



**SCOPE OF ACCREDITATION TO ISO/IEC 17025:2005
 & ANSI/NCSL Z540-1-1994**

ACI Quality, LLC

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CALIBRATION

Valid to: December 23, 2010

Certificate Number: AC-1154

I. Dimensional

PARAMETER / EQUIPMENT	RANGE	BEST MEASUREMENT CAPABILITY [EXPRESSED AS UNCERTAINTY(±)]	REFERENCE STANDARD OR EQUIPMENT	METHOD(S)
Caliper Masters	Up to 12 in	80 µin	Electronic Indicator Gage Blocks Class 1	ACI-95P
Calipers	Up to 72 in	(14.5L + 0.6R) µin	Gage Blocks Class 1, 2, or 3	ACI-3P
Cylinder Plug Gages	Up to 8 in	(23 + 6.5D) µin	Bench Comparator Gage Blocks Class 1	ACI-99P
Gage Blocks	Up to 4 in	(3 + L) µin	Edmonds Comparator Gage Blocks Class 1	ACI-27P
Gage Pins	Up to 1 in	(27 + 3.5D) µin	Bench Comparator Gage Blocks Class 3	ACI-25P
Height Gages	Up to 48 in	(14.5L + 0.6R) µin	Surface Plate Gage Blocks Class 1 or 2	ACI-14P
Indicators	Up to 6 in	(9L + 0.6R) µin	Height Stand Surface Plate Gage Block Class 3	ACI-10P
Master Disc	Up to 4 in	(26+6D) µin	Bench Comparator Gage Blocks Class 1	ACI-122P
Micrometers -- Inside Diameter	Up to 60 in	(14.5L + 0.6R) µin	Gage Blocks Class 3	ACI-18P



PARAMETER / EQUIPMENT	RANGE	BEST MEASUREMENT CAPABILITY [EXPRESSED AS UNCERTAINTY(±)]	REFERENCE STANDARD OR EQUIPMENT	METHOD(S)
Micrometers -- Outside Diameter	Up to 72 in	(14.5L + 0.6R) μin	Gage Blocks Class 3	ACI-21P
Micrometer Masters	Up to 4 in (4 to 12) in	(20 + 7D) μin (12 + 10D) μin	Bench Comparator Gage Blocks Class 1, 2, or 3	ACI-121P
Micrometer Standards	Up to 72 in	(6.7L) μin	Bench Comparator Gage Blocks Class 1	ACI-37P
Plain Ring Gage	Up to 4 in (4 to 9.5) in	(19 + 7D) μin (14 + 8D) μin	Diamet Gage Blocks Class 1	ACI-32P
Linear Rules / Scales	Up to 48 in	(3L) μin	Optical Comparator Gage Blocks Class 3	ACI-49P
Super Micrometer / Bench Micrometer	Up to 48 in	(16 + 4L) μin	Optical Flats Gage Blocks Class 2 Force Gage	ACI-42P
Thread Plug Gages	Up to 12 in	(79 + 2.7D) μin	Bench Comparator Gage Blocks Class 3	ACI-8P
Thread Ring Gage	Up to 1.5 in	(100 + 4D) μin	Set plugs	ACI-26P
Thread Measuring Wires	(5 to 80) pitch	22 μin	0.750 Pin Bench Comparator	ACI-41P
Height Master	Up to 18 in	(46 + 2L) μin	Electronic Indicator Gage Blocks Class 1 or 2	ACI-36P
CMM Tooling Ball	Up to 2 in	51 μin	Bench Comparator Gage Blocks Class 1, 2 or 3	ACI-101P
Micro-Hite	Up to 2 in	53 μin	Electronic Indicator Gage Blocks Class 1,2 or 3	ACI-125P
Surface Analyzer Profilometer	Up to 200 μin	4.1 μin	Roughness Standard	ACI-30P
Roughness Specimen	Up to 200 μin	4.1 μin	Profilometer	ACI-52P



II. Mechanical

PARAMETER / EQUIPMENT	RANGE	BEST MEASUREMENT CAPABILITY [EXPRESSED AS UNCERTAINTY(±)]	REFERENCE STANDARD OR EQUIPMENT	METHOD(S)
Torque Wrenches	(5 to 50) lbf-in (50 to 2 000) lbf-in (60 to 600) lbf-ft (100 to 1 000) lbf-in	0.22 lbf-in 1 % reading + 0.5 lbf-in 2.9 lbf-ft 3.2 lbf-in	Torque Testers	ACI-29P
Indirect Verification of Rockwell Hardness and Rockwell Superficial Hardness Testers	HRB HRC HR15N HR45N HR15T HR30T	1.6 1.2 1.2 1.2 1.6 1.3	Hardness Test Blocks	ACI-39P

Notes:

1. Best Measurement Uncertainties (Expanded Uncertainty) are based on approximately a 95% confidence interval, using a coverage of $k=2$
2. D = diameter of instrument in inches; L = length of instrument in inches; R = resolution of instrument in inches
3. This scope is part of and must be included with the Certificate of Accreditation No. AC-1154



Vice President

