SCOPE OF ACCREDITATION TO ISO/IEC 17025:2005

WESTERN GAGE COPRORATION
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CALIBRATION

Valid To: March 31, 2019 Certificate Number: 4174.01

In recognition of the successful completion of the A2LA evaluation process, accreditation is granted to this laboratory to perform the following calibrations[1]:

I. Dimensional

Parameter/Equipment	Range	CMC[2, 3] (±)	Comments
ID – Plain Ring Gages	(0.04 to < 0.7) in (0.7 to < 4) in (4 to 13.25) in (0.23 to < 1) in (1 to < 4) in (4 to 14) in	5.0 µin (3.4*D* + 2.5) µin (3.6*D* + 1.7) µin 7 µin (5.4*D* + 1.6) µin (4.5*D* - 5.5) µin	Federal 136 B P & W Lab Master
OD – Plain Plug Gages and Setting Discs	Up to < 0.7 in (0.7 to < 4) in (4 to 12) in (0.23 to < 1) in (1 to < 4) in (4 to 13) in	5 µin (3.4*D* + 2.4) µin (3.1*D* + 9.4) µin 7 µin (5.4*D* + 1.6) µin (4.4*D* - 5.1) µin	Federal EHE 1053 P & W Lab Master
Length – Outer Planes	Up to 0.7 in (> 0.7 to 4) in (> 4 to 12) in	5.0 µin (3.3*L* + 2.9) µin (3.5*L* + 2.4) µin	Federal EHE 1053

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Parameter/Equipment	Range	CMC[2, 3] (±)	Comments
Length (cont) –			
Inner/Outer Planes	(0.23 to < 0.5) in (0.5 to < 4) in (4 to 14) in	6 µin (5.4*L* + 1.6) µin (4.5*L* - 5.5) µin	P & W Lab Master
Air Gaging –			
Micro II*(i)* Dimensional Readout, SMO-Air[4]	Up to 0.0003 in tolerance	12 µin	Lab Master, WGC Spec 71, 72 orifice set
	(> 0.0003 to 0.003) in tolerance	20 µin	Lab Master, WGC Spec 63, 64 orifice set
Air Plug Gaging System[4, 5]	(0.059 to 8.3) in	(9.2*D* + 3.1) µin	Master ring gage
Air Ring Gaging System[4, 5]	(0.061 to 7.5) in	(9.3*D* + 2.9) µin	Master plug gage
Magnification Orifice	Up to 0.0003 in tolerance	10 µin	Grand Master, WGC Spec 71, 72 orifice set, Micro II*(i)*
	(> 0.0003 to 0.003) in tolerance	19 µin	Grand Master, WGC Spec 63, 64 orifice set, Micro II*(i)*

[1] This laboratory offers commercial dimensional testing/calibration service.

[2] Calibration and Measurement Capability Uncertainty (CMC) is the smallest uncertainty of measurement that a laboratory can achieve within its scope of accreditation when performing more or less routine calibrations of nearly ideal measurement standards or nearly ideal measuring equipment. CMCs represent expanded uncertainties expressed at approximately the 95 % level of confidence, usually using a coverage factor of $k = 2$. The actual measurement uncertainty of a specific calibration performed by the laboratory may be greater than the CMC due to the behavior of the customer's device and to influences from the circumstances of the specific calibration.

[3] In the statement of CMC, *D* and L are the numerical values of the nominal diameter or length of the measurand in inches, respectively.

[4] The contribution to the uncertainty from the device under calibration are excluded from the CMC.

[5] Minimum CMC is 6 micro-inches