



Receipt Date: May 2, 2016
Cal. Date: May 3 & May 5, 2016
Report Date: May 5, 2016

Report No.: 335905
Set Serial No.: SET 0 / 5001-5006
Barcode: 201194

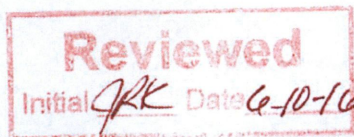
Calibration Certificate

NORTHERN BALANCE & SCALE, INC
9556 BLOOMINGTON FREEWAY W
BLOOMINGTON, MN 55431
Contact: JOEY KALUSER
Phone: 952-881-7716
PO Number: 21438
SOP: 8
Technician ID: 11

Item(s) Submitted: Cast Cube Weights
Manufacturer: Rice Lake
Weight Type: II
Equipment ID: None
Condition: Good
Temperature: 20.8 °C
Pressure: 734.6 mmHg
Relative Humidity: 51.5 %

Nominal Value	Serial No.	CM Correction (g)		NIST HB105-1 Class		k	U (g)
		As Found	As Left	As Found	As Left		
Before cleaning and painting							
500 lb	5001	-3.1	-3.1	F	F	2.01	1.6
500 lb	5002	2.2	2.2	F	F	2.01	1.6
500 lb	5003	-0.9	-0.9	F	F	2.01	1.6
500 lb	5004	-1.9	-1.9	F	F	2.01	1.6
500 lb	5005	1.1	1.1	F	F	2.01	1.6
500 lb	5006	-0.4	-0.4	F	F	2.01	1.6
After cleaning and painting							
500 lb	5001	-1.3	-1.3	F	F	2.01	1.6
500 lb	5002	7.4	7.4	F	F	2.01	1.6
500 lb	5003	1.1	1.1	F	F	2.01	1.6
500 lb	5004	2.7	2.7	F	F	2.01	1.6
500 lb	5005	4.9	4.9	F	F	2.01	1.6
500 lb	5006	0.4	0.4	F	F	2.01	1.6

TOL 23g



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.

Pete Whebbe
Pete J. Whebbe
Metrologist

Reviewed by:
Mark Nicollet
Mark Nicollet
Quality Manager