



**ANSI-ASQ National Accreditation Board**

**SCOPE OF ACCREDITATION TO ISO/IEC 17025:2005**

**DC Martin & Sons Scales, Inc.**

370 36<sup>th</sup> Street SE  
 Grand Rapids, MI 49548  
 David Martin 616-451-2079

**CALIBRATION**

Valid to: November 19, 2019

Certificate Number: L1141-1

**Mass**

Parameter/Equipment	Range	Expanded Uncertainty of Measurement (+/-)	Reference Standard, Method, and/or Equipment
Class I and High Precision Lab Balances	(0.001 to 10) g (10.1 to 1 000) g (1 000.1 to 43 000) g	0.000 56 % Applied Load 0.000 2 % Applied Load 0.000 17 % Applied Load	ASTM E617 Class 1 weights and NIST Handbook 44 utilized for the calibration of the weighing system.
Class II Lab Balances and High Precision Scales	(0.001 to 20 000) g (20 001 to 43 000) g	0.000 62 % Applied Load 0.000 7 % Applied Load	
Class III & Equivalent Industrial Scales	(0.000 1 to 2) lb (2.1 to 100 000) lb (50 to 100) ton	0.015 % Applied Load 0.01 % Applied Load 0.012 % Applied Load	NIST Class F weights and NIST Handbook 44 utilized for the calibration of the weighing system.
	(0.1 to 1 000) g (1.1 to 2 000) kg	0.012 % Applied Load 0.01 % Applied Load	
Class IIIL Vehicle Scales	(5 to 200 000) lb	0.017 % Applied Load	
Unmarked and High Resolution Scales	(0.000 01 to 50 000 lb) (0.001 to 43 000) g (43.1 to 2 000) kg	0.005 9 % Applied Load 0.000 22% Applied Load 0.003 7% Applied Load	ASTM E617 Class 1 weights, NIST Class F weights and NIST Handbook 44 utilized for the calibration of the weighing system.

Calibration and Measurement Capability (CMC) is expressed in terms of the measurement parameter, measurement range, expanded uncertainty of measurement and reference standard, method, and/or equipment. The expanded uncertainty of measurement is expressed as the standard uncertainty of the measurement multiplied by a coverage factor of 2 ( $k=2$ ), corresponding to a confidence level of approximately 95%



Notes

1. On-site calibration service is available for this parameter, since on-site conditions are typically more variable than those in the laboratory, larger measurement uncertainties are expected on-site than what is reported on the accredited scope.
2. Industrial Scales include Bench Scales, Counting Scales, Portable Scales, Floor Scales, Crane/Hanging Scales, Tank and Hopper Scales and Forklift/Lift Truck Scales
3. The CMC for scales and balances is highly dependent upon the resolution of the unit under test. The CMC presented here does not include the resolution of the unit under test. The resolution will be included in the reported measurement uncertainty at the time of calibration.
4. This scope is formatted as part of a single document including Certificate of Accreditation No. L1141-1.



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Vice President

