Cubis® Laboratory Balances in Vaccine Research and Development

Precision and Safety at Its Finest

Simplifying Progress

SARTORIUS

Cubis® II Laboratory Balances:

Vaccination is the most effective method of preventing infectious diseases, and is considered one of the greatest achievements in medicine. Until today, various vaccines against several crucial diseases (including influenza, chicken pox, or HPV) have been developed that save millions of lives. Along the continuous emergence of new diseases and concerns regarding safety, vaccine research and development became more complex and challenging. Weighing of samples and animals is a commonly occurring step during the research and development phase, including *in vitro* and *in vivo* pharmacology studies, and functional assays. Precision, as well as flexibility and speed, should be offered during these workflows. With our broad spectrum of solutions and long term expertise, we guarantee the highest level of accuracy, and also support your weighing workflows in a simplified and intuitive manner.

Our Solutions, Your Advantages

Highest Level of Precision

The Sartorius Cubis® II series of weighing systems meets the highest requirements in accuracy and precision. It offers built-in hardware (e.g., calibration or leveling) and software (QApps) solutions, with modularity and various connectivity options at the greatest level of precision.

Simplified Weighing Processes

The great variety of sample holders and weighing pans ensure that samples of various types (e.g., cell culture bags, safe-lock tubes, flasks, syringes, or even animals) can be weighed directly on the balance. In this way, workflows can be executed more easily and quickly. Made of titanium (for all models with readability equal or better 0.1 mg), the highest material quality is guaranteed. In addition, repeatability is enhanced due to titanium's non-magnetic properties.

Intuitive Workflows

Cubis® II balances were designed for intuitive operation, aided by intelligent assistant systems which ensure the correct usage of the balance at all times. This guarantees a higher degree of weighing performance for different workflows, while lowering the probability of human error during measurement steps.

Customized Solutions

If your needs are not covered in our portfolio, a fully personalized solution can be developed to meet your unique demands.

Precision, Simplicity, Intuitive Operation

Weigh at the Highest Level of Precision, Simplify Your Processes

Cubis® II

The New Generation of Modular Premium Laboratory Balances

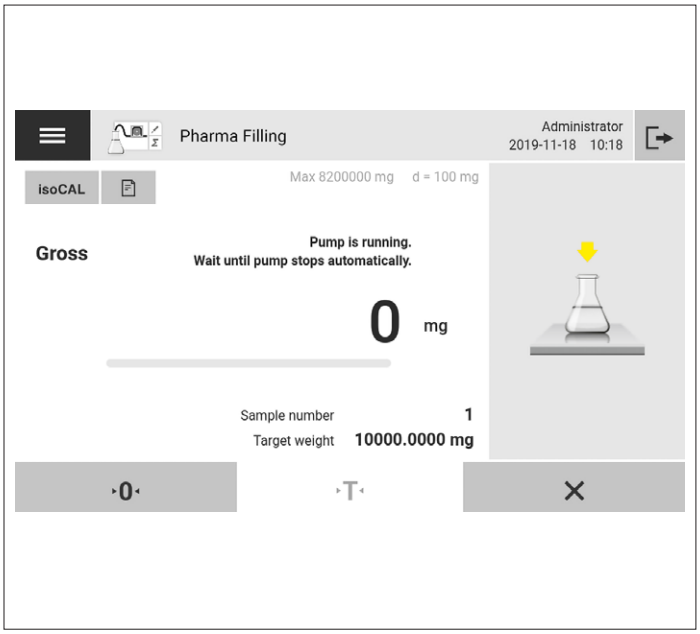
Sample weighing is a commonly occurring step during vaccine research and development, and in pre-clinical phases where the most reliable lab weighing results have the utmost importance. The Cubis® II laboratory balances from Sartorius offer customizable hardware and software, modern user interfaces, pharmaceutical and GxP compliance, including data integrity at the highest level of accuracy and precision.

Safe-Lock Tube Holders

No More Sample Loss, Even on a Micro Balance

Unless a specific solution is provided, for highly sensitive weighing workflows, typically paper or weighing boats are used in the first step, and then samples are transferred into safe-lock tubes. This may result in sample loss, which could negatively affect the outcome. Cubis® Safe-Lock Tube holders are specially designed weighing pans, which enable direct sample weighing into test tubes. Using these holders, the risk of sample loss can be completely eliminated, which ensures high measurement accuracy. Design variants for tubes between 1.5 mL and 5 mL are available, and can be used in micro balances, high-capacity micro balances, semi-micro, and analytical balances, accommodating your specific needs.

Read the Application Highlight



Grid Pan

Reliable Performance in Drafty Environments

In enclosures such as fume hoods, safety weighing cabinets, or microbiological workbenches, airflows have an immense influence on the weighing performance of the balance. This negatively impacts the results. While high-resolution balances better protect against air drafts due to their draft shields, precision balances with readability of 10 mg or 100 mg are massively exposed to these effects. For our precision balances, a specially designed grid pan was made, which reduces exposed surface area by almost 70%, compared to a standard weighing pan. Consisting of an extra screening cover, the protection of the weighing system is significantly improved, which leads to high quality results, including undisturbed internal calibration and zero point return values.

Pharma Filling QApp

Guided Workflows, Secured Data

Gravimetric determination, following aseptic filling of various kinds of liquid media into bags or flasks, is a commonly occurring step in the field of Pharma and Biopharma. The Pharma Filling QApp for Cubis® II balances was programmed to assist users in an intuitive manner during these workflows. Not only can this QApp control peristaltic Watson Marlow pumps (models 323Du, 530Du and 630Du) and determine the transferred amount of liquid gravimetrically, but settings, protocols, product data, and statistically evaluated end-results can be stored in the database. In addition, labels may be printed, which include information such as sample number, filling weight, and expiry date.

Syringe Holders

Safe Handling

During *in vivo* pharmacology studies, syringes are weighed on a daily basis. Ergonomic holding of syringes is crucial, not only for better handling but also for safety reasons. Syringe Holders from Sartorius were designed to hold standard-sized, analytical glass syringes (up to 2.5 mL), as well as syringes used for *in vivo* applications (e.g., insulin syringes) and are available for Cubis® High Capacity Micro Balances and Cubis® II Semi-Micro and Analytical Balances. Made of titanium, not only high quality is guaranteed, but better repeatability due to its non-magnetic properties.

Vial and Flask Holders

No More Headaches

Conically-shaped tubes and round-bottomed flasks are widely used in analytical, chemical, and QC laboratories. Because of their special form, it is difficult to place these types of flasks directly on a flat weighing pan. Sartorius designed special weighing pans to hold these flasks which do not compromise the accuracy of weighing results. Diverse types for high-capacity micro balances, semi-micro and analytical balances are available to provide ease of use.

Read the Application Highlight

Touch-Free Operation

Minimize Contamination

Very often during the development of drugs and vaccines, highly toxic substances in the form of liquids or powders are used. Minute particles may enter the lungs and be quickly absorbed into the bloodstream. It is of ultimate importance to protect the user from contamination during these weighing processes. Touch-free operation has relevance in enclosures, as well, where handling a laboratory balance may become difficult.

Cubis® II Ultra-Micro and Micro Balances provide touch-free operation via its integrated motion sensor in the draft shield. For analytical and semi-micro balances, we offer an external gesture sensor, which allows opening and closing of the draft shield, and can also be configured to carry out other balance functions. Contact-free work is further supported by the automatic motorized leveling.

Cubis® Custom-Made Solutions in Just Five Steps

Whether you have a special request for software (e.g., an individual QApp which controls the tolerances of the filled-in volume) or a demand for hardware (e.g., custom-made pan for animal weighing), a fully personalized solution can be developed for you.

Define needs
Identify and specify your requirements

Contact us

Development & manufacturing phase
Production of your personalized solution

Consulting phase
We will work closely with you to support realizing your goals

Delivery
As soon as your request is ready

Cubis® II Laboratory Balances

Ordering Information

Cubis® II Brochure

Order Code		Description	Cubis® Weighing Modules (Compatibility
YSH13		Safe-lock Tube Holder for reaction tubes, PCR tubes, Eppendorf tubes up to 2 mL volume	Cubis® II Ultra-Micro and Micro Balances Models: MC* 2.7S; 6.6S; 3.6P; 10.6S
YSH14		Safe-lock Tube Holder for reaction tubes, PCR tubes, Eppendorf tubes up to 2 mL volume	Cubis® High Capacity Micro Balances Models: MS* 36S/P; 66S/P; 116P
YSH15		Safe-lock Tube Holder for reaction tubes, PCR tubes, Eppendorf tubes up to 2 mL volume	Cubis® II Semi-Micro and Analytical Balances Models: MC* 225S/P; 125S/P; 524S/P; 324S/P; 224S; 124S
YSH18		Safe-lock Tube Holder for bigger reaction- and Eppendorf tubes up to 5 mL volume	Cubis® High Capacity Micro Balances Models: MS* 36S/P; 66S/P; 116P
YSH19		Safe-lock Tube Holder for bigger reaction- and Eppendorf tubes up to 5 mL volume	Cubis® II Semi-Micro and Analytical Balances Models: MC* 225S/P; 125S/P; 524S/P; 324S/P; 224S; 124S
YSH22		Vial Holder for conical-, centrifuge-, round bottom- and test tubes up to 40 mL volume	Cubis® High Capacity Micro Balances Models: MS* 36S/P; 66S/P; 116P
YSH23		Vial Holder for conical-, centrifuge-, round bottom- and test tubes up to 40 mL volume	Cubis® II Semi-Micro and Analytical Balances Models: MC* 225S/P; 125S/P; 524S/P; 324S/P; 224S; 124S
YSH37		Holder for titration vessels, round bottom flasks and test tubes with diameter up to 50 mm	Cubis® II Semi-Micro and Analytical Balances Models: MC* 225S/P; 125S/P; 524S/P; 324S/P; 224S; 124S
YSH47*		Holder for titration vessels, round bottom flasks and test tubes with diameter up to 50 mm	Cubis® High Capacity Micro Balances Models: MS* 36S/P; 66S/P; 116P
YSH46*		Syringe Holder designed to hold analytical glass syringes typically used for *in vivo* applications	Cubis® II Semi-Micro and Analytical Balances Models: MC* 225S/P; 125S/P; 524S/P; 324S/P; 224S; 124S
YSH41*		Syringe Holder designed to hold analytical glass syringes typically used for *in vivo* applications	Cubis® High Capacity Micro Balances Models: MS* 36S/P; 66S/P; 116P
YWP07MS		Grid pan designed for weighing in laboratory hoods and other enclosures	Cubis® II Precision Balances Models: 1202S, 2202S, 4202S, 14202S/P, 10202S, 8202S, 6202S/P, 12201S, 8201S, 5201S
YHS02MS		Motion sensor for triggering a maximum of 4 functions via gesture control	All balances with automated draft shields (all Cubis® II MCA models)
QAPP008		Pharma Filling App	All balances with MCA display

* Please check availability.

Sales and Service Contacts

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