

SCOPE OF ACCREDITATION TO ISO/IEC 17025:2017

Quality Inspection Technologies

(Division of 629986 Canada Ltd)

6537 Kister Rd., Unit 2

Niagara Falls, ON L2G 0B8

Darren Rasmussen

905-354-9507

CALIBRATION AND DIMENSIONAL MEASUREMENT

Valid to: August 5, 2023

Certificate Number: L1094-1

CALIBRATION

Length – Dimensional Metrology

Parameter/Equipment	Range	Expanded Uncertainty of Measurement (+/-) ¹	Reference Standard, Method, and/or Equipment
Micrometer Standards	Up to 29 in	$(39 + 6L) \mu\text{in}$	Telma 500 and Gauge Blocks
	(29 to 48) in	$(21 + 7.8L) \mu\text{in}$	Gauge Blocks
Plain Rings	(0.5 to 6) in	$(51 + 6D) \mu\text{in}$	Telma 500 and Gauge Blocks
Pin Gauges	Up to 1 in	$(51 + 4.8D) \mu\text{in}$	
Plug Gauges	Up to 4 in	$(49 + 5.8D) \mu\text{in}$	
Thread Wires	Up to 1 in	18 μin	Bench Micrometer Gauge, Head & Amplifier
Outside Micrometer (0.000 05 in Resolution)	(0 to 48) in	$(38 + 7.1L) \mu\text{in}$	Gauge Blocks
Outside Micrometer (0.000 1 in Resolution)	(0 to 48) in	$(47 + 6.7L) \mu\text{in}$	
Outside Micrometer (0.001 in Resolution)	(0 to 48) in	$(568 + 2.3L) \mu\text{in}$	
Depth Micrometer (0.000 05 in Resolution)	(0 to 12) in	$(54 + 5L) \mu\text{in}$	
Depth Micrometer (0.000 1 in Resolution)	(0 to 12) in	$73 + 4.3L) \mu\text{in}$	
Depth Micrometer (0.001 in Resolution)	(0 to 12) in	$(579 + 0.7L) \mu\text{in}$	

Length – Dimensional Metrology

Parameter/Equipment	Range	Expanded Uncertainty of Measurement (+/-) ¹	Reference Standard, Method, and/or Equipment
Inside Micrometer (0.000 1 in Resolution)	(2 to 29) in	(64 + 7.5L) μin	Telma 500 and Gauge Blocks
Inside Micrometer (0.001 in Resolution)	(2 to 29) in	(571 + 2.2L) μin	Telma 500 and Gauge Blocks
Inside Micrometer (0.000 1 in Resolution)	(30 to 80) in	(124 + 6L) μin	Gauge Blocks
Inside Micrometer (0.001 in Resolution)	(30 to 80) in	(511 + 4L) μin	Gauge Blocks
Calipers (0.000 1 in Resolution)	(0 to 48) in	(397 + 9.6L) μin	Gauge Blocks
Calipers (0.000 5 in Resolution)	(0 to 48) in	(631 + 7.8L) μin	Gauge Blocks
Dial/Digital Indicators (0.000 1 in Resolution)	(0 to 1) in	(80 + 3.1L) μin	Telma 500
Dial/Digital Indicators (0.000 5 in Resolution)	(0 to 1) in	(294 + 0.9L) μin	Telma 500
Test Indicators (0.000 1 in Resolution)	(0 to 0.4) in	(78 + 25.7L) μin	Telma 500
Test Indicators (0.000 5 in Resolution)	(0 to 0.4) in	(293 + 10.2L) μin	
Dial Bore Gauges (0.000 1 in Resolution)	(0 to 1) in travel	(91 + 4.8L) μin	
Height Gauges (0.000 5 in Resolution)	(0 to 48) in	(562 + 3.6L) μin	Mahr Comparator Gauge Blocks Surface Plate
Height Gauges (0.001 in Resolution)	(0 to 48) in	(902 + 2.5L) μin	Mahr Comparator Gauge Blocks Surface Plate
Steel Rules / Scales	(0 to 48) in	(411 + 10.2L) μin	Optical Comparator
Bevel Protractors	(0 to 180)°	0.042°	Angle Blocks and Surface Plate
Thread Plug Gauges Major Diameter Pitch Diameter	Up to 4 in	(52 + 4.2D) μin (171 + 3.8D) μin	Bench Micrometer Mahr Probe Thread Wires Micrometer

DIMENSIONAL MEASUREMENT

3 Dimensional

Parameter	Range	Expanded Uncertainty of Measurement (+/-) ¹	Reference Standard, Method and/or Equipment
Dimensional Measurement 3D	X = (0 to 36) in Y = (0 to 40) in Z = (0 to 24) in	(138 + 23.3L) μin	Mitutoyo Coordinate Measuring Machine utilized as Reference Standard for Dimensional Inspection
Dimensional Measurement 3D	X = (0 to 47) in Y = (0 to 78) in Z = (0 to 40) in	(130 + 21L) μin	Wenzel Coordinate Measuring Machine utilized as Reference Standard for Dimensional Inspection

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. D = diameter in inches, L = length in inches.
2. This scope is formatted as part of a single document including Certificate of Accreditation No. L1094-1.



R. Douglas Leonard Jr., VP, PILR SBU