

The Ovation[®] Series Pipettes from VistaLab[™] Technologies

Innovative pipetting technology designed with user comfort and health in mind

By Damon Anderson, PhD



I did my whole Ph.D. with “normal” pipets, resulting in greater and greater levels of wrist pain over the course of 5 years. By my second year of postdoc, it was bad enough that I would procrastinate experiments that involved pipetting, and I feared that I might have to give up experimental science and find a different career. I made the switch to Ovation pipets, and within a month my wrist pain was completely gone. I now have my own lab and will be urging all of my trainees to use Ovation pipets from the beginning, hopefully avoiding the issues I had to go through. Daniel Dickinson, PhD

Many pipette manufacturers mention user comfort and ergonomics. However, these important aspects typically come as afterthoughts, often following descriptions of pipette performance metrics and features.

VistaLab has turned this trend on its head with the design of the Ovation Series of pipettes. These innovative devices were developed with an ergonomic engineering-first strategy – placing user comfort paramount in the design – and coupling this with high-end performance features and quality. The results are unique, innovative, high-performance pipettes that support user well-being and increased lab productivity in one.

The pipetting problem

“Designing products for your health so you can focus on the science” is a VistaLab motto which fits well with the Ovation Series philosophy. Advanced engineering comes in many forms, from dispensing accuracy to digital control and ergonomics. Rather than designing a pipette holder to fit the performance hardware, why not approach the problem from the opposite perspective? Engineer an ergonomically correct pipette holder and integrate the performance hardware to conform to this design.

Although this idea has been notably overlooked, the concept couldn’t be more relevant – particularly for those labs invested heavily in manual liquid handling and cell culture. Simply put, repetitive motion and hand strain are serious issues which can affect users and lab operations just the same. Accuracy and precision can be compromised and lab productivity can suffer as a result. These are issues that VistaLab took into serious consideration with design of the Ovation Series.

The Ovation solution

The Ovation pipette was specifically designed to address each of these force-related concerns.

- A loose, relaxed grip is used in all pipetting operations, including tip acquisition.
- A gentle push of the pipette's nozzle into a tip is all that's needed to acquire a tip.
- An audible "click" provides feedback to confirm that the tip is seated properly and additional effort is not needed.
- Easy on – easy off. Ovation's proprietary "energy release" button ejects tips with a gentle push.
- The Ovation requires less force throughout all pipetting tasks.

In total these features result in a significant reduction in the overall amount of force required when pipetting thus decreasing the pain and risk of repetitive strain injury (RSI).

The Ovation Pipette was specifically designed to address each of these posture-related concerns.



1) Eliminate arm and neck strain

- The user's arm elevation remains low, minimizing stress to the elbow, shoulder and neck.
- The user's elbow remains close to the body in a neutral posture to maximize available arm strength.



2) Eliminate wrist and carpal tunnel strain

- The user's wrist remains in a pronated position and neutral range of motion throughout all pipetting operations, eliminating repetitive twisting of the forearm and reducing pressure on the carpal tunnel.
- Ovation's adjustable hook allows a custom fit and reduced holding effort for right and left-handed users.



3) Eliminate hand and thumb strain

- The pipette's contoured shape provides maximum stability and minimal contact pressure for the hand.
- A loose, relaxed grip increases available strength in the hand, improving endurance and productivity during pipetting
- Rounded plunger and tip ejection buttons with reduced

Other unique features to aid the user on the bench are the upright "standing" design of the Ovation that means tips and pipette barrels are elevated, preventing contact with the bench and chance of contamination. All Ovation pipettes are color coded by volume for easy identification to assist the user.

Ovation pipette performance features

The Ovation Series pipettes are designed in both electronic and manual versions, providing a variety of formats and a range of uses.

The electronically controlled pipettes include:

- Electronic Single Channel (ESC) - [Specifications](#)
- Electronic Multichannel (E8 & E12) - [Specifications](#)
- Macro Volumes Single Channel (Macro5 & Macro10) - [Specifications](#)

The manually operated pipettes include:

- Mechanical Volume Adjustment (M) - [Specifications](#)
- Quick Set Digital Volume Adjust (QS) - [Specifications](#)
- Fixed Volume (F1 & F2) - [Specifications](#)

Ovation pipette accessories, services, support

In addition to the built-in cap opener, a shelf hanger is included with each pipette. Electronic models come with separate power supplies or, in the case of the Quick Set Digital Adjust, a replaceable CR2 battery.

Each device is serially marked, includes a calibration certificate, and allows for in-lab calibration adjustment. In addition, VistaLab backs up the Ovation with a two-year warranty. The Ovation is well-supported with a wealth of helpful content including performance specifications, troubleshooting info, maintenance and calibration resources, manuals and reference guides, even a FAQ section all on the VistaLab website.

VistaLab also offers a variety of calibration and repair services for Ovation pipettes to meet all regulatory requirements and to ensure optimum performance. All service is performed in compliance with ISO 8655 in a state-of-the-art, ISO/IEC 17025:2005 accredited metrology lab with equipment traceable through NIST to the International System of Units (SI) by expert certified technicians.

Customers can choose from pre-set service options, or request custom tailored service to meet GLP/GMP requirements. Over 40 years of experience adds considerable confidence to these service options.

Summary

The capabilities and the performance specifications of the Ovation Series pipettes are impressive. Packaging all of these features into an anatomically and ergonomically correct design is a feat that sets the Ovation decidedly apart.

This article was written by LabX and published in conjunction with VistaLab.

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VistaLab™ Technologies is privately held and is based in Brewster, New York located 55 miles north of New York City. We revolutionized liquid transfer with the full line of electronic and mechanical Ovation® pipettes which are truly “the better way to pipette”. We manufacture the extremely durable MLA® pipette line with the unmatched lifetime warranty. Our comprehensive range of pipette tips – non-sterile and sterile, filtered and low retention – are designed to be the perfect match for our pipettes. We have emerged as a premier supplier of a wide variety of high quality reagent reservoirs which optimize the recovery of critical reagents.

In the second quarter of 2016 we were pleased to unveil Wobble-not™, an innovative line of serological pipets designed for the ultimate in ergonomics and productivity!

The mission at VistaLab™ is to develop innovative products and systems that improve the productivity, workflow, and ergonomics of research and clinical laboratories.

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