



AHN myPette EL³ Vs Rainin® LTS Pipettes Ejection Force Study

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With the word repetitive in its name, it's no surprise that pipetting — the most repetitive part of your job — causes Repetitive stress injury. Ignoring repetitive strain can lead to permanent nerve damage, like carpal tunnel syndrome, De Quervain syndrome and repetitive strain injury (RSI), and end a bench science career. With unmatched precision and accuracy, AHN myPette EL³ Pipettes offers a wide range of variants, ensuring high flexibility for diverse applications. Remarkably lightweight, it alleviates hand and arm strain, prioritizing user comfort.

Introduction

AHN myPette EL³ Pipettes are engineered with ergonomics and precision as their conceptual pillars. Being renowned for their low ejection force, Rainin[®] LTS[®] pipettes set the standard in this segment, making a comparison between these two pipettes particularly compelling.

Scope

The study compares the ejection force of AHN myPette EL³ and Rainin[®] XLS Pipette Lite LTS single-channel pipettes using various LTS-compatible tips available on the market.

Methodology

The ejection force of the pipette is measured using a calibrated force gauge mounted on a caliper stand that facilitates vertical motion. The pipette is securely held in place below the gauge with a metal clamp, aligning the ejector directly above the gauge. The gauge is then lowered onto the ejector until the tip is ejected, measuring the ejection force in KgF.



Note: The force gauge is externally calibrated by a third-party laboratory and is verified using standard weights in house.

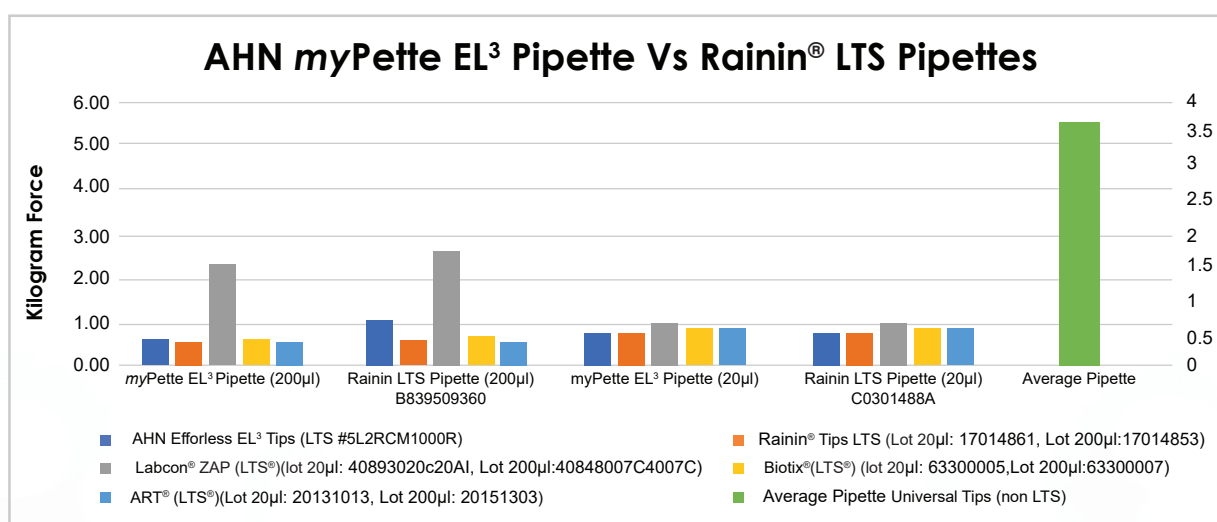
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Results:

Ejection force were measured

Tip Information	myPette EL ³ Pipette (200µl) TG119860	Rainin®LTS® Pipette (200µl) B839509360	myPette EL ³ Pipette (20µl) TG119860	Rainin®LTS® Pipette (20µl) C0301488A
myPette EL ³ (LTS)	0.72	1.05	0.73	1.06
Rainin® LTS® tips (Lot 20µl: 17014861, Lot 200µl:17014853).	0.64	0.67	0.75	0.91
Labcon® ZAP (LTS®) (Lot 20µl: 40893020C4020AI, Lot 200µl:40848007C4007C).	2.31	2.64	1.98	2.88
Biotix®(LTS®) (Lot 20µl: 63300005, Lot 200µl:63300007).	0.73	0.83	0.94	0.73
ART®(LTS®) (Lot 20µl: 20131013, Lot 200µl: 20151303).	0.67	0.70	0.91	0.98



Conclusion

Comparing these two pipettes with those from various manufacturers allows us to gauge their performance across different user profiles. The results confirm that the AHN myPette EL³ pipette performs exceptionally well compared to the industry standard, demonstrating its ability to compete with any low-force alternatives on the market.

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