



State of Wisconsin
Governor Scott Walker

Department of Agriculture, Trade and Consumer Protection
Sheila E. Harsdorf, Secretary

Wisconsin Weights and Measures Laboratory

Calibration Certificate
Statement of
Uncertainty, Traceability, Limitations, and Conditions
for calibration work performed for:

FOX VALLEY INDUSTRIAL SCALE, INC.

109 FORD DR STE D
NEW LENOX
IL
60451-3669
(815) 463-1209

Date Received: 3/2/2018
Date of Test: 3/2/2018
Date Due:

State Test No.: W18-076

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 (2014). 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/cm³], or for magnetism.

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

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Paul Masterson, Chief Metrologist


Justin Lien, Laboratory Director



State of Wisconsin
Governor Scott Walker

Department of Agriculture, Trade and Consumer Protection
Sheila E. Harsdorf, Secretary

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Calibration Certificate

Date Received: March 02, 2018
Date of Test: March 02, 2018

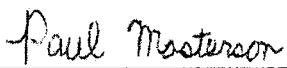
Customer: FOX VALLEY INDUSTRIAL SCALE, INC.
Address: 109 FORD DR STE D
NEW LENOX, IL 60451-3669
Contact: T J OEHMEN
Phone: (815) 463-1209
PO Number: TC001

State Test No.: W18-076
Item(s) Submitted: Weight Kit
Manufacturer: Rice Lake
Condition: Good
Tolerance Class: NIST HB 105-1 (1990), Class F
Kit Serial #: 082108C
Balance ID#: 7
Procedure Used: NISTIR 6969 (2014), SOP 8
Temperature: 22.2 °C
Relative Humidity: 48.7 %
Pressure: 749.1 mmHg

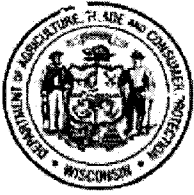
Nominal Mass	Mass Unit	Serial No.	Conventional Mass Correction (mg)		NIST HB 105-1 (1990), Class F		Uncertainty (mg)	Coverage Factor (k)
			As Found	As Left	As Found	As Left		
8	oz	1	14.2	14.2	Pass	Pass	5.6	2.06
8	oz	2	7.2	7.2	Pass	Pass	5.6	2.06
8	oz	3	12.2	12.2	Pass	Pass	5.6	2.06
8	oz	4	19.2	19.2	Pass	Pass	5.6	2.06
8	oz	5	15.2	15.2	Pass	Pass	5.6	2.06
8	oz	6	8.2	8.2	Pass	Pass	5.6	2.06
8	oz	7	15.2	15.2	Pass	Pass	5.6	2.06
8	oz	8	17.2	17.2	Pass	Pass	5.6	2.06
8	oz	9	10.2	10.2	Pass	Pass	5.6	2.06
8	oz	10	13.2	13.2	Pass	Pass	5.6	2.06
8	oz	11	7.2	7.2	Pass	Pass	5.6	2.06
8	oz	12	15.2	15.2	Pass	Pass	5.6	2.06

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

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109 FORD DR STE D
NEW LENOX
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(815) 463-1209

Date Received: 3/2/2018
Date of Test: 3/2/2018
Date Due:

State Test No.: W18-076

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

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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 (2014). 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/cm³], or for magnetism.

The following standard(s) were used: 1000 lb: 392

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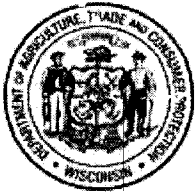
Paul Masterson

Paul Masterson, Chief Metrologist

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Justin Lien

Justin Lien, Laboratory Director



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Wisconsin Weights and Measures Laboratory

Calibration Certificate

Date Received: March 02, 2018
Date of Test: March 02, 2018


State Test No.: W18-076
Item(s) Submitted: Cast Weight
Manufacturer: Rice Lake
Condition: Good
Tolerance Class: NIST HB 105-1 (1990), Class F
Kit Serial #:
Balance ID#: 10
Procedure Used: NISTIR 6969 (2014), SOP 8
Temperature: 18.9 °C
Relative Humidity: 45.1 %
Pressure: 749.8 mmHg

Customer: FOX VALLEY INDUSTRIAL SCALE, INC.
Address: 109 FORD DR STE D
NEW LENOX, IL 60451-3669
Contact: T J OEHMEN
Phone: (815) 463-1209
PO Number: TC001

Nominal Mass	Mass Unit	Serial No.	Conventional Mass Correction (mg)		NIST HB 105-1 (1990), Class F		Uncertainty (mg)	Coverage Factor (k)
			As Found	As Left	As Found	As Left		
1000	lb	001	5,740	5,740	Pass	Pass	5600	2.01
1000	lb	002	61,840	2,240	Fail	Pass	5600	2.01

The following standard(s) were used: 1000 lb: 392

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State Test No.: W18-076

Uncertainty Statement

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Traceability Statement

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Limitations and Conditions Statement

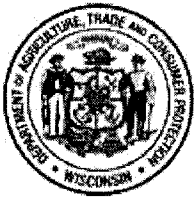
These results relate only to the items calibrated in this report. Weights and weight carts are calibrated to NIST Handbook 105-1 (1990) and NIST Handbook 105-8 (2003), respectively, using NISTIR 6969: Selected Laboratory Measurement Practices and Procedures to Support Basic Mass Calibrations (2014). 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/cm³], or for magnetism.

The following standard(s) were used: 2500 lb: 18987-10, 500 lb: 90499

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Date Received: March 02, 2018
Date of Test: March 02, 2018

State Test No.: W18-076
Item(s) Submitted: Weight Cart
Manufacturer: Dunbar
Condition: Good
Tolerance Class: NIST HB 105-8 (2003)
Kit Serial #:
Balance ID#: 11
Procedure Used: NISTIR 6969 (2014), SOP 33
Temperature: 18.9 °C
Relative Humidity: 44.6 %
Pressure: 749.5 mmHg

Customer: FOX VALLEY INDUSTRIAL SCALE, INC.
Address: 109 FORD DR STE D
NEW LENOX, IL 60451-3669
Contact: T J OEHMEN
Phone: (815) 463-1209
PO Number: TC001

Nominal Mass	Mass Unit	Serial No.	Conventional Mass Correction (lb)		NIST 105-8 Tolerance:		Uncertainty (lb)	Coverage Factor (k)
			As Found	As Left	As Found	As Left		
3000	lb	082108C	3.69	0.08	Fail	Pass	0.19	2.50

The following standard(s) were used: 2500 lb: 18987-10, 500 lb: 90499

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