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Designing Your Pipette Calibration Program: The Advantages of On-Site Service

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Choosing between on-site and mail-in service is something that many of our clients must do. While it may seem like one of the simpler choices to be in made in the process of designing your pipette calibration program, the location your instruments are calibrated in may influence the efficiency, accuracy, and cost at which your laboratory operates. On-site service provides at least four benefits over mail-in: convenience, cost-savings, the elimination of in-house validation of pipette performance following off-site calibration, and readily available in-house consultancy and expertise.

On-site pipette calibration service is **convenient**. Arranging to have your pipettes calibrated at your facility at a time that works for you and your scientists eliminates the headaches associated with off-site scheduling and shipping. The typical turn around time for an on-site calibration is a couple of hours,¹ meaning that your scientists aren't without their instruments for very long; and if downtime is an issue for you, our technicians can process your instruments in batches so that your scientists never have to stop working. Calibrate's on-site representatives are experts at designing pipette calibration work flow to minimize downtime.

On-site pipette calibration service is more **cost effective**, too! Because service is provided in your lab, there are no shipping or insurance costs associated with having your instruments serviced. Clients have no need to purchase and maintain an extra set of pipettes for use while primary instruments are out for work, meaning that instrument and maintenance fees can be cut by as much as half. Finally, because on-site service is often cheaper for us to provide than mail-in service (because we don't have to extend overhead costs involved with maintaining a laboratory to you), on-site service is often cheaper than mail-in to begin with. When added up, the money saved by selecting on-site service can be substantial.

On-site service **eliminates the need for in-house pipette performance verification checks following off-site calibration**. Many laboratories mandate a pipette verification check after mail-in service because there are two important uncertainties associated with off-site service. The first is that the off-site mail-in laboratory environment may be different than your own; the second is that your pipettes may be subjected to air travel and therefore cabin pressure changes. Because pipettes are volumetric instruments, they are easily affected by environmental conditions like temperature, humidity and barometric pressure.² Instruments calibrated at a mail-in laboratory are set to deliver accurately *in the mail-in laboratory environment* and therefore may deliver differently in your own facility's environment; and even if your laboratory and the mail-in laboratory have similar environments, you still run the risk that pressure changes in air-shipment have induced internal changes in the

¹ Compared to an average of one week up to as long as four weeks for mail-in service.

² For example, significant changes in barometric pressure will have a significant effect on volume delivery. An increase in elevation gain causes a decrease in volume delivery. In fact, every 1000 meters in elevation gain will cause a 1000 ul pipette to under-deliver by 2 ul. Most mail-in calibration laboratories are situated at sea-level; therefore, laboratories located in high elevations using an off-site calibration service model need to be particularly concerned about verifying the performance of their recently serviced instruments before using them.



pipette that compromise volume delivery. In contrast, pipettes calibrated *at your location and in your environment* are adjusted and tested to deliver volume accurately *where you work*, meaning that when instruments are returned to you on-site, no additional performance verifications are necessary.

The fourth advantage to the on-site pipette calibration service model is the **accessibility you have to pipette calibration professionals** for all of your questions and concerns related to pipette calibration and functionality. We have been calibrating, servicing, and repairing all makes and models of pipettes, bottle top dispensers, pipet-aids, and syringes since 1983. Our highly trained and skilled service representatives are amongst the most experienced and qualified in the world and can provide you with the personal attention and service you need, when you need it.

FOR MORE INFORMATION

We invite you to contact our team to discuss whether on-site is best suited to meet your needs. We understand that when deciding upon a pipette service model, you need more than a service—you need a solution. Make sure that you only have to make this decision once, and that you've made the right choice the first time around. Give us a call at 919-240-4089 or 800-253-7064 to begin discussing your options.