

The ARTEL Digest

Liquid Handling Quality Assurance Newsletter

Issue 3

In this issue of The ARTEL Digest, we focus on pipetting technique training. In the current economic environment, it is critical to realize maximum return on your investment in human capital. A well-trained staff will ensure high quality and productivity in your lab. We hope you find this issue informative.

IN THIS ISSUE

FEATURE ARTICLES

- [When Times are Tough, Train, Train, Train!](#)
Pipetting Technique Certification to Improve Laboratory Quality
- [Keeping Tainted Products Out of Consumer Reach](#)
Lab Demonstrates Competence with Artel Pipetting Proficiency Training

DIGEST SPOTLIGHT

- [Regulatory Spotlight](#)
- [Ask an Expert](#)
- [Technical Resources](#)
- [Upcoming Events](#)
- [News](#)

ASK AN EXPERT



Wendy Vaccaro

Technical Services Manager, Artel

Question

“When is pre-wetting of pipette tips necessary to

When Times are Tough, Train, Train, Train! Pipetting Technique Certification to Improve Laboratory Quality



As staff shortages continue to plague laboratories, less-skilled employees are often tasked with critical projects. Add to this concern over regulatory requirements and tightening budgets due to the economic downturn, and training becomes a cost-effective method for maintaining high quality.

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[back to top](#)

Keeping Tainted Products Out of Consumer Reach Local Lab Demonstrates Competence with Artel Pipetting Proficiency Training

The Food and Drug Protection Division of the North Carolina Department of Agriculture and Consumer Services is responsible for protecting the public from contaminated food and drug products.

The division's laboratory, which tests samples for harmful substances and label claims, sought ISO 17025 accreditation to demonstrate competency and meet federal equivalency standards. Given its reliance on liquid handling, the lab enrolled in Artel's pipetting training seminar.

Learn how the division worked with Artel to document operator proficiency and obtained training and competence certification to ensure confidence in lab results.

[Read more](#)



Answer

We generally recommend that pipette tips always be pre-wet to obtain the best accuracy as well as precision. Pre-wetting is the process of conducting several quick aspirations and dispenses using the same pipette tip and same liquid that will be pipetted. Pre-wetting the pipette creates a humid airspace inside of the tip, and this reduces the propensity of the liquid aspirated into the tip to evaporate into this airspace.

Pre-wetting is especially important when working in normal-to-dry conditions (most labs) and when pipetting small volumes when even a miniscule amount of evaporation can cause a large error. It is also crucial when using variable-volume pipettes set at their lowest volume range, since the ratio of airspace to liquid - and the potential for evaporation - increase dramatically compared to when the pipette is set at the top of its volume range.

More info:

[10 Tips to Improve Your Pipetting Technique](#)

Have a question?

Email info@artel-usa.com

Regulatory Spotlight

Key updates to liquid handling quality assurance regulations and standards

- **For pharmaceutical, biotech and food testing labs**

The FDA's Center for Biologics Evaluation and Research recommends in its Guidance for Industry on Quality Risk Management that training and education should be part of quality management programs. According to this guidance, lab managers must be able to identify and monitor the experience, qualifications, and abilities that enable personnel to perform an operation reliably and to guarantee the quality of a final product. From a liquid handling standpoint, labs can best meet this standard by ensuring staff members are properly trained in pipetting technique and the correct operation of automated liquid handlers.

[Learn more](#)

- **For reference measurement labs**

ISO 15195 describes the performance characteristics required for reference measurement laboratories in the field of laboratory medicine. The standard specifies that results produced by reference measurement labs should be traceable to reference materials and/or reference measurement procedures. According to the standard, laboratory staff should include personnel knowledgeable in metrological traceability and in all relevant calibration and quality control procedures. In addition, personnel must be trained on all technical equipment and may not perform measurements until recognized as competent.

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[back to top](#)

Technical Resources

LabAutopedia

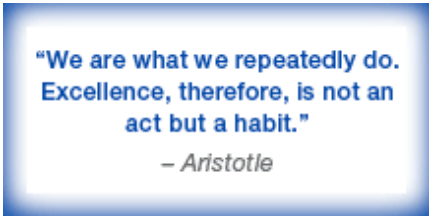
[LabAutopedia](#), which has been created by the ALA ([Association for Laboratory Automation](#)), is a collaborative compilation of the world's laboratory automation knowledge. This site is an informative and educational resource that offers definitions, terminology, standards, white papers, organizational listings, and other information that is continually evolving and updated by an online scientific community.

Read about [liquid handler theory and practice](#) and about the [importance of understanding liquid handler performance behavior](#) for your assays.

Transferability of Pipette Calibrations – a Prerequisite for Method Validation and Method Transfer

View a new [poster presentation](#) that discusses how to achieve transferability when conducting pipette calibrations outside the user's laboratory. A transferable calibration is one that is still valid when the instrument is returned from the calibration lab to the user's bench. Confidence in the identical performance of pipettes across laboratories is essential for method validation and transfer.

[back to top](#)



**"We are what we repeatedly do.
Excellence, therefore, is not an
act but a habit."**

– Aristotle

Artel is the global technology leader in liquid handling quality assurance. Artel innovations help laboratories improve process productivity, enhance product quality, and address compliance challenges.



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Upcoming Events

Pipetting Olympics during National Medical Laboratory Professionals Week April 19-25, 2009

Behind every great lab there is a great team.

Behind every great team is excellence in laboratory skills.

The Artel Pipetting Olympics helps labs hone pipetting skills, build team spirit, and reward the most proficient pipette operators. During National Medical Laboratory Professionals Week – known as “Lab Week,” clinical and other laboratories put the spotlight on their employees by sponsoring educational and professional development programs, and by building public awareness of the vital role these people play in the world of healthcare. Artel is glad to assist by providing support and coaching for Pipetting Olympics. Winners, who we can guarantee will show world-class pipetting skills, will be posted on the Artel website.



[Learn more](#)

[Past winners](#)

2009 Training Seminar Schedule: Pipette Quality Management Certification

Artel announces its 2009 training schedule for Pipette Quality Management Certification seminars. These two-day sessions are for lab personnel who use pipettes daily, face regulatory compliance, need to improve processes for managing pipettes, and are establishing a pipette quality assurance program.

The seminars are held at the Artel facility and attendees receive an official Artel Certificate of Proficiency after passing exams.



[Details](#)

[Register now](#)

[back to top](#)

News



Tecan Announces Artel as Quality Control Provider of Choice

Tecan, a leading supplier of liquid handling automation technology for the life sciences industry, has partnered with Artel to offer its US customers a service for verifying the performance of Tecan liquid handling platforms. The ARTEL MVS® Multichannel Verification System will be used to check precision.

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[back to top](#)

Comments?

Feedback is the most powerful tool we have in our effort to make our products and services better. We encourage you to share your thoughts with us about this publication or any related content. Thank you.
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