



# CERTIFICATE OF ACCREDITATION

**ANSI National Accreditation Board**  
11617 Coldwater Road, Fort Wayne, IN 46845 USA

This is to certify that

**Kanawha Scales and Systems, Inc.**  
**35 Haas Drive**  
**Englewood, OH 45322**

has been assessed by ANAB and meets the requirements of international standard

**ISO/IEC 17025:2017**

while demonstrating technical competence in the field of

**CALIBRATION**

Refer to the accompanying Scope of Accreditation for information regarding the types of activities to which this accreditation applies

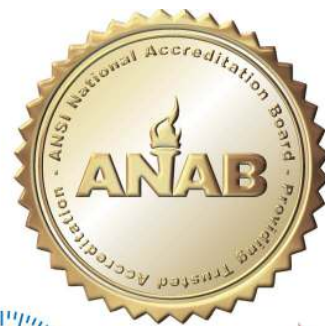
L1166.02-1

Certificate Number



ANAB Approval

Certificate Valid Through: 03/27/2021  
Version No. 003 Issued: 03/26/2019



This laboratory is accredited in accordance with the recognized International Standard ISO/IEC 17025:2017. 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).



# ANSI National Accreditation Board

## SCOPE OF ACCREDITATION TO ISO/IEC 17025:2017

### Kanawha Scales and Systems, Inc.

35 Haas Drive  
Englewood, OH 45322

Alex Padon  
304-464-5312

### CALIBRATION

Valid to: **March 27, 2021**

Certificate Number: **L1166.02-1**

#### Mass and Mass Related

Parameter/Equipment	Range	Expanded Uncertainty of Measurement (+/-)	Reference Standard, Method, and/or Equipment
Weighing Systems (0.000 001 g Resolution)	Up to 5 g	0.000 039 g	ASTM E617 Class 1 Weights and NIST Handbook 44 utilized for the calibration of the Weighing System
(0.000 001 g Resolution)	(5 to 6) g	0.000 078 g	
(0.000 001 g Resolution)	(6 to 25) g	0.000 125 g	
(0.000 001 g Resolution)	(25 to 50) g	0.000 138 g	
(0.000 001 g Resolution)	(50 to 100) g	0.000 289 g	
(0.000 002 g Resolution)	Up to 25 g	0.000 125 g	
(0.000 002 g Resolution)	(25 to 100) g	0.000 289 g	
(0.000 01 g Resolution)	Up to 5 g	0.000 041 g	
(0.000 01 g Resolution)	(5 to 25) g	0.000 125 g	
(0.000 01 g Resolution)	(25 to 50) g	0.000 139 g	
(0.000 01 g Resolution)	(50 to 100) g	0.000 289 g	
(0.000 01 g Resolution)	(100 to 200) g	0.000 577 g	
(0.000 02 g Resolution)	Up to 25 g	0.000 093 g	
(0.000 02 g Resolution)	(25 to 50) g	0.000 141 g	
(0.000 02 g Resolution)	(50 to 100) g	0.000 29 g	



Mass and Mass Related

Parameter/Equipment	Range	Expanded Uncertainty of Measurement (+/-)	Reference Standard, Method, and/or Equipment
Weighing Systems (0.000 1 g Resolution)	Up to 25 g	0.000 18 g	ASTM E617 Class 1 Weights and NIST Handbook 44 utilized for the calibration of the Weighing System
(0.000 1 g Resolution)	(25 to 50) g	0.000 19 g	
(0.000 1 g Resolution)	(50 to 100) g	0.000 32 g	
(0.000 1 g Resolution)	(100 to 200) g	0.000 59 g	
(0.000 2 g Resolution)	Up to 50 g	0.000 29 g	
(0.000 2 g Resolution)	(50 to 200) g	0.000 63 g	
(0.000 5 g Resolution)	Up to 200 g	0.000 87 g	
(0.001 g Resolution)	Up to 100 g	0.001 3 g	
(0.001 g Resolution)	(100 to 200) g	0.001 4 g	
(0.002 g Resolution)	Up to 200 g	0.002 6 g	
(0.002 g Resolution)	(200 to 500) g	0.002 9 g	
(0.005 g Resolution)	Up to 500 g	0.006 6 g	
(0.005 g Resolution)	(500 to 1 000) g	0.0071	
(0.01 g Resolution)	Up to 1 000 g	0.013 g	
(0.01 g Resolution)	(1 000 to 10 000) g	0.032 g	
(0.02 g Resolution)	Up to 2 000 g	0.026 g	
(0.02 g Resolution)	(2 000 to 5 000) g	0.029 g	
(0.1 g Resolution)	Up to 10 000 g	0.13 g	
(0.1 g Resolution)	(10 000 to 50 000) g	0.19 g	
(0.2 g Resolution)	Up to 20 000 g	0.26 g	
(0.2 g Resolution)	(20 000 to 50 000) g	0.3 g	
(0.5 g Resolution)	Up to 25 000 g	0.65 g	
(0.5 g Resolution)	(25 000 to 50 000) g	0.66 g	



# ANSI National Accreditation Board

## Mass and Mass Related

Parameter/Equipment	Range	Expanded Uncertainty of Measurement (+/-)	Reference Standard, Method, and/or Equipment
Weighing Systems (0.000 001 g Resolution)	Up to 5 g	0.000 062 g	ASTM E617 Class 2 Weights and NIST Handbook 44 utilized for the calibration of the Weighing System
(0.000 001 g Resolution)	(5 to 6) g	0.000 125 g	
(0.000 001 g Resolution)	(6 to 10) g	0.000 085 g	
(0.000 001 g Resolution)	(10 to 25) g	0.000 178 g	
(0.000 001 g Resolution)	(25 to 50) g	0.000 029 g	
(0.000 001 g Resolution)	(50 to 100) g	0.000 577 g	
(0.000 002 g Resolution)	Up to 10 g	0.000 085 g	
(0.000 002 g Resolution)	(10 to 25) g	0.000 178 g	
(0.000 002 g Resolution)	(25 to 50) g	0.000 289 g	
(0.000 002 g Resolution)	(0.1 to 100) g	0.000 577 g	
(0.000 01 g Resolution)	Up to 5 g	0.000 064 g	
(0.000 01 g Resolution)	(5 to 25) g	0.000 178 g	
(0.000 01 g Resolution)	(25 to 50) g	0.000 289 g	
(0.000 01 g Resolution)	(50 to 100) g	0.000 577 g	
(0.000 01 g Resolution)	(100 to 200) g	0.001 154 g	
(0.000 02 g Resolution)	Up to 25 g	0.000 18 g	
(0.000 02 g Resolution)	(25 to 50) g	0.000 29 g	
(0.000 02 g Resolution)	(50 to 100) g	0.000 578 g	
(0.000 02 g Resolution)	(100 to 200) g	0.001 154 g	
(0.000 1 g Resolution)	Up to 25 g	0.000 22 g	
(0.000 1 g Resolution)	(25 to 50) g	0.000 32 g	
(0.000 1 g Resolution)	(50 to 100) g	0.000 59 g	
(0.000 1 g Resolution)	(100 to 200) g	0.001 16 g	



Mass and Mass Related

Parameter/Equipment	Range	Expanded Uncertainty of Measurement (+/-)	Reference Standard, Method, and/or Equipment
Weighing Systems (0.000 2 g Resolution)	Up to 50 g	0.000 39 g	ASTM E617 Class 2 Weights and NIST Handbook 44 utilized for the calibration of the Weighing System
(0.000 2 g Resolution)	(50 to 200) g	0.001 18 g	
(0.000 5 g Resolution)	(50 to 100) g	0.000 87 g	
(0.000 5 g Resolution)	(100 to 200) g	0.001 32 g	
(0.001 g Resolution)	Up to 50 g	0.001 32 g	
(0.001 g Resolution)	(50 to 100) g	0.001 4 g	
(0.005 g Resolution)	Up to 100 g	0.006 5 g	
(0.005 g Resolution)	(100 to 200) g	0.006 6 g	
(0.005 g Resolution)	(200 to 500) g	0.007 1 g	
(0.000 2 lb Resolution)	Up to 2 lb	0.000 35 lb	
(0.000 5 lb Resolution)	Up to 5 lb	0.000 87 lb	
(0.001 lb Resolution)	Up to 10 lb	0.001 7 lb	
(0.002 lb Resolution)	Up to 20 lb	0.0035 lb	
(0.005 lb Resolution)	Up to 50 lb	0.008 7 lb	
(0.01 lb Resolution)	Up to 100 lb	0.017 lb	
(0.02 lb Resolution)	Up to 200 lb	0.035 lb	
(0.05 lb Resolution)	Up to 500 lb	0.078 lb	
(0.1 lb Resolution)	Up to 1 000 lb	0.16 lb	
(0.2 lb Resolution)	Up to 2 000 lb	0.31 lb	
(0.5 lb Resolution)	Up to 5 000 lb	0.71 lb	
(1 lb Resolution)	Up to 5 000 lb	1.3 lb	
(1 lb Resolution)	(5 000 to 10 000) lb	1.4 lb	
(2 lb Resolution)	Up to 10 000 lb	2.6 lb	



Mass and Mass Related

Parameter/Equipment	Range	Expanded Uncertainty of Measurement (+/-)	Reference Standard, Method, and/or Equipment
Weighing Systems (2 lb Resolution)	Up to 20 000 lb	2.8 lb	NIST Class F and/or ASTM E617 Class 6 Weights and NIST Handbook 44 utilized for the calibration of the Weighing System
(5 lb Resolution)	Up to 50 000 lb	6.6 lb	
(10 lb Resolution)	Up to 100 000 lb	13.2 lb	
(20 lb Resolution)	Up to 200 000 lb	26 lb	
(50 lb Resolution)	Up to 500 000 lb	65.2 lb	
(100 lb Resolution)	Up to 500 000 lb	129.4 lb	
(200 lb Resolution)	Up to 500 000 lb	258.5 lb	
(0.001 g Resolution)	Up to 10 g	0.001 7 g	
(0.002 g Resolution)	Up to 20 g	0.003 5 g	
(0.005 g Resolution)	Up to 50 g	0.008 7 g	
(0.01 g Resolution)	Up to 100 g	0.017 g	
(0.02 g Resolution)	Up to 200 g	0.035 g	
(0.05 g Resolution)	Up to 500 g	0.087 g	
(0.1 g Resolution)	Up to 1 000 g	0.17 g	
(0.2 g Resolution)	Up to 2 000 g	0.35 g	
(0.5 g Resolution)	Up to 5 000 g	0.87 g	
(1 g Resolution)	Up to 1 000 g	1.7 g	
(2 g Resolution)	Up to 20 000 g	3.5 g	
(5 g Resolution)	Up to 50 000 g	8.7 g	
(10 g Resolution)	Up to 100 000 g	17.3 g	
(20 g Resolution)	Up to 200 000 g	31.1 g	
(50 g Resolution)	Up to 500 000 g	77.7 g	
(0.1 kg Resolution)	Up to 1 000 kg	0.16 kg	






Mass and Mass Related

Parameter/Equipment	Range	Expanded Uncertainty of Measurement (+/-)	Reference Standard, Method, and/or Equipment
Weighing Systems (0.2 kg Resolution)	Up to 2 000 kg	0.28 kg	NIST Class F and/or ASTM E617 Class 6 Weights and NIST Handbook 44 utilized for the calibration of the Weighing System
(0.5 kg Resolution)	Up to 5 000 kg	0.71 kg	
(1 kg Resolution)	Up to 10 000 kg	1.4 kg	
(2 kg Resolution)	Up to 20 000 kg	2.8 kg	
(5 kg Resolution)	Up to 50 000 kg	6.6 kg	
(10 kg Resolution)	Up to 100 000 kg	13.2 kg	

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 but not limited to lab balances, bench and floor scales, tank and hopper scales and vehicle scales.
3. Laboratory offers custom (specific scale) uncertainty budget when requested by client.
4. This scope is formatted as part of a single document including Certificate of Accreditation No. L1166.02-1.



Vice President