

SCOPE OF ACCREDITATION TO ISO 17025:2005

APPLIED TEST SYSTEMS, INC., CALIBRATION DEPARTMENT
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 Butler, PA 16002
 David Fair Phone: 724 283 1212

CALIBRATION

Valid To: February 29, 2012

Certificate Number: 2132.01

In recognition of the successful completion of the A2LA evaluation process, accreditation is granted to this laboratory to perform the following calibrations¹:

I. Mechanical

Parameter/Equipment	Range	CMC ² (±)	Comments
Force ³ – Tension Compression	Up to 100 000 lbf Up to 300 000 lbf	0.18 % full scale 0.18 % full scale	ASTM E4 w/ dead weights, proving rings
Force ³ – Tension Compression	(50 to 10 000) lbf	0.05 % full scale	ASTM E4 w/ load cells
Force ³ – Tension Compression	(200 to 10 000) lbf (200 to 10 000) lbf	0.18 % full scale 0.18 % full scale	ISO 7500-2 with proving rings
Vacuum, Pressure and Burst Systems ³	(20 to 100) kPa (100 to 500) psi (600 to 3000) psi	0.084 kPa 0.083 psi 0.083 psi	ASME B40 with pressure gage

Parameter/Equipment	Range	CMC ³ (±)	Comments
Displacement ³	(0.0008 to 0.1) in (0.101 to 0.5) in	0.000073 in 0.00015 in	ASTM E83 with micrometer
Bending Beam Rheometers ^{3,4} –			ASTM D6648, AASHTO T313
Displacement	(0.0008 to 0.1) in (0.101 to 0.5) in	0.000073 in 0.00015 in	ASTM E83 with OEM calibration fixture and micrometer
Force	Up to 200 gf	0.00001 gf	Class 4 weights
Bending Bam Rheometer Cal Kit –			
Weights	(2 to 150) g (227 to 1814) g (5 to 45) lbs	0.002 g 0.02 g 0.002 lbs	ASTM E4, AASHTO T313
Step Gage	(1.27 to 25.4) mm	0.001 mm	AASHTO T313
Lever Arm	(10 to 152) mm	0.014 mm	AASHTO T313

II. Thermodynamics

Parameter/Equipment	Range	CMC ² (±)	Comments
Temperature ³	(-40 to 175) °C	0.11 °C	Platinum RTD

¹ This laboratory offers commercial calibration service and field calibration service.

² Calibration and Measurement Capability (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. Calibration and Measurement Capabilities 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 Field calibration service is available for this calibration and this laboratory meets A2LA R104 – *General Requirements: Accreditation of Field Testing and Field Calibration Laboratories* for these calibrations. Please note the actual measurement uncertainties achievable on a customer's site can normally be expected to be larger than the CMC found on the A2LA Scope. Allowance must be made for aspects such as the environment at the place of calibration and for other possible adverse effects such as those caused by transportation of the calibration equipment. The usual allowance for the actual uncertainty introduced by the item being calibrated, (e.g. resolution) must also be considered and this, on its own, could result in the actual measurement uncertainty achievable on a customer's site being larger than the CMC.
- ⁴ The uncertainty of rheometer force verification is highly dependent on local conditions such as the effects of acceleration due to gravity, “g”. Any statement of CMC would therefore be misleading. The class of best weights used by the laboratory is shown in the comments section.



The American Association for Laboratory Accreditation

World Class Accreditation

Accredited Laboratory

A2LA has accredited

APPLIED TEST SYSTEMS, INC.

Butler, PA

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 any additional program requirements in the field of calibration. 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 20th day of July 2010.





Peter M. Meyer

President & CEO
For the Accreditation Council
Certificate Number 2132.01
Valid to February 29, 2012

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