

Vertus Plus

Shake and Fire with Automatic Shot Weight for pMDIs

Product Profile

Flexible bench top automation

Vertus Plus is a pMDI shake and fire system designed for everyday use on a lab bench. It combines precisely controlled and repeatable operation with the flexibility to perform any industry standard pMDI shake and fire test method while collecting shot weight data.

Convenient and intuitive

Vertus Plus offers comprehensive features to perform regulatory-approved test methods.

- Multiple inhaler test devices are supported. These include the **NGI**, **Andersen Cascade Impactor (ACI)**, **DUSA** and **waste shot collectors**. Vertus can also be configured to support custom devices.
- **Shaking** is performed using closed loop control, which assures that the required motion is achieved. It is precisely controlled, completely configurable and repeatable.
- **Firing** can be configured to apply up to three distinct forces per actuation. These are typically used to set forces that detect, insert and fire the canister.
- **Data collection** records the key parameters during each test. Results can be stored locally, to a USB device or to a Local Area Network (LAN).
- **Touchscreen Display**. Test methods are programmed using an intuitive touchscreen display. Once approved and saved, each method can be recalled.
- **Automatic Weighing**. An integrated 4 or 5-place Mettler Toledo analytical balance is used to collect shot weight data at any point of the method.
- The inhaler is securely clipped into a puck, which in turn is clipped onto the Vertus. This allows most styles of inhaler* to be supported without the need to remove the canister from the inhaler.
- Safety standards are complied with: moving parts are enclosed and an emergency stop is easily accessible.



Optional Features

The optional features provide additional convenience and further functions to measure and record regulatory-approved test methods as required by a particular application.

- **Internal airflow generation with automatic control and measurement** so that external equipment does not have to be separately purchased, configured and calibrated. (Patent pending.)
- **Automatic leak test** to measure the integrity of the test equipment (e.g. ACI).
- **Monitor and record temperature and RH**.
- **ER/ES compliance**. Electronic Records / Electronic Signatures functionality to use as a basis for obtaining ER/ES regulatory approval.
- **LIMS link** so that results can be stored directly to a central information management system.
- **Novi DUSA Stack**: a combined 4-DUSA & waste shot collector device for unattended high throughput operation with shot weights automatically recorded.

* All inhaler types tested to date are supported. Compatibility with inhaler designs can be assessed prior to purchase on request.