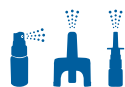


Unrivaled Accuracy in Automated Actuation

Vereo® Automated Actuators are designed to replicate human usage of devices through automated actuation. Accurate control of actuation by position allows spray devices to be actuated precisely and consistently.



Vereo Actuator NSx



Vereo Actuator SFMDx



Vereo Actuator DSx



Vereo Actuator SSx

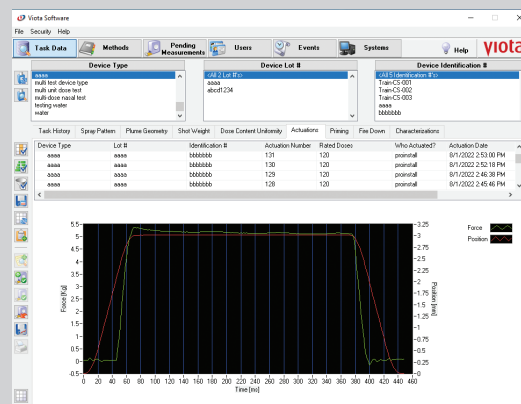


Features and Benefits

- Automated actuation with positional accuracy, precision, and repeatability; compliant with the U.S. FDA, EMA/EDQM, and other regulatory guidelines
- Vereo actuator product family covers a full range of orally inhaled and nasal spray devices
- Flexible for operation as a standalone benchtop unit, within a SprayVIEW® Measurement System, Kinaero Cx™ pMDI Collection System, or a laser diffraction system
- Shot-to-shot consistency for uniform delivery
- Consistent, rapid shake-to-fire interval for superior pMDI characterization

Viota® Software

- Powerful, yet simple user interface with real time force-position feedback measured and displayed as actuation profiles
- User selectable stroke length, contact and end of stroke limits, actuation velocity/acceleration, hold time, and release velocity/acceleration
- Technical controls to enable compliance with U.S. 21 CFR Part 11



Force-position actuation data collected by Vereo actuator displayed in Viota Software

Vereo actuators provide robust, automated actuation; the preferred method for completing the following required regulatory tests:

Pressurized metered dose inhalers	Oral and Nasal Sprays
Spray pattern	Spray pattern
Plume geometry	Plume geometry
Plume front velocity	Priming/re-priming
Spray duration	Droplet size distribution (DSD)
Priming/re-priming	Pump delivery
Aerodynamic particle size distribution (APSD)	Single actuation content (SAC), through life
Valve delivery	
Dose content uniformity (DCU), through life	

Device Holders provide versatility for comprehensive product compatibility

Proveris offers a suite of predefined device holders for orally inhaled and nasal drug products on the market. Design-to-order device holders are available upon request.



SnapLock® Device Holders for easy pMDI insertion and removal



Universal Nasal Device Holders for unit-, bi-, and multi-dose products

Available Vereo Actuator Models

Product No.	Model Name	Intended Usage/Application
1350	SFMDx	– Pressurized metered dose inhalers
1001	NSx	– Vertically actuated nasal spray devices – Vertically actuated oral spray devices, horizontally sprayed – Vertically actuated unit-dose, bi-dose nasal spray devices – Vertically actuated unit-dose, bi-dose oral spray devices
1101	SSx	– Side actuated nasal spray devices
1400	DSx	– Dual side actuated nasal spray devices



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