



# Mass Calibration Certificate



Certificate #: 106593

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.: **59445**  
Description: TEST WEIGHTS, STAINLESS STEEL  
Manufacturer: TROEMNER  
Denomination: KIT: (50 TO 1) G  
Class: ASTM CLASS 1  
Condition of Item(s) as Received: IN TOLERANCE

Serial Number: 59445  
Temp. / Humidity / Pressure: 20.20 °C / 28.4 % / 756.0 mmHg  
Performed By: Chris McCellhoney CMCELLHINEY  
Receive Date: 18-Jan-21  
Calibration Date: 19-Jan-21  
Calibration Due: **19-Jan-22**

**Comments**

Acclimated prior to calibration.

**Calibration Results**

Nominal / I.D.	Results	As Found	Tolerance ±	Uncertainty ±	Results	As Left	Assumed Density (g/cm <sup>3</sup> )
50 g	P	-0.031 mg	0.120 mg	0.020 mg	P	-0.031 mg	7.95
20 g	P	-0.0098 mg	0.0740 mg	0.0098 mg	P	-0.0098 mg	7.95
20 g	P	-0.0208 mg	0.0740 mg	0.0098 mg	P	-0.0208 mg	7.95
10 g	P	-0.0157 mg	0.0500 mg	0.0090 mg	P	-0.0157 mg	7.95
5 g	P	-0.0121 mg	0.0340 mg	0.0044 mg	P	-0.0121 mg	7.95
2 g	P	0.0087 mg	0.0340 mg	0.0033 mg	P	0.0087 mg	7.95
2 g	P	-0.0108 mg	0.0340 mg	0.0033 mg	P	-0.0108 mg	7.95
1 g	P	-0.0072 mg	0.0340 mg	0.0038 mg	P	-0.0072 mg	7.95

**Standard(s) Used**

Kit/I.D. Number	Description	Traceability Number	Calibration Due
2XQL	METRIC WORKING STANDARD KIT	3043900G	4/7/2024
306781	THERMOMETER, DIGITAL	98124	5/31/2021
BP-0581	BAROMETER, DIGITAL	CI047-29645-510	2/16/2021
EWS-RH	HYGROMETER, DIGITAL	94878	3/31/2021

**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

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 NIST recognized 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.

ANSI/NCSL Z540-1-1994: Part 1 &amp; ISO/IEC 17025 Compliant

*Chris McCellhoney* Page 1 of 2



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**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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- \*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  $\pm$  the uncertainty value overlaps the specification

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 NIST recognized 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.