

Operation Manual of MP-2DT



1. Uses and Features

In the process of metallographic sample preparation, sample polishing is an essential process. The polishing of the sample is generally divided into two processes: rough grinding and fine grinding. The purpose of rough grinding is to obtain a flat surface, and the purpose of fine grinding is to eliminate these grinding marks, so as to obtain a flat and smooth grinding surface and prepare for the next polishing.

Mp-2DT metallographic sample grinding and polishing machine not only adopts the unique dual disk and dual control technology, but also combines man-machine technology to realize stepless speed regulation and 8-gear constant speed.

The left or right disk can be controlled separately through touch screen switching, so that the speed of grinding and polishing disk can be set in real time between 50-1000r / min, which greatly improves the work efficiency and practicability. By replacing metallographic sandpaper and polishing fabric, various grinding and polishing processes of the sample can be completed, showing a wider application.

The shell is made of high-end ABS plastic, with novel appearance, stable rotation, low noise, convenient operation and high working efficiency.

It is equipped with a cooling device, which can cool the sample during grinding, so as to prevent the metallographic structure from being damaged due to overheating of the sample. It is especially suitable for metallographic laboratories in factories, universities and scientific research institutions. It is an excellent choice for grinding and polishing metallographic samples.

2. Technical parameters

- ◆ Grinding disc diameter: 203mm (customizable 230mm, 250mm)
- ◆ Grinding disc speed: 50-1000R/Min (Constant speed 8 file)
- ◆ Input Voltage: Single Phase 220V 50HZ
- ◆ Input power: 550W
- ◆ Dimensions: 730x765x320mm
- ◆ Weight: 50Kg

3. Installation and use

(1). The installation

- ◆ Take the equipment out of the packing case (unscrew the four M10 bolts at the bottom of the board), place it on a flat workbench, and remove the packaging.
- ◆ Check whether all parts of the machine are complete and do a good job of cleaning.
- ◆ Connect the water inlet pipe and the water outlet pipe, and pay attention to the drainage height should be lower than the drainage outlet.
- ◆ Adjust the anchor bolts to level and secure.
- ◆ Insert the power plug into the power socket and switch on the power supply. Before inserting the power supply, check whether the voltage is consistent with the voltage specified by the machine, and check whether the grounding of the line is safe and reliable.

(2). Use





- ◆ Remove the plastic water retaining ring and pressure ring.
- ◆ Wet the grinder, wet the sand paper, put the sand paper flat in the grinder, and press the sand paper with a pressure ring.
- ◆ Put back the water retaining ring, open the tap, and adjust the water flow, so that the water flow evenly into the grinder. Note that the amount of water should not be too large, only continuous inflow can be.
- ◆ The operation interface is shown in Figure 1. Click the left wheel screen to control the left wheel, and click the right wheel screen to control the right wheel. The current actual speed is displayed in the middle position. Click the middle number of speed to input arbitrarily as required. There are eight gears of 300, 400, 500, 600, 700, 800, 900 and 1000 on both sides, which are preset respectively. Click to enter quickly. After setting the speed, click to  start rotation, and click to  stop rotation.   These are the forward and reverse buttons.



Figure 1

- ◆ After the sample is ground, the power should be turned off. When stopping the machine, close the water supply valve first to avoid water spilling into the bearing or the inside of the electric appliance, which may affect the normal operation of the equipment.

4. Equipment maintenance and operation safety

Excessive pressure on the sample is not allowed during grinding, so as not to damage the motor due to overload.

It is strictly forbidden to use damaged sandpaper or fabric for polishing work, so as not to affect the polishing quality and cause accidents.

After use, the sediment in the sink and drainage pipe should be cleaned in time to avoid the blockage of the outlet and keep the water flowing smoothly.

After grinding and polishing, the pressure ring should be dried and placed due to long time contact with water.

Part of the machine is made of hard plastic, brittle at low temperature, the use of ambient temperature should not be less than -5°C to avoid damage to internal parts.

Matters needing attention:

1).Check before use:

Whether the grinding disc rotates normally.

Whether the sandpaper is flat and firmly installed on the grinding disc.

Whether the sandpaper is complete. If it is damaged, it shall be replaced in time. Check whether the power supply voltage is consistent with the equipment and whether the equipment grounding meets the requirements.

2).In the grinding process, pay attention to uniform force, not too light or too heavy. In order to avoid damage caused by flying out of the sample or scraping the sandpaper or overload of the motor.

3).In case of failure, the power shall be cut off in time. Do not disassemble the equipment without authorization. Ask professional personnel for maintenance to avoid electric shock accidents.

4).The display of the main interface will be slightly different according to different customer needs.

Certificate of conformity

Product name: Metallographic sample grinding and polishing machine

Model: MP-2DT

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

Quality Inspector:

Head of quality inspection:

Check the date:

Packing list:

Model	Product name	number
MP-2DT	Metallographic sample grinding and polishing machine	1
Product accessories	number	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	