



# Mass Calibration Certificate



Certificate #: 122917

This calibration is accredited under the laboratory's ISO/IEC 17025 accreditation issued by the ANSI-ASQ National Accreditation Board. Refer to certificate and scope of accreditation AC-1222.

**Calibration Performed By**  
 PREMIER SCALES & SYSTEMS  
 4901 NORTH SAINT JOSEPH AVE.  
 EVANSVILLE, IN 47720

**Customer**  
 KOENIG SCALE  
 4779 EAST MARGARET DRIVE  
 TERRE HAUTE, IN 47803

**Weight and Test Information**

Equipment I.D.: **OTN7**  
 Description: TEST WEIGHTS, STAINLESS STEEL  
 Manufacturer: RICE LAKE  
 Denomination: KIT: 5 KG TO 1 G  
 Class: ASTM CLASS 1  
 Condition of Item(s) as Received: IN TOLERANCE

Serial Number: OTN7  
 Temp. / Humidity / Pressure: 19.90 °C / 46.5 % / 752.3 mmHg  
 Performed By: *Chris McCellhiney* CMCELLHINEY  
 Receive Date: 11-Apr-22  
 Calibration Date: 14-Apr-22  
 Calibration Due: **14-Apr-24**

**Comments**

Cleaned and acclimated prior to calibration.

**Calibration Results**

Nominal / I.D.	Results	As Found	Tolerance ±	Uncertainty ±	Results	As Left	Assumed Density (g/cm³)
5 kg	P	0.20 mg	12.00 mg	0.84 mg	P	0.20 mg	7.95
3 kg	P	-1.10 mg	7.50 mg	0.79 mg	P	-1.10 mg	7.95
2 kg	P	-3.70 mg	5.00 mg	0.45 mg	P	-3.70 mg	7.95
1 kg	P	-1.78 mg	2.50 mg	0.19 mg	P	-1.78 mg	7.95
500 g	P	-0.09 mg	1.20 mg	0.13 mg	P	-0.09 mg	7.95
300 g	P	0.49 mg	0.75 mg	0.12 mg	P	0.49 mg	7.95
200 g	P	0.04 mg	0.50 mg	0.12 mg	P	0.04 mg	7.95
100 g	P	-0.115 mg	0.250 mg	0.034 mg	P	-0.115 mg	7.95
50 g	P	-0.062 mg	0.120 mg	0.022 mg	P	-0.062 mg	7.95
30 g	P	-0.013 mg	0.074 mg	0.019 mg	P	-0.013 mg	7.95
20 g	P	-0.019 mg	0.074 mg	0.010 mg	P	-0.019 mg	7.95
10 g	P	0.0130 mg	0.0500 mg	0.0074 mg	P	0.0130 mg	7.95
5 g	P	0.0090 mg	0.0340 mg	0.0044 mg	P	0.0090 mg	7.95
3 g	P	-0.0070 mg	0.0340 mg	0.0035 mg	P	-0.0070 mg	7.95
2 g	P	-0.0090 mg	0.0340 mg	0.0032 mg	P	-0.0090 mg	7.95
1 g	P	0.0062 mg	0.0340 mg	0.0038 mg	P	0.0062 mg	7.95

**Test Point Descriptors:**

- P = Pass** : Compliance - The measurement result is within the specification limit when the measurement uncertainty is taken into account.
- \*F = Fail** : Non-compliance - The measurement result is outside the specification limit when the measurement uncertainty is taken into account.
- NP = Not Possible** : It is not possible to state compliance even though the measurement result ± the uncertainty value overlaps the specification limit.

All values listed were determined by comparing the artifacts to Premier Scales & Systems' reference standards which are traceable to the International System of Units (SI), by an accredited lab or a recognized National Institute of Standards and Technology (NIST) state laboratory, through the traceability number(s) listed. All "As Found" and "As Left" values are reported as the correction value of the conventional mass of the artifact. Documented results contained within this calibration certificate relate only to the artifacts calibrated on the date listed. The uncertainty is obtained by taking the root sum square of the Type A and Type B components and multiplying by a *k* factor of 2 to obtain a confidence level of approximately 95 %. The uncertainty values and measurement results are included in the pass / fail condition of the artifact(s). The uncertainty values do not include a component for magnetic properties, air buoyancy corrections or handling and use. Premier Scales & Systems shall not be held liable for any inaccuracies of the artifacts after time of test. This document may not be reproduced, except in full, without the written approval of Premier Scales & Systems.

*Chris Crawford*  
 04/25/22



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**Standard(s) Used**

<u>Kit/I.D. Number</u>	<u>Description</u>	<u>Traceability Number</u>	<u>Calibration Due</u>
2XQL	METRIC WORKING STANDARD KIT	3043900G	4/7/2024
306781	THERMOMETER, DIGITAL	111790	6/30/2022
BP-0581	BAROMETER, DIGITAL	CL053-31862-397	2/22/2024
EWS-RH	HYGROMETER, DIGITAL	CM101-53824-376	4/30/2023

**Procedure(s) Used**

<u>Procedure Number</u>	<u>Description</u>	<u>Revision Level</u>	<u>Revision Date</u>
NISTIR 6969 SOP 4	DOUBLE SUBSTITUTION	2019	5/31/2019

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