

#### TEXAS DEPARTMENT OF AGRICULTURE

COMMISSIONER SID MILLER

Metrology Laboratory - 1258 CR 226 / P.O. Box 1518 - Giddings, Texas 78942 Phone: (979) 542-3231 - Fax: (888) 205-7741

> Calibration Number G-000009611

### CALIBRATION CERTIFICATE

For

5 - 1000 lb Weights 8 - 50 lb Weights 1 - Weight Kit

Submitted By

Bastrop Scale Company, Incorporated PO Drawer 2100 Bastrop, Texas 78602

The measurement results of the Texas Department of Agriculture, Giddings Metrology Laboratory are traceable to the International System of Units (SI) through the measurements at the National Institute of Standards and Technology (NIST) and are a part of comprehensive measurement assurance program for ensuring continuous accuracy and measurement traceability within the level of the uncertainty reported by this laboratory. The laboratory calibration number above is the unique report number to be used in referencing measurement traceability for artifacts identified in this certificate only. The data applies only to the artifacts identified in this certificate at the time of test. Calibration certificate shall not be reproduced, except in full, without written laboratory approval.

Received Date: 08/07/2025

Condition Received: Acceptable

Calibration Date: 08/08/2025 Calibration Due: 08/31/2026

Issue Date: 08/08/2025 Average Temperature: 21.23 °C

Average Humidity: 50.61 %

Procedure: NISTIR 6969, SOP No. 8, Modified Substitution (Rev. 2019) Mass Standards: Giddings Metrology Laboratory Mass Echelon III Standards

Only compliance with tolerance specifications were evaluated for items listed on this certificate (failing values are indicated in the table, if any.) The uncertainty of the measurement was taken into account when making this statement of compliance. The weights were not evaluated for conformance with technical requirements (design, construction, material, magnetism, density, surface finish and marking.) Tolerances were taken from NIST 105-1 (1990), ASTM E617 (2023) or OIML R111 (2004).

The combined standard uncertainty consists of both Type A and Type B components, including the standard uncertainty reported for the standard, the standard uncertainty for the measurement process, and a component of uncertainty to account for any observed deviations that have a significant effect on the calibration combined, using the root sum square method. Air buoyancy was considered negligible and was not included. The uncertainty does not include contribution due to magnetism or irregular conditions on the surface of the weights. The expanded uncertainty given is in compliance with BIPM JCGM 100:2008, Guide to the Expression of Uncertainty in Measurement (GUM), 2008 and follows NISTIR 6969, SOP 29 (2019), with a variable k (coverage factor) representing a 95.45 % confidence level.

Note:

A positive correction indicates that the weight is heavier than the stated nominal value. A negative correction indicates that the weight is lighter than the stated nominal value.

Conversions:

milligram (mg) to kilogram (kg): kg = mg / 1000000 milligram (mg) to gram (g): g = mg / 1000

milligram (mg) to pound (lb):  $lb = mg \times 0.000002204622621848776$ milligram (mg) to ounce (oz): oz =  $mg \times 0.00003527396194958041$ 

This certificate must not be used to claim product certification, approval, or endorsement by NVLAP, NIST, or any agency of the federal government.

Manager for Metrology Laboratory Agency Representative



Metrologist

Approved Signatory



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Calibration Date 08/08/2025

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Date Due 08/31/2026

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Observations:

Average Temperature: 21.23 °C

Average Humidity: 50.61 %

SOP Used: NISTIR 6969, SOP No. 8, Modified Substitution

The artifacts described below have been compared to the standards of the State of Texas and were found to have the following mass corrections:

			As Found Mass Correction ( mg )	As Left	Expanded Uncertainty ( mg )	k	Tolerance Class	Tolerance Status	Tolerance ( mg )
Nominal	Serial			Mass Correction ( mg )					
Value		ID#				factor			
1000 lb	BS622	-	-31600	-31600	6400	2.012	NIST F	In Tolerance	45000
1000 lb	BS6181	-	-33000	-33000	6400	2.012	NIST F	In Tolerance	45000
1000 lb	BS612	-	-26800	-26800	6400	2.012	NIST F	In Tolerance	45000
1000 lb	953101C	-	9500	9500	6400	2.012	NIST F	In Tolerance	45000
1000 lb	BS621	-	-37100	100] •	6400	2.012	NIST F	In Tolerance	45000
50 lb	BS116	-	-740	-740	320	2.003	NIST F	In Tolerance	2300
50 lb	BS134	-	-2160	10 •	320	2.003	NIST F	In Tolerance	2300
50 lb	BS6211	-	2450	40 •	320	2.003	NIST F	In Tolerance	2300
50 lb	BS47	-	-180	-180	320	2.003	NIST F	In Tolerance	2300
50 lb	BS138	-	-600	-600	320	2.003	NIST F	In Tolerance	2300
50 lb	BS6218		-2140	0 •	320	2.003	NISTF	In Tolerance	2300
50 lb	BS73	-	-200	-200	320	2.003	NIST F	In Tolerance	2300
50 lb	BS130		-1880	-20] •	320	2.003	NIST F	In Tolerance	2300
5 lb	21832	A	49	49	28	2.002	NIST F	In Tolerance	230
5 lb	21832	В	59	59	28	2.002	NIST F	In Tolerance	230
5 lb	21832	C	40	40	28	2.002	NIST F	In Tolerance	230
5 lb	21832	D	50	50	28	2.002	NIST F	In Tolerance	230
5 lb	21832	E	57	57	28	2.002	NIST F	In Tolerance	230
1 lb	21832	1	14.8	14.8	8.3	2.004	NIST F	In Tolerance	70
1 lb	21832	A	4.2	4.2	8.3	2.004	NISTF	In Tolerance	70
1 lb	21832	В	14.2	14.2	8.3	2.004	NISTF	In Tolerance	70
1 lb]	21832	C	2.4	2.4	8.3	2.004	NISTF	In Tolerance	70
1 lb į	21832	E	10.7	10.7	8.3	2.004	NISTF	In Tolerance	70
8 oz	21832	-	11.9	11.9	5.4	2.014	NISTF	In Tolerance	45
0.2 lb	21832	-	5.0	5.0	2.1	2.013	NIST F	In Tolerance	18
0.2 lb	21832	*	4.4	4.4	2.1	2.013	NIST F	In Tolerance	18
0.1 lb	21832		2.2	2.2	1.1	2.005	NIST F	In Tolerance	9.1
0.05 lb	21832	-	0.35	0.35	0.54	2.023	NIST F	In Tolerance	4.5
0.02 lb	21832	-	-1.30	-1.30	0.22	2.017	NISTF	In Tolerance	1.8
0.02 lb	21832	*	0.24	0.24	0.22	2.017	NISTF	In Tolerance	1.8

denotes a weight that was adjusted per NISTIR 6969, SOP 8.

Only compliance with tolerance specifications were evaluated for items listed on this certificate (failing values are indicated in the table, if any.) The uncertainty of the measurement was taken into account when making this statement of compliance. The weights were not evaluated for conformance with technical requirements (design, construction, material, magnetism, density, surface finish and marking.) Tolerances were taken from NIST 105-1 (1990), ASTM E617 (2023) or OIML R111 (2004).

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Lisa Corn

Manager for Metrology Laboratory
Agency Representative



Kirt Weyand
Metrologist
Approved Signatory

<sup>▲</sup> denotes a weight that was rejected.



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Calibration Date 08/08/2025

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Calibration Number G-000009611

**Date Due** 08/31/2026 Submitted by

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Average Temperature: 21.23 °C Average Humidity: 50.61 %

SOP Used: NISTIR 6969, SOP No. 8, Modified Substitution

The artifacts described below have been compared to the standards of the State of Texas and were found to have the following mass

Mamilian			As Found Mass Correction ( mg )	As Left		Expanded Uncertainty ( mg )	k factor	Tolerance Class	Tolerance Status	Tolerance ( mg )
Nominal				Mass Correction						
Value	Serial	ID#		( mg )						
0.01 lb	21832		0.57	0.57		0.18	2.022	NIST F	In Tolerance	1.5
0.005 lb	21832		0.52	0.52		0.15	2.013	NIST F	In Tolerance	1.2
0.002 lb	21832	-	0.44	0.44		0.11	2.023	NIST F	In Tolerance	0.87
0.002 lb	21832	*	0.41	0.41	1	0.11	2.023	NIST F	In Tolerance	0.87
0.001 lb	21832		0.234	0.234	I	0.084	2.024	NIST F	In Tolerance	0.7
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Manager for Metrology Laboratory Agency Representative

NVLAP Lab Code 600376-0

Kirt Weyand Metrologist Approved Signatory