

Counting Scales versus Counting Functionality

When purchasing a scale with counting functionality there can be a vast difference in technical specifications and price. It's therefore important to understand some of the technical terms to ensure you can make an informed purchasing decision.

This guide is designed to help you navigate the most important differences between a Counting Scale and a Bench or Floor Scale with Counting Functionality.

IMPORTANT SPECIFICATIONS

In addition to the features and specifications you will look for in any scale you're about to purchase, when counting functionality is important to your operation, there are another two specifications you'll want to understand; Display Resolution and Internal Count Resolution. Below are explanations for both.

DISPLAY RESOLUTION

This specification refers to the actual numbers that can be seen on the scale display.

For example, a scale with a capacity of 30 kg x 5 g means that the scale will weigh in 5 gram increments up to a maximum weight of 30 kilograms, and will round the display to the nearest 5 grams.

Fig 1. shows a scale indicator where the item being weighed is 45 grams and is displayed in 5 gram increments.



Fig 1. Scale Indicator weighs in 5 gram increments

Topics Discussed:

Important Specifications

Display Resolution

Internal Count Resolution

Key Differences between Counting Scales & Scales with Counting Function

Helpful Tips



INTERNAL COUNT RESOLUTION

This specification refers to how the scale calculates the weight of one item based on the sample count put on the scale. The higher the Count Resolution, the more precise the count will be especially for light items.

Fig 2 below shows a Wedderburn JAWSC300 Counting Scale. It is a typical example of a Counting Scale with a high internal resolution.

In this example:

- Weighing Capacity of the scale is 30 kg x 1 g (as explained above).
- The red container has been “tared” off so that only the contents of the container are weighed and counted.
- JAWSC300 Counting Scales feature an Internal Count Resolution of 1/150,000 counts.
- Left Window displays the weight of the entire contents of the red container
- Middle Window displays the weight of each screw.
- Far Right Window shows that there are 102 screws in the red container

Even though the JAWSC300 Counting Scale displays total weight in 1 gram increments, because it has an internal count resolution of 1/150,000 it can accurately calculate the weight of each screw to mere fractions of 1 gram. In this case to 7.2266 grams rather than rounding up to 8 grams or down to 7 grams.

The result is a highly accurate overall count.



Fig 2. JAWSC300 Counting Scale

KEY DIFFERENCES BETWEEN A COUNTING SCALE AND A SCALE WITH COUNTING FUNCTIONALITY

Scales may be advertised as a Bench or Floor/Platform Scale with a Counting Function and others are advertised as a Counting Scale. Wedderburn make a distinct difference between these types of scales and here's why:

Scales with Counting Functionality

In most cases a bench scale or floor scale has one display and a low internal count resolution. One display allows the user to switch the display from showing the total weight to showing the number of items on the scale.

Fig 3. below is an example of a scale with one display that also has a function button to change what is shown on the display from total weight to a “pieces count”.



Fig 3. WS201 Bench Scale with Counting Functionality

Counting Scales

Unlike a bench or floor scale, a Counting Scale generally has a high internal Count Resolution. Counting Scales also have three displays as seen in Fig 2.

- First display shows the total weight of the items currently on the scale.
- Second display shows the individual weight of an item.
- Third display shows the total quantity (count) of items being weighed.

HELPFUL TIPS

- Always ensure the scale is on a vibration-free and firm level surface.
- Ensure the scale is level.
- Environmental conditions affect weighing accuracy. Open windows, air conditioners, even a light breeze could influence the accuracy of your weighing device.
- The bigger the sample weight, the better the accuracy of the items being counted.
- Choosing a scale with both a high display resolution and a high internal count resolution will offer you more accurate weighing and counts.

Wedderburn Scales Ltd is an established weighing solutions company with more than 120 years industry experience. We are committed to providing products and services which are of a constantly high standard and ensuring these standards are monitored and maintained at all times.

Specifications may change without notice