the user can directly select the required parameter data in this interface, eliminating the time of manual parameter adjustment, fast and convenient



## Screen Interface



### Grinding and Polishing Head

When using this machine, the pressure gauge should be adjusted to 0.1 MPa at first, and then the pressure should be gradually increased by turning the knob (+) while the machine is running.



### Sample Holder

The default number of samples prepared by the multi-sample holder of this equipment is 4, and 6 can be customized; the equipment adopts pneumatic single-point pressurization

## Screen Functions



### Faucet

This device uses a pure copper faucet with a valve to control the water flow, can rotate freely, and has a large coverage area.



### Lock










After the grinding and polishing head is adjusted to the appropriate position, the wrench here is used to lock the grinding and polishing head to prevent the grinding and polishing head from moving around during the grinding and polishing process, which may cause damage to the specimen and equipment.



## Technical Specification

<b>Product Name</b>	Auto Metallographic Grinding Polishing Machine	
<b>Model</b>	iPoli-1S-250A	iPoli-2S-250A
<b>Polishing Disc Diameter</b>	Φ250mm(Customized Φ230mm、 Φ300mm)	
<b>Polishing Disc Rotation Speed</b>	50-1000 rpm(stepless) 400/600/800/1000 r/min(Four constant speed)	
<b>Grinding Disc Steering Position</b>	Adjustable Clockwisely or Counter-clockwisely	
<b>Grinding Head Speed</b>	5-150 rpm(stepless)	
<b>Sample Holder Qty</b>	4 pcs (Customized 6 pcs)	6 pcs (Customized 4 pcs)
<b>Loading Range</b>	0-0.7Mpa Adjustable, the factory parameters set within 0.2Mpa	
<b>Sample Preparation Time</b>	0-3000 S	
<b>Polishing Sample Diameter</b>	Standard Φ30mm(Customized Φ22-Φ45mm)	
<b>Voltage Supply</b>	AC220V 50Hz	
<b>Power Supply</b>	900W	
<b>Machine Dimension</b>	455*785*700mm	755*815*690mm
<b>Net Weight</b>	50KG	89KG
<b>Gross Weight</b>	90KG	113KG

## Standard Delivery

Name	Qty	iPoli-1S-250A	iPoli-2S-250A
Auto Metallographic Grinding Polishing Machine	1 set		
Polishing ClothΦ250mm	2 pcs		
Abrasive PaperΦ250mm	8 pcs		
Polishing DiscΦ250mm	iPoli-1S:1 pc iPoli-2S:2 pcs		
Aluminum Buckle RingΦ250mm	iPoli-1S:1 pc iPoli-2S:2 pcs		
Outlet Pipe	1 pc		
Inlet Pipe	1 pc		
Pressure Pipe Φ8	1 pc		



## Standard Delivery

Name	Qty	
Oil-water Separator	1 pc	
Magnetic Disc	iPoli-1S:1 pc iPoli-2S:2 pcs	
Anti-stick disc	iPoli-1S:3 pcs iPoli-2S:5 pcs	
Adjusting Feet	4 pcs	
Power Cord	1 pc	
Anti-dust Cover	iPoli-1S:1 pc iPoli-2S:2 pcs	
Water Retaining Ring	iPoli-1S:1 pc iPoli-2S:2 pcs	
Instruction Manual	1 copy	
Product Certificate	1 copy	
Warranty Card	1 copy	