



SCOPE OF ACCREDITATION TO ISO/IEC 17025:2005

Canadian Measurement-Metrology Inc.

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CALIBRATION and TESTING

Valid to: July 17, 2013

Certificate Number: ACT-1284

I. Dimensional Calibration

PARAMETER / EQUIPMENT	RANGE	CALIBRATION AND MEASUREMENT CAPABILITY [EXPRESSED AS UNCERTAINTY(±)]	REFERENCE STANDARD OR EQUIPMENT	METHOD(S)
CMM Linear Accuracy <sup>3</sup>	(25 to 2 250) mm	(0.92 + 2.2L) µm	Starrett-Weber or MTI Step Bar	ASME B89.4.1 Calibration Procedure for Coordinate Measuring Machines CMM.4.10
CMM Linear Accuracy <sup>3</sup>	(25 to 6 000) mm	(0.66 + 2.1L) µm	Renishaw Laser Interferometer	
CMM Volumetric Accuracy <sup>3</sup>	(150 to 1 000) mm	(1.2 + 2.4L) µm	Ball Bar and Precision Sphere	
Contour Projectors Linear Accuracy <sup>3</sup>	Up to 200 mm	(3.26 + 1.74L) µm	Glass Scale	Optical CMM Calibration Procedure CMM.1.00
Optical CMM Linear Accuracy <sup>3</sup>	Up to 813 mm	(1.8 + 1.46L) µm	Optical Grid Plate	
Optical CMM Linear Accuracy <sup>3</sup>	Up to 102 mm	(2.24 + 1.9L) µm	Optical Step Gage	
Length Standard Calibration	Up to 1 020 mm	(3.72 + 3.9L) µm	CMM	Calibration Procedure for Articulated Arm Coordinate Measuring Machines CMM.1.20
Articulated Arm CMM Single Point Articulation Performance	Up to 15 mm	11.2 µm (Radial Dev.)	Trihedral Seat	ASME B89.4.22 Calibration Procedure for Articulated Arm Coordinate Measuring Machines CMM.1.20
Articulated Arm CMM Volumetric Performance	Up to 1 020 mm	(19.2 + 5L) µm	Length Standard	



## II. Dimensional Inspection / Measurement

PARAMETER / EQUIPMENT	RANGE	CALIBRATION AND MEASUREMENT CAPABILITY [EXPRESSED AS UNCERTAINTY(±)]	REFERENCE STANDARD OR EQUIPMENT	METHOD(S)
Dimensional Measurement	X = Up to 2 000 mm Y = Up to 3 300 mm Z = Up to 1 500) mm	(8 + 8.7L) μm	CMM	PC DMIS Software Accepted Practices Customer Requirements
Dimensional Measurement	X = Up to 1 200 mm Y = Up to 2 000 mm Z = Up to 1 000 mm	(3 + 5.3L) μm		
Dimensional Measurement	X = Up to 1 000 mm Y = Up to 1 500 mm Z = Up to 750 mm	(3 + 5.3L) μm		
Dimensional Measurement	X = Up to 2 000 mm Y = Up to 5 100 mm Z = Up to 1 000 mm	(7 + 9.6L) μm		
Dimensional Measurement <sup>4</sup>	Measuring Envelopes (1.2 to 3.6) m	(33.5 + 2.1L) μm	Articulated Arm Portable CMM	
Dimensional measurement <sup>4</sup>	Absolute Distance Measurement (ADM) Range (1 to 40) m	(26.2 + 2.1L) μm	LTD800 Leica Laser Tracker using Corner Cube Reflector	
Dimensional measurement <sup>4</sup>	Measurement of 2 500 mm Spatial Length from Distance (3 to 10) m	(60 + 2.1L) μm	LTD800 Leica Laser Tracker using Leica T- Probe	
Dimensional measurement <sup>4</sup>	Measurement of 2 500 mm Spatial Length from Distance (3 to 10) m	(52.6 + 15.1L) μm	LTD800 Leica Laser Tracker using Corner Cube Reflector	

**Notes:**

1. Calibration and Measurement Capabilities (Expanded Uncertainties) are based on approximately a 95 % confidence interval, using a coverage of k=2.
2. This laboratory's capabilities include in-laboratory and field (on-site) calibration services. Since field conditions are typically more variable than those in the laboratory, larger measurement uncertainties are expected in the field than what is reported on the accredited scope.
3. The laboratory offers field calibration for this equipment.
4. The laboratory offers field dimensional measurement inspection for this equipment.
5. The laboratory also performs dimensional inspections at 2492 Cedar Creek Rd, Unit #4, Ayr, Ontario, N0B 1E0.
6. The use of (L) signifies Length in meters.
7. This scope is part of and must be included with the Certificate of Accreditation No. ACT-1284.

*Karl Greenaway*

Vice President