



State of Wisconsin  
Governor Tony Evers

Department of Agriculture, Trade and Consumer Protection  
Bradley M. Pfaff, Secretary  
Wisconsin Weights and Measures Laboratory

**Calibration Certificate**  
**Statement of**  
**Uncertainty, Traceability, Limitations, and Conditions**  
*for calibration work performed for:*  
**A-1 SCALE COMPANY, INC.**

3287 SHERMAN WAY  
SLINGER  
WI  
53086  
(262) 677-3555

Date Received:	2/28/2019	State Test No.:	W19-078
Date of Calibration:	3/1/2019		
Date Due:	3/1/2021		

**Uncertainty Statement**

*For the weights used in this calibration, some components can be assessed through a Type A evaluation, the method for assessing uncertainty by a statistical analysis of measured quantity values obtained under defined measurement conditions. In addition, other components were assessed from a Type B evaluation of standard uncertainty, based on scientific judgement using all of the relevant information available. The combined standard uncertainties multiplied by those coverage factors specified in our standard calibration records, to provide an expanded uncertainty. This uncertainty defined an interval having a level of confidence of approximately 95 per cent, assuming normal distribution. The expanded uncertainty presented in this report is consistent with the ISO/IEC Guide to the Expression of Uncertainty in Measurement using the method Root Sum Squares (JCGM 100:2008).*

**Traceability Statement**

*The standards used by the Wisconsin State laboratory demonstrate an unbroken traceable chain to the International System of Units (SI) through the National Institute of Standards and Technology (NIST) and are part of a comprehensive measurement assurance program for ensuring continued accuracy and measurement traceability within the level of uncertainty reported by this laboratory. The laboratory maintains documented calibration intervals and uses documented procedures, all under the performance of trained personnel who demonstrate suitable measurement assurance for the information listed in this calibration report. The laboratory test number identified above is the unique report number to be used in referencing measurement traceability for the artifacts identified in this report. The State Standards are traceable to the SI unit for mass, the kilogram.*

**Limitations and Conditions Statement**

*These results relate only to the items calibrated in this report. Weights and weight carts are calibrated to NIST Handbook 105-1 (1990) and NIST Handbook 105-8 (2003), respectively, using NISTIR 6969. Selected Laboratory Measurement Practices and Procedures to Support Basic Mass Calibrations (2018), Class F tolerances are usable for testing commercial weighing devices in Wisconsin, following NIST Handbook 44, Specifications, Tolerances, and Other Technical Requirements for Weighing and Measuring Devices. Weights calibrated to ASTM tolerance 7 by this laboratory cannot be used for testing commercial weighing devices in Wisconsin, by definition (See NIST Handbook 105-1, Specification 1). Weight calibrated by ASTM Standard Specification E617-13 are not checked for density [Stainless steel weights are assumed 8.0 g/cm<sup>3</sup>, or for magnetism.*

The following standard(s) were used: Avoirdupois Weight Set WS-1

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*Paul Masterson*

Paul Masterson, Chief Metrologist



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**Calibration Certificate**

Date Received: February 28, 2019  
Date of Calibration: March 01, 2019  
Date Due: March 01, 2021

State Test No.: W19-078  
Item(s) Submitted: Weight Kit  
Manufacturer: Rice Lake  
Condition: Good

Customer: A-1 SCALE COMPANY, INC.  
Address: 3287 SHERMAN WAY  
SLINGER, WI 53086  
Contact: SCOTT KLESPPER  
Phone: (262) 677-3555  
PO Number: 11719-JP

Tolerance Class: NIST HB 105-1 (1990), Class F  
Kit Serial #: AI-WS1  
Balance ID#: 6&7  
Procedure Used: NISTIR 6969 (2018), SOP 8  
Temperature: 21.5 °C  
Relative Humidity: 45.9 %  
Pressure: 742.8 mmHg

Nominal Mass	Mass Unit	Serial No.	Conventional Mass As Found	Correction (mg) As Left	NIST HB 105-1 (1990), Class F As Found	As Left	Uncertainty (mg)	Coverage Factor (k)
5	lb	1	27	27	Pass	Pass	28	2.03
5	lb	2	16	16	Pass	Pass	28	2.03
5	lb	3	15	15	Pass	Pass	28	2.03
5	lb	4	29	29	Pass	Pass	28	2.03
5	lb	5	33	33	Pass	Pass	28	2.03
1	lb	1	18.3	18.3	Pass	Pass	8.4	2.03
1	lb	2	19.3	19.3	Pass	Pass	8.4	2.03
1	lb	3	14.3	14.3	Pass	Pass	8.4	2.03
1	lb	4	20.3	20.3	Pass	Pass	8.4	2.03
1	lb	5	18.3	18.3	Pass	Pass	8.4	2.03
0.5	lb		10.3	10.3	Pass	Pass	5.5	2.03
0.2	lb		6.9	6.9	Pass	Pass	2.1	2.03
0.2	lb	*	3.7	3.7	Pass	Pass	2.1	2.03
0.1	lb		0.1	0.1	Pass	Pass	1.1	2.03
0.05	lb		1.18	1.18	Pass	Pass	0.54	2.03
0.02	lb		-0.14	-0.14	Pass	Pass	0.22	2.03
0.02	lb	*	0.30	0.30	Pass	Pass	0.22	2.03
0.01	lb		0.55	0.55	Pass	Pass	0.18	2.03
0.005	lb		0.44	0.44	Pass	Pass	0.15	2.03
0.002	lb		0.11	0.11	Pass	Pass	0.11	2.03
0.002	lb	*	0.01	0.01	Pass	Pass	0.11	2.03
0.001	lb		0.347	0.347	Pass	Pass	0.092	2.03

The following standard(s) were used: Avoirdupois Weight Set WS-1

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*Paul Masterson*

Paul Masterson, Chief Metrologist