PERRY JOHNSON LABORATORY ACCREDITATION, INC.

Certificate of Accreditation

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

A.K.O., Inc.

50 Baker Hollow Rd, Windsor, CT 06095

and hereby declares that the Organization is accredited in accordance with the recognized International Standard:

ISO/IEC 17025:2017

Whereby, technical competence has been confirmed for the associated scope supplement, in the fields of:

Dimensional, Mass, Force & Weighing and Mechanical Calibration

(As detailed in the supplement)

Accreditation claims for conformity assessment activities shall only be made from the addresses referenced within this certificate and shall apply solely to those activities identified in the related scope. This Accreditation is granted subject to the Accreditation Body rules governing the Accreditation referred to above, and the Organization hereby commits to observing and complying with those rules in their entirety.

For PJLA:

Tracy Szerszen
President

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

Initial Accreditation Date:	*Issue Date:*	*Expiration Date:*
February 4, 2015	January 07, 2025	February 28, 2027

Accreditation No.:	*Certificate No.:*
79689	L25-27

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

A.K.O., Inc.

50 Baker Hollow Rd, Windsor, CT 06095
Contact Name: Brian Kery Phone: 860-298-9765

Accreditation is granted to the facility to perform the following conformity assessment activities:

FIELD OF CALIBRATION	MEASURED INSTRUMENT, QUANTITY OR GAUGE	RANGE (AND SPECIFICATION WHERE APPROPRIATE)	CALIBRATION AND MEASUREMENT CAPABILITY EXPRESSED AS AN UNCERTAINTY (±)	CALIBRATION EQUIPMENT AND REFERENCE STANDARDS USED	CALIBRATION MEASUREMENT METHOD OR PROCEDURES USED	LOCATION OF ACTIVITY
Mechanical	Pressure Transducers	20 psi to 10 000 psi	0.03 % of reading	AMETEK Precision Dead Weight Testers[9] with Certified Weights	WI-103 ASTM-F2070-00	F
	Torque Drivers	2 ozf·in to 240 lbf·in	1.8 % of reading	TSD Torque Master Calibration Systems[7] with TSD Transducers	WI-102 ASME B107.300 ISO 6789	F
	Torque Multipliers	200 lbf·ft to 150 000 lbf·ft	1.7 % of reading			
	Torque Transducers	70 gf·cm to 23 000 gf·cm	0.013 % of reading	TSD Calibration Arms & NIST Class "F" or ASTM equivalent Weights[6]	WI-101 ASTM/ANSI E 2624 ASTM/ANSI E 2428	FO
		1 ozf·in to 320 ozf·in	0.013 % of reading			
		0.2 lbf·in to 20 lbf·in	0.013 % of reading			
		0.5 lbf·in to 1 500 lbf·in	0.014 % of reading			
		1 lbf·ft to 300 lbf·ft	0.02 % of reading			
		5 lbf·ft to 1 000 lbf·ft	0.02 % of reading			
		20 lbf·ft to 2 500 lbf·ft	0.018 % of reading			
		20 lbf·ft to 8 000 lbf·ft	0.012 % of reading			
		100 lbf·ft to 900 lbf·ft	0.023 % of reading			
		200 lbf·ft to 1 800 lbf·ft	0.023 % of reading			
		1 000 lbf·ft to 10 000 lbf·ft	0.012 % of reading			
		2 000 lbf·ft to 20 000 lbf·ft	0.012 % of reading			
		500 lbf·ft to 3 500 lbf·ft	0.037 % of reading			
		4 000 lbf·ft to 150 000 lbf·ft	0.015 % of reading			
		400 lbf·ft to 4 000 lbf·ft	0.019 % of reading	TSD Calibration Arms 60 in. length with load cell		F
		100 lbf·ft to 100 000 lbf·ft	0.03 % of reading	AKO Inline Reaction Systems[6] with TSD Transducers		

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Mechanical	Torque Wrenches	2 ozf·in to 4 000 lbf·ft	1.2 % of reading	TSD Torque Master Calibration Systems[7] with TSD Transducers	WI-102 ASME B107.300 ISO 6789	F
	Torque Wrenches – (Hydraulic/Pnuematic)	200 lbf·ft to 20 000 lbf·ft	0.32 % of reading	TSD Torque Master Calibration Systems with TSD Pressure Transducers and TSD Torque Transducers	WI-104 ASME B107.300 ISO 6789	F
	Torque Wrenches – (Hydraulic)	5 000 lbf·ft to 150 000 lbf·ft	0.4 % of reading			
	Torque Multipliers with Built-In Indicators	60 lbf·ft to 1 500 lbf·ft	1 % of reading	TSD Torque Master Calibration Systems with TSD Transducers	WI-102	F
		400 lbf·ft to 6 500 lbf·ft	0.6 % of reading			
Mass, Force and Weighing Devices	Mass- Class F or ASTM Class 5, 6, 7	0.2 lb to 5 lb	0.000 04 lb	Balance or Scale[8] with ASTM Class III Reference Weights[8]	WI-105 NIST IR 6969 SOP 8	F
		5 lb to 50 lb	0.000 17 lb			
Dimensional	Length Measurement Calibration (AKO Torque Arms)	5 in	5.8×10^{-4} in	Micrometer Rods Indicator	SP-106	F
		10 in	5.8×10^{-4} in			
		12 in	5.8×10^{-4} in			
		24 in	6.2×10^{-4} in			
		30 in	6.2×10^{-4} in			
		60 in	6.7×10^{-4} in			
		120 in	8×10^{-4} in			

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 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.

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Accreditation is granted to the facility to perform the following conformity assessment activities:

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. Location of activity:

Location Code	**Location**
F	Conformity assessment activity is performed at the CABs fixed facility
O	Conformity assessment activity is performed onsite at the CABs customer location

4. 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.