

Vermont Weights and Measures Metrology Laboratory
Test Report

Issued To:

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

Date of Receipt: March 20, 2020

Vermont Test Number: VT20-105

Date of Test: March 23, 2020

Report of Test for Item (Make/Model/Serial Number(s)/#Pieces):

Various/Cast Class F Field Standards/See Chart/6 - 500 lb

The mass standards described above have been compared to the standards of the State of Vermont, by NISTIR 6969, SOP 8 (2019), and have been found at time of test, or been adjusted, to meet the tolerances stated in NIST Handbook 105-1 (1990) Specifications and Tolerances for Reference Standards and Field Standard Weights and Measures. Standards of the state of Vermont are traceable to the SI and National Institute of Standards and Technology (NIST). The Vermont Laboratory is recognized by NIST, under the Laboratory Metrology Program at Mass Echelon III. The mass standards described above were found to have a mass value at the time of test as indicated in the following tabulation. Weights are considered in tolerance when the absolute value of the conventional mass correction plus the uncertainty is less than or equal to the specified tolerance. Weights received in an out of tolerance condition show a value in the "before adjustment" column.

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

Environmental conditions at time of test:

Temperature: 21.8 °C to 21.9 °C

Relative Humidity: 45.1 % to 45.8 %

Barometric Pressure: 737.25 mmHg to 738.25 mmHg

Mass Comparator: MT XP604KM

Technician: Scott Dolan



Nominal & Marking	Before Adjustment	Conventional Mass Correction	Uncertainty	NIST Class F Tolerance	Units	<i>k</i> Factor
500 lb 136	18.0	-0.6	3.5	23	g	2.03
500 lb 137		0.0	3.5	23	g	2.03
500 lb 330		-4.7	3.5	23	g	2.03
500 lb 331	-17.3	-1.2	3.5	23	g	2.03
500 lb 332		-14.4	3.5	23	g	2.03
500 lb 333		-7.5	3.5	23	g	2.03

The following weights were adjusted: 2 - 500 lb

Calibration Performed at:
163 Admin Drive
Randolph Center, VT 05061

Additional documentation material available on request.

Scott Dolan

Digitally signed by Scott Dolan
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Scott Dolan/Vermont Agency of Agriculture
Consumer Protection Section/Metrologist
Consumer Protection Specialist

End of Report