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

MICHELLI MEASUREMENT GROUP, INC.
7933 Nimbus #28
Beaverton, OR 97008
Patrick Jester Phone: 800-903-8823

CALIBRATION

Valid To: December 31, 2022 Certificate Number: 5104.02

In recognition of the successful completion of the A2LA evaluation process, accreditation is granted to this laboratory to perform the following calibrations[1, 6]:

I. Mechanical

Parameter/Equipment	Range	CMC[2] (±)	Comments	Location[4]
Scales and Balances[3]	1 kg 500 g 300 g 200 g 100 g 50 g 30 g 20 g 10 g 5 g 3 g 2 g 1 g	100 µg 84 µg 70 µg 65 µg 26 µg 16 µg 15 µg 12 µg 12 µg 4.3 µg 3.3 µg 2.5 µg 2.3 µg	Class 1 weights	OR, WA
	453.6 kg (1000 lb) 226.8 kg (500 lb) 22.7 kg (50 lb) 11.34 kg (25 lb) 4.54 kg (10 lb) 2.27 kg (5 lb) 0.91 kg (2 lb) 0.46 kg (1 lb)	7.2 g 5.4 g 290 mg 160 mg 84 mg 70 mg 24 mg 6.4 mg	Class F weights	OR, WA

Parameter/Equipment	Range	CMC[2, 5] (±)	Comments	Location[4]
Scales and Balances[3] (cont)	0.23 kg (0.5 lb) 0.09 kg (0.2 lb) 0.045 kg (0.1 lb) 0.02 kg (0.05 lb) 9.07 g (0.02 lb) 4.54 g (0.01 lb) 2.27 g (0.005 lb) 0.91 g (0.002 lb) 0.45 g (0.001 lb) 227 g (8 oz) 113 g (4 oz) 56.7 g (2 oz) 28.35 g (1 oz) 14.17 g (1/2 oz) 7.09 g (1/4 oz) 3.54 g (1/8 oz) 1.77 g (1/16 oz) 20 kg 10 kg 5 kg 2 kg 1 kg 500 g 200 g 100 g 50 g 20 g 10 g (1 to 5) g (100 to 500) mg (10 to 50) mg 5 mg 1 mg 2041.2 kg (4500 lb) 1406.1 kg (3100 lb)	0.84 mg 0.67 mg 0.65 mg 0.28 mg 0.27 mg 0.27 mg 0.27 mg 0.27 mg 0.27 mg 0.57 mg 0.32 mg 0.27 mg 0.31 mg 0.20 mg 0.16 mg 0.14 mg 0.10 mg 250 mg 140 mg 87 mg 68 mg 65 mg 8.7 mg 4.8 mg 2.4 mg 1.2 mg 0.5 mg 0.27 mg 0.24 mg 0.12 mg 60 µg 24 µg 13 µg 270 g 270 g	Class F weights Class F test cart	OR, WA OR, WA
Force – Measuring Equipment (Tension Only)	(0 to 5 000) lbf (0 to 10 000) lbf	0.42 lbf 1.3 lbf	Dillon load cells	OR

[1] This laboratory offers commercial calibration service and field 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] 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 locations that can perform the calibrations are given by the letter code listed in the table below. The field locations below are service locations and all calibrations are performed at customer sites:

Location	Code
(Main Location) 7933 SW Nimbus Avenue, #28 Beaverton, OR 97008	OR
(Field Location) 19612 70th Avenue South Kent, WA 98032	WA

[5] The type of instrument or material being calibrated is defined by the parameter. This indicates the laboratory is capable of calibrating instruments that measure or generate the values in the ranges indicated for the listed measurement parameter.

[6] This scope meets A2LA's *P112 Flexible Scope Policy*.

Accredited Laboratory

A2LA has accredited

MICHELLI MEASUREMENT GROUP, INC.

Beaverton, OR

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/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 April 2017*).

Presented this 28th day of October 2020.

Vice President, Accreditation Services
For the Accreditation Council
Certificate Number 5104.02
Valid to December 31, 2022

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