

# PERRY JOHNSON LABORATORY ACCREDITATION, INC.

## Certificate of Accreditation

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

# Roberts Metrology Services, LLC 12411 West Stark Street, Butler, WI 53007

(Hereinafter called the Organization) and hereby declares that Organization 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 (as outlined by the joint ISO-ILAC-IAF Communiqué dated April 2017):

Dimensional 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:

Initial Accreditation Date:

Issue Date:

Expiration Date:

December 31, 2018

December 31, 2018

September 25, 2019

Accreditation No.:

Certificate No.:

100738

L18-600

Tracy Szerszen President/Operations Manager

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: <a href="www.pjlabs.com">www.pjlabs.com</a>





### Certificate of Accreditation: Supplement

#### **Roberts Metrology Services, LLC**

12411 West Stark Street, Butler, WI 53007 Contact Name: David Roberts Phone: 262-781-8300

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

#### **Dimensional**

Issue: 12/2018

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
CMM <sup>F</sup>	Linear: Up to 60 in	$(1.5 + 5.4L) \mu in$	ASME B89.4.4-1997
	Bi-directional Accuracy	51 μin	Sections 5.3, 5.4.2, 5.5.2,
	Volumetric: Up to 36 in	130 μin	5.6 using Step Gage and
	Repeatability	52 μin	Ball Bar
CMM <sup>F</sup>	Linear: Up to 60 in	$(1.5 + 5.4L) \mu in$	ASME B89.4.4-1997
	Bi-directional Accuracy	51 μin	Sections 5.3, 5.4.2, 5.5.2,
	Volumetric: Up to 36 in	130 μin	5.6 using Renishaw Laser,
	Repeatability	52 μin	Step Gage and Ball Bar
Single Axis Instruments <sup>F</sup>	Up to 60 in	$(1.8 + 5.4L) \mu in$	Step Gage Renishaw Laser
	Up to 120 in	$(6.6 + 1.3L) \mu in$	
Dual Axis Instruments	X, Y: Up to 60 in	(1.8 + 5.4L) μin	Step Gage Renishaw Laser
X, Y Axes- Length <sup>F</sup>	X, Y: Up to 120 in	$(6.6 + 1.3L) \mu in$	
Optical Comparators	X, Y: Up to 12 in	220 μin	Glass Scale
X, Y Axes- Length <sup>F</sup>	Magnification	460 μin	Gage Balls
Dimensional Testing-3D	X, Z: Up to 37 in	160 μ	Blue Print or Customer
Length <sup>F</sup>	Y: Up to 76 in	330 μ	Specification using DEA
			Iota CMM
Dimensional Testing-2D <sup>F</sup>	X, Y: Up to 6 in	160 μin	Blue Print Customer
			Specification using
			Mitutoyo Optical
		- X4	Comparator

- 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.
- 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<sup>F</sup> would mean that the laboratory performs this calibration at its fixed location.



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

- 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.
- 5. The term L represents length in inches or millimeters as appropriate to the uncertainty statement.
- 6. The term "X" proceeded by a number represents the number of times a lense system magnifies an image relative to its actual size. CMC stated as "% of magnification" represents the CMC of magnification expressed as a percentage of the total magnification.

