

Operation Manual of MP-2B (MP-1B)



1. Uses and Features:

In the process of preparing metallographic samples, grinding and polishing of samples are essential processes. After grinding and polishing, the surface of samples can be as bright as a mirror.

MP-2B metallographic sample grinding and polishing machine adopts frequency converter speed regulation, can make the grinding disc speed between 50-1000r/min adjustable, by changing the metallographic sand paper and polishing fabric can complete the sample grinding and polishing process, showing a wider range of applications.

Double disc design, two people can operate at the same time, the shell adopts the integral blister technology, novel appearance, with stable rotation, low noise, easy operation, high efficiency, and its own cooling device, can be used to cool the sample during grinding and polishing, in order to prevent the sample overheating and damage the metallographic structure.

Suitable for the metallographic laboratory of factories, universities and scientific research institutes, it is an excellent equipment for grinding and polishing metallographic samples.

2. Technical parameters

- ◆ Grinding disc diameter: 203mm (customizable 230mm, 250mm)
- ◆ Grinding disc speed: 50-1000R/Min
- ◆ Input Voltage: Single Phase 220V 50HZ
- ◆ Input power: 550W
- ◆ Dimensions & weight: 730×765×320mm, 42Kg






3. Installation and use

(1). Installation

- ◆ Take the equipment out of the packing case, place it on a smooth workbench, and take off the packaging.
- ◆ Check whether all parts of the machine are complete and do a good job of cleaning.
- ◆ Connect the drainage pipe, and pay attention to the drainage place should be lower than the height of the drainage outlet.
- ◆ Insert the power plug into the power socket and switch on the power supply. Before inserting, check whether the power voltage is consistent with the specified voltage of the machine, and check whether the grounding of the line is safe and reliable.

(2). Operate panel functions



Button	Instructions
	Increase the speed
	Reduce the speed
	A key operation
	A key to stop
	One-button forward and backward (long press 3S)

(3). Grinding

- ◆ Remove the plastic water retaining ring and pressure ring.
- ◆ Wet the water abrasive paper, put it flat on the grinding plate, and press the sandpaper with the outer ring.
- ◆ Put back the water retaining ring, open the faucet, and adjust the water flow, so that water constantly grind the tray. Note that the amount of water should not be too large, as long as the continuous inflow.
- ◆ Turn the knob switch to the open position, at this time the power indicator light on, the grinding disc began to rotate, the sample force hold, and gently close to the grinding disc, the first sample press to the center of the grinding disk, while grinding the outward translation of the sample.
- ◆ After the sample is grinded, the power should be turned off. Attention should be paid to the shutdown of the water supply valve should be closed before shutdown, to avoid water overflow into the bearing seat, damage to the bearing, electrical, affect the normal use of the equipment.

(4).Polishing

- ◆ Remove the plastic water retaining ring and pressure ring.
- ◆ Paste the polishing fabric of gum on the polishing disc. If the polishing fabric without gum is used, it should be tiled on the polishing disc. Note that when pasting or tiling polished fabric, to ensure smooth and firm paste.
- ◆ Press the ring on the polishing disc, so as to fix the polishing fabric. Pay attention to the pressure ring must be pressed compaction, especially when using polishing fabric without gum, should pay more attention to.
- ◆ In the polishing fabric surface drops on the right amount of polishing liquid or coated with the right amount of polishing paste. Use polishing paste to pay attention to add a small amount of water to polish.
- ◆ Put back the water retaining ring, and turn the knob switch to the open position, at this time the power indicator light on, the throwing disc began to rotate, the abrasive sample to hold, and gently close to the throwing disc, the first sample according to the center position of the throwing disc, while polishing the outward translation of the sample. In the polishing process, at any time to add polish to maintain a certain humidity is too dry, and dark spots, the grinding surface deformation layers too wet will weaken the polishing effect, suitable humidity is sample mill attached wet film evaporation down in 3 ~ 5 seconds, polishing time should not be too long, usually in the grinding surface scratches, and does not produce pitting.
- ◆ After the sample is polished, the power should be turned off. Attention should be paid to the shutdown of the water supply valve should be closed before shutdown, to avoid water overflow into the motor, damage to the motor, affecting the normal use of the equipment.

4. Equipment maintenance

- ◆ After use, the waste and debris in the collection tank and the deposition of dirt in the drainage pipe should be cleaned in time to avoid the water outlet blocked and keep the water flowing smoothly.
- ◆ After grinding and polishing, the inner pressure ring should be dried and placed in the designated position to avoid rust due to long time contact with water.
- ◆ After long-term use of the equipment, the bearing in the bearing seat should be replaced in time.

Matters needing attention

(1). Check before use.

- ◆ Whether the rotation of the grinding disc is normal.
- ◆ Whether the water sandpaper and polishing fabric are installed on the grinding disc smoothly and firmly.
- ◆ Whether the water sandpaper polishing fabric is complete, if there is damage should be replaced in time.
- ◆ Check whether the output range of the power supply voltage is consistent with the equipment, and whether the equipment grounding meets the requirements.

(2). In the process of grinding and polishing, we should pay attention to uniform force, not too light or too heavy. In order to avoid the sample fly out or scratch water sand paper and polished fabric and motor overload and damage.

(3). Do not disassemble the equipment without authorization when there is a fault, because please professional maintenance, so as to avoid electric shock.

Certificate of conformity

Product name: Metallographic sample grinding and polishing machine

Model: MP-2B

Check the log:

1. The quality of manufacture and assembly meet the drawing requirements
2. Smooth rotation, low noise
3. All the parts are in good order

The product has passed the inspection and is allowed to leave the factory

Head of quality inspection:

Check the date:

Packing list

Model	Product name	quantity
MP-2B	Metallographic sample grinding and polishing machine	1
Product accessories	Quantity	Notes
Grinding disc	2	√
Water retaining ring	2	√
Pressure ring	2	√
Water sandpaper	2	Φ203mm
Polishing cloth	2	Φ203mm
Water inlet pipe	1	
Outlet pipe	1	Φ32
Technical documents	1. Product description 2. Product certificate	