

## M Braun Inert Gas Glove Box

- You may use the glove box after carefully following the instructions below.
- Log on to the glove box in FOM when you start. The user fee is charged per use, with one use considered to be using the glove box for a particular process, or placing something in the glove box for storage.
- The box pressure (mbar, differential to atmosphere) and oxygen content (in ppm) are indicated on the display.
- The right foot pedal will inject gas into the box (pressurize), and the left pedal will remove gas (depressurize). Note that each may operate on a slight delay.
- The system is equipped with small and large antechambers. Although the procedures below are generally applicable to both (valve operation differs for large), the small chamber should be adequate for most applications. Please consult the facility staff if you need to use the large chamber. The chambers are equipped with rough vacuum gauges indicating pressure in inches of mercury relative to atmosphere.
- The small antechamber doors consist of two plates which are pulled together by turning the handle counterclockwise. To open the door, turn the handle counterclockwise, then turn the door counterclockwise and remove it. To close, insert the door in the keyed position, turn it clockwise, and then turn the handle clockwise to seal.
- All standard chemical hygiene and disposal regulations must be observed for chemicals used inside the box.
- All materials stored in the box must be logged on the clipboard hanging from the control panel, and must be labeled with a white label which can be found on a clipboard attached to the flammable storage cabinet. All materials belonging to each user/group must be stored in a labeled gray bin which will be provided by CCMR.

### Inserting materials into glove box:

- 1) Fill (valve to REFILL, then CLOSED) the antechamber and open the outer door, and place the materials on the sliding tray.
- 2) Close the door and seal tightly.
- 3) Turn the valve (located under the small antechamber) to EVACUATE (fully counterclockwise) until the pressure is below -27" Hg, then to REFILL (fully clockwise) until it is back at atmosphere.
- 4) Repeat step 3 twice for a total of three purge cycles.
- 5) Turn the valve to CLOSED.
- 6) Wearing regular rubber or linen glove(s), place one or both hands into the black neoprene glove(s).
- 7) Use the left foot pedal to depressurize the box enough to be able to reach in.
- 8) Open the inner antechamber door. [Note – It may be convenient to use your left hand in the right glove.]
- 9) Slide the tray into the box and remove materials.
- 10) Return the tray into the antechamber, close the door, and seal it tightly. EVACUATE the antechamber, and leave the valve CLOSED.

### Removing materials from glove box:

- 1) Follow instructions for steps 3 – 8 above.
- 2) Open the inner antechamber door and slide the tray into the box.
- 3) Place materials on the tray and slide it back into the antechamber.
- 4) Close the inner antechamber door and seal it tightly.
- 5) Open the outer antechamber door and remove materials from the tray.
- 6) Close the outer antechamber door and seal it tightly.
- 7) Turn the valve to EVACUATE (fully counterclockwise) until the pressure is below -27" Hg, then to CLOSED.