

Balance Performance Check

Balance ID: _____

Reference Weight ID	Low:	Mid:	High:	Other if Required:
Replicate				
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				
Average				
%Accuracy				
Standard Deviation				
Coefficient of Variation				

Analyst: _____ Date: _____ Unit: _____

☐ Based on the performance of the acceptability criteria above the balance **meets** the criteria for use.

☐ Based on the performance of the acceptability criteria above the balance **does not meet** the criteria for use. The balance has been marked 'do not use'.

Reviewed by: _____ Date: _____

Acceptability criteria (for balances with a max load of $\leq 700\text{g}$): %Accuracy $\pm 2\%$, SD < 1 , Coefficient of Variation $\leq 2\%$ * Acceptability criteria (for balances with a max load of $\geq 701\text{g}$): %Accuracy $\pm 5\%$, SD < 1 , Coefficient of Variation $\leq 3\%$ *

*Units may require tighter tolerances based on the typical use of the balance.

1. Percent Accuracy:
$$\frac{(\text{expected value} - \text{average value})}{(\text{expected value})} \times 100$$

2. Standard Deviation:

$$\sigma = \sqrt{E((X - E(X))^2)} = \sqrt{E(X^2) - (E(X))^2}$$

3. Coefficient of Variation: $V = (\sigma / \text{average value}) \times 100$

If an excel spreadsheet is used to calculate the %Accuracy, SD or Coefficient of Variation attach a copy of the spreadsheet for the reviewer.

Maintain this record in the Unit Logbook (paper or electronic) for this device.