Safe-Lock Tube Holders for Cubis® Balances

Ergonomic sample weighing directly into safe-lock tubes. No more sample loss.

Product Information

Cubis® safe-lock tube holders are specially designed weighing pans which support simple and ergonomic sample dosing directly into Safe-Lock-, and similar tubes, with the aim to eliminate any risk of sample loss during sample transfer.

The usage of Cubis® safe-lock tube holders during these specific weighing workflows not only improves general usability but results in quicker stabilization time and/or enhanced repeatability.

Key benefits

- Convenient usage
- Improved repeatability via preventing magnetic effects
- High quality, non-corrosive titanium material
- Saves time and costs by simplifying sample transfer
- Completely eliminated sample loss
- Software guided workflows with QApps
Applications

Safe-lock tubes are one of the most frequently used tubes in laboratories of life sciences, pharma, biopharma or chemistry for preparing, mixing or storing solid- and liquid samples or reagents. However, when it comes to sample weighing into these tubes, users are often facing obstacles when placing them on a standard flat weighing pan.

Because the ergonomy is far from ideal if not impossible (for ex. weighing into a safe-lock tube on a microbalance) weighing paper or weighing boats are frequently used instead. This step is followed with sample transfer to the test tubes which may result in sample loss. Obviously, sample loss can have a great negative impact on the outcome results. 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, and thus ensuring high measurement accuracy. Made of titanium, not only the highest material quality is guaranteed, but notably the repeatability is not compromised because of the non-magnetic properties. Magnetism is an unwelcome phenomenon especially in high resolution balances which may cause false reading values.

Various design variants for micro balances, high capacity micro-balances, semi-micro and analytical balances further support the comfort of use and offer solutions for your particular weighing workflows.

Performance

Sartorius conducted a repeatability test and test on stabilization time and quantified the balance performance. For the tests, 1.5 mL safe-lock tube was used and the results between the safe-lock tube holder and the standard weighing pan were compared. Measurements were repeated 3 times with each weighing pan.

Results: Stabilization time

For this test a Cubis® II micro balance was used. Performance of the YSH13 safe-lock tube holder (Fig. 1a) was compared to the corresponding standard weighing pan (Fig. 1b). As shown in Figure 2, stabilization time was 40% quicker using the safe-lock tube holder compared to the standard weighing pan.

![Fig. 1a](Cubis® II Micro Balance with YSH13 Safe-Lock Tube Holder)
![Fig. 1b](Cubis® II Micro Balance with standard weighing pan)

![Fig. 2](Stabilization time)
Results: Repeatability
For this test a Cubis® II semi-micro balance was used. Performance of the YSH19 safe-lock tube holder (Fig. 3a) was compared to the corresponding standard weighing pan (Fig. 3b). As shown in Figure 4, repeatability had improved with 30% when using the safe-lock tube holder compared to the standard weighing pan.

Fig. 3a (Cubis® II Semi-micro Balance with YSH19 Safe-Lock Tube Holder)
Fig. 3b (Cubis® II Semi-micro Balance with standard weighing pan)

Technical Specifications
Technical specifications indicated in the Cubis® and Cubis® II datasheet will remain unchanged after the standard weighing pan is replaced with the following safe-lock tube holders: YSH13, YSH14, YSH15, YSH18, YSH19

Materials of Construction
The Cubis® Safe-Lock Tube Holders are made of Titanium (3.7165). For the assembly, other materials are used as well.

The Cubis® Sample Holders may be cleaned with 70% IPA, Ethanol or water.

Recommended operating temperatures: 10° - 30° Celsius (50° - 86° Fahrenheit)
## Ordering Information

<table>
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<tr>
<th>Order Code</th>
<th>Description</th>
<th>Cubis® Weighing Modules (Compatibility)</th>
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<tr>
<td>YSH13</td>
<td>Safe-lock Tube Holder for reaction tubes, PCR tubes, Eppendorf tubes up to 2 mL volume</td>
<td>Cubis® II Ultramicro- and Micro Balances Models: MC* 2.7S; 6.6S; 3.6P; 10.6S</td>
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<tr>
<td>YSH14</td>
<td>Safe-lock Tube Holder for reaction tubes, PCR tubes, Eppendorf tubes up to 2 mL volume</td>
<td>Cubis® High Capacity Micro Balances Models: MS* 36S</td>
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<tr>
<td>YSH15</td>
<td>Safe-lock Tube Holder for reaction tubes, PCR tubes, Eppendorf tubes up to 2 mL volume</td>
<td>Cubis® II Semi-Micro and Analytical Balances Models: MC* 225S</td>
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<td>YSH18</td>
<td>Safe-lock Tube Holder for bigger reaction- and Eppendorf tubes up to 5 mL volume</td>
<td>Cubis® High Capacity Micro Balances Models: MS* 36S</td>
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<tr>
<td>YSH19</td>
<td>Safe-lock Tube Holder for bigger reaction- and Eppendorf tubes up to 5 mL volume</td>
<td>Cubis® II Semi-Micro and Analytical Balances Models: MC* 225S</td>
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Specifications subject to change without notice.

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