SARTORIUS

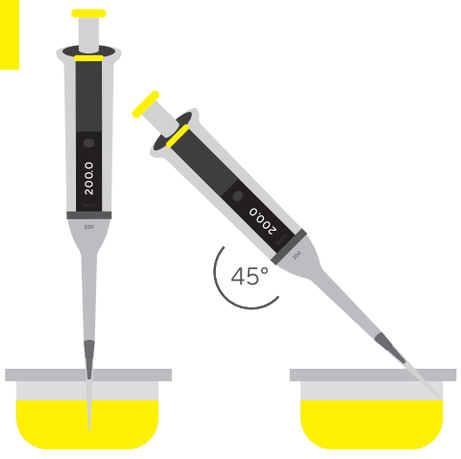
Simplifying Progress

Ways to Prevent Pipetting Errors

1

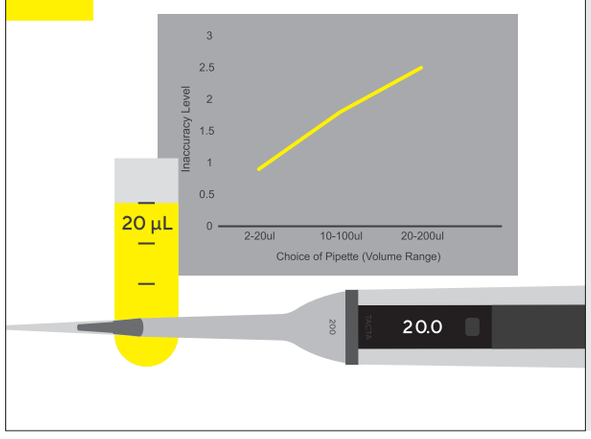
Clean and check your pipette daily
A contamination-free pipette ensures accuracy, so it's important to clean the pipette before and after every use.

2



Know proper pipetting techniques
- Pre-wet the pipette tip
- Hold the pipette vertically when drawing the liquid
- Immerse the tip slightly into the liquid during aspiration
- Hold the pipette 45 degree angle while dispensing
- Touch off the pipette tip on the side wall of the container

3



Use the appropriate pipette
It's important to use a pipette with maximum volume closest to the volume you plan to aspirate and dispense. The accuracy of your test will improve if the volume used is close to the nominal volume.

Example: If you need to dispense 20 µL, a 200 µL pipette would be less precise compared to a 20 µL pipette which would be ideal

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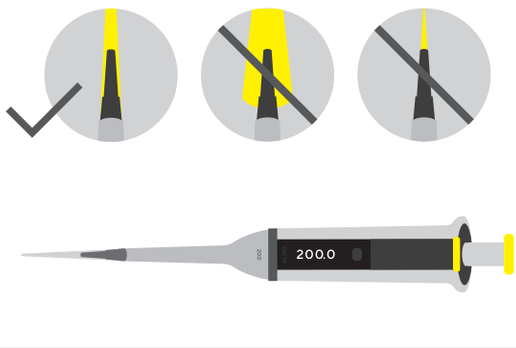
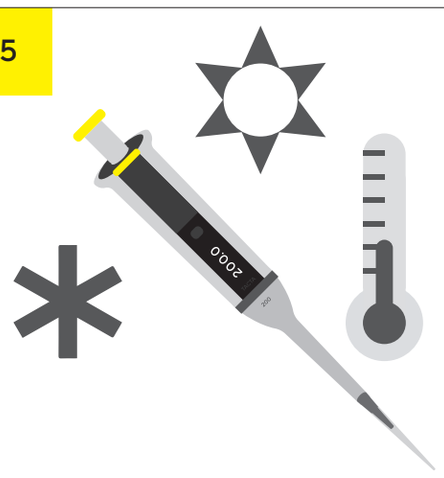


Use perfectly fitting pipette tips
Select pipette tips that have a perfect fit and leak-tight sealing with your pipette in order to have accurate and reproducible results. Follow the pipette supplier's instructions on the correct pipette tips to form a good seal between tip and tip cone. Leaky or poor fitting tips can give up to 50 % error in the pipetted volume.

5

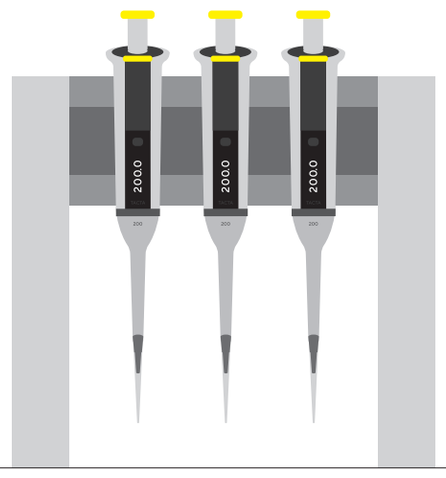


Let your pipette adjust to the environment
It is recommended that you allow your pipette and all testing equipment to adjust if they are exposed to new conditions and temperatures. This way there will be fewer environmental variables affecting your results.

6

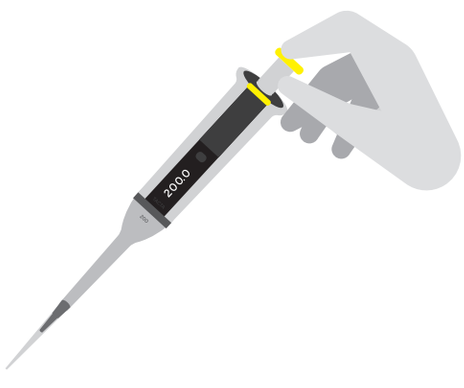
Take a break
If you find yourself in the midst of what seems to be an endless test, take a break (if possible). When your mind, muscles, and eyes are fresh, your results will show it; fatigue can promote sloppiness and mistakes. If you are performing a time-sensitive test and can't take a break, remember to maintain good posture and keep your elbows in, and your arms out front.

The Do's and Don'ts of Pipette Storage and Handling

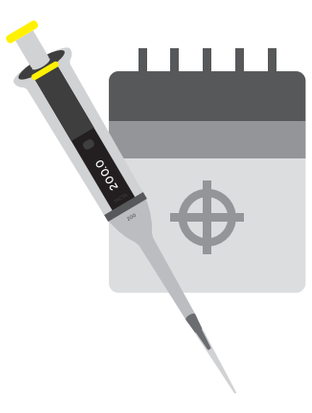


Do use a pipette stand for storage
Use pipette stand to keep pipettes in a vertical position in order to avoid contamination, and to allow easy tracking of the pipette's location

Do clean and decontaminate pipettes before use
It's not complicated. Simply wipe down the exterior with a 70-percent ethanol especially the end of the shaft



Don't overwind beyond the pipette's volume range
Winding the pipette outside of the pipette's volume range can damage the pipette. If you accidentally overwind the pipette, check the pipette to see if it needs to be re-calibrated



Do calibrate your pipettes every 6 to 12 months
Pipettes should be calibrated every six to 12 months, depending on the frequency of use and your lab requirements. Check the manufacturer's guide or your auditing body to put together an appropriate maintenance schedule, and make sure you communicate it to everyone in your lab.