

PERRY JOHNSON LABORATORY ACCREDITATION, INC.

Certificate of Accreditation

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

S&J Carolina Scale Company

1236 Barkley Road, Statesville, NC 28677

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

ISO/IEC 17025:2017

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):

Dimensional, Mass, Force, and Weighing Devices, Mechanical, Electrical and Thermodynamic Calibration (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

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

Initial Accreditation Date: May 13, 2016

April 21, 2023

Certificate No.:

Issue Date:

Expiration Date: May 31, 2025

Accreditation No. 91017

L23-327

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: www.pjlabs.com



Certificate of Accreditation: Supplement

S&J Carolina Scale Company

1236 Barkley Road, Statesville, NC 28677 Contact Name: Kirk Lawton Phone: 704-838-6767

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

Dimensional			
MEASURED INSTRUMENT, QUANTITY OR GAUGE	RANGE OR NOMINAL DEVICE SIZE AS APPROPRIATE	CALIBRATION AND MEASUREMENT CAPABILITY EXPRESSED AS AN UNCERTAINTY (±)	CALIBRATION EQUIPMENT AND REFERENCE STANDARDS USED
Calipers FO	Up to 12 in	600 µin	AS-1 Gage Blocks
	12.001 in. to 36 in	0.001 2 in	SJC-010
Micrometers FO	Up to 12 in	60 µin	AS-1 Gage Blocks
	12.000 5 to 24.000	600 μin.	SJC-011
Dial & Digital Indicators FO	Up to 1 inch	0.0012 in.	AS-1 Gage Blocks SJC-012
Height Gages FO	Up to 12 in.	600 μin.	AS-1 Gage Blocks
	12.001 in. to 36 in.	0.001 2 in	SJC-013
Rules & Tapes ^{FO}	Up to 24 in	0.005 6 in	Caliper SJC-018

Mass, Force, and Weighing Devices

MEASURED INSTRUMENT,	RANGE OR NOMINAL	CALIBRATION AND	CALIBRATION
QUANITY OR GAUGE	APPROPRIATE	EXPRESSED	AND REFERENCE
		AS AN UNCERTAINTY (±)	STANDARDS USED
Top Loaders ^{FO}	0.05 g to 20 kg	$(5.8 \text{ x } 10^{-3} + 2.22 \text{ x } 10^{-5} \text{Wt}) \text{ kg}$	NIST Handbook
	(Res. = 0.01 g)		44 & Class F Weights
Bench Scales FO	0.001 lb to 10 lb	$(1.2 \text{ x } 10^{-3} + 4.72 \text{ x } 10^{-5} \text{Wt}) \text{ lb}$	
	(Res = 0.001 lb)		
	0.01 lb to 100 lb	$(1.16 \text{ x } 10^{-2} + 4.72 \text{ x } 10^{-5} \text{Wt}) \text{ lb}$	
	(Res = 0.01 lb)		
Floor Scales FO	2 lb to 2 000 lb	$(5.77 \text{ x } 10^{-1} + 2.23 \text{ x } 10^{-5} \text{Wt}) \text{ lb}$	
	(Res. = 0.5 lb)		
	2 lb to 5 000 lb	(5.77 x 10 ⁻¹ + 4.78 x 10 ⁻⁵ Wt) lb	
	(Res = 0.5 lb)		
	8 lb to 10 000 lb	$(2.309 \ 2 + 2.73 \ x \ 10^{-5} \text{Wt}) \ \text{lb}$	
	(Res = 2 lb)		
	20 lb to 20 000 lb	$(5.773 \ 1 + 2.23 \ x \ 10^{-5} \text{Wt}) \ \text{lb}$	
	(Res = 5 lb)		
Crane Scale FO	20 lb to 30 000 lb	$(1.15 + 8.35 \text{ x } 10^{-5} \text{Wt}) \text{ lb}$	
Class 1 Scales FO	0.000 1 g to 350 g	$(2.00 \text{ x} 10^{-4} + 5.22 \text{ x} 10^{-6} \text{Wt}) \text{ g}$	NIST Handbook 44
			ASTM Class 2 Weights



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

Mechanical			
MEASURED INSTRUMENT, QUANTITY OR GAUGE	RANGE OR NOMINAL DEVICE SIZE AS APPROPRIATE	CALIBRATION AND MEASUREMENT CAPABILITY EXPRESSED AS AN UNCERTAINTY (±)	CALIBRATION EQUIPMENT AND REFERENCE STANDARDS USED
Pressure Gauges FO	5 psi to 2 500 psi	1.1 psi	Additel 680 10 K Pressure
	2 500 psi to 5 000 pdi	1.2 psi	Gauge SJC-015
	5 000 psi to 7 500 psi	1.3 psi	
	7 500 psi to 10 000 psi	1.4 psi	
Torque Wrenches FO	5 lbf·in to 150 lbf·in	1.2 % of reading	Snap-on TBT 600
	100 lbf·ft to 600 lbf·ft	1.2 % of reading	150 lbf in Transducer RM- 6148 S/N: 1254
			600 Ibf. ft. transducer RM- 6147 S/N: 1059 SJC-016
Equipment to Measure Compression ^{FO}	1.0 lbf to 1 000 lbf	0.66 lbf	Class F Weights SJC-023
	1.0 lbf to 1 000 lbf	1.4 lbf.	S-Type Load Cells SJC-021
Equipment to Measure Tension ^{FO}	1.0 lbf to 1 000 lbf	0.66 lbf	Class F Weights
	1 000.5 lbf. to 5 000 lbf	1.2 lbf	SJC-023
	5 001 lbf. to 10 000 lbf	2.4 lbf	
	1.0 lbf to 1 000 lbf	1.4lbf	S-Type Load Cells
	1 000.5 lbf. to 5 000 lbf.	2.5 lbf	SJC-021
	5 001 lbf. to 10 000 lbf.	4.9 lbf	

Electrical			
MEASURED INSTRUMENT, QUANTITY OR GAUGE	RANGE OR NOMINAL DEVICE SIZE AS APPROPRIATE	CALIBRATION AND MEASUREMENT CAPABILITY EXPRESSED AS AN UNCERTAINTY (±)	CALIBRATION EQUIPMENT AND REFERENCE STANDARDS USED
Temperature Calibration, Indication and Control Equipment used with Thermocouple Type K ^{FO}	-200 °C to 1 370 °C	0.13 ℃	Fluke 724 SJC-030 & SJC-031
Temperature Calibration,	-200 °C to 200 °C	0.13 °C	
Indication and Control Equipment used with Thermocouple Type J ^{FO}	200.1 °C to 750 °C	0.14 °C	
Temperature Calibration, Indication and Control Equipment used with Thermocouple Type T ^{FO}	-250 °C to 400 °C	0.13 ℃	



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

Thermodynamic			
MEASURED INSTRUMENT,	RANGE OR NOMINAL DEVICE	CALIBRATION AND	CALIBRATION
QUANTITY OR GAUGE	SIZE AS APPROPRIATE	MEASUREMENT	EQUIPMENT
		CAPABILITY EXPRESSED	AND REFERENCE
		AS AN UNCERTAINTY (±)	STANDARDS USED
Digital & Dial	33 °C to 300 °C	0.58 °C	Thermoworks THS-271-
Thermometers ^{FO}	(92 °F to 572 °F)	1.04 °F	3XX Dryblock
			SJC-032
Oven ^{FO}	Up to 1 370 °C	3.1 °C	Fluke 724
System Accuracy			SJC -030

- 1. 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 the 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.
- 2. 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.
- 3. 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.
- 4. Measurement uncertainties obtained for calibrations performed at customer sites can be expected to be larger than the measurement uncertainties obtained at the laboratory's 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 laboratoryries fixed location.
- 5. The term Wt represents weight in pounds or grams (including SI multiple and submultiple units) appropriate to the uncertainty statement.