

FULL SCALE CALIBRATION AND ZERO ERROR RECORD

(Analytical and precision weighing balance)

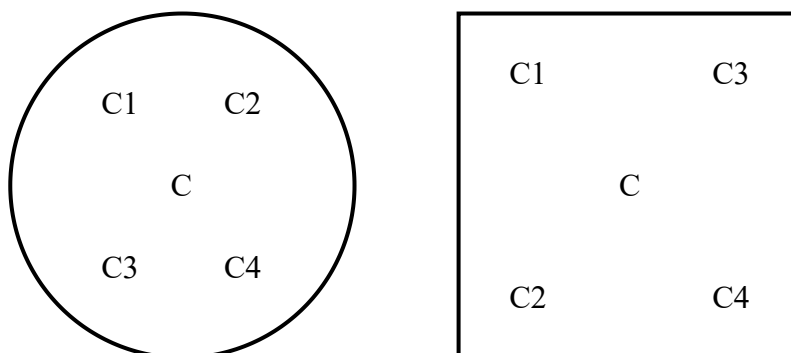
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Dept. : NA Month and year: Jun 2026
Code No.: EM-256 Capacity(a) : 150.000 (Kg)
Make: ESSAE Model: IND01
Standard Weight Box Id : SWB-01 Least Count : 0.001 (Kg)

1. Eccentricity test :

Note: Adjust zero error before commencing the weighing operation.



Sr No.	Standard Weight (Kg)	Position	Reading displayed by the balance (Kg)	Deviation from center = X - C	Remark
1.	0.500	C	0.500		Ok
2.	0.500	C1	0.500	0.000	Ok
3.	0.500	C2	0.500	0.000	Ok
4.	0.500	C3	0.500	0.000	Ok
5.	0.500	C4	0.500	0.000	Ok

Where, X = C1, C2, C3, C4 i.e. different corners of the balance.

Acceptance criteria : Deviation is not more than 0.05%

Result: Ok

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2. Repeatability test :

Sr. No.	Standard Weight (Kg)	Reading displayed on the balance (Kg)	Remarks
1	0.500	0.500	Ok
2	0.500	0.500	Ok
3	0.500	0.500	Ok
4	0.500	0.500	Ok
5	0.500	0.500	Ok
6	0.500	0.500	Ok
7	0.500	0.500	Ok
8	0.500	0.500	Ok
9	0.500	0.500	Ok
10	0.500	0.500	Ok
Mean		0.500	-
Standard Deviation (S.D.)		0.000	-

$$\text{Repeatability (\%)} = \frac{2 \times (0.41 \times d)}{\text{Reported standard weight (Kg)}} \times 100 = 0.164$$

Acceptance criteria : Repeatability is NMT 0.10 %

Result : Not Ok

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3. Linearity test :

Sr. No.	Standard Weight (Kg)	Reading displayed on the balance (Kg)	Linearity %	Remarks
1	42.000 Kg	42.000 Kg	0.000	Ok
2	140.000 Kg	140.000 Kg	0.000	Ok
3	0.050 Kg	0.050 Kg	0.000	Ok
4	0.500 Kg	0.500 Kg	0.000	Ok
5	84.000 Kg	84.000 Kg	0.000	Ok

$$\text{Linearity (\%)} = \frac{\text{Difference between displayed weight and standard weight}}{\text{Displayed weight}} \times 100 =$$

Acceptance criteria : Deviation should not be more than 0.05%

Remark: Ok

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4. Uncertainty test :

Sr. No.	Standard Weight (Kg)	Reading displayed on the balance (Kg)	Remarks
1	0.500	0.500	Ok
2	0.500	0.500	Ok
3	0.500	0.500	Ok
4	0.500	0.500	Ok
5	0.500	0.500	Ok
6	0.500	0.500	Ok
7	0.500	0.500	Ok
8	0.500	0.500	Ok
9	0.500	0.500	Ok
10	0.500	0.500	Ok
Mean		0.500	-
Standard Deviation (S.D.)		0.000	-

$$\text{Uncertainty} = \frac{3 \times \text{SD}}{\text{Reported Standard Weight (Kg)}} = 0.000$$

Acceptance criteria : Value of uncertainty should be NMT 0.001 Kg.

Result : Ok

Comment: _____

Calibration performed by : Tantra (3)

Checked by : Tushar (4005)

Date: 18/06/2026

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