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

METTLER-TOLEDO, LLC DBA
JOHNSON SCALE & BALANCE
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CALIBRATION

Valid To: October 31, 2026 Certificate Number: 7068.01

In recognition of the successful completion of the A2LA evaluation process (including an assessment of the organization's compliance with A2LA's Calibration Program Requirements), accreditation is granted to this laboratory to perform the following calibrations[1, 5]:

I. Mechanical

Parameter/Equipment	Range	CMC[2] (±)	Comments
Laboratory Balances[3] – Fixed Points			
Resolution:			
0.0001 mg	1 mg	5.8 µg	1 mg to 200 g using ASTM Class 0 weights
0.0001 mg	2 mg	5.8 µg	
0.0001 mg	3 mg	5.8 µg	
0.0001 mg	5 mg	5.8 µg	
0.0001 mg	10 mg	5.8 µg	
0.0001 mg	20 mg	5.8 µg	
0.0001 mg	30 mg	5.8 µg	
0.0001 mg	50 mg	5.8 µg	
0.0001 mg	100 mg	5.8 µg	
0.0001 mg	200 mg	5.8 µg	
0.0001 mg	300 mg	5.8 µg	
0.0001 mg	500 mg	5.8 µg	
0.000 000 1 g	1 g	20 µg	
0.000 000 1 g	2 g	20 µg	
0.000 000 1 g	3 g	20 µg	
0.000 000 1 g	5 g	19 µg	
0.000 001 g	10 g	29 µg	
0.000 001 g	20 g	43 µg	
0.000 001 g	30 g	43 µg	
0.000 001 g	50 g	69 µg	

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Parameter/Equipment	Range	CMC[2] (±)	Comments
Laboratory Balances[3] – Fixed Points (cont)			
Resolution:			
0.000 01 g	100 g	0.15 mg	(300 to 64 000) g using ASTM Class 1 weights
0.000 01 g	150 g	0.17 mg	
0.000 01 g	200 g	0.29 mg	
0.0001 g	300 g	0.89 mg	
0.0001 g	400 g	1.2 mg	
0.0001 g	500 g	1.4 mg	
0.001 g	600 g	1.9 mg	
0.001 g	800 g	2.4 mg	
0.001 g	1000 g	3 mg	
0.001 g	1200 g	3.6 mg	
0.001 g	2000 g	5.8 mg	
0.001 g	2500 g	7.2 mg	
0.001 g	3000 g	8.7 mg	
0.001 g	3500 g	10 mg	
0.001 g	4000 g	12 mg	
0.001 g	4500 g	13 mg	
0.001 g	5000 g	14 mg	
0.01 g	6000 g	19 mg	
0.01 g	8000 g	25 mg	
0.01 g	10 000 g	30 mg	
0.01 g	12 000 g	31 mg	
0.01 g	15 000 g	44 mg	
0.1 g	16 000 g	90 mg	
0.1 g	20 000 g	100 mg	
0.1 g	25 000 g	110 mg	
0.1 g	30 000 g	0.12 g	
0.1 g	32 000 g	0.12 g	
0.1 g	64 000 g	0.20 g	
Industrial Scales[3] – Fixed Points			
Resolution:			
0.000 01 kg	1 kg	6.7 mg	ASTM Class 1 weights
0.000 01 kg	2 kg	8.4 mg	
0.000 01 kg	3 kg	11 mg	
0.000 02 kg	4 kg	17 mg	
0.000 02 kg	5 kg	18 mg	
0.000 02 kg	6 kg	22 mg	
0.0001 kg	10 kg	67 mg	
0.0001 kg	15 kg	74 mg	
0.0001 kg	20 kg	84 mg	
0.0001 kg	25 kg	94 mg	
0.0001 kg	30 kg	0.11 g	
0.0001 kg	35 kg	0.12 g	

Parameter/Equipment	Range	CMC[2, 4] (±)	Comments
Industrial Scales[3] – Fixed Points (cont)			
Resolution:			
0.001 kg	40 kg	0.62 g	ASTM Class 1 weights
0.001 kg	50 kg	0.62 g	
0.001 kg	60 kg	0.63 g	
0.001 kg	75 kg	0.64 g	
0.001 kg	80 kg	0.65 g	
0.001 kg	100 kg	0.67 g	
0.001 kg	120 kg	0.70 g	
0.001 kg	125 kg	0.70 g	
0.001 kg	150 kg	0.74 g	
0.002 kg	200 kg	1.3 g	
0.002 kg	250 kg	1.4 g	
0.002 kg	300 kg	1.5 g	ASTM Class 6 and NIST Class F weights
0.02 kg	400 kg	48 g	
0.02 kg	500 kg	59 g	
0.02 kg	750 kg	88 g	
0.02 kg	1000 kg	0.12 kg	
0.02 kg	1250 kg	0.15 kg	
0.02 kg	1500 kg	0.17 kg	
0.05 kg	2000 kg	0.23 kg	
0.05 kg	2500 kg	0.29 kg	
0.05 kg	3000 kg	0.35 kg	
0.1 kg	3500 kg	0.41 kg	
0.1 kg	4000 kg	0.47 kg	
Force[3] –Measuring Equipment			Force stand with master load cell
Comparison	(2 to 100) lbf	0.0061 lbf	Compression & tension
	(10 to 500) lbf	0.031 lbf	
	(30 to 2000) lbf	0.12 lbf	
	(2000 to 20 000) lbf	1.5 lbf	Tension only

Parameter/Equipment	Range	CMC[2, 4] (±)	Comments
Force[3] – Measuring Equipment			Test stand w/ deadweights:
Deadweight	0.1 lbf 0.2 lbf 0.25 lbf 0.5 lbf 0.75 lbf 1 lbf 2.5 lbf 5 lbf 7.5 lbf 10 lbf 20 lbf	0.000 024 lbf 0.000 047 lbf 0.000 29 lbf 0.000 12 lbf 0.000 41 lbf 0.000 18 lbf 0.000 30 lbf 0.000 58 lbf 0.000 87 lbf 0.0012 lbf 0.0023 lbf	Class F weights
	0.5 lbf 1 lbf 2 lbf 3 lbf 4 lbf 5 lbf 6 lbf 7 lbf 8 lbf 9 lbf 10 lbf 11 lbf 12 lbf 13 lbf 14 lbf 15 lbf 16 lbf 17 lbf 18 lbf 19 lbf 20 lbf	0.000 42 lbf 0.000 72 lbf 0.0012 lbf 0.0019 lbf 0.0023 lbf 0.0020 lbf 0.0027 lbf 0.0031 lbf 0.0038 lbf 0.0042 lbf 0.0034 lbf 0.0041 lbf 0.0045 lbf 0.0052 lbf 0.0056 lbf 0.0054 lbf 0.0061 lbf 0.0065 lbf 0.0072 lbf 0.0076 lbf 0.0068 lbf	Class 7 weights

Parameter/Equipment	Range	CMC[2, 4] (±)	Comments
Force[3] – Measuring Equipment (cont)			Test stand w/ deadweights:
Deadweight	20 lbf 40 lbf 50 lbf 60 lbf 70 lbf 80 lbf 90 lbf 100 lbf 110 lbf 120 lbf 130 lbf 140 lbf 150 lbf 160 lbf 170 lbf 180 lbf 190 lbf 200 lbf 210 lbf 220 lbf 230 lbf 240 lbf 250 lbf 260 lbf 270 lbf 280 lbf 290 lbf 300 lbf 310 lbf 320 lbf 330 lbf 340 lbf 350 lbf 360 lbf 370 lbf 380 lbf 390 lbf 400 lbf 410 lbf 420 lbf 430 lbf 440 lbf 450 lbf 460 lbf 470 lbf 480 lbf 490 lbf 500 lbf	0.0024 lbf 0.0047 lbf 0.0058 lbf 0.0071 lbf 0.0082 lbf 0.0094 lbf 0.011 lbf 0.012 lbf 0.013 lbf 0.014 lbf 0.016 lbf 0.017 lbf 0.018 lbf 0.019 lbf 0.020 lbf 0.021 lbf 0.022 lbf 0.024 lbf 0.025 lbf 0.026 lbf 0.027 lbf 0.028 lbf 0.029 lbf 0.031 lbf 0.032 lbf 0.033 lbf 0.034 lbf 0.035 lbf 0.036 lbf 0.037 lbf 0.039 lbf 0.040 lbf 0.041 lbf 0.042 lbf 0.043 lbf 0.044 lbf 0.046 lbf 0.047 lbf 0.048 lbf 0.049 lbf 0.050 lbf 0.051 lbf 0.052 lbf 0.054 lbf 0.055 lbf 0.056 lbf 0.057 lbf 0.058 lbf	Class 6 Weights

Parameter/Equipment	Range	CMC[2] (±)	Comments
Torque[3] –			
Analyzers	(0.015 625 to 0.5) lbf·in (0.25 to 8) ozf·in	0.023 % + 0.000 002 4 lbf·in	Test stand w/ torque wheel & deadweights
	(0.625 to 4) lbf·in (10 to 64) ozf·in	0.018 % + 0.000 033 lbf·in	
	(5 to 260) lbf·in	0.012 % + 0.000 17 lbf·in	
	(240 to 3000) lbf·in	0.012 % + 0.0018 lbf·in	Test stand w/ torque arm & deadweights

[1] This laboratory offers commercial calibration service and field calibration service, where noted.

[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. 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. Please note the actual measurement uncertainties achievable on a customer's site can normally be expected to be larger than the Calibration and Measurement Capability Uncertainty (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 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 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.

[5] This Scope meets A2LA's P112 Flexible Scope Policy.

Accredited Laboratory

A2LA has accredited

METTLER-TOLEDO, LLC DBA JOHNSON SCALE & BALANCE

Pine Brook, NJ

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 5th day of November 2024.

Mr. Trace McInturff, Vice President, Accreditation Services
For the Accreditation Council
Certificate Number 7068.01
Valid to October 31, 2026
Revised October 21, 2025

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