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

HEMCO GAGE
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CALIBRATION

Valid To: August 31, 2019 Certificate Number: 2279.01

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
Straight Thread Plugs –			
Major Diameter	Up to 6 in	(24 + 7*L*) µin	P & W Supermicrometer™ model C
	Up to 12 in	(21 + 7.7*L*) µin	Mikrokator, gage blocks
Simple Pitch Diameter	Up to 5 in (5 to 12) in	(110 + 6.6*L*) µin (120 + 6.3*L*) µin	Mikrokator, 3-wire method custom supermic, 3-wire method
	Up to 6 in	(130 + 1.7*L*) µin	P & W Supermicrometer™ model C
Lead	> 2 in & 10 TPI or Coarser	71 µin	Vertical lead checker
Half Angle	180º	4.3’	Optical comparator

Parameter/Equipment	Range	CMC[2, 3] (±)	Comments
Straight Thread Rings –			
Pitch Diameter	(0.05 to 5) in (5 to 12) in	(110 + 6.6*L*) µin (120 + 6.3*L*) µin	Master setting plug
Minor Diameter	(0.04 to 0.3124) in (0.3125 to 7.874) in (4.331 to 12) in	(23 + 7.3*L*) µin (180 + 0.4*L*) µin (120 + 5*L*) µin	Gage pins Triga-bore (3-pt. probe) Federal int. comparator
Straight Plain Plugs –			
Outside Diameter	Up to 12 in Up to 12 in Up to 6 in	(23 + 7.3*L*) µin (5.4 + 8*L*) µin (18 + 6.2*L*) µin	Mikrokator, gage blocks P & W Labmaster™ UMM, Heidenhan
Straight Plain Rings –			
Inside Diameter	(0.04 to 1) in (1 to 12) in	(13 + 2.4*L*) µin (16 + 8*L*) µin	P & W Labmaster™ UMM
Tapered Thread Plugs –			
Major Diameter	Up to 12 in	(33 + 8.5*L*) µin	Mikrokator, gage blocks w/ taper block
Simple Pitch Diameter	Up to 5 in (5 to 12) in	(120 + 6*L*) µin (37 + 21*L*) µin	Mikrokator, 3-wire method, custom supermic, 3-wire method
Lead	> 2 in & 10 TPI or Coarser	69 µin	Vertical lead checker
Half Angle	180º	4.3’	Optical comparator
Taper	Up to 6 in (6 to 12) in	(160 + 17*L*) µin (110 + 20*L*) µin	Mikrokator, custom supermic

Parameter/Equipment	Range	CMC[2, 3] (±)	Comments
Tapered Thread Rings –			
Pitch Diameter	(0.05 to 12) in	(150 + 9.8*L*) µin	Master thread plug
Pitch Diameter Standoff	(0.05 to 12) in	(2400 + 160*L*) µin	Master thread plug
Minor Diameter	(0.05 to 12) in	(120 + 5.7*L*) µin	Master plain plug
Taper	(0.05 to 12) in	120 µin	Sine plate, angle plate, gage balls
Tapered Plain Plugs –			
Outside Diameter	Up to 12 in	(98 + 3*L*) µin	Custom supermic
Taper	Up to 12 in	(140 + 4.3*L*) µin	
Tapered Plain Rings –			
Inside Diameter	Up to 12 in	(120 + 2.7*L*) µin	Master plain plug
Taper	Up to 12 in	97 µin	Sine plate, electronic amp w/ probe
Gage and Step Height	Up to 12 in	(96 + 4*L*) µin	Gage blocks, electronic amp w/ probe

[1] This laboratory offers commercial 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 CMC, L is the length of the unit under test in inches.

Accredited Laboratory

A2LA has accredited

HEMCO GAGE

Holland, MI

for technical competence in the field of

Calibration

This laboratory is accredited in accordance with the recognized International Standard ISO/IEC 17025:2005 *General requirements for the competence of testing and calibration laboratories*. This laboratory also meets the requirements of ANSI/NCSL Z540-1-1994 and R205 – Specific Requirements: Calibration Laboratory Accreditation Program. 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 8 January 2009*).

Presented this 6th day of July 2017.

Vice President, Accreditation Services
For the Accreditation Council
Certificate Number 2279.01
Valid to August 31, 2019
Revised July 24, 2019

For the calibrations to which this accreditation applies, please refer to the laboratory's Calibration Scope of Accreditation.