

## POE Pipetting Guideline

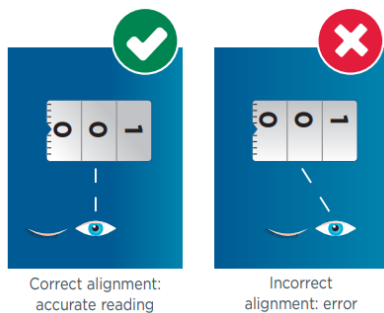
(This Guideline aims to give unexperienced users the knowledge for a correct and safe use of pipettes in our laboratories. It is based on the Guide to Pipetting from *Gilson*. To learn more please visit <https://nl.gilson.com/guide-to-pipetting>)

### A. Pipette choice and adjusting volume

All our pipettes are air-displacement pipettes and their working principle and main parts are the same (see right figure and B. for the steps). We have several types which cover the volume range from **0.5  $\mu$ l to 1 ml**. They have different colors (often matching the color of their appropriate tip) and the volume range is written on the adjustment knob. **ALWAYS** select a pipette which covers the range of your desired volume – do not go beyond the limits.

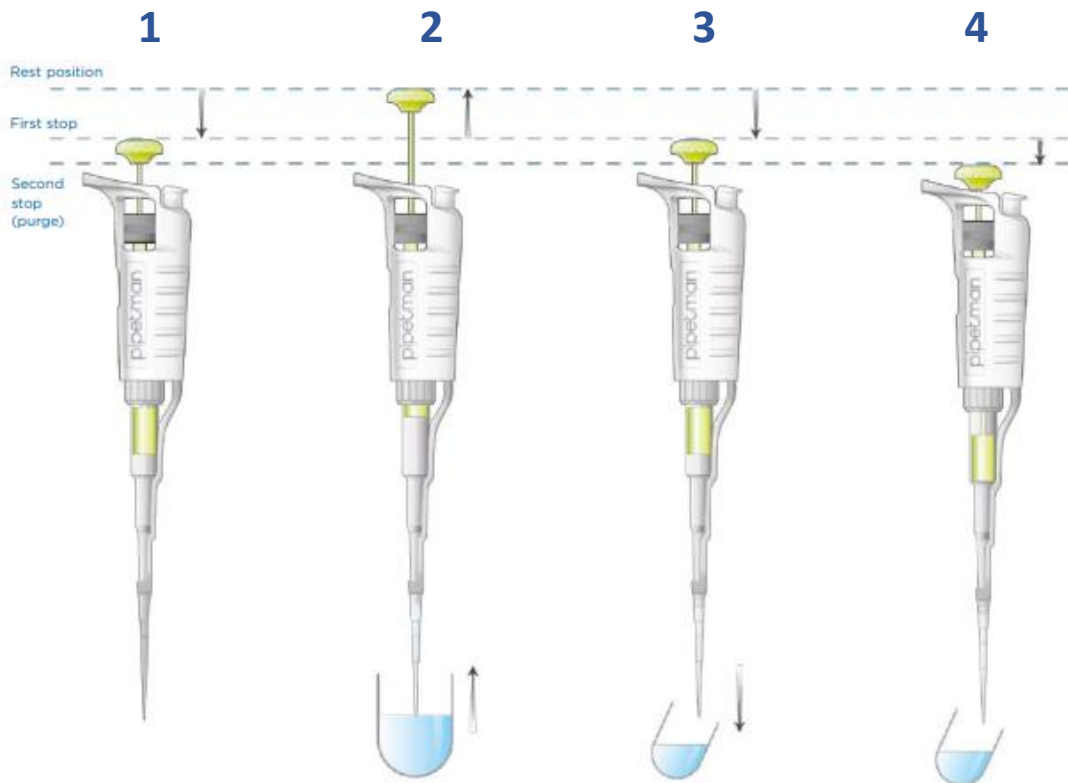


The volume is shown in the **Volumeter display**. Hold the body of the micropipette in one hand and use the other hand to rotate the thumbwheel or the push button. Always finish setting clockwise for best reproducibility. To **fit your tip**, hold the pipette in one hand, lower the pipette into the tip, and use a slight twisting movement to seat the tip firmly on the tip holder of the micropipette to ensure an air-tight seal. To protect your pipette, avoid tapping the tip onto the pipette like a hammer (see figures below)



### B. Pipetting steps

1. **Hold** the pipette in a nearly vertical position. **Depress** the plunger smoothly to the first stop position.
2. **Immerse** carefully the pipette tip in the liquid. Allow the plunger to **move up smoothly** to the rest position. Wait one second so that all the liquid has time to move up into the tip.
3. Place the pipette tip at an angle (10° to 45°) against the inside wall of the receiving vessel and **depress** the plunger smoothly to the first stop position.
4. Wait one second, then depress the plunger to the second stop position. This purge stroke removes any remaining sample from the tip. **Remove** pipette tip end from sidewall by sliding it up the wall.



### c. Safety and general rules

- **ALWAYS** change the tip after each use to avoid cross contamination.
- **ALWAYS** select a pipette which covers the range of your desired volume – do not go beyond the limits.
- Keep pipettes stored **vertically**.
- **DO NOT** tilt the pipette more than a few degrees from the vertical position to avoid tip holder contamination.
- In case of noticing problems such as **volume imprecisions** or **dirty pipettes** (especially inside and edge of the tip holder) inform technicians and they will calibrate and clean accordingly.
- **Do not move pipettes** around from one lab or glovebox to another one. Inform technicians if there is need for extra pipettes.
- Make sure to **clean** with a suitable solvent the edge of the tip holder after finishing your experiment.

**\*If you still have questions about the correct use of pipettes PLEASE ASK experienced users to help you.**