SVISCISAS

Next-Gen Battery Innovation Lab Invests in Fully-Automated Weighing Technology

Customer Challenge

The customer is an innovation lab in the battery space and is heavily invested in developing tomorrow's solid-state batteries, as a safer and more compact alternative to current offerings. They are looking for weighing solutions for their R&D workflow with the following requirements:

- Reliable weighing in dry and inert environment (Argon glove boxes)
- Fully automated balance with hands-free features
- Easy collection of weighing data for further Design of Experiments analytics (DoE)

Solution Provided

The client placed a tender to fully equip a new Innovation lab. Sartorius supported a local partner to offer a more holistic solution. For solid-state battery applications, they needed accurate weighing results in a dry and inert atmosphere. The balances would be placed in an Argon glove box and a "hands-free" handling was a strong requirement.

Sartorius recommended the Cubis[®] II semi-micro balance. This balance offers five-digit precision, an advanced user interface MCA, automatic motorized draft shield, built-in ionizer, and motorized levelling. The balance was combined with a footswitch command and a wireless printer. Each weighing datapoint was also collected via RJ45 for further Data Analytics.

In addition to this request, the customer also needed to check for moisture content in plastics. Plastic tubes are heated and molded before use in some components of the Battery Management System (BMS). As molding temperature depends on the moisture content of in-coming goods, they needed a fast and precise way to systematically measure moisture content. MA160 Moisture Analyzer (capacity 200 g; moisture determination > 1%) and its Method Development Assistant function helped the customer to optimize their measurement time.

At a Glance

- Hands-free weighing solution with automatic draft shield, built-in ionizing technology, foot switch and, motorized leveling
- Open interface for an accessible transfer of data
- Fast moisture determination by thermogravimetric measurement

For more information, visit:

Business Case



Case Profile

Company Type: European Company

Industry: Rechargeable Battery Innovation Lab

Company Size: 4000+ employees

Outcome

The customer selected both Cubis[®] II and MA160 for their R&D workflow. After a highly positive experience, they decided to replace part of their existing balance fleet with new Sartorius balances.

The local Sartorius Service Team installed and calibrated the balances, and provided training on routine cleaning and maintenance. To secure balance longevity and reduce downtime, a yearly maintenance contract was signed.