

Infusion Pump Testing & Micro-Flow Calibration

Be equipped with trustworthy data to uphold the integrity of medical infusion pumps throughout their lifecycle, with Cubis® II ultra-high resolution balances for accurate dose flow-rate assessment and regulatory compliance.

Main Regulations

- International Standard IEC 60601 Part 2-24:2012. Particular requirements for the basic safety and essential performance of infusion pumps and controllers
- Technical Information Report AAMI TIR101:2021. Fluid delivery performance testing for infusion pumps

Customers

- Infusion pump manufacturers
- Syringe pump manufacturers
- Insulin pump manufacturers
- Medical device Contract Manufacturers
- Micropump manufacturers
- Calibration labs

Applications

- Testing the flow-rate accuracy over the entire period of intended use
- Evaluation of environmental and pressure effect on longterm flow-rate accuracy
- Determination of bolus dose accuracy

Your Challenges

Precision Testing

Regulatory Compliance

Reproducible and Reliable Data

Cable entry frames

Environmental data reconciliation

Open accessibility to data for analytics

Elimination of statics

Our Promises

High-Resolution Cubis® II balances for accurate flow rate and dose assessment

Balance features adhering to AAMI TIR 101, IEC 60601-2-24, FDA, MDR, GMP and 21CFR part 11 standards

Monolithic weighing system for fastest stabilization time and highest sensitivity

Special draft shield setup to facilitate the integration of cable set into the weighing chamber

Integrated climate sensor to capture weighing data, backed by temperature, humidity and pressure values inside the weighing chamber

Open integration into existing ELN/LIMS systems without the need of additional software

Built-in ionizer, strategically positioned to eliminate 100% of electrostatic charges



Unmatched Stability with Open IT Integration

Stable & repeatable measurement

A monolithic weighing system that empowers flow & accuracy. Cubis® II balances offer exceptional repeatability, high capacities, fast stabilization, and low weighing drifts under real-life conditions.





Longer, uninterrupted flow and accuracy testing periods

Cubis® II High-Capacity Micro balances are designed to let you run a maximum number of shots through high capacities (61g) and a readability of 1 µg with minimum interruption.

Fast data transfer to connected softwares

Cubis® II balances achieve high and accurate data transfer rates of 10 Hz (10 measuring values per second) and can achieve even higher transfer rate with specific adjustments.

Recommended balances according to AAMI TIR-101

			
> 1000 mL/h	10 mL/h to 1000 mL/h	0.1 mL/h to 10 mL/h	<0.1 mL/h
<ul style="list-style-type: none">■ Precision Balance■ Resolution 1/10 mg■ Capacity 5200/14200 g	<ul style="list-style-type: none">■ Analytical Balance■ Resolution 0.1 mg■ Capacity 520 g	<ul style="list-style-type: none">■ Semi-micro Balance■ Resolution 0.01 mg■ Capacity 220 g	<ul style="list-style-type: none">■ High-Capacity Micro Balance■ Resolution 0.001 mg■ Capacity 61 g

Key Benefits

- Ultra-high resolutions balance with 0.001 mg resolution and 61 g capacity or 0.01 mg resolution and 220 g capacity
- Accurate and repeatable measuring values under real lab conditions
- Data output with 10 Hz (for faster data output contact us directly)
- Drift reducing monolithic weighing system
- Built-in Ionizer available to eliminate charges of the beaker/sample/infusion set
- A high-volume capacity weighing floor guards the inner system during sample weighing and basic cleaning

At Sartorius, we are committed to providing top-tier pump testing solutions that ensure the accuracy, reliability, and efficiency of your medical devices. Our advanced technologies and expert support help you meet the highest industry standards.



Download our collaborative application note with B. Braun:
Challenges in testing of dosing accuracy



Discover More: www.sartorius.com