

## Pneumatic Mounting Press

The Pneumatic Mounting Press is used in metallurgical lab for mounting the sample and for the purpose of viewing the micro structure, surface finish and edge retention. It is suitable for small metallographic specimen. The procedures prepare the sample to be grinded and polished and allow the metallographic structure of samples to be measured under a metallographic microscope.



1. Mould closure
2. Heater cover
3. Mould closure holder

### Operation

Operation of Bain Mount – Pneumatic is simple and is designed to produce high quality Metallurgical mounts. Although the operation of the press is basically the same, other parameters such as heat, pressure or time will be depending upon the mounting materials selected.

Heat is provided by a thermostatically controlled heater (Range: 0-400C). Cooling may be obtained using manual water-cooling system or an optional automatic water cooling system.

The Bain Mount is designed to produce consistently good mounts with minimum of operator attention. All the standard mount size can be produced with this same Bain mount – 1 ¼”, 1 ½” and 2”.

**The operation of the Mounting press is covered under the following headings:**

1. Setting the parameters
2. Placing the specimen
3. Pouring the Bakelite powder over the specimen
4. Installing the Mount closure
5. Starting the Mounting process
6. Stopping the Mounting press
7. Extracting the Mount

## Switch on the power supply

- Temperature
  - Heating time
  - Cooling time
  - Cycle Start
1. Press the SELC button to show the temperature and set temperature by using the ↓ and ↑ button.
  2. Press the SELC button to show the heating time and set heating time by using the ↓ and ↑ button.
  3. Press the SELC button to show the Cooling time and set Cooling time by using the ↓ and ↑ button.
  4. Press the Cycle start button.
  5. After the cycle the buzzer sound will start indicating the completion of the cycle. Press cycle stop button

## Placing the Specimen

1. Switch on the power supply.
2. Set the air pressure 6-7 bar (FRL: Filter regulator and lubricator).
3. Bring up the lower ram.
4. Apply “Mould Release Agent” to the surface of the lower ram.
5. Place the specimen on the top of the lower ram. The specimen must be clean, dry and free from grease. The distance between the specimen and the cylinder wall must be minimum 3 mm to avoid cracks in the resin.
6. Place the lock nut and turn clock wise for closing, do not apply excessive force.
7. Fill a suitable amount of Bakelite powder in to the cylinder by means of the funnel. The powder level should be normally 10 – 15 mm above the specimen.

## Starting the Mounting process

1. Set the force (Air pressure min 6-7 bar).
2. Bring the lower ram to the top of the chamber by pressing the ram up button.
3. Now switch on the power button.
4. Set the heating temperature – 180° C.
5. Set heating time – 10 minutes: Set cooling time – 5 minutes.
6. Set the auto mode.
7. Start cycle.
8. After the buzzer sound the cycle is completed then automatically the lower ram comes down within 10 seconds.
9. After 10 sec you can remove the lock nut and press the ram up button, the mould should come to top side.