

OPERATION MANUAL
FOR
AUTOMATIC MOUNTING PRESS
MODEL ZXQ-50S



I. Application

ZXQ-50S is a kind of water cooling type automatic metallographic specimen mounting press, which can be used to inlay small specimens, specimens in irregular shapes, or specimens which are not easy to take up. The inlaying operation serves to facilitate the grinding and polishing operations of the specimens and the routine observation of the composition of the material under the metallurgical microscope.

This machine heats and applies pressure to the specimen automatically. After the formation of specimen is finished, it will stop the operation and cool the specimen also in an automatic way. Open the top cover, press the rising button to prop up the specimen and then it is ok to take the finished specimen.

Note: It can only be used with the hot solid materials (such as urea-formaldehyde moulding powder and bakelite powder) with the temperature automatically regulated and controlled.

II. Main Parameters:

Specimen size: \varnothing 25mm, \varnothing 30mm, \varnothing 40mm , \varnothing 50mm

Replaceable steel sleeve: \varnothing 25 mm, \varnothing 30 mm, \varnothing 40 mm, \varnothing 50 mm

Heating device: 220V, 1200W

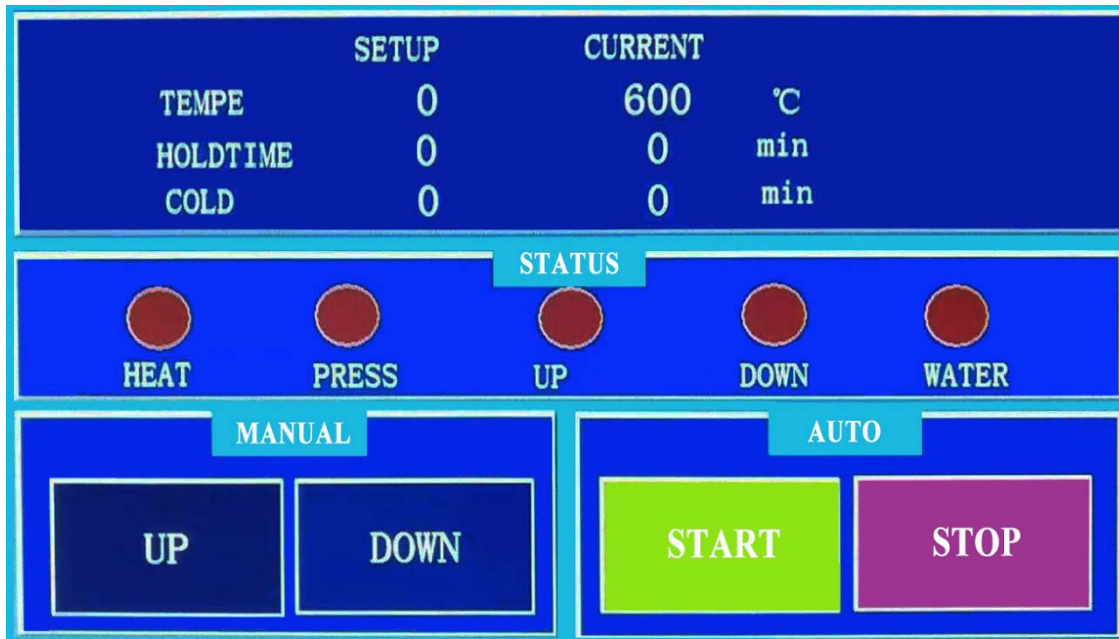
Total power: 1600W

Dimensions: 59*58*57 cm

Net weight: 105 kg

III. Operation interface





Touch Screen LCD Main Interface

IV. Installation:

1. Open the wooden package of the machine and take out the machine.
2. Place the machine on a rigid platform free of other objects and vibration.
3. Connect the water inlet and outlet pipe at the rear side of the machine.
4. Connect the grounding cable.
5. Plug the power cable into power socket. Turn on power switch and start up the machine as per the operation steps. Check whether the machine runs normally.
6. After the above check-up, then it is ok to operate the machine.

V. Operation Instruction

1. Parameters Setup

(1) Heating Temperature:

Click on the digits of temperature, a temperature digit modifying interface window will bounce out. After modifying, the new temperature will be saved automatically (the default temperature has been preset before delivery, it is recommended to be under 140 °C). When working, set the temperature between 100 °C and 135 °C. Larger diameter of mould needs a little higher temperature.

(2) Temperature holding time:

Click on the digits of HOLDTIME, a time digit modifying interface window will bounce out. The new holding time will be saved automatically after change. (The default temperature holding time has been preset before delivery. Larger diameter of mould needs longer temperature preserving time).

(3) Cooling time:

Click on the digits of cooling time, a time digit modifying interface window will bounce out. The new cooling time will be saved automatically after change.

VI. Manual Operation

1. Turn on power switch and LCD will be lit up.
2. Press the **RISE** or **DECLINE** key in manual operation area, the working indicator will be on, and at the same time, the lower mould will go up and down accordingly. Make sure there is no jamming resistance.
3. Press the **RISE** or **DECLINE** key and it will enter relative working status. Press the key again and it will stop relative action.
4. When the cooling indicator is on, the machine will enter into cooling status.
5. Press the Emergency switch on the panel under any working conditions, the machine will be powered off immediately.

VII. Automatic Operation

1. Turn on power switch and LCD will light up.
2. Put the sample and mounting material into the mould, turn and tighten the upper mould cover. Press **START** key in automatic operation area and then the machine will enter into automatic working mode. The heating and compressing will be proceeded at the same time.
3. When the pressure in mould reaches the required value, the PRESSURE indicator will light up, and the rising action stops a few seconds later. When the temperature in mould reaches the required value, the heating will stop and HEATING indicator will be off.
4. When both pressure and temperature reach the preset values, the system will enter into cooling and solidifying status automatically.
5. When cooling and solidifying are finished, the COOLING indicator will be off. When

the temperature in mould reduces to regulated value, the beeper buzzers and cooling will be stopped. The system will enter into standby status.

6. The sample acquiring can be operated manually. Press **DECLINE** key to bring down the lower mould, turn and take off upper mould cover, press **RISE** key and the sample will be propped out. When sample reaches the upper limit, take it off and the whole work is finished.
7. To prepare the second sample, press **DECLINE** key and the mould will go down and then stop until it reaches the lower limit. Then put the sample and mounting material into the mould, turn and tighten the upper mould cover. Press **START** key and it will enter into the second sample preparing cycle.
8. When it is necessary to change the steel mould sleeve, the lower mould should be taken out, loose the outside inner hexagon screws and then make the replacement.

**NOTE:**

- (1) Under AUTOMATIC working mode, there will be no response to the action of pressing **RISE** or **DECLINE** key. When automatic working procedure is not finished, only press **STOP** key or Emergency switch to stop the procedure and quit.**
- (2) In case it is necessary to change the steel sleeve, the machine must be under cold status.**
- (3) The machine must be well grounded.**

VIII. Maintenance and safe operation

1. Do cleaning work in time after using for every time. Do not clean the machine with any corrosive liquid. Grease steel mould sleeve and upper & lower moulds after cleaning so as to prevent it from rusting.
2. In order to avoid damages to machine caused by jamming or heavy loading during operation, add lubricating oil onto the screw rod, spline housing, bevel gear and other transmission parts termly.
3. Change the lubricating grease of bearing in time after long time using.