



SCOPE OF ACCREDITATION TO ISO/IEC 17025:2017
AND ANSI/NCSL Z540-1-1994

AALBERTS IPSA INC.
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CALIBRATION

Valid To: April 30, 2023

Certificate Number: 1736.01

In recognition of the successful completion of the A2LA evaluation process, accreditation is granted to this laboratory to perform the following calibrations^{1, 4}:

I. Dimensional

Parameter/Equipment	Range	CMC ^{2, 3} (\pm)	Comments
Adjustable Thread Rings – Pitch Diameter	Up to 10 in	(X Class Set Plug Tolerance)	Master set plugs
Tapered Thread Rings	Up to 6 in	400 μ in	Master plug & indicator
Straight Thread Plugs – Pitch Diameter	Up to 10 in (10 to 20) in	(90 + 1.4D) μ in (85 + 2.1D) μ in	3-wire measurement thread wires
Major Diameter (Thread Plugs)	Up to 10 in (10 to 20) in	(24 + 3.3D) μ in (30 + 3.2D) μ in	Universal measuring machine
Micrometer Length Standards	Up to 10 in (10 to 20) in	(42 + 2.5L) μ in (41 + 2.9L) μ in	Universal measuring machine

Parameter/Equipment	Range	CMC ^{2,3} (\pm)	Comments
Tapered Thread Plugs – Pitch Diameter, Major Diameter	Up to 6 in	220 μ in	3-wire measurement, thread wires, sine block, universal measuring machine
Thread Wires – Threads Per Inch	(4 to 80) TPI	17 μ in	Universal measuring machine, over a roll
Cylindrical Measure – Outside Diameter	Up to 10 in (10 to 20) in	(23 + 3.3D) μ in (28 + 3.2D) μ in	Universal measuring machine
Cylindrical Measure – Inside Diameter	Up to 8 in (8 to 16) in	(38 + 2.4D) μ in (47 + 2.5D) μ in	Universal measuring machine and ring
Bore Gages – 3-Point Contact	Up to 6 in	(130 + 4.0D) μ in	Setting rings
Height Gages	Up to 36 in	(440 + 0.8L) μ in	Gage blocks
Micrometers – Outside	Up to 12 in (12 to 30) in	(82 + 1.5L) μ in (350 + 1.2L) μ in	Gage blocks
Depth	Up to 12 in	(100 + 1L) μ in	Gage blocks
Inside	(0.5 to 20) in	0.60R	Universal measuring machine

Parameter/Equipment	Range	CMC ^{2,3} (±)	Comments
Gage Blocks	< 0.100 in (0.100 to 4) in (> 4 to 20) in	6.2 μin (5.3 + 1.2L) μin (6.5 + 1.6L) μin	By mechanical comparison
Calipers	Up to 20 in (20 to 48) in	0.60R 0.70R	Gage blocks
Indicators	Up to 4 in	0.60R	Universal measuring machine

II. Mechanical

Parameter/Equipment	Range	CMC ² (±)	Comments
Torque Wrenches & Torque Multipliers	(0.5 to 400) in·ozf (4 to 1000) in·lbf (20 to 250) ft·lbf (100 to 1100) ft·lbf	2.1 in·ozf 2.2 in·lbf 1.7 ft·lbf 3.2 ft·lbf	CDI torque tester
Pressure Gages –	Up to 300 psig	0.21 psig	Crystal digital test gage
	Up to 10 000 psig	2.2 psig	
	Up to 15 000 psig	3.8 psig	
	Up to 3000 psig	0.63 psig	Pace 5000
	Up to 3000 psig	2.1 psig	Comparator
	Up to 10 000 psig	2.4 psig	
	Up to 15 000 psig	8.5 psig	

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. CMC's 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, L is the numerical value of the nominal length of the device measured in inches, D is the numerical value of the diameter of the device measured in inches, and R is the numerical value of the resolution of the device.

⁴ This scope meets A2LA's *PI12 Flexible Scope Policy*.



Accredited Laboratory

A2LA has accredited

AALBERTS IPSA INC.

Pageland, SC

for technical competence in the field of

Calibration

This laboratory is accredited in accordance with the recognized International Standard ISO/IEC 17025:2017 *General requirements for the competence of testing and calibration laboratories*. This laboratory also meets the requirements of ANSI/NCCL 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 April 2017).



Presented this 24th day of February 2021.

A blue ink signature of the Vice President of Accreditation Services.

Vice President, Accreditation Services
For the Accreditation Council
Certificate Number 1736.01
Valid to April 30, 2023
Revised March 16, 2023

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