



MLP-MP62
MOUNTING PRESS(BASIC TYPE)
OPERATION MANUAL



CAUTIONS AND SAFETY NOTE

Following instructions shall be followed to prevent from fire hazard electric shock and body injury:

1. Read carefully all the operation instructions
2. Keep in mind the elementary knowledge of electrical appliances
3. Abide by all the warnings and instructions either marked on the product or mentioned in the documents delivered with the machine
4. Should any discrepancy be found between the instructions and safety note, the safety note shall prevail. For more details, refer to the sales agency or after market service.
5. Remove the power plug prior to clean the surface. Detergent or kerosene is forbidden. Wet rug is all right
6. Don't place the machine onto unstable table. Otherwise, serious injury may happen when falling down in case.
7. Nothing is allowed to put on the machine
8. Don't overload the power socket in case of fire hazard or electric shock
9. Don't try to dismantle the cut-off machine to prevent from electric shock. Only qualified maintenance technicians are allowed to repair the machine. You will be exposed to dangerous voltage or other danger once the cover is opened or removed. Improper reassembling may result in future electric shock.
10. Remove the plug and call qualified technician in following cases:
 - 1) The cable or plug is damaged or worn out
 - 2) The machine can't run in normal operation
 - 3) The machine falls down or the shell is damaged
 - 4) Sudden and obvious change occurs to the performance
11. Only the parts mentioned in this instruction manual are allowed to adjust
12. Keep the manual

APPLICATION

This machine is designed for purpose of the last process before polishing. It is setting up those small, difficult-to-hold or irregular specimens for metallographic test. It can facilitate polishing and watch properly the ideal material structure and measure the hardness of the material by hardness tester. The inserts for this machine are limited to thermosetting materials only. The punching temperature of different thermosetting materials can be adjusted depending upon the features of materials.

1 Working principle

The machine is mainly composed of cylinder liner, heating sleeve, upper cover, gland, upper die, lower die, screw rod, bevel gear, hand wheel, spring, limit switch, etc.

use hand wheel to move the lower die upward through bevel gear, screw rod and other parts.

the inlay to be filled by extrusion, and then the spring is squeezed by the force.

when the spring is squeezed to the limit switch position, the pressure maintaining indicator light is on.

after the inlay is heated, the spring moves and the pressure maintaining indicator light goes out. At this time, continue to shake the hand wheel and repeat several times until the pressure maintaining time meets the requirements.

loosen the octagonal jackscrew, turn the handwheel in the reverse direction to relieve the pressure, and then turn the handwheel in the forward direction to smoothly push the jackscrew to the octagonal jackscrew, and then loosen the octagonal jackscrew to open the gland, continue to shake the handwheel, and take out the sample.

2 Selection range of inlay powder

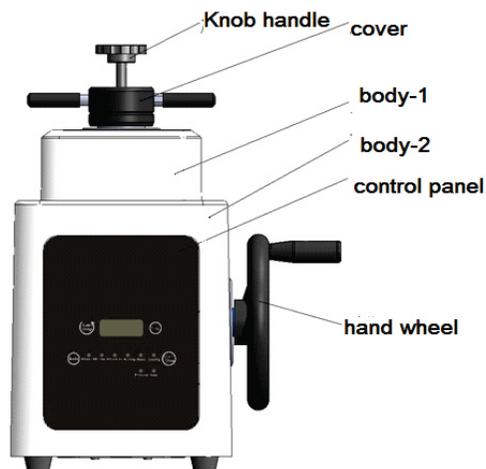
The selection range of the inlay powder of the machine can be used for thermosetting materials (such as common type, edge preserving type, conductive type inlay powder) or thermoplastic materials (such as transparent type inlay powder). The pressing temperature of different thermosetting and thermoplastic materials can be adjusted and determined according to the materials.

MAIN TECHNICAL PARAMETERS

SPECIFICATION

Mounting diameter	Ø30mm(Customizable Ø22mm, Ø45mm)
Heating range	Room temperature-200°C
Timing range	0-30min
Power	≤800W
Power supply	AC220V, 50Hz
Dimension	440×253×310mm
Weight	32kg

SCHEMATIC DIAGRAM OF MAIN STRUCTURE



BUTTON FUNCTION INTRODUCTION



Operation interface figure interpretation:

The "mode" button function is the conversion of three sample preparation methods and procedures, and the corresponding signal is "bakelite powder", "Emerald powder" and "custom" indicator lights up. When the machine is in "custom" mode, the "temperature" and "time" buttons can be activated.

The "temperature" button adjusts the range setting, and the maximum sample preparation temperature is 90 °C to 200 °C. This function applies the sample preparation process matching with other inlays of different materials.

The definition of "time" refers to the control of the sample preparation saturation time. The setting range is 120 seconds to 9999 seconds. You can set it according to the needs of the time node. The "start stop" button is the start and stop of the control program. In the process of sample preparation, there are five indicators in the program state: "heating", "holding", "cooling", "pressure maintaining" and "undervoltage"

Installation and Precautions

- 1 Equipment must have a good grounding, you must use the three-pole standard power outlet.
2. Equipment should be installed in a stable, vibration-free work surface. Environment should be ventilated and dry. Temperature range is 10 °C -30 °C. Relative humidity is less than 85%, Surrounding without corrosive gas and conductive dust.
3. upper knob and the top of device is a little hot, take care in the processing.
4. there is a small amount of smoke while first heating, it is a normal phenomenon
5. Please clean the residual slag attached to the upper and lower molds in time to avoid blocking

Operating instructions

Example: ordinary black inlay powder; room temperature 8 °C - 20 °C
Install the hand wheel handle (initial use).

- A. take out the felt between the upper and lower molds, wipe the rust proof oil on the upper and lower molds and cylinder liners (for the first time).
- B. shake the hand wheel clockwise, raise the lower mold, place the specimen to be inlaid firmly on the lower mold, shake the hand wheel anticlockwise, lower the lower mold to the bottom (until the hand wheel does not move), add a proper amount of inlay, and place the upper mold and the upper part of the cylinder liner until they are even. If the sample is not easy to be firmly placed on the lower die, inlay shall be added while lowering.
- C. cover the upper mold and gland, rotate the octagonal jackscrew slightly, and push it onto the upper mold.
- D. touch the "start stop" key to start and stop the program. At this time, "undervoltage" and "heating" lights are on, and the buzzer rings.
- E. turn the hand wheel clockwise to pressurize until the pressure maintaining switch is started, the corresponding "pressure maintaining" and "pressure maintaining" lights are on, and the buzzer is still. Approximately 3 to 5 pressurizations will be repeated during the warming up period.

F. when the critical temperature is 150 °C, the program will enter the "cooling" cooling stage until the end of the sample preparation process.
 G. shake the hand wheel anticlockwise, lower the lower mold to the bottom, rotate the octagonal jackscrew to leave the upper mold, rotate the hand wheel to push the upper mold out, remove the gland, shake the hand wheel and take out the sample.



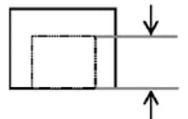
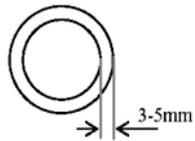
Step g precautions:

Do not remove the gland before the free movement of the upper mold is determined, so as to avoid injury caused by the ejection of the upper mold and the sample!

Do not use your eyes to observe the inside of the inlay sleeve from the top of the inlay sleeve when the lower mold is not ejected! In order to avoid personal injury caused by pop-up of sample and lower die

SUPPRESS THE SAMPLE ELEMENTS

Qualified samples should be regular cylinders, the surface is smooth, the workpiece is firmly embedded in the center.



Less than 2 / 3 of the total height

In the sample pressing process, the heating temperature and holding time and cooling temperature and material is a key factor in pressing the sample

Samples by heating, the forming pressure mainly rely on the spring to automatically adjust the compensation.

The sample appears as shown in the following list of various states, it is recommended to increase the appropriate holding time, reduce the cooling temperature.

A The specimen has a concave and convex shape



(一)



(二)



(三)

B The sample cracks and local particles phenomenon



(四)



(五)

SAFETY RULES

1. When the gland is opened, protect it above the mold cavity and gently shake the hand wheel, otherwise, it is easy to cause the upper mold and the sample flying out to hurt people!
- 2 at the end of each shift or when the equipment is not used for a long time, the equipment shall be cleaned and the key working parts such as upper and lower dies, screw rods and gears shall be coated with oil.
- 3 the machine shall be equipped with reliable grounding device

CIRCUIT DIAGRAM

