



CERTIFICATE OF ACCREDITATION

The ANSI National Accreditation Board

Hereby attests that

F&G Tool and Die
3024 Dryden Road
Dayton, OH 45439

Fulfills the requirements of

ISO/IEC 17025:2017

In the field of

DIMENSIONAL MEASUREMENT

This certificate is valid only when accompanied by a current scope of accreditation document.
The current scope of accreditation can be verified at www.anab.org.

A handwritten signature in black ink, appearing to read 'R. Douglas Leonard Jr.', is positioned above a horizontal line.

R. Douglas Leonard Jr., VP, PILR SBU

Expiry Date: 31 October 2023
Certificate Number: AT-1578



This laboratory 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 (refer to joint ISO-ILAC-IAF Communiqué dated April 2017).

SCOPE OF ACCREDITATION TO ISO/IEC 17025:2017

F&G Tool and Die

3024 Dryden Road
Dayton, OH 45439
Jody White
937-294-1405

DIMENSIONAL MEASUREMENT

Valid to: **October 31, 2023**

Certificate Number: **AT-1578**

DIMENSIONAL MEASUREMENT

1 Dimensional

Parameter	Range	Expanded Uncertainty of Measurement (+/-)	Reference Standard, Method, and/or Equipment
Dimensional Measurement 1D	Up to 1 in	150 μ in	Mitutoyo Bench Micrometer - LVDT Drawing or Customer Specification
	Up to 1 in	150 μ in	Digital OD Micrometers Drawing or Customer Specification
	Up to 1 in	190 μ in	Thread Wires and Bench Micrometer - LVDT Drawing or Customer Specification

2 Dimensional

Parameter	Range	Expanded Uncertainty of Measurement (+/-)	Reference Standard, Method, and/or Equipment
Dimensional Measurement 2D	X, Y: Up to 6 in	800 μ in	CCP Optical Comparator Drawing or Customer Specification

3 Dimensional

Parameter	Range	Expanded Uncertainty of Measurement (+/-) ²	Reference Standard, Method, and/or Equipment
Dimensional Measurement 3D	Steel Part: Up to 12 in	$(47 + 3.3L) \mu\text{in}$	ZEISS CMM (M17-001) Thermal Expansion Error Compensated, Drawing or Customer Specification
	Steel Part: Up to 12 in	$(47 + 3.3L) \mu\text{in}$	ZEISS CMM (M17-012) Thermal Expansion Error Compensated, Drawing or Customer Specification

Calibration and Measurement Capability (CMC) is expressed in terms of the measurement parameter, measurement range, expanded uncertainty of measurement and reference standard, method, and/or equipment. The expanded uncertainty of measurement is expressed as the standard uncertainty of the measurement multiplied by a coverage factor of 2 ($k=2$), corresponding to a confidence level of approximately 95%.

Notes:

1. On-site calibration service is available for this parameter, since on-site conditions are typically more variable than those in the laboratory, larger measurement uncertainties are expected on-site than what is reported on the accredited scope.
2. L = Length in inches.
3. This scope is formatted as part of a single document including Certificate of Accreditation No. AT-1578.



R. Douglas Leonard Jr., VP, PILR SBU