

WEIGHTS: FREQUENTLY ASKED QUESTIONS

Here at European Instruments, we often receive a number of queries in regards to Weights. With this in mind, in this article we highlight and answer our most frequently asked questions.



Why do you need weights?

Weights are necessary for the following applications:

Calibration: To assess the performance of the Balance or Scale and prove traceability back to National and International standards. It is necessary to calibrate the instrument using a certified Calibration Weight.

Adjustment: It is possible that a balance or scale may stop weighing accurately. When this occurs it is necessary to correct this error by activating the adjustment routine on the instrument and then apply a certified Calibration Weight to perform the correction.

Check: Balances and Scales should be checked to ensure the calibration has not drifted and it is still weighing accurately. This is a routine process that should be carried out on a daily or before use basis.

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What is the difference between a Calibration Weight, Test Weight and a Scale Weight?

Weights are quite often referred to as Calibration, Test or Scale weights. However, there is no such thing as a specific Calibration, Test or Scale Weight. These are applications you may use a Weight for, there are no Weights made inherently for this purpose. When selecting the Weights, you use your application to determine what tolerance you require and then use that desired tolerance to choose the required Weight Class.

What is the difference between UKAS Certified Weights vs Non-Certified Weights?

To ensure the validity and integrity of your weighing results we recommend you use UKAS certified Weights, non-certified Weights do not have traceability.

What is the difference between Adjustable Weights vs Non-Adjustable Weights?

Some manufacturers offer Adjustable Weights, which enables the Weights to be adjusted if they drift. Non-Adjustable Weights cannot be adjusted.

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What class of weight do you need?

This very much depends on how you will use the Weights, and the specification of the Balance or Scale. However as a rule of thumb you can use the following:

E2 Class Weights: Analytical Balances (0.1mg readability and more accurate).

F1 Class Weights: Milligram & Top Pan Balances (0.1g and more accurate).

M1 Class Weights: Compact Balances and Industrial Scales (1g and less accurate).

What denomination of weight do you need?

This depends on the application you are using the Weight for.

For test purposes, as described above, we recommend a Weight at approximately the capacity of the Balance/Scale. As well as a Weight which matches the capacity where you most typically weigh at on the Balance/Scale, to perform the daily or before use check.

To perform a monthly linearity check, select 3 – 4 test points which cover the full range of the instrument.

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Should you get a Weight Set or individual Weights?

Weights can be bought either individually or in Weight Sets. If for example you only want to perform checks on a single Balance/Scale, you may only need a few individual Weights. However, if you have multiple Balances/Scales with different ranges, you may be better off getting a full Weight Set. Weight Sets also have the benefit of having one serial number for traceability.

Weight materials

We supply Weights made of Aluminium, Stainless Steel and Cast Iron. E2 Weights and F1 Weights are always made of Stainless Steel, except for 1mg – 5mg Weights which are normally made of Aluminium. M1 Weights are available either in Stainless Steel or Cast Iron. Depending on your application, Stainless Steel maybe a better solution, for example for use in a Clean Room.

If you have a question(s) that has not appeared in this article, please get in touch using the details provided below.



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