

PERRY JOHNSON LABORATORY ACCREDITATION, INC.

Certificate of Accreditation

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

Precise Dimensional Inspection LLC

250 W. Temperance Road, Temperance, MI 48182

(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 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:Issue Date:Expiration Date:April 17, 2020September 13, 2024January 31, 2027Accreditation No.:Certificate No.:109839L24-705L24-705

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

Precise Dimensional Inspection LLC

250 W. Temperance Road, Temperance, MI 48182 Contact Name: Jacob Bieniek Phone: 734-847-6858

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

| Dimensional | | | | |
|--|--|---|---|--|
| 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 |
| Calipers ^F | Up to 12 in | (150 + 25L) µin | Gladstonbury Standard Gage Blocks | PRO-0103 |
| | Up to 24 in | (220 + 28L) µin | Size control standard | |
| Outside Micrometer ^F | Up to12 in | (43 + 10L) μin | Gladstonbury Master | PRO- 0102 |
| Plug Gages ^F | Up to 6 in | 28 µin | Mahr ULM 828 | PRO-0124 |
| Ring Gages ^F | Up to12in | 28 µin | | PRO-0123 |
| Check Fixture ^F | X Axis 16 in Y Axis 16 in Z Axis 16 in | (100 + 5.2L) µin | СММ | PRO-0117 |
| Flush Pin Gages F | Up to 8 in | $(100 + 5.2L) \mu in$ | | PRO-0120 |
| Reference Sphere ^F | Up to 2 in | (100 + 5.2L) μin | | PRO-0115 |
| Step Gages ^F | Up to 12 i | (100 + 5.2L) μin | | PRO-0116 |
| Thread Gages ^F | 4 to 40 TPI in | 28 µin | Mahr ULM 828 | PRO-0125 3 wire method |
| Surface Finish ^F | Up to 4 in | 4.3 μin | Mahr Surf PS10 | PRO-0126 |
| General Length Measurement ^F | Up to 40 in | 28 µin | Mahr ULM 828 | PRO-0122 |
| | | | | |

- 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.
- 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