RICELAKE

Certificate of Weight Calibration

Traceable Certificate Number: 3291577
Contractor: K-SCALFILC

WEST RIVER SCALE LLC 1701 W MADISON ST STE 100 SIOUX FALLS, SD 57104-5723

Purchase Order Number: 17261

Client: K-SCALE LLC

WEST RIVER SCALE LLC 1701 W MADISON ST STE 100 SIOUX FALLS, SD 57104-5723

Date Received:15 Oct 2021Date Calibrated:20 Oct 2021Recalibration Date:20 Oct 2023NIST Certificate Number:684/292805-19

If there are two NIST numbers, one or both may apply **Calibrated By:** 20

Procedure: WI05-0095 Rev. D

Condition of Weights: Acceptable for Calibration

Description of Weights: 1 g to 100 g Polished Weight Set, ASTM Class 3, S/N 0VC3

Comments:

Finish

Material



Key Notes

Indicates the weight does not meet the finish requirements

Indicates the weight does not meet the material requirements

New Wt Indicates new weight

Missing Wt Indicates replaced missing weight with new weight

Damaged Wt Indicates replaced damaged weight

Replaced OOT * Indicates replaced out of tolerance weight

OOT Indicates correction plus or minus Uncertainty greater than or equal to MPE

Magnetic Wt ★★Indicates replaced magnetic weight

Design Indicates the weight does not meet the design or shape requirements

Repainted Indicates the weight was repainted after As Found obtained

Other See comments above

Cleaning Levels

- A Dusted with brush or cloth
- B Spot cleaned with ethyl alcohol
- C Full surface cleaned with ethyl alcohol
- D Spot cleaned with non-alcohol solvent followed by ethyl alcohol
- E Full surface cleaned with non-alcohol solvent followed by ethyl alcohol
- F No cleaning performed

Material Abbreviations

AL	Aluminum	TA	Tantalum
SS	Stainless Steel	BR	Brass
CI	Cast Iron	PL	Platinum
IR	Iron	NS	Nickel Silver
MS	Mild Steel	OR	Other/Unknown

Check with your local state agency for certification of compliance on Legal-for-Trade items. The weight accuracy class is referenced in the Description of Weights. Unless otherwise noted, the weights calibrated meet the requirements of the accuracy class. Results relate only to weights calibrated. The Surface Finishes of weights are evaluated visually. Weights are screened for magnetism using work instruction WI05-0035 when they are new, when requested by the customer or when weights are suspected of not meeting specifications. Density if measured using OIML R111-1 (2004) method A2. Conventional Mass is reported based on a reference density of 8.0 g/cm³. The Uncertainty of Measurement is included in the determination of Maximum Permissible Error (MPE) Pass/Fail Criteria. The specifications for Maximum Permissible Error (MPE) can be found in NIST Handbook 105-1 (2019), NIST Handbook 105-1 (1990), ASTM E617-18 or OIML R111-1 (2004), manufacturer specifications or customer specifications.

The Uncertainty assigned to the Conventional Mass values are the result of the root-sum-square of the type A and type B components, calculated in accordance with NIST SOP 29 and the Guide to the expression of uncertainty in measurement, with coverage factor (*k*=2), to express the expanded uncertainty with an approximate 95.45% confidence level. This report is not to be used to claim product certification, approval, or endorsement by NVLAP, NIST, A2LA, or any government agency. This document shall not be reproduced, except in full, without the written approval of Rice Lake Weighing Systems.

Dan Damara Matrologist

20 Oct 2021

Date:

Prepared By:

Rice Lake Weighing Systems®●PN 38914●06/20 230 West Coleman Street●Rice Lake, WI 54868●USA

TEL: 715-234-9171 FAX: 715-234-6967

Definitions: http://certs.ricelake.com/certs/DefinitionsV2.docx

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Certificate of Weight Calibration RICE LAKE

Traceable Certificate Number: Date Calibrated:

3291577 K-SCALE LLC 20 Oct 2021

Pressure Range: Relative Humidity Range: Temperature Range:

21.12 °C to 21.20 °C 731.05 mmHg to 731.38 mmHg 49 % to 50 %

				100		-	-	201111	100	-	
	Clear		A	A	V	A	4	X	A	×	V
	Air Density	(mg/cm ³)	1.1487	1.1490	1.1486	1.1486	1.1483	1.1486 /	1.1491	1.1490	1.1489
	Reference Standard	Set Used	K594Q	K594Q	K594Q	K594Q	K594Q	K594Q	K594Q	K594Q	K594Q
	Balance		1605Q	1605Q	1605Q	1605Q	676Q	676Q	1631Q	1631Q	1631Q
	Const.		-	=	=	=	=	=	=	=	=
it than As Left)	Assumed		SS	SS	SS	SS	SS	SS	SS	SS	SS
	Assumed Density	(g/cm ³)	7.95	7.95	7.95	7.95	7.95	7.95	7.95	7.95	7.95
differe	MPE		7	>	\						
when o	MPE (± ma)	6	0.10	0.13	0.15	0.18	0.25	0.35	0.45	09.0	1.0
As Left Data (As Found only shown when	(k=2) Unc.	(‡ mg)	0.0028	0.0032	0.0032	0.0061	0.013	0.017	0.019	0.025	0.052
	Conv. Mass Corr.	(mg)	0.0332	0.0447	0.0299	-0.0556	0.050	0.025	0.082	-0.106	-0.125
	Conv.		1.0000332	2.0000447	3.0000299	4.9999444	10.000050	20.000025	30.000082	49.999894	99.999875
	True Mass Corr.	(mg)	0.0342	0.0466	0.0327	-0.0509	0.059	0.044	0.110	-0.059	-0.030
	True		1.0000342	2.0000466	3.0000327	4.9999491	10.000059	20.000044	30.000110	49.999941	99.999970
	Unique										
	Nominal		19	29	39	59	10 g	20 g	30 g	50 g	100 g

Certificate of Weight Calibration

Traceable Certificate Number: 3291577A Contractor: K-SCALE LLC

> WEST RIVER SCALE LLC 1701 W MADISON ST STE 100 SIOUX FALLS, SD 57104-5723

Purchase Order Number: 17261

Client: K-SCALE LLC

> WEST RIVER SCALE LLC 1701 W MADISON ST STE 100 SIOUX FALLS, SD 57104-5723

* Indicates the weight does not meet the finish requirements

Indicates replaced missing weight with new weight

Indicates the weight does not meet the material requirements

Indicates correction plus or minus Uncertainty greater than or equal to MPE

Indicates the weight does not meet the design or shape requirements

Date Received: 15 Oct 2021 Date Calibrated: 20 Oct 2021 Recalibration Date: 20 Oct 2023 **NIST Certificate Number:** 684/292805-19

If there are two NIST numbers, one or both may apply Calibrated By:

WI05-0095 Rev. D Procedure:

Condition of Weights: Acceptable for Calibration

Indicates new weight

M Indicates replaced damaged weight

* Indicates replaced magnetic weight

Indicates replaced out of tolerance weight

100 g S/N 06-J17124-22 and 200 g S/N 07-463352 Polished Weights, ASTM Class 3 **Description of Weights:**

Comments:

Finish

Material

New Wt

OOT

Design

Other

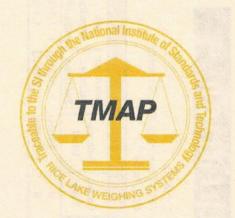
Missing Wt

Damaged Wt

Magnetic Wt

Repainted

Replaced OOT



Cleaning Levels Key Notes

A Dusted with brush or cloth Spot cleaned with ethyl alcohol

Full surface cleaned with ethyl alcohol

Spot cleaned with non-alcohol solvent followed by ethyl alcohol

Full surface cleaned with non-alcohol solvent followed by ethyl alcohol

No cleaning performed

Material Abbreviations TA Aluminum Tantalum

AL SS BR Brass Stainless Steel CI PL Platinum Cast Iron IR NS Nickel Silver Iron MS Mild Steel Other/Unknown

Indicates the weight was repainted after As Found obtained See comments above

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20 Oct 2021

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Certificate of Weight Calibration

Traceable Certificate Number:

Date Calibrated:

RICELAKE

3291577A K-SCALE LLC 20 Oct 2021

Pressure Range: Relative Humidity Range: Temperature Range:

21.14 °C 731.17 mmHg to 731.29 mmHg 48 % to 49 %

	Clea	A	A	100
	Air Density (mg/cm ³)	1.1488	1.1491	
	Reference Standard Set Used	K594Q	K594Q	
	Secretary of the second	1631Q	1810Q	
	Const. Type	=	=	
Left)	Assumed Const. Balance Material Type Used	SS	SS	
t than As I	Assumed Density (g/cm ³)	7.85	7.85	
differe	MPE	Y	7	
n when	MPE (± mg)	1.0	2.0	
As Left Data (As Found only shown when different than As Left)	(k=2) Unc. (± mg)	0.052	0.028	
	Conv. Mass Corr. (mg)	-0.641	-0.092	
	Conv.	-0.354 99.999359	0.481 199.999908	7
	True Mass Corr. (mg)	-0.354	0.481	
	True Mass	99.999646	200.000481	
	Unique ID	100 g 06-J17124-22	200 g 07-463352	
	Nominal Value	100 g	200 g	