



CERTIFICATE OF ACCREDITATION

ANSI-ASQ National Accreditation Board

500 Montgomery Street, Suite 625, Alexandria, VA 22314, 877-344-3044

This is to certify that

Canadian Measurement-Metrology Inc.

2433 Meadowvale Blvd.

Mississauga ON L5N 5S2 Canada

has been assessed by ANAB
and meets the requirements of international standard

ISO/IEC 17025:2005

while demonstrating technical competence in the fields of

CALIBRATION AND TESTING

Refer to the accompanying Scope of Accreditation for information regarding the types of calibrations and/or tests to which this accreditation applies.

ACT-1284

Certificate Number



ANAB Approval

Certificate Valid: 08/07/2017-07/17/2019

Version No. 009 Issued: 08/07/2017



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



SCOPE OF ACCREDITATION TO ISO/IEC 17025:2005

Canadian Measurement-Metrology Inc.

2433 Meadowvale Blvd.
Mississauga, Ontario, L5N 5S2 Canada
Margot Wax
905-819-7878

CALIBRATION AND TESTING

Valid to: July 17, 2019

Certificate Number: ACT-1284

Length – Dimensional Metrology

Parameter / Equipment	Range	Expanded Uncertainty of Measurement (+/-)	Reference Standard, Method and/or Equipment
CMM X, Y, Z Linear Displacement Accuracy ¹	(25 to 2 250) mm	(0.001 2 + 0.007 4L/1 000) mm	ASME B89.4.1B-1997/2001 using Starrett-Weber or MTI Step Bar
	(25 to 6 000) mm	(0.000 7 + 0.005 2L/1 000) mm	ASME B89.4.1B-1997/2001 using Renishaw Laser Interferometer
CMM Length Measurement Error ¹	(25 to 610) mm	(0.001 9 + 0.007 5L/1 000) mm	ASME B89.4.10360.2 using Mitutoyo Step Bar
	(25 to 6 000) mm	(0.001 2 + 0.005 5L/1 000) mm	ASME B89.4.10360.2 using Renishaw Laser with Gage Block
CMM Scanning Error ¹	Sphere Diameter: Up to 25 mm	0.8 µm	ISO 10360-4 using Precision Sphere
CMM Probing Error ¹	Sphere Diameter: Up to 30 mm	0.65 µm	ISO 10360-2:2001 using Precision Sphere
Contour Projectors X, Y Linear Accuracy ¹	X, Y: Up to 600 mm	(0.002 2 + 0.007 5L/1 000) mm	ASME B89.4.18 and In-house Calibration Procedure using Glass Scale
Vision CMM X, Y, Z Linear Accuracy ¹	X, Y: Up to 813 mm	(0.004 2 + 0.006 5L/1 000) mm	In-house Calibration using Procedure Optical Grid Plate
	Z: Up to 102 mm	(0.001 6 + 0.007 6L/1 000) mm	In-house Calibration using Procedure Optical Step Gage
Articulated Arm CMM (AACMM) Volumetric Performance	Up to 1 210 mm	(0.01 + 0.009 4L/1 000) mm	ASME B89.4.22 and Internal Calibration Procedure, except Effective Diameter using Test Length Standard



Length – Dimensional Metrology

Parameter / Equipment	Range	Expanded Uncertainty of Measurement (+/-)	Reference Standard, Method and/or Equipment
Length Standard for AACMM	Up to 1 210 mm	(0.003 1 + 0.008 5L/1 000) mm	In-house Calibration procedure using CMM

Testing – Dimensional Measurement/Testing

Parameter / Equipment	Range	Expanded Uncertainty of Measurement (+/-)	Reference Standard, Method and/or Equipment
Dimensional Measurement	X = Up to 1 200 mm Y = Up to 3 000 mm Z = Up to 1 000 mm	(0.003 6 + 0.009 2L/1 000) mm	CMM
	X = Up to 900 mm Y = Up to 1 500 mm Z = Up to 900 mm	(0.003 8 + 0.008 4L/1 000) mm	
	X = Up to 2 000 mm Y = Up to 5 100 mm Z = Up to 1 000 mm	(0.016 + 0.013L/1 000) mm	
Dimensional Measurement ¹	Measuring Envelopes (1.2 to 3.6) m	(0.044 + 0.001 8L/1 000) mm	Articulated Arm CMM
	Absolute Distance Measurement (ADM) Range (1 to 40) m	(0.018 + 0.008 6L/1 000) mm	LTD800 Leica Laser Tracker using Corner Cube Reflector
	Measurement of 2 500 mm Spatial Length from Distance (3 to 10) m	(0.044 + 0.008 6L/1 000) mm	LTD800 Leica Laser Tracker using Leica T-Probe
	Measurement of 2 500 mm Spatial Length from Distance (1 to 80) m	(0.018 + 0.008 6L/1 000) mm	AT402 Leica Laser Tracker using Corner Cube Reflector

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 and measurement 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. This scope is formatted as part of a single document including Certificate of Accreditation No. ACT-1284.


 Vice President