

CERTIFICATE OF ACCREDITATION

The ANSI National Accreditation Board

Hereby attests that

Worcester Scale Company, Inc.

228 Brooks Street Worcester, MA 01606

Fulfills the requirements of

ISO/IEC 17025:2017

In the field of

CALIBRATION

This certificate is valid only when accompanied by a current scope of accreditation document. The current scope of accreditation can be verified at www.anab.org.

Jason Stine, Vice President

Expiry Date: 09 April 2025 Certificate Number: AC-1266





SCOPE OF ACCREDITATION TO ISO/IEC 17025:2017

Worcester Scale Company, Inc.

228 Brooks Street
Worcester, MA 01606
Steven Hoogasian 508-853-2886

CALIBRATION

Valid to: April 9, 2025 Certificate Number: AC-1266

Mass and Mass Related

Parameter/Equipment	Range	Expanded Uncertainty of Measurement (+/-)	Reference Standard, Method, and/or Equipment
Analytical Balances 1,2 (SI)	Up to 20 g	45 μg	ASTM E617
	(21 to 60) g	0.15 mg	Class 0 Weights and
	(61 to 120) g	0.23 mg	NIST Handbook 44
	(121 to 210) g	0.34 mg	utilized in the calibration
	(211 to 500) g	0.75 mg	of the weighing system.
Class I Balances ^{1,2} (SI)	Up to 20 g	87 μg	
	(21 to 60) g	0.23 mg	ASTM E617 Class 1 Weights and NIST Handbook 44 utilized in the calibration of the weighing system.
	(61 to 120) g	0.4 mg	
	(121 to 210) g	0.65 mg	
	(211 to 500) g	1.8 mg	
	(511 to 1 000) g	3.1 mg	
	(1 001 to 2 000) g	6.3 mg	
	(2 001 to 5 000) g	19 mg	
	(5 001 to 10 000) g	31 mg	
	(10 001 to 16 000) g	48 mg	A CTIM E C 17
Class II Scales/Balances 1,2 (SI)	Up to 100 g	0.58 mg	ASTM E617
	(101 to 500) g	2.9 mg	Class 2 Weights and
	(501 to 1 000) g	5.8 mg	NIST Handbook 44
	(1 001 to 5 000) g	29 mg	utilized in the calibration
	(5 001 to 8 000) g	47 mg	of the weighing system.





Mass and Mass Related

Parameter/Equipment	Range	Expanded Uncertainty of Measurement (+/-)	Reference Standard, Method, and/or Equipment
Class III Scales ^{1,2} (Avoirdupois)	Up to 10 lb (11 to 15) lb (16 to 30) lb (31 to 50) lb (51 to 100) lb (101 to 500) lb (501 to 1 000) lb (1 001 to 5 000) lb (5 001 to 10 000) lb (10 000 to 20 000) lb	0.001 7 lb 0.002 9 lb 0.007 lb 0.008 3 lb 0.017 lb 0.083 lb 0.17 lb 0.83 lb 1.7 lb 3.3 lb	NIST Class F Weights and NIST Handbook 44 utilized in the calibration of the weighing system.
Class III Scales ^{1,2} (SI)	Up to 1 000 g (1 001 to 2 000) g (2 001 to 5 000) g (5 001 to 10 000) g (10 001 to 20 000) g (20 001 to 50 000) g (50 001 to 100 000) g (100 001 to 200 000) g (200 001 to 300 000) g	0.12 g 0.24 g 0.59 g 1.2 g 2.4 g 5.9 g 12 g 24 g 35 g	NIST Class F Weights and NIST Handbook 44 utilized in the calibration of the weighing system.
Crane Scales ^{1,2} (Avoirdupois)	Up to 10 lb (11 to 50) lb (51 to 100) lb (101 to 500) lb (501 to 1 000) lb (1 001 to 2 000) lb (2 001 to 5 000) lb (5 001 to 10 000) lb (10 001 to 20 000) lb	0.001 7 lb 0.008 3 lb 0.013 lb 0.083 lb 0.17 lb 0.33 lb 15 lb 29 lb 59 lb	NIST Class F Weights up to 2 500 lb, Load Tester up to 20 000 lb and internal calibration procedure WSC -073 utilized in the calibration of the weighing system.
Class III L Scales ^{1,2} (Avoirdupois)	Up to 200 000 lb	24 lb	NIST Class F Weights, Weight Cart and NIST Handbook 44 utilized in the calibration of the weighing system.
Force Gages ¹	Up to 10 lb (10 to 50) lb (50 to 100) lb (100 to 500) lb (500 to 1 000) lb (1 000 to 2 000) lb	0.001 7 lb 0.008 3 lb 0.013 lb 0.083 lb 0.17 lb 0.33 lb	NIST Class F Weights and internal calibration procedure WSC -072 utilized in the calibration of the force gage.





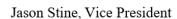
Mass and Mass Related

Parameter/Equipment	Range	Expanded Uncertainty of Measurement (+/-)	Reference Standard, Method, and/or Equipment
Mass Determination – Class F (SI)	$ \leq 2 g $ $ 10 g $ $ 20g $ $ 50g $ $ 100 g $ $ 200 g $ $ 500 g $ $ 1 000 g $ $ 2 000 g $ $ 5 000 g $ $ 10 000 g $ $ 20 000 g $ $ 25 000 g $	0.12 mg 0.12 mg 0.12 mg 0.12 mg 0.14 mg 0.19 mg 0.31 mg 11.7 mg 11.9 mg 13 mg 18.1 mg 31 mg 79 mg 0.1 g	Substitution Method per WSC-020 (based on NIST SOP 4) using Reference Weights and Balances.
Mass Determination – Class F (Avoirdupois)	≤ 1 lb 5 lb 10 lb 20 lb 25 lb 50 lb	0.000 07 oz 0.000 3 oz 0.000 5 oz 0.001 oz 0.002 oz 0.004 oz	Substitution Method per WSC-020 (based on NIST SOP 4) using Reference Weights and Balances.

Calibration and Measurement Capability (CMC) is expressed in terms of the measurement parameter, measurement range, expanded uncertainty of measurement and reference standard, method, and/or equipment. The expanded uncertainty of measurement is expressed as the standard uncertainty of the measurement multiplied by a coverage factor of 2 (k=2), corresponding to a confidence level of approximately 95%.

Notes:

- 1. On-site calibration service is available for this parameter, since on-site conditions are typically more variable than those in the laboratory, larger measurement uncertainties are expected on-site than what is reported on the accredited scope.
- 2. The CMC for scales and balances is highly dependent upon the resolution of the unit under test. The CMC presented here does not include the resolution of the unit under test. The resolution will be included in the reported measurement uncertainty at the time of calibration.
- 3. This scope is formatted as part of a single document including Certificate of Accreditation No. AC-1266.



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