

# THE AMERICAN ASSOCIATION FOR LABORATORY ACCREDITATION

## **ACCREDITED LABORATORY**

A2LA has accredited

### **INSTRU-MET CORPORATION** Union, NJ

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 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 18 June 2005).



Presented this 16<sup>th</sup> day of April 2008.

President For the Accreditation Council Certificate Number 1377.01 Valid to December 31, 2009

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

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

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#### CALIBRATION

Valid To: December 31, 2009

Certificate Number: 1377.01

In recognition of the successful completion of the A2LA evaluation process, accreditation is granted to this laboratory to perform the following calibrations<sup>1</sup>:

#### I. Mechanical

Parameter/Equipment	Range	Best Uncertainty <sup>2, 3</sup> (±)	Comments
Force Verification of Testing Machines – (Compression/Tension)	(0.0022 to 100) lbf (20 to 500) lbf (220 to 2500) lbf (1100 to 10 000) lbf (3000 to 50 000) lbf (5000 to 118 000) lbf	0.05 % of reading 0.11 lbf 0.53 lbf 2 lbf 11 lbf 26 lbf	ASTM E4 with: Dead weights Load cells
Extensometers – Displacement/Strain Measuring Devices	(0 to 2) in (2 to 20) in	36 μin 200 μin/in	ASTM E83 with Boeckler micrometer system

Parameter/Equipment	Range	Best Uncertainty <sup>2, 3</sup> (±)	Comments
Testing Machine Crosshead Speed	(0.002 to 50) in/min	36 μin (displacement)	Linear encoder with glass scale
		0.006 s (time)	Timer
			Linear displacement over time per manufacturer's specifications and WI-1007

#### II. Thermodynamics

Parameter/Equipment	Range	Best Uncertainty <sup>2, 3</sup> (±)	Comments
Environmental Chamber Temperature Indicating Devices	(0 to 300) °C	0.1 °C	By comparison with PRT per manufacturer's specifications and WI-1006

<sup>&</sup>lt;sup>1</sup> This laboratory offers commercial calibration service and on-site calibration service.

<sup>&</sup>lt;sup>2</sup> "Best Uncertainty" 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 of nearly ideal measuring equipment. Best uncertainties represent expanded uncertainties expressed at approximately the 95 % level of confidence, usually using a coverage factor of k = 2. The best uncertainty of a specific calibration performed by the laboratory may be greater than the best uncertainty due to the behavior of the customer's device and to influences from the circumstances of the specific calibration.

<sup>&</sup>lt;sup>3</sup> The uncertainties achievable on a customer's site can be expected to be larger than the Best Measurement Capabilities (BMC) that the accredited laboratory has been assigned as Best Uncertainty 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 uncertainty introduced by the item being calibrated, (e.g. resolution) must also be considered and this, on its own, could result in the calibration uncertainty being larger than the BMC.