

Changing the game

**Improve efficiency,
accuracy with
automated pipette
calibration on-site**

Introduction

In laboratories today, pipette calibration has become a bottle-neck. Calibration is mostly done off-site by external providers, which is both costly and slows down workstreams. The manual handling associated with getting pipettes done externally cause inefficiencies in the day-to-day work, while you have to stock up on pipettes as you wait for them to arrive back calibrated and ready to go. In some cases, the service provider will send technicians to conduct manual calibration on-site, but both alternatives are ultimately linked with higher costs and room for optimization.

At Techvolver, we feel strongly about supporting and improving our partners' bottom line. Lowering costs and increasing our partners' accuracy is an integral aspect of our mission to simplify, specify, and automate processes to secure fully functioning workstreams.

In this paper, you can read more about our mission to change the pipette calibration game.

Productivity and accuracy are vital for a high lab efficiency

Laboratories worldwide face fundamental challenges. Errors must be minimized and accuracy increased to improve efficiency. Since pipette calibration is an essential element in lab workflows and represents a substantial cost, it is natural to look for new ways to optimize.

In-house pipette calibration is a risk in today's processes, as it is subject to human error—tedious, repetitive work results in different techniques with varying results. If wrongly calibrated, pipettes can provide incorrect measurements, making it necessary to redo the lab work and results based on the failed pipette. In the worst-case scenario, production may be stopped, and products recalled back from markets.

Alternatively, laboratories outsource the calibration process to external providers. The critical issue here is the increase in operating costs. Costs go up if calibration is completed off-site and additional pipettes are required to your lab to secure a standard functioning workflow. External pipette calibration quickly takes up to 10 days, making it necessary to buy and keep extra pipettes, so that lab workflows are not delayed.

Due to the risk linked with faulty pipettes, most companies require regular calibration to reduce risk and liabilities associated with errors. All in all, this becomes a costly, inefficient affair.

Presenting the digital game-changer

At Techvolver, we live to solve challenges that help sustain economic growth. Based on our experience of dealing with these challenges in laboratories, the pharma-industry, and across research-facilities, we aim to develop the right solution to meet this market need.

Our in-house, automated solution can provide the same service as external pipette calibration, but for a significantly lower cost and much shorter lead time, as it takes place overnight. As such, it delivers immediate bottom-line impact for our business partners. It secures cost and resource reduction and provides greater calibration accuracy and reduced risk in data collection.

Lab technicians today spend too much time that is not creating actual value. Collecting and packing pipettes, then waiting to get them back from the external provider before unpacking and registering the calibration details in the manage-

ment systems. The time they can now use on value-adding activities. After work, they simply place the pipettes in the rack-ready insert in our system. From here, the pipette calibration specifications are automatically imported from the integrated LIMS (laboratory management system) and matched with the individual pipette. Afterward, the calibration cycle starts and runs during the night. Once completed, the pipette status digitally updates in the LIMS, and the pipettes are ready for use. In case of calibration error or lack of meeting requirements, the individual pipette is identified. The lab technicians can collect freshly calibrated pipettes in the morning and start work.

An automated pipette calibration solution saves time and frees up the workforce by up to 80%. It reduces costs by up to 40%. And ultimately, it increases accuracy by 400% versus handheld pipetting, which ensures a significant reduction in the risk and liability of compromised pipettes.

Conclusion

At Techvolver, we are driven by the need to help build sustained business growth while improving the bottom-line. Our in-house automated pipette calibration solution provides strong, measurable results and allows for fast and flexible calibration of most manual and electronic pipette models.

It is at our core to help our clients comply with the increased quality and traceability demands in the life science industry.

Our on-site service provides instant digital data at your fingertips and minimizes human errors.

The automated pipette calibration solution is ready to work - 24 hours a day - 7 days a week - 365 days a year. If you are interested in starting up a dialogue, we are more than happy to expand on how Techvolver can further help you and your team become more efficient.

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