

PERRY JOHNSON LABORATORY ACCREDITATION, INC.

Certificate of Accreditation

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

Total Tooling Concepts Inc.

3078 Northridge Drive NW, Walker, MI 49544

(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 Inspection (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 Scusses

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:	
August 4, 2017	February 20,2023		March 31, 2025	
Accreditatio	Accreditation No.:		Certificate No.:	
96224	96224		40	

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

Total Tooling Concepts Inc.

3078 Northridge Drive NW, Walker, MI 49544 Contact Name: Eric Conkright Phone: 616-785-8402

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

FIELD OF TEST	ITEMS, MATERIALS OR PRODUCTS TESTED	SPECIFIC TESTS OR PROPERTIES MEASURED	SPECIFICATION, STANDARD METHOD OR TECHNIQUE USED	RANGE (WHERE APPROPRIATE) AND DETECTION LIMIT
Dimensional	1 Dimensional	1 Dimensional	Customer Supplied	Micrometer
Inspection F	Manufactured Products	Features for Size	Dimensional	Up to 25.4 mm
	and Components		Information	D.L. = $2 \mu m$
	1, 2 and 3 Dimensional	1, 2 and 3	ANSI Y14.5-M	Laser Tracker
	Manufactured Products	Dimensional		0.001 m to 20 m
	and Components	Features for Size,		Uncertainty =
		Location, and		(1.73 + 0.06L) μm
		Orientation		СММ
				X= Up to 700 mm
				Y= Up to 1 000 mm
				Z= Up to 635 mm
				Uncertainty =
				$(2.5 + 0.06L) \mu m$
				СММ
				X= Up to 1 200 mm
				Y= Up to 3 000 mm
				Z= Up to 1 000 mm
				Uncertainty =
				(2.78 + 0.06L) μm
				CMM
				X= Up to 1 200 mm
				Y= Up to 3 000 mm
				Z= Up to 1 000 mm
				Uncertainty =
				$(3.63 + 0.06L) \mu m$
				CMM
				X= Up to 1 500 mm
				Y= Up to 3 000 mm
				Z= Up to 1 000 mm
				Uncertainty=
				(2.71 + 0.09L) μm

1. The presence of a superscript F means that the laboratory performs testing of the indicated parameter at its fixed location. Example: Outside Micrometer ^F would mean that the laboratory performs this testing at its fixed location.