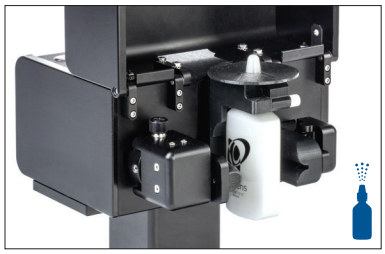
vereo®

AUTOMATED ACTUATORS FOR NASAL AND ORAL DEVICES

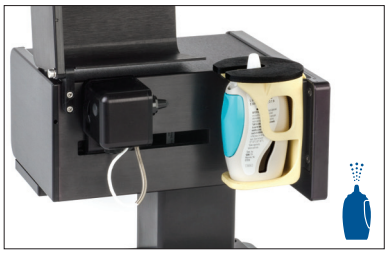
Vereo® Actuator NSx

Unrivaled Accuracy in Automated Actuation

Vereo® Automated Actuators are designed to replicate patient actuation of devices through automated actuation. Accurate control of actuation by force or position allows spray devices to be actuated precisely and consistently. The Vereo® product family covers a full range of oral and nasal spray devices.



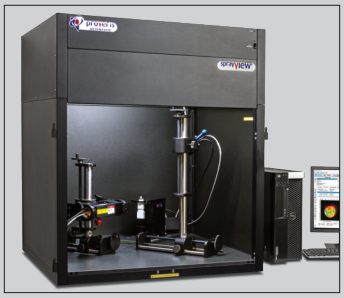
Vereo® Actuator DSx



Vereo® Actuator SSx

Versatile tool for the following areas:

- Drug Design and Development
- Product Specifications
- Characterization Studies
- Stability Studies
- Bioequivalance
- Quality Control



Vereo® actuators provide robust, automated actuation; the preferred method for completing regulatory required *in vitro* tests. The Vereo® actuator can be integrated with nasal and oral delivery instruments and accessories to complete the following:

- Spray pattern
- Plume geometry
- Pump delivery
- Particle size distribution (PSD) by Cascade Impactor
- Droplet size distribution (DSD) by Laser Diffraction
- Dose content uniformity (DCU), through life
- Priming/Re-priming

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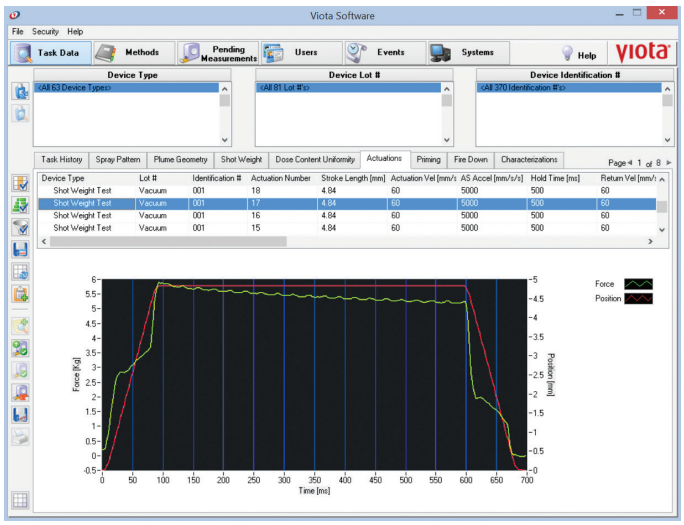
Vereo® Actuator with Viota® Software Features

- Automated actuation with positional or force-based accuracy, precision, and repeatability; compliant with U.S. FDA guidelines
- Shot-to-shot consistency for uniform delivery
- Powerful, yet simple to use 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

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

Oral Device Holders available for unit- and multi-dose products

Device Holders provide versatility for comprehensive product compatibility

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

Available Vereo® Actuator Models for Nasal and/or Oral Spray devices

Product No.	Model Name	Intended Usage/Application
001001	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
001101	SSx	– Side actuated nasal spray devices
001400	DSx	– Dual side actuated nasal spray devices

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