

Agency of Agriculture Food & Markets
Consumer Protection Section
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Vermont Agriculture & Environmental Laboratory
Vermont Metrology Laboratory
163 Admin Drive
Randolph Center, VT 05061
802-828-2426

Vermont Metrology Laboratory Calibration Certificate

Submitted by:

Advanced Scale
13 Delta Drive Unit 6
Londonderry, NH 03053-2372
603-626-0242

Calibration Date: January 26, 2026
Date Received: January 23, 2026
Calibration Due: Not Specified
Manufacturer: Various
Serial Number: See Chart
Material: Cast Steel
Number of Pieces: 40 - 50 lb, 6 - 25 lb
Description: Cast Field Standards

The mass standard(s) described herein have been compared to the standards of the State of Vermont by NISTIR 6969, SOP 8 (2019), and have been found at time of calibration, or been adjusted, to meet the maximum permissible errors in ASTM E617-23 Standard Specification for Laboratory Weights and Precision Mass Standards. These mass standard(s) were found to have a conventional mass correction at the time of calibration as indicated in the following tabulation. Mass standards are considered within the MPE when the absolute value of the conventional mass correction plus the uncertainty is less than or equal to the specified MPE. Standards received with a conventional mass outside the MPE show a value in the "before adjustment" column.

Standards of the State of Vermont are metrologically traceable to the International System of Units (SI) and the National Institute of Standards and Technology (NIST). The Vermont Laboratory is recognized by NIST under the Laboratory Metrology Program at Mass Echelon III. SI conversion - 1 lb is equal to 0.453 592 37 kg

The uncertainties shown are expressed as the sum of the following sources; (1) Type A, random uncertainties determined by the standard deviation of the measurement process, and (2) Type B, systematic uncertainties relative to the reference standard and procedure used. Type A and Type B uncertainties are combined by the root sum squared method and multiplied by a coverage factor (k) for an approximate 95 % confidence interval.

Technician: Scott Dolan
Mass Comparator(s): MT XP64003L

Environmental Conditions During Calibration

Temperature: 21.7 °C to 21.7 °C
Relative Humidity: 43.7 % to 44.2 %
Barometric Pressure: 753 mmHg to 754 mmHg

Scott Dolan, Weights & Measures Specialist



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Nominal & Marking	Conventional Mass Correction Before Adjustment	Conventional Mass Correction As Left	Uncertainty	ASTM Class 6 MPE	Units	k Factor
50 lb 100		-1230	110	2300	mg	2.01
50 lb 101	-2510	130	110	2300	mg	2.01
50 lb 102	-5600	-110	110	2300	mg	2.01
50 lb 103		-880	110	2300	mg	2.01
50 lb 104	-2600	-170	110	2300	mg	2.01
50 lb 105	-3960	-40	110	2300	mg	2.01
50 lb 106		-670	110	2300	mg	2.01
50 lb 107		60	110	2300	mg	2.01
50 lb 108		-570	110	2300	mg	2.01
50 lb 109	-2470	60	110	2300	mg	2.01
50 lb 110	-2280	30	110	2300	mg	2.01
50 lb 111		-900	110	2300	mg	2.01
50 lb 112	-3120	120	110	2300	mg	2.01
50 lb 113	-2480	-20	110	2300	mg	2.01
50 lb 114	-2490	-70	110	2300	mg	2.01
50 lb 115		-1710	110	2300	mg	2.01
50 lb 116	-4220	100	110	2300	mg	2.01
50 lb 117		-590	110	2300	mg	2.01
50 lb 118		40	110	2300	mg	2.01
50 lb 119		-1180	110	2300	mg	2.01
50 lb 300		-260	110	2300	mg	2.01
50 lb 301		-1800	110	2300	mg	2.01
50 lb 302	-2350	-40	110	2300	mg	2.01
50 lb 303	-2350	220	110	2300	mg	2.01
50 lb 304		1380	110	2300	mg	2.01
50 lb 305		-180	110	2300	mg	2.01
50 lb 306	-3010	430	110	2300	mg	2.01
50 lb 307	-2700	-360	110	2300	mg	2.01
50 lb 308	-2820	140	110	2300	mg	2.01
50 lb 309		-1170	110	2300	mg	2.01
50 lb 310	-2110	60	110	2300	mg	2.01
50 lb 311		-1850	110	2300	mg	2.01
50 lb 312		-1090	110	2300	mg	2.01
50 lb 313	-2510	-220	110	2300	mg	2.01
50 lb 314		-1310	110	2300	mg	2.01
50 lb 315		-560	110	2300	mg	2.01
50 lb 316	-2660	280	110	2300	mg	2.01
50 lb 317	-3220	-170	110	2300	mg	2.01
50 lb 318	-2160	-50	110	2300	mg	2.01
50 lb 319	-3720	-200	110	2300	mg	2.01
25 lb 160	-1779	56	48	1100	mg	2.01
25 lb 161	-2294	41	48	1100	mg	2.01
25 lb 260	-1119	-539	48	1100	mg	2.01
25 lb 261	-1484	-74	48	1100	mg	2.01
25 lb 360		-44	48	1100	mg	2.01
25 lb 361		-634	48	1100	mg	2.01

MPE: Maximum Permissible Error

In addition to meeting ASTM E617-23 Class 6 MPE, all standard also meet NIST Class F Tolerance requiremnts.

The following weights were adjusted: 22 - 50 lb, 4 - 25lb



End of Certificate

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