

Scope of Accreditation For Data Weighing Systems

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In recognition of a successful assessment to ISO/IEC 17025:2005, accreditation is granted to **Data Weighing Systems** to perform the following Calibrations:

Accreditation granted through: **September 22, 2013**

Calibration

Mass – Scale and Balances

Calibration Parameter/Equipment	Range	Calibration and Measurement Capability(+/-) ²	Remarks
Micro-Balances 0.1 µg resolution 1 µg resolution 10 µg resolution	(0 to 2.1) g (0 to 31) g (0 to 230) g	4.2 µg 29 µg 0.13 mg	Method, tolerance according to DWS procedures utilizing ASTM E617 Class 1 Weights
Analytical Balances 0.0001 g resolution	(0 to 610) g	0.71 mg	
Top Loading Balances 0.001g resolution 0.01g resolution 0.1g resolution 1g resolution	(0 to 1 200) g (0 to 10 000) g (0 to 64 000) g (0 to 150 000) g	4.02 mg 29 mg 0.26 g 2.58 g	
Bench Scales 0.001 lb resolution 0.01 lb resolution	(0 to 50) lb (0 to 300) lb	0.0046 lb 0.027 lb	Method, tolerance according to DWS procedures utilizing NIST Class F Weights
Floor Scales, Tanks and Hoppers 0.1 lb resolution 1 lb resolution 10 lb resolution	(0 to 3 000) lb (0 to 15 000) lb (0 to 40 000) lb	0.27 lb 2.58 lb 23.81 lb	
Crane and hanging scales 1 lb resolution	(0 to 5 000) lb	1.64 lb	
Crane and hanging scales 1 lb resolution 10 lb resolution 50 lb resolution	(0 to 5 000) lb (0 to 50 000) lb (0 to 250 000) lb	4.012 lb 39.39 lb 887.064 lb	Method, tolerance according to DWS procedures utilizing reference load cell
Weigh Pads & Load Cells 1 lb resolution 10 lb resolution	(0 to 5 000) lb (0 to 50 000) lb	4.012 lb 40.02 lb	

Mass – Force

Calibration Parameter/Equipment	Range	Calibration and Measurement Capability(+/-) ²	Remarks
Force gauges and sensors used in force measurement applications, tension and compression	(0 to 1 000) lbf	0.14% of Full Scale	Method, tolerance according to DWS procedures utilizing NIST Class F Weights
	(0 to 50 000) lbf (0 to 250 000) lbf	0.037% of Full Scale 0.342% of Full Scale	Method, tolerance according to DWS procedures utilizing reference load cell

Mass – Torque

Calibration Parameter/Equipment	Range	Calibration and Measurement Capability(+/-) ²	Remarks
Torque Transducers	(0 to 250) lbf-ft (0 to 1 000) lbf-ft	0.177% of Full Scale 0.346% of Full Scale	Method, tolerance according to DWS procedures utilizing NIST Class F Weights and reference wheel/arm standards
Torque Hand Tools	(0 to 1 000) lbf	0.708% of Full Scale	Method, tolerance according to DWS procedures utilizing reference transducer


Mass – Mass Standards

Calibration Parameter/Equipment	Range	Calibration and Measurement Capability(+/-) ²	Remarks
NIST Class F ASTM E617 Class 6 ASTM E617 Class 7	50 lb	87.86 mg	Comparison of Unknown Mass to Known Mass ASTM E617 Class 1, Class 4 Weights
	25 lb	38.99 mg	
	20 lb	31.74 mg	
	10 lb	16.44 mg	
	5 lb	8.83 mg	
	2 lb	5.56 mg	
	1 lb	1.65 mg	
	0.5 lb	0.97 mg	
	0.2 lb	0.32 mg	
	0.1 lb	0.17 mg	
	0.05 lb	0.085 mg	
	0.02 lb	0.040 mg	
	0.01 lb	0.028 mg	

Calibration Parameter/Equipment	Range	Calibration and Measurement Capability(+/-) ²	Remarks
NIST Class F ASTM E617 Class 6 ASTM E617 Class 7	25 000 g	88.71 mg	Comparison of Unknown Mass to Known Mass ASTM E617 Class 1, Class 4 Weights
	10 000 g	34.58 mg	
	5 000 g	17.82 mg	
	2 000 g	8.08 mg	
	1 000 g	5.75 mg	
	500 g	1.78 mg	
	200 g	2.94 mg	
	100 g	0.34 mg	
	50 g	0.17 mg	
	30 g	0.10 mg	
	20 g	0.070 mg	
	10 g	0.039 mg	
	5 g	0.023 mg	
	3 g	0.017 mg	
	2 g	0.015 mg	
1 g	0.025 mg		

Notes:

- 1) Laboratory offers calibration services at the laboratory's own facilities and at the client or other agreed upon facilities.
- 2) Calibration and Measurement Capability represents expanded uncertainties at approximately a 95% confidence level using a coverage factor of k=2.

Approved by: 
 R. Douglas Leonard
 Chief Technical Officer

Date: September 23, 2010

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