

Receipt Date: April 20, 2026
Calibration Date: April 21, 2026
Certificate Date: April 21, 2026

Certificate No.: 404134-2
Set Serial No.: 1 to 9
Barcode: 204419

Calibration Certificate

HAWKEYE STATE SCALE
1357 HWY 965 NW
SWISHER, IA 52338
Contact: ANGIE WELCHER
Phone: 319-364-4173
Procedure: NIST SOP 8B (2019)
Technician ID: 20

Item(s) Submitted: 8 oz Fuel Sub Weights
Manufacturer: Rice Lake
Weight Material: Satin Stainless Steel
Condition: Acceptable
Temperature: 20.1 °C
Pressure: 733.7 mmHg
Relative Humidity: 46.2 %

Nominal Value	Serial No.	CM Correction (mg)		ASTM E617 (2023) Class		k	U (mg)
		As Received	As Left	As Received	As Left		
8 oz	1	16.70	16.70	5	5	2.03	0.54
8 oz	2	21.43	21.43	5	5	2.03	0.54
8 oz	3	5.25	5.25	5	5	2.03	0.54
8 oz	4	11.55	11.55	5	5	2.03	0.54
8 oz	5	11.26	11.26	5	5	2.03	0.54
8 oz	6	7.93	7.93	5	5	2.03	0.54
8 oz	7	17.97	17.97	5	5	2.03	0.54
8 oz	8	21.07	21.07	5	5	2.03	0.54
8 oz	9	21.39	21.39	5	5	2.03	0.54

Artifact conformance to ASTM E617 (2023) specifications of shape, material (with the exception of 10 lb cast iron weights and aluminum dish weights), markings, and type were evaluated. Tolerances were evaluated using ASTM E617 (2023) and MN SAP 20 (2025), which combines the conventional mass (CM) correction of the weight and the uncertainty of the measurement to evaluate the class. No other specifications were evaluated. The above CM corrections correspond to the mass scale versus 8.0 g/cm³ density and an air density of 1.2 mg/cm³ at 20 °C. Uncertainty calculations contain the components in NIST SOP 8 (2019) and additional components for stability of the unknown, tare weights, and measurement variation due to cast iron (if applicable), which are combined using the root-sum-square method. These uncertainty calculations 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. Calibration of items listed above used State of Minnesota Standards, which are currently in control. These standards are traceable to the SI through NIST and the consensus value for the kilogram. Calibration processes are monitored and in control at the time of calibration. Densities reported above are assumed unless noted. This calibration certificate shall not be reproduced, except in full, without written approval from the state of MN metrology laboratory, and the results only apply to items identified on this certificate.

Conversion factors: 1 lb = 453.59237 g

1 lb = 16 oz

Issued Date: APR 21 2026

Reviewed by:

Valare Falkner

Valare Falkner
Laboratory Manager

Anna Pierce

Anna Pierce
Quality Manager, Signatory