



PERRY JOHNSON LABORATORY ACCREDITATION, INC.

Certificate of Accreditation

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

Russ Industrial Solutions/HYTORC PA-WV

3285 Pittsburgh Road, Perryopolis, PA 15743

*(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):

Mechanical, Thermodynamic, and Time & Frequency 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

Initial Accreditation Date:

May 27, 2020

Issue Date:

May 27, 2020

Expiration Date:

July 31, 2022

Accreditation No.:

108184

Certificate No.:

L20-333

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

*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

Russ Industrial Solutions/ HYTORC PA-WV

3285 Pittsburgh Road, Perryopolis, PA 15473

Contact Name: Steve Slebodnik Phone: 724-736-2580

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 (\pm)	CALIBRATION EQUIPMENT AND REFERENCE STANDARDS USED
Hydraulic Torque ^F	10 ft•lb to 10 000 ft•lb	0.23% of reading	AKO TSD10011-L with Crystal XP2I SOP 319
	100 ft•lb to 1 000 ft•lb	0.48% of reading	BMX1000F with PTT- 2000 SOP 352
	20 in•lb to 250 n•lb	0.96% of reading	BMX 250i with PTT-2000 SOP 352
	50 ft•lb to 500 ft•lb	0.55% of reading	BMX 500F with PTT- 2000 SOP 352
Pneumatic Torque ^F	10 ft•lb to 10 000 ft•lb	0.11% of reading	AKO TSD10011-L with Crystal XP2I SOP 333
Electric Torque ^F	10 ft•lb to 10 000 ft•lb	1.28% of reading	AKO TSD10011-L with Crystal XP2I SOP 339
Pressure ^{FO}	10 psi to 510 psi	1.15% of reading	Fluke P3124-PSI SOP 301, 352
	200 psi to 10 000 psi	0.03% of reading	
	1 000 psi to 30 000 psi	0.03% of reading	Fluke 6532-200M SOP 303, 352
	-15 psi to 300 psi	0.01% of reading	Fluke 6270A with PM500 BG2M Pressure Module SOP 308
	100 psi to 10 000 psi	0.06% of reading	CalXP pressure Comparator with Crystal XP2I SOP 305
Hydraulic Torque ^O	50 ft•lb to 20 000 ft•lb	0.24% of reading	AKO TSD20035-HT with TSD6500 display SOP 319
Pneumatic Torque ^O	50 ft•lb to 20 000 ft•lb	0.47% of reading	AKO TSD20035-HT with TSD6500 display SOP 333
Electric Torque ^O	50 ft•lb to 20 000 ft•lb	1.14% of reading	AKO TSD20035-HT with TSD6500 display SOP 339
Pressure ^O	500 psi to 10 000 psi	0.03% of reading	AKO TSD10KRHYD with TSD6500 display SOP 307



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Hand Torque ^O	100 ft•lb to 1 000 ft•lb	0.27% of reading	BMX100F with PTT-2000 SOP 352
	60 ft•lb to 600 ft•lb	0.042% of reading	CDI Suretest 600TL-2 with 2000-12-02 SOP 352
	20 ft•lb to 250 ft•lb	0.26% of reading	CDI Suretest 600TL-2 with 2000-400-02-250 SOP 352
	80 in•lb to 1 000 in•lb	0.12% of reading	CDI Suretest 600TL-2 with 2000-400-02-1000 SOP 352
	30 in•lb to 400 in•lb	0.49% of reading	CDI Suretest 600TL-2 with 2000-400-02-400 SOP 352
	4 in•lb to 50 in•lb	0.49% of reading	CDI Suretest 600TL-2 with 2000-400-02-50 SOP 352

Thermodynamic

MEASURED INSTRUMENT, QUANTITY OR GAUGE	RANGE OR NOMINAL DEVICE SIZE AS APPROPRIATE	CALIBRATION AND MEASUREMENT CAPABILITY EXPRESSED AS AN UNCERTAINTY (\pm)	CALIBRATION EQUIPMENT AND REFERENCE STANDARDS USED
Temperature ^{FO}	23 °F to 257 °F	0.02% of reading	Fluke 7102 Micro-Bath SOP 350

Time & Frequency

MEASURED INSTRUMENT, QUANTITY OR GAUGE	RANGE OR NOMINAL DEVICE SIZE AS APPROPRIATE	CALIBRATION AND MEASUREMENT CAPABILITY EXPRESSED AS AN UNCERTAINTY (\pm)	CALIBRATION EQUIPMENT AND REFERENCE STANDARDS USED
Time ^{FO}	Up to to 1 hr	5.14 s	1222W24 Timer SOP 350

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 calibrations:

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 F means that the laboratory performs calibration of the indicated parameter at its fixed location. Example: Outside Micrometer^F would mean that the laboratory performs this calibration at its fixed location.
4. The presence of a superscript O means that the laboratory performs calibration of the indicated parameter onsite at customer locations. Example: Outside Micrometer^O would mean that the laboratory performs this calibration onsite at the customer's location.
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.

