

Finnpipettes - an innovative force in pipetting ergonomics

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In harmony with our body

For over five hundred years the crucial link between bodily movement and mechanical design has been understood. For example, Leonardo da Vinci was intrigued by human anatomy and the elements of mechanics, and believed that the design of machines should always be in harmony with our body's natural range of movements.

In practical terms, this means that we must remember that machines are built for people - and never the other way around.

The three virtues of ergonomics

Ergonomics is the science of user-friendly design, the applied science of equipment design for maximizing productivity while reducing operator fatigue, stress and discomfort.

The key virtues of ergonomics: comfort, efficiency, and safety, apply to all manmade objects, from massive earthmovers to laboratory pipettes. Thus, ergonomics is an integral part of the modern workplace, especially as stress-related injuries are a leading cause of work disability and early retirement among employees.

Commitment to the customer

This growing awareness of ergonomics also affects modern laboratories. For example, laboratory technicians who perform over 12,000 pipetting repetitions per day often experience severe discomfort in their hands⁽¹⁾.

Even a minor improvement in pipette construction, coupled with adequate rest and proper working conditions, can greatly enhance user comfort. Taking preventative measures to minimize the risk of such injuries necessitates consideration of how you lift objects, repeat motions, and use your joints and muscles. Viewed in the light of this information, using the principles of ergonomics to design a product around the user is not merely a product feature, but actually a

commitment to the customer.

Ergonomic pipettes since the early 70s

A pioneer in laboratory instrumentation and technology, Thermo Labsystems has been leading the way in the ergonomic design of pipettes since its founding in the early 70s.

Throughout this period the company's Finnpipette product line has played a decisive role in this ergonomic revolution by continuously improving pipetting performance and user comfort. In fact, the world's first adjustable micropipettes and multichannel pipette for microplates were both developed by Thermo Labsystems.

To date, over one million Finnpipettes have been sold in 140 countries, with each new pipette model setting the industry standard for innovative ergonomics.

Building innovation into the end-product

The best way to appreciate the impact of ergonomics on pipette design is to understand how innovative solutions are built into the product itself. How intelligent changes in product design can reduce physical stress and discomfort.

That is why the Finnpipette product development team has included numerous patented innovations in its pipettes from the very beginning.

Good Laboratory Pipetting

Finnpipette always design pipettes to enhance laboratory performance in terms of speed, accuracy and precision. Careful consideration of these key features allowed them to be incorporated into the new Finnpipette Focus. The ergonomic aspects of the new Finnpipette Focus were based on the results of an independent usability study of Finnpipettes. This unique study has increased knowledge of pipetting on every level: from user concerns to the technology that

addresses them, from marketing to product research and development.

This is an innovative approach to pipette development and FinnpiPETTE is the first pipette manufacturer with the courage to use such an objective study.

Insight from independent study

After such an in-depth study, and especially an independent one, the responsibility a manufacturer has to their customers becomes clear; you have to listen to the customer, understand their concerns, and be knowledgeable enough about your products to deliver everything they want. Thus the new FinnpiPETTE Focus is uniquely dedicated to ergonomics. FinnpiPETTE is the first pipette manufacturer to design user choice into their pipettes.

The ergonomic, snap-on handle of the new Focus is the result of innovation, insight and experience, and is available in three different sizes: small, medium, and large.

By choosing the size suitable for you, you can personalize your FinnpiPETTE Focus to fit your hand, making it as comfortable, ergonomic and pleasant to use as possible.

The new FinnpiPETTE® Focus

FinnpiPETTE Focus takes advantage of the hand's natural range of movements to improve pipetting accuracy and user comfort. The FinnpiPETTE Focus features a unique grippy finger rest guaranteeing the correct grip and optimal pipetting angle. The special power-boosted tip ejector that makes tip ejection easier than ever.

This patented gearing mechanism reduces the force needed to eject tips by 50%, reducing user strain and fatigue.

Designed for user comfort

In addition to the outstanding comfort offered by the FinnpiPETTE Focus, the unique quick-click volume setting knob FinnpiPETTE Focus ensures that setting the volume is easy, even with gloves. Only five revolutions are needed to change from the lowest to highest volume setting and in some cases even less e.g. FinnpiPETTE Focus 30-300 µl needs only 3 revolutions.

The new fine volume adjustment wheel offers fine control over small volumes, and the advanced super-blow out feature dispenses the selected micro volumes with superior accuracy and precision, every time. These features give better performance, faster, allowing more efficient, less stressful and less fatiguing work.

FinnpiPETTE Focus has all the most important features designed into a single ergonomic pipette. Thus FinnpiPETTE Focus is the epitome of ergonomic design, the successful merger of optimal functionality with excellent product safety and reliability, and in its own way carries Leonardo's unique vision further into the new century.

FinnpiPETTE® Focus on the internet

When you contemplate your working methods you should think of what you want to achieve. To help you learn more about good ergonomics and comfortable working practices FinnpiPETTE has created www.finnpipettefocus.com.

These pages address customer concerns from the users point of view, and are designed to provide a thought provoking, informative and useful resource. Please visit these pages to find out how you can apply ergonomics to your working practices and everyday life.

References

1. M.G. Bjorksten, B. Almy and E.S. Jansson, Applied Ergonomics, 1994, vol. 25(2).

