



CERTIFICATE OF ACCREDITATION

ANSI-ASQ National Accreditation Board

500 Montgomery Street, Suite 625, Alexandria, VA 22314, 877-344-3044

This is to certify that

Alpha-Liberty Company, Inc.
7185 Liberty Centre Drive, Suite E
West Chester, OH 45069

has been assessed by ANAB
and meets the requirements of international standard

ISO/IEC 17025:2005

while demonstrating technical competence in the field(s) of

CALIBRATION

Refer to the accompanying Scope(s) of Accreditation for information regarding the types of calibrations to which this accreditation applies.

AC-1127

Certificate Number

ANAB Approval

Certificate Valid To: 09/27/2017
Version No. 001 Issued: 05/14/2015



This laboratory is accredited in accordance with the recognized International Standard ISO/IEC 17025:2005. This accreditation demonstrates technical competence for a defined scope and the operation of a laboratory quality management system (refer to joint ISO-ILAC-IAF Communiqué dated January 2009).



ANSI-ASQ National Accreditation Board

SCOPE OF ACCREDITATION TO ISO/IEC 17025:2005

Alpha-Liberty Company, Inc.

7185 Liberty Centre Drive, Suite E, West Chester, Ohio 45069
 Bernd Rau Phone: 513-777-1525

CALIBRATION

Valid to: September 27, 2017

Certificate Number: AC-1127

I. Mechanical

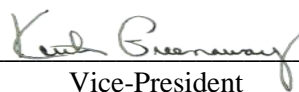
PARAMETER / EQUIPMENT	RANGE	CALIBRATION AND MEASUREMENT CAPABILITY [EXPRESSED AS UNCERTAINTY(±)]	REFERENCE STANDARD OR EQUIPMENT	METHOD(S)
Mass	1 mg to 5 g (2 to 5) g	0.0024 mg 0.0043 mg	Class 1 Weights, Microbalance 0.000 000 1 g	Double Substitution ASTM E617-97 NIST Handbook 105-1
Mass	(5 to 10) g (10 to 50) g (50 to 200) g	0.008 mg 0.022 mg 0.04 mg	Class 1 Weights, Semi-Micro Balance 0.000 001 g	Double Substitution ASTM E617-97 NIST Handbook 105-1
Mass	(200 to 500) g (500 to 1 000) g	0.165 mg 0.233 mg	Class 1 Weights, Analytical Balance 0.0001 g	Double Substitution ASTM E617-97 NIST Handbook 105-1
Mass	(1 000 to 2 000) g (2 000 to 10 000) g	1.51 mg 1.85 mg 2.56 mg	Class 1 Weights, Precision Balance 0.001 g	Double Substitution ASTM E617-97 NIST Handbook 105-1
Mass	(10 000 to 20 000) g (20 000 to 50 000) g (50 000 to 60 000) g	17.5 mg 29.4 mg 47.8 mg	Class 1 Weights, High Capacity Balance 0.01 g	Double Substitution ASTM E617-97 NIST Handbook 105-1
Balances	Up to 2 g (2 to 5) g (5 to 50) g	0.0071 mg 0.013 mg 0.067 mg	Class 1 Weights	Manufacturer Procedure
Balances	Up to 200 g	0.113 mg	Class 1 Weights	Manufacturer Procedure



PARAMETER / EQUIPMENT	RANGE	CALIBRATION AND MEASUREMENT CAPABILITY [EXPRESSED AS UNCERTAINTY(±)]	REFERENCE STANDARD OR EQUIPMENT	METHOD(S)
Balances	Up to 1 000 g	0.7 mg	Class 1 Weights	Manufacturer Procedure
Balances	Up to 10 000 g	16.1 mg	Class 1 Weights	Manufacturer Procedure
Balances	Up to 60 000 g	188 mg	Class 1 Weights	Manufacturer Procedure
Scales	Up to 200 kg	4.8 g	Class 4 Weights	Manufacturer Procedure, NIST Handbook 44
Scales	Up to 30 lb	1.7 g	Class F Weights	Manufacturer Procedure NIST Handbook 44
Scales	Up to 500 lb	27.9 g	Class F Weights	Manufacturer Procedure NIST Handbook 44
Balances Minimum Sample Quantity	Up to 60 kg	< 0.10 % of reading	ASTM Class 1 Weights	USP 41 ANSI/ASTM E617

Notes:

1. Calibration and Measurement Capabilities (Expanded Uncertainty) are based on approximately a 95% confidence interval, using a coverage of $k=2$
2. The uncertainty associated when calibrating a balance/scale is dependent on local conditions, such as the resolution of the unit being calibrated and the environment in which the balance/scale is operating. The uncertainty listed in the scope here represents the best uncertainty for a balance/scale which the organization typically calibrates in its lab. Since field (on-site) conditions are typically more variable than those in the laboratory, larger measurement uncertainties are expected in the field (on-site) than what is reported on the accredited scope.
3. This scope is formatted as part of a single document including the Certificate of Accreditation No. AC-1127



Vice-President