

#### SCOPE OF ACCREDITATION TO ISO/IEC 17025:2005 & ANSI/NCSL Z540-1-1994 & ANSI/NCSL Z540.3-2006

#### MOREHOUSE INSTRUMENT CO., INC. 1742 Sixth Avenue York, PA 17403-2675 Harry E. Zumbrun Phone: 717 843 0081

#### CALIBRATION

Valid to: April 30, 2016

Certificate Number: 1398.01

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	CMC <sup>2, 3</sup> (±)	Comments
Force –			
Dead Weight Primary Standards Tension and	(0 to 10) lbf [(0.44 to 44) N]	0.0025 % Force calibration	Force calibration
Compression	(10 to 100) lbf [(44 to 444) N]	0.0016 %	ASTM E74 and ISO 376 and other methods
	(100 to 12 0000) lbf [(444 to 53 378) N]	0.0016 %	other methods
	(12 000 to 120 000) lbf [(53 378 to 533 786) N]	0.0016 %	
N.I.S.T Calibrated Transfer Standards Tension and	(120 000 to 1 000 000) lbf [(533 to 4448) kN]	(9 through 22) lbf [40 through 98 N]	
Compression	(1 000 000 to 1 125 000) lbf [(4.44 to 5) MN]	110 lbf (480 N)	
Compression	(1 220 001 to 2 250 000) lbf [(4.44 to 5) MN]	(71 through 150) lbf [320 through 650 N]	

Peter Mlnye

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Parameter/Equipment	Range	CMC <sup>2, 3</sup> (±)	Comments
Torque – Dead Weight Primary Standards Clockwise & Counter- clockwise	(0.74 to 73.75) ft·lbf (1 to 100) N·m (14.75 to 1475) ft·lbf (20 to 2000) N·m	0.003 % 0.003 %	Primary torque standard, ASTM E2428 & BS7882

#### II. Electrical – DC/Low Frequency

Parameter/Equipment	Range	CMC <sup>2, 3</sup> (±)	Comments
DC Voltage – Electrical Calibration of Load Indicators	(0 to 4.4) mV/V	0.00002 mV/V	Load cell simulator

<sup>&</sup>lt;sup>1</sup> This laboratory offers commercial calibration service.

Peter Mongen

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<sup>&</sup>lt;sup>2</sup> 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. Calibration and Measurement Capability Uncertainties 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 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> Percent is defined as the indicated value unless stated otherwise.



The American Association for Laboratory Accreditation

World Class Accreditation

# Accredited Laboratory

A2LA has accredited

## **MOREHOUSE INSTRUMENT CO., INC.**

York, 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 the requirements of ANSI/NCSLI Z540-1-1994 and the requirements of ANSI/NCSLI Z540.3-2006 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 8 January 2009).



Presented this 10<sup>th</sup> day of June 2014.

President & CEO For the Accreditation Council Certificate Number 1398.01 Valid to April 30, 2016

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