



DEPARTMENT OF COMMERCE
WEIGHTS & MEASURES DIVISION



14305 Southcross Drive #150
 Burnsville, MN 55306-7008
 mn.gov/commerce/
 651.539.1555 FAX 952.435.4040
 An equal opportunity employer

TROY

Receipt Date: February 16, 2018
 Cal. Date: March 21, 2018
 Report Date: March 21, 2018

Report No.: 338968
 Set Serial No.: 53948
 Barcode: 200539

Calibration Certificate

FUJITSU AMERICA INC.
 2821 TELECOM PARKWAY
 RICHARDSON, TX 75082
 Contact: TROY LARSON
 Phone: 651-283-0724
 PO Number: None
 Procedure: NIST SOP 8
 Technician ID: 19

Item(s) Submitted: AVDP Weight Kit - Class F
 Manufacturer: Troemner
 Weight Type: I & II
 Equipment ID: None
 Condition: Good
 Temperature: 19.3 °C
 Pressure: 741.5 mmHg
 Relative Humidity: 50.7 %

Nominal Value	Serial No.	CM Correction (mg)		NIST HB105-1 Class		k	U (mg)
		As Found	As Left	As Found	As Left		
5 lb	1	87.2	87.2	F	F	2.03	5.7
5 lb	1	120.2	120.2	F	F	2.03	5.7
5 lb	3	117.2	117.2	F	F	2.03	5.7
5 lb	3	90.2	90.2	F	F	2.03	5.7
5 lb	5	96.2	96.2	F	F	2.03	5.7
1 lb	1	16.2	16.2	F	F	2.03	1.2
1 lb	2	22.5	22.5	F	F	2.03	1.2
1 lb	3	22.2	22.2	F	F	2.03	1.2
1 lb	4	17.8	17.8	F	F	2.03	1.2
1 lb	5	22.0	22.0	F	F	2.03	1.2
0.5 lb		21.20	21.20	F	F	2.03	0.69
0.2 lb		4.70	4.70	F	F	2.03	0.22
0.2 lb		4.16	4.16	F	F	2.03	0.22
0.1 lb		4.02	4.02	F	F	2.03	0.14
0.05 lb		2.51	2.51	F	F	2.03	0.10
0.02 lb		0.317	0.317	F	F	2.03	0.056
0.02 lb		0.380	0.380	F	F	2.03	0.056
0.01 lb		0.493	0.493	F	F	2.03	0.043



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TROY

Receipt Date: February 16, 2018
Fall Date: March 21, 2018
Report Date: March 21, 2018

Report No.: 338968
Set Serial No.: 53948
Barcode: 200539

Continued,

Calibration Certificate

HITSU AMERICA INC.
21 TELECOM PARKWAY
RICHARDSON, TX 75082
Contact: TROY LARSON
Phone: 651-283-0724
PO Number: None
Procedure: NIST SOP 8
Technician ID: 19

Item(s) Submitted: AVDP Weight Kit - Class F
Manufacturer: Troemner
Weight Type: I & II
Equipment ID: None
Condition: Good
Temperature: 19.3 °C
Pressure: 741.5 mmHg
Relative Humidity: 50.7 %

Nominal Value	Serial No.	CM Correction (mg)		NIST HB105-1 Class		k	U (mg)
		As Found	As Left	As Found	As Left		
0.005 lb		0.664	0.664	F	F	2.03	0.041
0.002 lb		0.466	0.466	F	F	2.03	0.030
0.002 lb		0.592	0.592	F	F	2.03	0.030
0.001 lb		0.243	0.243	F	F	2.03	0.025

The resulting tolerance class of the weight is determined by combining the correction of the weight and the uncertainty of the measurement. The corrections given above correlate to a conventional mass scale versus 8.0 g/cm³ density and an air density of 1.2 mg/cm³ at 20 °C. The items listed above have been calibrated using the Standards of the State of Minnesota which are currently in control. These standards are traceable to the SI through NIST. Calibration processes were monitored and found to be in control. All of the tolerances and specifications were evaluated according to NIST Handbook 105-1 (1990). Uncertainty calculations contain the components in NIST SOP 8 and conform to the ISO/IEC Guide to the Expression of Uncertainty in Measurement (2008), including coverage factors (k) calculated at the approximate 95.45 % confidence level. Results apply to items identified in this report only.

Birk Alfvin

[Signature]
Metrologist

Reviewed by:

Pete Whebbe

[Signature]
Metrologist

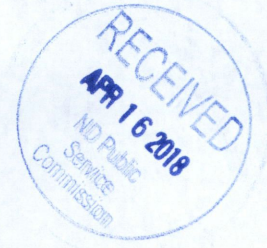


FUJITSU AMERICA INC.

2821 Telecom Pkwy., Richardson, TX 75082 U.S.A.

FUJITSU

April 5, 2018



Shelly,

Here is the updated calibration report that you requested. If you need anything else, I can be reached at the phone number or email address below.

Regards,

Jenna Gutierrez

(214)429-4745

Jenna.gutierrez@fujitsu.com

United States Department of Commerce

National Institute of Standards and Technology

Certificate of Metrological Traceability For:

Minnesota

This laboratory has demonstrated evidence of an unbroken chain of metrological traceability of its standards to the international system of units (SI), documented measurement uncertainties, uses documented measurement procedures, successfully completed training and proficiency tests, documented calibration intervals, submitted a quality management system, and demonstrated suitable measurement assurance for the Scope listed on this certificate.

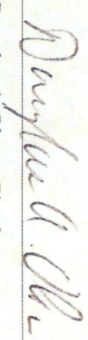
The Office of Weights and Measures Program assesses laboratories to NIST Handbook 143 - Program Handbook for State Weights and Measures Laboratories and ISO/IEC 17025:2005.

Scope

Mass Echelon I		
20 kg to 1 mg		
50 lb to 0.001 lb		
Mass Echelon II		
20 kg to 1 mg		
1000 lb to 500 lb		
50 lb to 0.001 lb		
4 oz to 0.03125 oz		
Mass Echelon III		
50 kg to 1 mg		
5000 lb to 0.001 lb		
4 oz to 0.03125 oz		
Volume Gravimetric, I		
20 L to 10 ml		
100 gal to 0.25 gal		
Volume Transfer, II		
1500 gal to 5 gal		
200 gal to 25 gal LPG		
Weight Carts		
10 000 lb to 2000 lb		
Wheel Load Weighers		
20 000 lb to 2000 lb		
Railroad Test Cars		
110 000 lb to 80 000 lb		



2018 to 2019


Douglas A. Olson, Chief
NIST Office of Weights and Measures

Effective Dates: 2018-01-01 to 2019-12-31