


## CERTIFICATE OF CALIBRATION

Issue:- 98875_10	Certificate Number: Date of Issue:	<b>98875</b> <b>18-May-26</b>
Page 1 of 2	Approved Signatory: Signed:	<b>Thomas Herrington</b> 



### Submitter:-

Mecmesin Limited  
Newton House  
Spring Copse Business Park  
Slinfold  
West Sussex  
RH13 0SZ

### Issued by:-

Kent Scientific Services  
8 Abbey Wood Road  
Kings Hill  
West Malling  
Kent  
ME19 4YT  
Tel: 03000 415 100  
Fax: 01732 220006

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<b>EQUIPMENT:</b>	Weights
<b>SERIAL NUMBER:</b>	Weight Set FR1 (J01- J15)
<b>MAKE/TYPE:</b>	N/A
<b>STANDARDS USED:</b>	Set 12412
<b>DATE RECEIVED:</b>	15 May 2026
<b>DATE CALIBRATED:</b>	18 May 2026
<b>DETAILS:</b>	14 Cast Iron, 1 Brass

### MEASUREMENTS:

Kent Scientific Services method used: CAL SMALL, Calibration of Small Masses.

The calibrations took place in a controlled environment with the temperature held between 18°C and 22°C, and with the relative humidity held between 40% and 60%.

The measurement results obtained in the table, where each measured value given represents not the true mass, but the mass of a hypothetical weight of density 8,000 kg.m<sup>-3</sup>, which in air of density 1.2 kg.m<sup>-3</sup> would balance the corresponding weight identified in the first column at 20°C.

The method of weighing was by substitution (Borda's method). In each instance the standard weight used had been calibrated by UKAS Calibration Laboratory number 0474, 0260 or 0352 within the previous three years. The uncertainty of measurements for each of the different denominations is listed in the last column of the table. Duplicate weights, where present, are indicated by a dot or dots.

Customer supplied information is notated with a ~, and results relate only to the item(s) calibrated.

Unless otherwise notated, samples are tested in as received condition at Kent Scientific Services.

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**TABLE OF MEASUREMENT RESULTS**


<u>Identity Mark</u>	<u>Nominal Mass</u>	<u>Measured Value</u>	<u>Error from Nominal</u>	<u>Estimated Uncertainty</u>
J15	5N	509.460 4 g	- 147.8 mg	± 5.1 mg
J14	100N	10191.98 g	- 180 mg	± 100 mg
J13	100N	10192.01 g	- 150 mg	± 100 mg
J12	100N	10192.11 g	- 50 mg	± 100 mg
J11	100N	10192.06 g	- 100 mg	± 100 mg
J10	50N	5096.037 g	- 45 mg	± 52 mg
J09	20N	2038.376 g	- 56 mg	± 20 mg
J08	20N	2038.322 g	- 111 mg	± 20 mg
J07	10N	1019.146 g	- 70 mg	± 10 mg
J06	5N	509.580 2 g	- 28.0 mg	± 5.1 mg
J05	1N	101.896 0 g	- 25.6 mg	± 1.0 mg
J04	1N	101.919 5 g	- 2.1 mg	± 1.0 mg
J03	1N	101.921 7 g	+ .1 mg	± 1.0 mg
J02	1N	101.918 4 g	- 3.3 mg	± 1.0 mg
J01	0.5N	50.960 61 g	- .21 mg	± 1.61 mg
J02 *	1N	101.923 1 g	+ 1.4 mg	± 1.02 mg
J05 *	1N	101.923 0 g	+ 1.3 mg	± 1.0 mg
J05 *	5N	509.614 3 g	+ 6.1 mg	± 5.1 mg
J07 *	10N	1019.215 g	- 1 mg	± 10 mg
J08 *	20N	2038.427 g	- 6 mg	± 20 mg
J15 *	5N	509.599 9 g	- 8.3 mg	± 5.1 mg

\* Denotes post adjustment calibration

The basis for conversion between force units and mass units is that a 1kg mass will experience a force of g newtons where g is the strength of the local gravitational field. At Kent Scientific Services the estimated local  $g = 9.81146 \text{ ms}^{-2}$ .

END OF RESULTS

## CERTIFICATE OF CALIBRATION

Issue:- Certificate Number: **98876**  
98876\_10 Date of Issue: **18-May-26**  
Approved Signatory: **Thomas Herrington**  
Page 1 of 2 Signed: 



### Submitter:-

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**EQUIPMENT:** Weights  
**SERIAL NUMBER:** Weight Set FR1 (Z)  
**MAKE/TYPE:** N/A  
**STANDARDS USED:** Set 12412  
**DATE RECEIVED:** 15 May 2026  
**DATE CALIBRATED:** 18 May 2026  
**DETAILS:** 10 Brass

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### MEASUREMENTS:

Kent Scientific Services method used: CAL SMALL, Calibration of Small Masses.

The calibrations took place in a controlled environment with the temperature held between 18°C and 22°C, and with the relative humidity held between 40% and 60%.

The measurement results obtained in the table, where each measured value given represents not the true mass, but the mass of a hypothetical weight of density 8,000 kg.m<sup>-3</sup>, which in air of density 1.2 kg.m<sup>-3</sup> would balance the corresponding weight identified in the first column at 20°C.

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**TABLE OF MEASUREMENT RESULTS**

<u>Identity Mark</u>	<u>Nominal Mass</u>	<u>Measured Value</u>	<u>Error from Nominal</u>	<u>Estimated Uncertainty</u>
Z	100 g	99.996 9 g	- 3.1 mg	± 1.0 mg
Z	100 g <sup>o</sup>	99.998 5 g	- 1.5 mg	± 1.0 mg
Z	50 g	49.999 81 g	- 0.19 mg	± 0.60 mg
Z	20 g	20.000 12 g	+ 0.12 mg	± 0.50 mg
Z	20 g <sup>o</sup>	20.000 13 g	+ 0.13 mg	± 0.50 mg
Z	10 g	10.000 81 g	+ 0.81 mg	± 0.40 mg
Z	5 g	5.000 82 g	+ 0.82 mg	± 0.30 mg
Z	2 g	2.000 54 g	+ 0.54 mg	± 0.24 mg
Z	2 g <sup>o</sup>	2.000 58 g	+ 0.58 mg	± 0.24 mg
Z	1 g	1.000 74 g	+ 0.74 mg	± 0.20 mg

END OF RESULTS