

PERRY JOHNSON LABORATORY ACCREDITATION, INC.

Certificate of Accreditation

Perry Johnson Laboratory Accreditation, Inc. has assessed the Laboratory of:

Charles S. Freeman Company, Inc.

3755 Harlem Road, Buffalo, NY 14215 5858 East Molloy Road, Suite #108, Syracuse, NY 13211

(Hereinafter called the Organization) and hereby declares that Organization is accredited in accordance with the recognized International Standard:



This accreditation demonstrates technical competence for a defined scope and the operation of a laboratory quality management system (as outlined by the joint ISO-ILAC-IAF Communiqué dated April 2017):

Buffalo Facility: Calibration of Weighing Devices (Bench Scales, Platform Scales, Truck Scales, Railroad Scales, Count/Weight Scales, Cranes Scales, Price Computing Scales, Track Scales, Laboratory Balances, Precision Laboratory Balances, Industrial Balances), Force Measuring Devices and Mass (Standard Test Weights); Syracuse Facility: Calibration of Weighing Devices Only (As detailed in the supplement)

Accreditation claims for such testing and/or calibration services shall only be made from addresses referenced within this certificate. This Accreditation is granted subject to the system rules governing the Accreditation referred to above, and the Organization hereby covenants with the Accreditation body's duty to observe and comply with the said rules.

For PJLA:

Tracy Szerszen President/Operations Manager

Perry Johnson Laboratory Accreditation, Inc. (PJLA) 755 W. Big Beaver, Suite 1325 Troy, Michigan 48084

Issue Date:	Expiration Date:	
August 3, 2019	August 3, 2021	
creditation No:	Certificate No:	
59083	L19-389	
	August 3, 2019 preditation No:	

The validity of this certificate is maintained through ongoing assessments based on a continuous accreditation cycle. The validity of this certificate should be confirmed through the PJLA website: <u>www.pjlabs.com</u>



Certificate of Accreditation: Supplement

Charles S. Freeman Company, Inc.

3755 Harlem Road, Buffalo, NY 14215 5858 East Molloy Road, Suite #108, Syracuse, NY 13211 Contact Name: Richard Freeman Phone: 716-836-3801

Accreditation is granted to the facility to perform the following calibrations:

MEASURED INSTRUMENT, QUANTITY OR GAUGE	RÂNGE OR NOMINAL DEVICE SIZE AS APPROPRIATE	CALIBRATION AND MEASUREMENT CAPABILITY EXPRESSED AS AN UNCERTAINTY (±)	CALIBRATION EQUIPMENT AND REFERENCE STANDARDS USED
Scales ^{FO}	1 lb to 10 lb	$(1.12 \text{ x } 10^{-3} + 5.2 \text{ x } 10^{-5} \text{ Wt}) \text{ lb}$	NIST Class F Weights NIST Handbook 44
	10 lb to 100 lb	$(1.1 \text{ x } 10^{-2} + 5.3 \text{ x } 10^{-5} \text{ Wt}) \text{ lb}$	
	100 lb to 1 000 lb	$(1.16 \text{ x } 10^{-1} + 1 \text{ x } 10^{-6} \text{ Wt}) \text{ lb}$	
	1 000 lb to 120 000 lb	$(23.093 4 + 3.2 \times 10^{-5} \text{ Wt}) \text{ lb}$	
Balances ^{FO}	1 mg to 12 kg	$(1.6 \text{ x } 10^{-1} + 3 \text{ x } 10^{-6} \text{ Wt}) \text{ mg}$	ASTM Class 1 Weights NIST Handbook 44
High Resolution Scales ^{FO}	12 kg to 300 kg	0.002 % of reading	ASTM Class 4 Weights NIST HB 44
Force Measurement (Compression/Tension) ^{FO}	0.5 lbf to 100 lbf	0.01 lbf	ASTM Class 4 Weights ASTM E74-06
	100 lbf to 10 000 lbf	2.5 lbf	FI – 127 / Load Cells ASTM E74-06
Class F Test Weights ^{FO}	0.05 lb	1.7 x 10 ⁻⁷ lb	ASTM Class 1 Weights
	0.1 lb	2.7 x 10 ⁻⁷ lb	NIST Handbook 105-1
	0.2 lb	5.6 x 10 ⁻⁷ lb	
	0.5 lb	1.1 x 10 ⁻⁶ lb	
	1 lb	2.7 x 10 ⁻⁶ lb	\supset
	2 lb	5.6 x 10 ⁻⁶ lb	
	5 lb	1.1 x 10 ⁻⁵ lb	
	10 lb	2.7 x 10 ⁻⁵ lb	
	25 lb	5.6 x 10 ⁻⁵ lb	
	50 lb	1.4 x 10 ⁻⁴ lb	
ASTM Class 4 Test Weights ^{FO}	0.2 lb	5.6 x 10 ⁻⁷ lb	ASTM Class 1 Weights
	0.5 lb	1.1 x 10 ⁻⁶ lb	ASTM E617-97 (2008)
	1 lb	2.7 x 10 ⁻⁶ lb	
	2 lb	5.6 x 10 ⁻⁶ lb	
	5 lb	1.1 x 10 ⁻⁵ lb	
	10 lb	2.7 x 10 ⁻⁵ lb	
	25 lb	5.6 x 10 ⁻⁵ lb	
	50 lb	1.4 x 10 ⁻⁴ lb	

Mass, Force, and Weighing Devices



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Accreditation is granted to the facility to perform the following calibrations:

- 1. Syracuse facility accreditation is for the calibration of weighing devices only.
- 2. The CMC (Calibration and Measurement Capability) stated for calibrations included on this scope of accreditation represents the smallest measurement uncertainty attainable by the laboratory when performing a more or less routine calibration of a nearly ideal device under nearly ideal conditions. It is typically expressed at a confidence level of 95 % using a coverage factor k (usually equal to 2). The actual measurement uncertainty associated with a specific calibration performed by the laboratory will typically be larger than the CMC for the same calibration since capability and performance of the device being calibrated and the conditions related to the calibration may reasonably be expected to deviate from ideal to some degree.
- 3. The laboratories range of calibration capability for all disciplines for which they are accredited is the interval from the smallest calibrated standard to the largest calibrated standard used in performing the calibration. The low end of this range must be an attainable value for which the laboratory has or has access to the standard referenced. Verification of an indicated value of zero in the absence of a standard is common practice in the procedure for many calibrations but by its definition it does not constitute calibration of zero capacity.
- 4. The presence of a superscript FO means that the laboratory performs calibration of the indicated parameter both at its fixed location and onsite at customer locations. Example: Outside Micrometer^{FO} would mean that the laboratory performs this calibration at its fixed location and onsite at customer locations.
- 5. Measurement uncertainties obtained for calibrations performed at customer sites can be expected to be larger than the measurement uncertainties obtained at the laboratories fixed location for similar calibrations. This is due to the effects of transportation of the standards and equipment and upon environmental conditions at the customer site which are typically not controlled as closely as at the laboratories fixed location.
- 6. The term Wt represents weight in pounds or grams (including SI multiple and submultiple units) appropriate to the uncertainty statement.