

Scope of Accreditation

For

B-Accurate, a Division of Calibrations, Inc.

7550 Jacks Lane
Clayton, OH 45315
Steve Strong
937-836-0064

In recognition of a successful assessment to ISO/IEC 17025:2005 to the following Calibration and Measurement Capabilities, accreditation has been granted to **B-Accurate, a Division of Calibrations, Inc.** for the following:

Accreditation granted through: **May 7, 2019**

Calibration

Length – Hand Tools and Precision Gages 1D

Calibration Parameter/Equipment	Range	Expanded Uncertainty of Measurement (+/-) ^{2,3}	Remarks
Length (Length/Distance Functions of Force Measurement Test Stands)	(1 to 8) in	(66 + 34L) μin	Grade 2 Gage Blocks and B-Accurate Calibration Method
	(8 to 20) in	0.006 in	

Mass – Force

Calibration Parameter/Equipment ¹	Range	Expanded Uncertainty of Measurement (+/-)	Remarks
Force Gauges and Load Cells	(0.5 to 200) lbf	0.07 % of range	Direct Comparison to ASTM Class 6 and 7 Weights and/or Load Cells. Tension and Compression
	(201 to 250) lbf	0.04 % of range	Load Cells Tension and Compression
	(251 to 1 100) lbf	0.04 % of range	
	(1 101 to 2 500) lbf	0.04 % of range	
	(2 501 to 10 000) lbf	0.03 % of range	
	(10 001 to 50 000) lbf	0.06 % of range	Compression Only
	(50 001 to 100 000) lbf	0.06 % of range	

Mass – Mass Artifacts

Calibration Parameter/Equipment	Range	Expanded Uncertainty of Measurement (+/-)	Remarks
Mass Standards	1 g	60 µg	B-Accurate Test Procedures derived from NIST SOP 8
	100 g	90 µg	
	300 g	300 µg	
NIST Class F ASTM E617 Class 6 ASTM E617 Class 7	500 g	0.02 g	B-Accurate Test Procedures derived from NIST SOP 8
	2 000 g	0.03 g	
	5 000 g	0.2 g	
	10 000 g	0.3 g	
	20 000 g	0.6 g	
	30 000 g	0.6 g	

Mass – Scales and Balances

Calibration Parameter/Equipment ¹	Range	Expanded Uncertainty of Measurement (+/-) ²	Remarks
Class I Weighing Devices	(0 to 300) g (300 to 1 000) g (1 000 to 4 000) g	0.9 mg 11.5 mg 16 mg	ASTM E617 Class I Certified Weights
Class II Weighing Devices	(0 to 100) g (100 to 200) g (2000 to 500) g (500 to 1 000) g (1 000 to 2 000) g (2 000 to 6 000) g	0.7 mg 1.0 mg 2.9 mg 0.005 g 0.012 g 0.03 g	ASTM E617 Class II Certified Weights
Class III Weighing Devices	(0 to 5) kg (5 to 10) kg (10 to 30) kg (30 to 100) kg (100 to 500) kg (500 to 1 000) kg	0.016 kg 0.002 kg 0.012 kg 0.013 kg 0.057 kg 0.11 kg	NIST 105 Class F Certified Weights

Calibration Parameter/Equipment ¹	Range	Expanded Uncertainty of Measurement (+/-) ²	Remarks
Class III Weighing Devices	(0 to 1) lb	0.000 2 lb	NIST 105 Class F Certified Weights
	(1 to 5) lb	0.001 3 lb	
	(5 to 1 000) lb	0.14 lb	
	(1 000 to 5 000) lb	0.33 lb	
	(5 000 to 10 000) lb	0.55 lb	
	(10 000 to 20 000) lb	2.5 lb	
Class III L Weighing Devices	(20 000 to 40 000) lb	5 lb	NIST 105 Class F Certified Weights
	(0 to 50 000) lb	5.8 lb	
	(50 000 to 100 000) lb	11.6 lb	
	(100 000 to 200 000) lb	21 lb	
	(200 000 to 400 000) lb	52 lb	

Calibration and Measurement Capability (CMC) is expressed in terms of the measurement parameter, measurement range, expanded uncertainty of measurement and remarks. 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) Laboratory offers calibration services at the laboratory's own facilities and at the client or other agreed upon facilities.
- 2) 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.
- 3) *L* = length in inches

Approved by: _____



R. Douglas Leonard
Chief Technical Officer

Date: May 3, 2016

Re-Issued: 5/3/16